



Maurizio Pompili
Editor

Suicide Risk Assessment and Prevention

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With 67 Figures and 39 Tables

 Springer

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*To Edwin S. Shneidman, father of suicidology,
superlative mentor, and friend.*

Preface

This monumental work on the topic of suicide is the result of an array of collaborations, contacts, partnerships, or simply acknowledgment of great scholars' seminal works. It started with the purpose of creativity, to take advantage of the many perspectives about suicide risk that dedicated researchers in this field have studied. Rather than providing a standard approach for editing this book, I started from the people worldwide who represent some references for specific subjects related to the main topic of this book. I have included well-renowned scholars and those that fuel local realities and propose alternative approaches to the traditional ones. In this effort, I maintained the main areas of interest; the reader will find that some differences can be drawn among the chapters. However, that specific subject could be illustrated appropriately according to the author's views. This book was mainly crafted during the first waves of the pandemic, with challenging efforts to deal with both emergency needs and scientific tasks to combine. Despite the many difficulties, I praise the contributors for their strong support in this project.

Suicide remains a major public health issue worldwide, and we are now facing a rapidly changing world. This book is, therefore, a timely contribution to the prevention of suicide with a multifaceted approach.

One of my purpose of this book was to provide a multicultural understanding of suicide and include contributors from worldwide. In this regard, one of the models for building a shared understanding of suicide is represented by approaches that represent a common language in assessing and managing suicide risk. The field of suicide prevention has recognized for decades the lack of a common risk detection method as one of the key impediments to reducing suicide. Many international agencies identified the urgency and worked toward adopting common nomenclature for gathering surveillance data and communication across public health, especially towards making a common suicide screening method available within and outside healthcare. The Columbia Suicide Severity Rating Scale (C-SSRS), developed by a group of suicidologists across several universities in the United States, with its simple, yet comprehensive set of questions, has accomplished unprecedented unification in the field of suicide prevention. Clear delineation of suicidal ideation and behavior types has given the C-SSRS its superior sensitivity to detecting and predicting suicidal behavior. Available in 150 country-specific languages, it has become a global method for suicide risk detection. Large international studies

have provided clear evidence of the scale's ability to identify and predict death by suicide, arguably the most difficult outcome to predict prospectively. It has given the field better risk stratification and triage for imminent risk, which is crucial for person-centered care delivery, enabling screening, triage, and identification of high risk in one step. This has had a profound ripple effect on connecting those who are truly at risk with the care they need, thereby maximizing resource utilization, reducing suicide across all public health sectors, making population surveillance of suicide risk factors more accurate, and improving standards of care and facilitating global suicide prevention policy. From police to universities, it has instilled confidence in suicide risk screening and increased liability protection.

Such an example of a well-receipt tool should be translated into other countless suicide prevention actions, paradigms, and shared decision-making. Increasing awareness of the phenomenon is certainly a major goal, together with reducing stigmatization of the topic of suicide. Besides such actions, a common language in suicidology should be of primary importance. Above all, there should be an emphasis on understanding the drama occurring in the suicidal mind. Without empathic support for those in crisis, the struggle against suicide would be lost.

Finally, this book is dedicated to the memory of Edwin Shneidman, who gave me fundamental suggestions and directions for becoming a suicidologist. Without his teaching, I would never have had the curiosity and strength to explore the topic of suicide, which ultimately put me in connection with others' sufferance and hopefully provided some relief.

Rome, Italy
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Maurizio Pompili

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About the Editor



Maurizio Pompili, M.D., Ph.D., is Full Professor and Chair of Psychiatry as part of the Faculty of Medicine and Psychology at Sapienza University of Rome, Italy, where he received his M.D. degree and trained in Psychiatry (both *summa cum laude*). He is the Director of the Residency Training Program in Psychiatry of his faculty.

Prof. Pompili is the Director of the University Psychiatric Clinic and the Director of the Suicide Prevention Center at Sant'Andrea Hospital in Rome. He is the President of the Psychiatric Rehabilitation Technique degree program at the Sapienza University of Rome. He has a doctoral degree in Experimental and Clinical Neurosciences. He was also part of the Community at McLean Hospital – Harvard Medical School, the USA, where he received a psychiatry fellowship. He is the recipient of the American Association of Suicidology's 2008 Shneidman Award for "Outstanding contributions in research in suicidology."

Apart from being the Italian Representative of the International Association for Suicide Prevention (IASP) for many years, he has been afterward one of the Vice-Presidents of this association. He is now Co-Chair of the IASP Special Interest Group in Risk Resilience and Reasons for Living. At present, he is a member of the IASP Executive Committee in the role of treasurer. He is also a member of the International Academy for Suicide Research and the American Association of Suicidology and is also President of the Suicidology Section of the Italian Psychiatric Society.

He has published more than 550 papers on suicide, bipolar disorders, and other psychiatric perspectives, including original research articles, book chapters, and

editorials, and has co-edited 10 international books on suicide.

Prof. Pompili ranks in the top 10 suicide authors of 500 world suicide authors listed in the ISI Web of Science (this is in terms of the number of focused works on the topic of suicide that are indexed in the ISI Web of Science). He has been recognized by Expertscape as an expert in suicide, ranking 1st worldwide.

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Part I

Models of Suicide



Models of Suicide and Their Implications for Suicide Prevention

1

David Lester

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Abstract

Suicidal behavior is highly complex and multifaceted. Consequent to the pioneering work of Durkheim and Freud, theoreticians have attempted to explain the biological, social, and psychological nature of suicide. The present work presents an overview and critical discussion of the most influential theoretical models of the psychological mechanisms underlying the development of suicidal behavior. All have been tested to varying degrees and have important implications for the development of therapeutic and preventive interventions. Broader and more in-depth approaches are still needed to further our understanding of suicidal phenomena.

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Keywords

Theories of suicide · Suicide prevention · Durkheim · Hopelessness · Attempted suicide

Explanations for suicide must account for two phenomena. First, societal suicide rates vary widely from nation to nation, over regions within a nation (such as the states of the USA), and among the different groups in the population (e.g., by sex, age, and ethnicity), as well as over time. Second, explanations must be found for the occurrence of suicide in individuals, a task which has proven to be more difficult than explaining the societal suicide rate. The difficulty in explaining individual suicidal behavior results in part because there appear to be no physiological, psychological, or interpersonal variables that are necessary or sufficient to account for suicide. For example, although suicide may be more common in those with terminal illnesses, a terminal illness is neither necessary nor sufficient for suicide to occur. An analogy here is the decay of radioactive atoms. Physicists can predict what proportion of atoms will decay over time (e.g., the half-life of uranium-235 is about 700 million years) but not which particular atom will decay next [17]. A behavior, predictable at the societal/aggregate level, can be unpredictable at the individual level.

Sociological Models

The major sociological model of suicide is that of Durkheim [4] who proposed that the societal suicide rate is determined by social integration (the extent to which the members of the society are bound together in social networks) and social regulation (the extent to which the values, desires, and behaviors members of the society are regulated by societal norms). Too little of these factors increases the risk of egoistic and anomic suicide, respectively, and too much of these factors increases the risk of altruistic and fatalistic suicide, respectively. There have been serious criticisms of this theory (see [15]), but these criticisms are not pertinent to the present discussion.

A second theory came from Henry and Short [9] who saw suicide and homicide as alternative behaviors for dealing with frustration. When external constraints on behavior are strong, then outwardly directed aggression is legitimized, and homicide will become more common, whereas when external constraints on behavior are weak, then outwardly directed aggression is not legitimized, and consequently inwardly directed aggression will become more common. For example, in a society with two groups, the group that is more oppressed will have higher rates of homicide, whereas the oppressors will have higher rates of suicide [19]. Henry and Short applied their theory to the business cycle [21] which has implications for preventing suicide. (There are other sociological theories of suicide focusing on network ties [29], status integration [6], social strains [39], and religious commitment [36], among others.)

It has been debated whether these sociological theories can be applied to individuals. Henry and Short argued that theory could be applied at the individual level and, for example, they hypothesized that love-oriented punishment would result in the inhibition of outwardly directed aggression (and an increased risk of suicide), whereas physical punishment would not lead to any inhibition of outwardly directed aggression (and, thus, an increased risk of homicide). With respect to Durkheim's theory, Reynolds and Berman [33] examined 404 suicides and were able to classify 56.7% as anomic, 8.7% as fatalistic, 5.7% as egoistic, and 0% as altruistic, with 29.0% as unclassifiable. Lester [18] examined 30 famous suicides whose lives he had examined and found that all could be classified into Durkheim's four categories, although 9 cases seemed to be mixed types (e.g., anomic and egoistic). Perhaps, therefore, Durkheim's sociological theory of suicide can be applied to individuals.

Interestingly, these two theories have not formed the basis for strategies for preventing suicide. There are no suicide prevention programs that have focused on developing moderate (rather than extreme) levels of social integration and regulation in the society, nor on developing moderate levels of external constraints in the society. There are, however, suicide prevention strategies that have focused on the society as a whole (rather than on individuals at high risk for suicide), and these will be discussed below.

Individual Models

Physiological Models

Physiological research into suicide is popular today, but much of this research is a side issue in studies of affective disorders and schizophrenia which were the primary reason for the research, and the results have not yet produced a validated model. For example, the neurotransmitter serotonin has been implicated in the presence of major depressive disorders, and medications (such as SSRIs) have been produced to change the level of serotonin in the brain. However, serotonin has also been implicated in anxiety disorders, eating disorders, and violent impulsive behavior, and SSRIs are frequently prescribed for patients with these disorders. Thus, the impact of serotonin may not be specific to suicide but may be more widespread. Second, although serotonin may perhaps play a role in affecting the risk of suicide, it does not play a role in the choice of method for suicide, the timing of the suicidal act, the precipitating factors, etc. Third, if suicides are found to have abnormal levels of serotonin, we cannot be sure whether this abnormality is a consequence of the suicidal process or the affective disorder.

Physiological models of suicide suggest the use of physiological modifications which, these days, primarily entails medications. However, recent writings have begun to seriously question the scientific basis of the psychiatric classification of disorders which is based primarily on symptoms rather than causes ([20], pp. 21–28) and on the ineffective and often damaging effect of the medications prescribed for those with a psychiatric diagnosis [7, 11]. Clearly, however, physiological strategies

for preventing suicide are applied to the individual rather than the society as a whole. (Research shows that the higher the level of lithium in drinking water over regions, the lower the suicide rate (e.g., [28]), but no one has yet proposed adding lithium to drinking water supplies!)

Intrapsychic Models

It is commonly known that the simple version of a psychoanalytical theory of suicide is that anger felt toward others is repressed and turned inward onto the self. Litman [24] provided a formal model of suicide from this perspective. Litman suggested that (1) the suicidal person has typically lost someone, usually in childhood, (2) part of the person's ego identifies with this lost object who then becomes part of the permanent part of the self, and (3) the person harbors hostile feelings toward the lost object and these hostile desires are turned inward onto the self (see also Menninger [26]).

With the growth in the popularity of cognitive therapies in the 1980s, cognitive theories of suicide began to appear. The most successful theories were stimulated by the development of a measure of hopelessness developed by Beck [1], after which hopelessness has been shown to be one of the most powerful and consistent predictors of suicide (e.g., [22]). More recently, Joiner [13] proposed two factors (thwarted belonging and perceive burdensomeness), along with an experiential factor (the acquired capacity for self-harm), and his theory has received a great deal of empirical support, along with serious criticism [10].

These types of models require the detection of individuals at risk for suicide and then providing effective psychotherapy for them if they desire this. Although there are some validated approaches here, such as the Collaborative Assessment and Management of Suicidality (CAMS) from Jobes [12] (see <https://cams-care.com/about-cams>), there has been a growing awareness that detecting individuals at risk for suicide, even if they are willing to be screened with a battery of psychological inventories, has not advanced in accuracy over the past 50 or more years [2, 5]. (It should be noted that there have recently been serious criticism of the methodological soundness and biased reporting of clinical trials of antidepressants [30].)

Intrapersonal Models

Research on the role of interpersonal relationships in suicidal behavior in recent years has focused on distal variables such as childhood loss, birth order, and the perception of people's relationships with others (rather than direct observation of these relationships and talking to these others). There are some exceptions such as the study of suicide pacts and suicide in small subcultures (such as the description of five suicides in a group of young people in a rural town in Pennsylvania [14]). The role of the family has been described by family therapists such as Richman [34].

Why Are Models of Suicide Important?

Models of suicide are important in two ways. First, they can provide typologies of suicidal individuals, clinical descriptions of each type, and psychotherapeutic tactics for each type. Unfortunately, these models (and other theories of suicide) have not provided typologies that have gained wide acceptance, and so researchers and clinicians usually fall back on psychiatric diagnosis to classify cases.

Second, the models do suggest strategies for preventing suicide, at least for individuals at high risk of suicide, such as medications, individual psychotherapy, and family therapy. However, clinicians are more likely to be guided by the system of psychotherapy in which they were trained rather than by specific models of suicide.

Preventing Completed Suicide

The question, then, is which tactic promises the better payoff: the societal approach or the individual approach.

The Societal Approach

The advantage of the societal approach to suicide prevention is that it reaches everyone in the society (or, at least, a large proportion of the population). For example, Clarke and Lester [3] advocated situational suicide prevention, that is, making it harder to commit suicide by fencing in suicide venues, detoxifying car exhaust, passing stricter gun control laws, etc. If car exhaust is made less toxic, then this “suicide-proofs” the environment for everyone. (Indeed, it would be impossible to detoxify car exhaust, e.g., only for car owners at risk for suicide.)

On the other hand, a societal approach may not be cost effective for suicide is rare, no matter how stressful life is. Thus, society-oriented suicide prevention tactics operate on the vast majority of individuals who are not and never will be suicidal. For example, if we were to add put lithium (or SSRIs) in the water supply to prevent depression and suicide, we would be wasting the medication on millions of individuals who are not at risk for suicide.

The relevance of this argument depends upon one’s theory of suicide. Is suicide rare because, although everyone is a potential suicide, the combination of suicidogenic forces comes together to produce suicide only rarely; or is suicide rare because only a few members of the society are suicide-prone no matter how many and which suicidogenic forces come together? The rarity of an outcome does not necessarily mean that only a few individuals in a society are susceptible. For example, viral meningitis is rare, but it makes sense to immunize everyone against it.

Supporting the theory that suicide proneness is rare, Levy [23] noted that the majority of suicides on a Shoshone-Bannock Native American reservation came

from only eight families and that none of the completed suicides had made prior suicide attempts. These eight families had been labeled as deviants by their peers and had become scapegoats for the society. Designing a suicide prevention program for the whole reservation would be a waste of effort. An effective suicide prevention program for this society would not focus on the community as a whole, but rather on the individuals in these eight families. However, to do this might reinforce their deviant status still further and increase their risk of suicide.

One problem with taking a societal approach is that it is impossible to have much impact on the social forces causing suicide. If suicide is less common in Muslims than in Christians, we cannot convert people to Islam in order to prevent suicide. A similar problem arises when we consider the associations between birth, marriage, and divorce rates and suicide. Individuals cannot be forced into marriage and to have children simply to prevent suicide. On the other hand, the documented association between unemployment and suicide [31] can be used to tailor social policies to promote employment and reduce the unemployment rate. Similarly, if bullying increases the risk of suicide in bullied individuals, then programs to reduce bullying in the society (or in subgroups of the society, such as school children) might have an impact on suicide. Other societal tactics, such as shaping those who report suicide in the media into reporting suicide more responsibly, may also have an impact on suicide in the society.

The Individual Approach

The individual approach focuses on the detection and treatment of those at risk for suicide. This raises two problems. First, detecting those at risk for suicide is very difficult. Indeed, suicidologists have given up deriving suicide prediction scales and now focus instead on “assessing” those who voluntarily come for treatment [25].

On the other hand, the establishment of suicide prevention centers for those in crisis, together with the availability of adequate numbers of psychotherapists skilled in systems of therapy that have been shown to work with suicidal individuals [38], means that individuals can voluntarily contact such resources and receive help. Surveys indicate that large proportions of the population have been suicidal and have had a psychiatric disorder. For example, Roberts et al. [35] found that 10% of school youths aged 10–17 had attempted suicide and have had a psychiatric illness. Regier et al. [32] found that one-third of the American adult population had been psychiatrically ill. Thus, a large proportion of the population may be in need of individual services.

However, providing individual services in appropriate amounts may require actions at the societal level. For example, funds may need to be allocated by the central or regional governments for the establishment of mental health services or for reimbursing counseling and psychotherapy through medical insurance. Thus, public policy may remain the best avenue for preventing suicide.

Comment

It is noteworthy that two of the societal strategies for preventing suicide have odd features. Although suicide prevention centers were established for suicidal individuals, many callers to the telephone services were in crisis but not suicidal. To prevent these people from being deterred from calling, many services changed their name to crisis intervention centers or opened separate telephone lines for “problems in living.” (When I worked at a suicide prevention service, it was not uncommon for callers to say, “I’m not suicidal, so is it ok for me to call you?” We, of course, said yes, but soon opened a “problems in living service.”)

Second, the strategy for preventing suicide by restricting access to lethal methods for suicide was often introduced for different reasons. Natural gas became cheaper (and more environmentally friendly) than coal gas, and so domestic gas was changed, thereby preventing suicides from easily using coal gas for suicide. Emission controls for cars were introduced to reduce pollution, and gun control is more often introduced to prevent murder (and especially mass murder) rather than to prevent suicide.

Preventing Attempted Suicide

The prevailing view today is that completed and attempted suicides are different behaviors, although there is some overlap between the two populations. It has long been argued that studying completed suicide by studying attempted suicides (the method of substitute subjects [27]) is invalid (e.g., [37]). Therefore, because most of the research on individual suicidal behavior focuses on attempted suicides, we know less about completed suicides, for whom the research relies on psychological autopsy studies (which are time-consuming and relatively rare) and studies of suicide notes (left by only a quarter to a third of suicides).

Lester et al. [22] argued that, if we classified a sample of attempted suicides into three (or more) groups based on the lethality of their attempt or the seriousness of their intent, then we could extrapolate any trends to completed suicides (who obviously made the most lethal attempts and with the most serious intent).

However, the strategies for preventing attempted suicide may have to be different from the strategies for preventing completed suicide. For example, in England, restricting the quantity of pills in packages of acetaminophen (Tylenol and paracetamol) and placing the pills in plastic blisters may have reduced the use of those pills for attempting suicide [8], but few completed suicides die from using acetaminophen.

Final Comment: Is Suicide Prevention Needed?

In an editorial meant to be provocative, Lester [16] noted that programs that target bullying in children and adolescence, and the physical, sexual, and psychological abuse of children, or that seek to increase the self-esteem of school children might

prevent suicide later in the lives of these children. If we understood the factors that increase the risk of suicide, then it may make sense to target these factors rather than waiting for the factors to have their deleterious impact. Prevention rather than intervention might be preferable.

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Neurobiological Approach to the Study of Suicide

2

Kees van Heeringen

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Abstract

Rates of suicidal behaviour decrease in many countries in parallel with the development of prevention strategies, but many other countries, including the USA and the UK, are confronted with increases in rates of fatal and nonfatal suicidal behaviours, in spite of preventive efforts. Major obstacles to the prevention of suicide include the difficulty to assess suicide risk and the absence of clear targets for its treatment. Recent neurobiological studies of suicidal behaviour address these obstacles and thus yield promising results for suicide risk assessment and prevention.

Keywords

Neurobiology · Serotonin · Prefrontal cortex · Genetics · Early-life adversity · Antidepressants · Lithium

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Introduction

Rates of suicidal behaviour decrease in many countries in parallel with the development of prevention strategies, but many other countries, including the USA and the UK, are confronted with increases in rates of fatal and nonfatal suicidal behaviours, in spite of preventive efforts. Major obstacles to the prevention of suicide include the difficulty to assess suicide risk and the absence of clear targets for its treatment. Recent neurobiological studies of suicidal behaviour address these obstacles and thus yield promising results for suicide risk assessment and prevention.

Many studies indeed indicate an effect of neurobiological factors on the occurrence of suicidal behaviour [13]. These studies include epidemiological observations of higher suicide rates in association with geographical and environmental characteristics, such as living at higher altitude, air pollution, spring season, fewer hours of sunshine, toxoplasmosis infection and lower levels of lithium in drinking water [3]. Genetic studies show considerable heritability of suicidal behaviour. Studies in molecular and systems neuroscience reveal further evidence of a neurobiological involvement in suicidal behaviour.

Following an introductory section addressing causes and explanatory neurobiological models of suicidal behaviour, this chapter will, first, review studies of underlying neurobiological mechanisms in the domains of molecular, cognitive, systems and developmental neuroscience, respectively. Second, implications for the identification and treatment of suicide risk will be discussed, thus showing the ways in which neurobiological studies can contribute to the prevention of this major public health problem.

Explanatory Neurobiological Models of Suicidal Behaviour

Suicidal behaviour is never the consequence of one single cause. Multiple causes have been identified, which can be classified according to their proximal or distal nature [14]. Proximal causes include psychiatric disorders, such as depression, schizophrenia and alcohol dependence, which are thought to be present in a vast majority of suicides in the Western world. Individuals who have been diagnosed with a psychiatric disorder have a nearly eightfold greater risk of suicide than those who have not [12]. In addition, suicidal behaviour is commonly precipitated by psychosocial stressors, such as relational, professional or financial problems. However, the vast majority of individuals suffering from psychiatric disorders or exposed to severe life events will not take their own lives. Thus, something more than psychiatric disorders or stress is needed to explain the occurrence of suicidal behaviour. Such necessary additional explanatory factors are described as distal or predisposing characteristics. Epidemiological studies show that such characteristics include genetic factors and early-life adversity (ELA). The heritability of suicide is estimated at 30–50%, and a familial history of suicide is an important risk factor for suicidal behaviour in offspring [11]. Neuroscientific research clearly shows the devastating consequences of ELAs (including childhood physical and sexual abuse) that leave

scars in the brain that induce or increase the vulnerability to suicidal behaviour. The molecular and brain correlates of these distal risk factors will be discussed below.

Stress-diathesis models describe the interaction between proximal and distal risk factors. The traits that are produced by a genetic disposition or induced by ELAs constitute the diathesis, and these traits can be described in clinical, neurocognitive and neurobiological terms. Clinical stress-diathesis models describe suicidal behaviours as the consequence of simultaneously present mental pain (induced by proximal precipitants) and (trait-dependent) hopelessness. Emotional pain that is perceived to be without end, in general, is the common motivation for suicide in depressed individuals. Several cognitive stress-diathesis models have been proposed in the past decades, including Williams' 'cry of pain' model that is clearly linked to changes in brain functions, such as attention and memory. The remainder of this chapter will focus on neurobiological models by describing the results of the neuroscientific study of suicidal behaviour.

The Neuroscience of Suicidal Behaviour

Molecular Neuroscience

The study of the mechanisms by which neurons express and respond to molecular signals has revealed functional changes in several brain systems in relation to suicidal behaviours, including stress-response, neurotransmission, neuroinflammatory and neurotrophic systems. Given the role of stressors in the precipitation of suicidal behaviours, the involvement of stress-response systems comes as no surprise. For example, suicide and the stress hormones are related. In addition to an increased suicide risk among individuals taking oral glucocorticoids, studies have consistently shown an attenuated cortisol response following exposure to social stress in self-harming individuals, offspring suicide attempters and relatives of suicides [1]. Genetic influences thus appear to be involved, and it has become clear that ELAs exert their effect on suicide risk via epigenetic changes in the expression of glucocorticoid receptor genes. Since early studies in the seventies, changes in the serotonin (5-HT) neurotransmission system in association with suicidal behaviour have been documented extensively, using a wide range of methodologies in different populations [13]. These changes involve 5-HT receptors (such as the 5-HT_{1A} and the 5-HT_{2A} receptors) and the 5-HT transporter (5-HTT). In keeping with the stress-diathesis approach, an interaction between stress and the 5-HTT gene has received wide attention. Despite inconsistencies in results, a majority of studies indicate that the 5-HTT genotype may moderate the effect of stress on the occurrence of suicidal behaviour. While there is little empirical support for a role of dopamine in suicidal behaviour, the potential suicide risk-lowering effect of ketamine suggests a role of glutamate/GABA neurotransmission. Post-mortem and brain imaging studies indeed provide support for such a role, but underlying mechanisms remain unclear [6].

Based on epidemiological observations of increased suicide risks in inflammatory and autoimmune diseases, such as *Toxoplasmosis gondii* infection, asthma, allergies and lupus, neuroinflammation has become a topic of interest and relevance for suicide prevention. Molecular studies indicate dysregulation of the immune system and cytokines in suicidal behaviour. Activation of the kynurenine pathway of catabolism of tryptophan (a 5-HT precursor) via microglia in particular brain areas is a potential neurobiological mechanism linking inflammation, serotonin and suicidal behaviour [13]. IL-6 signalling is associated with suicide risk [5]. These findings may have clinical implications, highlighting the potential of anti-inflammatory approaches as a putative strategy for suicide prevention. Such approaches may include IL-6 blockade and drugs targeting kynurenine pathway enzymes.

Structural brain changes in association with suicidal behaviour (see below) are thought to be related to the alterations in neurotrophic characteristics, such as BDNF and its TrkB receptor, that are found in suicidal behaviour. Genetic and epigenetic underlying mechanisms have been identified [6]. Interestingly, the lower the level of neurotrophins, the higher the levels of suicide risk, stress and inflammatory markers appear to be [7].

Cognitive Neuroscience

Processing information from the outside world and determining how to use that information may increase adaptive strength. The cognitive neuroscience of suicidal behaviour shows however that changes in these cognitive processes may lead to premature death. The most striking findings are reported with regard to attentional and schematic control and value-based motivational processes. With regard to attention (defined as the selection of relevant information and thoughts), most, though not all, studies have found abnormalities in association with suicidal behaviour, particularly when using the suicide Stroop task. Suicide-related changes in schematic control, i.e., the control over thoughts and actions by beliefs about the self, the world and the future, are reflected by increased implicit associations between ‘death’ or ‘suicide’ and ‘me’, as assessed with the Implicit Association Test (IAT). The IAT predicts suicidal behaviour in some but not all prospective studies [6].

Individual studies, systematic reviews and meta-analyses consistently document decision-making deficiencies in association with suicidal behaviours, particularly when assessed with the Iowa Gambling Task. It is currently unclear how this association should be interpreted. It could well be that deficient more complex decision-making capacities are due to basic neuropsychological dysfunctions, such as attentional biases. They may also reflect an inability to conceptualize problems at a higher abstract level, which may inhibit the exploration of alternative solutions [13]. It should be noted that impaired decision-making and related brain circuit changes are also observed in healthy relatives of people who died from suicide, consistent with familial transmission of an endophenotype for suicide risk [6].

Systems Neuroscience

Structural and functional changes in the brain in association with suicidal thoughts and behaviours have been documented in more than 100 individual studies, systematic reviews and meta-analyses. Most recent findings regarding structural brain changes suggest that impairments in medial and lateral ventral prefrontal regions and their connections are important in the excessive negative and blunted positive internal states that can stimulate suicidal ideation and that impairments in a network consisting of the dorsolateral prefrontal cortex and the inferior frontal gyrus are important in suicidal behaviour. A combination of ventral and dorsal prefrontal system changes may lead to very high-risk circumstances, in which suicidal ideation is converted to lethal actions via decreased top-down inhibition of behaviour and/or maladaptive, inflexible decision-making and planning. The dorsal anterior cingulate cortex and insula may play important roles in switching between these ventral and dorsal systems, which may contribute to the transition from suicide thoughts to behaviours [9].

Functional imaging studies have looked at resting state brain characteristics of suicidal behaviour and at brain correlates of neurocognitive changes and suicide risk factors. Resting state studies have been performed using MRI, PET and SPECT. In general, resting state activity appears to be lower in frontal regions in suicide attempters when compared to controls and in high-lethality attempters when compared to low-lethality attempters. Studies of the serotonin system, e.g., using ligands for serotonin receptors, particularly show increased binding at 5-HT_{1a} receptors in the raphe nuclei in suicide attempters, predicting greater lethality of subsequent suicidal behaviour during follow-up. Other resting state neuroimaging studies have looked at particular characteristics of suicidal behaviour, such as brain correlates of mental pain and concrete suicide plans. These studies suggest a pivotal role of the frontopolar cortex in suicidal behaviour. Given the uniquely human nature of suicidal behaviour, it is noteworthy that the frontopolar cortex has developed disproportionately in humans when compared to other primates, so that its involvement in purely unique human behaviours may not come as a surprise. It appears that suicide risk requires the integrity of this brain area: veteran soldiers who survived a penetrating brain injury in the frontopolar cortex show less suicidal thoughts than veterans who survived a penetrating brain injury in other brain areas, while pessimistic future thinking in depressed individuals is associated with increased activity in this area [17].

Lower functional connectivity is found in adolescent and adult suicide attempters, predominantly in the default mode network, which is implicated in self-referential processing and social cognition. This functional circuitry deficit maps onto the DTI-identified structural connectivity deficits in default mode network hubs and connections [6].

Several functional neuroimaging studies have looked for brain correlates of sensitivity to social stressors in suicide attempters. These studies used fMRI and exposure to signs of others' disapproval or to social exclusion with, e.g., exposure to angry faces and the Cyberball game. Brain responses to such exposures to perceived

adversity appear to be impaired in regions previously implicated in pain tolerance and social cognition. Recent suicidal behaviour seems associated with a distinct neural response to social exclusion independently of presence of depression or suicidal thoughts [2].

A final noteworthy neuroimaging approach to suicidal behaviour has focused on brain correlates of the disturbed decision-making in association with suicidal behaviour as described above. Comparative studies in euthymic suicide attempters reveal altered processing of risk under conditions of uncertainty, associated with left lateral orbitofrontal dysfunction [13].

Neurobiology for Suicide Prevention

In the context of a discussion of the consequences of findings from neurobiological studies for suicide prevention, it is important to address possible causes of disturbances. It has become clear that causes may include genetics and early-life adversities (ranging from poor foetal growth to sexual abuse). Human genetic studies have shown that suicidal behaviour may run in families, although the heritability of suicidal behaviour and ideation is moderate. However, heritability is independent of that of major psychiatric syndromes, and it is mediated by many gene variants of small effect. Suicide-related genes are associated with inflammation, the hypothalamic-pituitary-adrenal (HPA) axis, glutamate neurotransmission and neurogenesis [6]. Disturbed neurodevelopment appears to be an important pathway linking early-life adversities and subsequent suicidal behaviour [8, 10]. Functional and structural brain changes, due to poor development, inflammation or traumatic life events, may play a central role in the diverse pathways leading to suicide. This does not mean that suicide is to be seen as a neurobiological phenomenon. Reviewed studies indicate that neurobiological changes may exert their influence on the occurrence of suicidal behaviour by determining the emotional impact of precipitating stressors and the strategies to cope with adverse circumstances. Neurobiology may thus help to understand the development of the mental state characterized by the emotional pain and feelings of hopelessness that are the common motivation for suicide.

The increasing insight in the nature and causes of neurobiological changes may contribute to suicide prevention not only by increasing insight in the development of suicidal thoughts and behaviours but also by identifying targets for the prediction and treatment of suicide risk. The identification of neural signatures of suicidal thoughts and behaviours provides a promising contribution to suicide prevention, even when suicidal ideation is denied or unrecognized [6]. For example, recent studies using machine learning and neuroimaging data, whether or not combined with cognitive data (e.g., implicit associations), show good accuracy [4, 15].

Reviewed neurobiological studies also provide promising new avenues to the treatment of suicide risk. From a molecular neuroscience point of view, evidence is accumulating that drugs targeting the serotonin, glutamate, opioid and stress-response systems may help prevent suicide. Serotonergic antidepressants may help prevent suicide by effects on depression and anxiety and on the vulnerability to

suicidal behaviour by reducing hopelessness and enhancing cognition [6]. The relevance of lithium and clozapine for suicide prevention has been clearly demonstrated, although involved molecular mechanisms still are unclear. Anti-apoptotic effects of lithium may increase volumes of brain areas in which hypoactivity and cortical thinning are implicated in suicidal behaviour [13]. Intravenous ketamine is a rapidly acting treatment targeting the glutamate system that reduces suicidal ideation in hours instead of weeks. Intranasal ketamine (or esketamine) also shows promise as anti-suicidal ideation treatment and is less invasive, but, like intravenous ketamine, it must be administered in medical settings [6]. Buprenorphine targets the opioid system and has been shown to reduce suicidal ideation in 2 weeks, possibly through diminishing emotional pain [16]. Further study is clearly and urgently needed. A similar urgent need exists with regard to drugs targeting the stress-response system and anti-inflammatory drugs of which some (e.g., minocycline and celecoxib), though not all (e.g., mifepristone and ketoconazole), may show anti-depressive effects [6].

From a systems neuroscience point of view, there is a rapidly increasing interest in neurostimulation targeting delineated brain areas involved in suicidal behaviour. ECT has been shown to rapidly reduce suicide risk in depressed individuals, but the quality of studies is limited, and its use is hampered by fears of side effects. Therefore, interest in the effects of more localized neurostimulation techniques on suicide risk is increasing rapidly. A number of studies demonstrate rapid reductions in suicidal ideation, following repetitive transcranial magnetic stimulation of the dorsolateral prefrontal cortex, although placebo effects cannot be ruled out [13].

Discussion

Epidemiological characteristics of suicidal behaviours suggest a neurobiological influence on their occurrence. This review of recent neuroscientific studies confirms such an influence by describing the changes in brain biochemistry, structures and functions in association with suicidal behaviour, which have been demonstrated in hundreds of good-quality studies. Moreover, this review sheds light on potential causal mechanisms. Suicidal behaviour is associated with neural circuitry dysfunction that may be due to neuroinflammation, disturbed neurotrophic characteristics and/or abnormalities in the stress-response system. A disturbed neurocircuitry may become manifest via impairments in memory, attention and decision-making that constitute the vulnerability to suicidal behaviour. Neurobiology contributes to suicide prevention by, first, offering increasing insights in the mechanisms linking distal influences (such as familial genetic loading and early-life adversity) and suicidal behaviour. Second, neurobiology can contribute to suicide prevention by providing answers to a crucial unmet need, i.e., the prediction of suicidal behaviour via the identification of neural signatures of suicidal behaviour. Third, neurobiology can contribute to the treatment of suicide risk by defining functional and structural brain correlates of suicidal behaviour that are amenable to interventions, be it via psychotherapy, pharmacotherapy or neurostimulation.

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The Journey Back from Suicide

3

Sylvia Huitson

Abstract

In 1977, I was a normal well-adjusted person with no mental health issues. Then I made a massive mistake and felt like I had dropped down a rabbit hole to an alternate reality. I struggled to try and make the alternate reality work for 10 years. During this time I suffered mentally, was put on anti-depressant medication, and attempted suicide – all due to family violence. It took me ten years to realize, and be strong enough, to extricate myself and my children. Then, finally in charge of my own life again, I studied to become a counselor/therapist and have worked in that field for 32 years. My specialism is suicide prevention. I chose life and made that life better. My hope is that my story will help others to choose life also.

Keywords

Suicidal ideation · Domestic violence · Suicide prevention and therapeutic intervention · Recovery

There are two parts to my story. One is my story, and what I learnt from reflecting on what happened to me, and how I recovered. The other is my story as a therapist working with suicidal clients, and what I have learnt from reflecting on that.

To get to the depths of despair, where in that moment suicide appears to be the only way out, is hard to understand if you haven't been in that position. How do you get to that point of absolute desperation? What can pull you back from the brink? How do you repair and recover and move on? This is my journey to desperation, suicide attempt, and back.

In the 1980s I was a normal, happy office worker. I married at 19. By 23 I had fallen in love with a coworker, despite my efforts to avoid this happening. This was a

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massive turning-point in my life, and began the downward trend. It wasn't long before I left my marriage to move in with this person, and within a week, realized I had made a mistake. We lived in the country – idyllic but also isolated, which seemed nice at the time. Now I know no one can hear you scream. The mask of my new partner slipped in the first week of living together, away from the observation of others. Having some sort of disagreement, about what I can't recall, he grabbed my head and banged it against the wall six times. I tried to fight back, but that only made things worse. It is relevant to say here that my one attempt to physically fight back, failed. And I think that the message he took from that was that he could hit me and I wouldn't, couldn't, stop him and more importantly, I wouldn't leave. I should have left. However, I was in love for one thing, and for another, we both worked in the same place and I couldn't really see a way out at the time without losing face.

I can see now that a sort of grooming began, where everything was my fault, black was white not black, there was a right and wrong way to peel potatoes (his way was the right way, mine the wrong way), and if the oranges were sour that was my fault too. Domestic violence – what was that? I certainly didn't know. It did not have a high profile back in New Zealand in the 1970s. Looking back now I can see how I was brainwashed, bullied, and abused into believing this was all my own fault and well deserved.

Once on the way to work, something went wrong with our picking up of a neighbor's child, and he gave me a back-hander across the face. Another time when he punched me, I had to try and explain at work that we had been play fighting. You can't get a black eye from banging into a cupboard door. After I kept his dinner warm for hours one night when he was late home, he threw the whole lot at me, splitting my head open and leaving me crawling around on the floor cleaning up the blood and food and broken china while he went for a drive. I once had a carving knife thrown at me that embedded itself in the door inches from my head. All of this "punishment," seemed normal and deserved. I "made him do it."

It is all so obvious now, it is about bullying and it is about control. At the time, I was stuck and still in love and being told it was all my fault. He told me he could see in my eyes that I was "devious." It's relevant to mention that he had been arrested as a suspect in a crime involving a family member before I met him. I saw his behavior as a product of his own violent upbringing. Seeing him as a "victim" made me feel sorry for him. I wanted to rescue him and help him recover from this. Instead he perpetuated the generational family violence onto his own children. I had, in hindsight, been almost complicit with his excuse for his violence toward others. This is all relevant, because there is a pattern here with other domestic violence relationships. The ongoing violence physically, emotionally, and verbally, with insults and putdowns, took me to a desperate place where suicide was an option. My psyche was so badly damaged. My sense of self almost destroyed. After my unsuccessful attempt, I seemed to become a shadow of my former self, existing rather than living. The verbal abuse was like brainwashing. The same thing over and over again, repeated until I couldn't think straight. Until I was desperate for a reprieve. Ear bashing is a great description – it can seem like it's driving you mad, and maybe it was.

Looking back I am trying to imagine my state of mind. I had been hyperventilating. He ordered me to get up every morning to cook him eggs and bacon – one morning I passed out, falling on the floor. I was scared of him, he messed with my head until my self-esteem and confidence just dived right down. He was heartless and uncaring and abusive, then at times, funny, caring, and loving. I ended up at the Doctor and was put on anxiety medication. He was referred to a psychiatrist, who suggested he could be put on medication for the rest of his life to manage his behavior. Of course this didn't happen, and that was the last time we sought help. Isolation helps keep the secret. The neighbors aren't close enough to hear you scream. We were out one day, and he was playing his mind games, verbally abusing me. I had my anxiety medication with me. I went into the toilets nearby and swallowed a whole lot of them. I wanted him to feel something. Anything. Remorse, guilt, pain, sadness, regret. I had had enough and I wanted it to end. My death would be a lesson to him. Payback. Moments later, my rational brain kicked in. What was I doing? Sacrificing my life just in order to get my partner to feel some regret for treating me like he had. *Desperation, pain, hurt, damage to the psyche*. I managed to vomit up the medication. I went back outside. I told him what I had done. No reaction. Nothing changed. We just carried on. Soon I was really trapped, I was pregnant.

In the 10 years we had together, I think I must have become a sort of zombie, functioning on one level. Sometimes it was better than others, then at times it was a nightmare. There was no real way out of the trap, I thought. I had another child. He was the same with the children as he was with me. Swinging between kind and caring, and then ranting, irrational, and abusive. I was conditioned. My spirit subdued. By the time I woke up to the fact that it was more important to leave the relationship for the sake of the kids, than it was to try and retain the family unit for the sake of the kids, we were all traumatized. Trauma that would be far-reaching for us all. Back in the 1970s and 1980s, according to some of the research, it was better for the kids for the parents to stay together regardless. It also seemed to be what society required. Solo mothers were perceived to be the lowest of the low. I truly believed I was doing the right thing for my kids. And still in love. And weak, scared, demoralized, and controlled. However things were about to change.

This was when things got really, really bad. The beginning of the end. After 10 years. Something tipped my partner over the edge again. He had the matches and the can of petrol and the three of us lined up in front of him, and he threatened to set fire to the house. I tried to phone for help but he grabbed the phone off me and threw it at the wall. At some point he de-escalated. Normality returned, as it usually did, and then the whole cycle would begin again. Then our youngest son developed psychosomatic appendicitis. He was hospitalized after pain that had escalated suddenly and alarmingly. Incredible pain. Screaming from the child in pain and screaming from my partner that he was "just attention seeking." I was forbidden from sleeping with the child, and ordered back to our bed. The stay in hospital, which my Doctor ordered for mother and child, finally resulted in the secrets coming out. My son relished being in hospital and the symptoms disappeared. Like magic. The social worker, also a past victim of family violence, uncovered the problem.

That was huge for me. I realized I was not the only one who this had happened to and the abuse was not my fault. Normalizing of my situation by someone who had been treated similarly. I can't stress enough the vital importance of this empathic response from a fellow sufferer and the effect it had on my whole future. Understanding, empathy, genuine positive regard, nonjudgmental, non-blaming. Massive reality check for me. Our child was apparently terrified of his Dad. Terrified enough for his body to create a very painful way out. We ran away shortly after returning home. He had always said he would kill me if I left, and I was not fit to take care of the children and should be committed. I believed all this, as I was meant to. It kept me under his control. It helped keep me there. No longer.

This is the point for me where the journey back really began. I had no self-confidence and no self-esteem. I suffered from anxiety and depression. My ex, who after we split joined an anger management group, set me up with a male counselor from the group. Looking back on this now I think this was probably about maintaining some control over me. I was frozen and terrified of the male counselor because he was male. I was referred instead to a group for battered women. I started at the very bottom to begin regaining my self-esteem. There was a checklist. I can brush my teeth, I can drive a car. I was terrified of men. I couldn't get in a car with one I wasn't related to. I stuttered and had no confidence or self-esteem. At all. I was still being bullied by him, and I needed to get strong so I could stand against the behavior. I was out but I wasn't free.

Two years on I was a little stronger and I decided I wanted to help others. In 1988 I threw myself back into living instead of just existing. I joined Lifeline and began to train to become a counselor. I also volunteered at Budget Advisory Service and Victim Support. I enrolled in a Degree Program in Psychology, and enrolled in a Certificate in Counseling Course. During this time I was bringing my children up mostly on my own. I still had significant low self-esteem and I was frightened of most men. I began in the counseling courses, to gradually work through and understand that the domestic violence was not my fault. I was not the worst person in the world. I did not deserve to be treated like that. I wasn't responsible for my ex-partner's behavior. His behavior was his own choice. We make choices about how we behave. You choose to be violent, or you choose not to be violent.

I carried on gaining qualifications while counseling others. Unfortunately, my suicidal ideation continued after I left the relationship. It reoccurred when I was made redundant, when I read in the paper a very dear friend had suddenly passed away, and when I felt bullied and powerless at University. I believe that when you make an attempt at suicide you create a pathway in the brain, and when crises happen then that pathway, the suicidal ideation pathway, opens up again. It seems to me like you are now pre-programmed to consider suicide when something significant goes wrong. For myself it seemed to be when I was triggered into the past where my security and my sense of self was threatened. For example, I was made suddenly, and I thought illegally, redundant. I briefly considered suicide as an option. My rational brain, however, was functioning well enough to come up with more than one other solution by this time. Go to the bank and ask to have my mortgage payments frozen. The bank said no. My next option was to take my employer through a legal process.

Or suicide. I had to do the legal process in order to kill the suicidal thoughts. There was no other choice. I felt if I didn't stand up to this I would be bulldozed back into being a victim of violence. I don't think I would have survived that. Another time when suicide came to my mind was on hearing about the sudden loss of a dear friend. *Intense pain. Unbearable pain and loss.* I felt an overwhelming and impulsive urge to walk into the sea in order to have that last conversation with him. The intensity of this urge shook and surprised me. Again my rational brain jumped in. What if we did not end up in the same place on the other side? I found other ways to have that last conversation. Then again when I was in my last year of my study, I felt bullied by two tutors. This caused a huge amount of stress because it had catapulted me back into the same feelings I had in the domestic violence relationship. The trigger – black was not black but white. *Powerlessness.* However this time my body responded to my anxiety with a transient ischemic attack (TIA). My anxiety needed to be better self-managed and now I needed medication to avoid risk of stroke and heart attack. It was different this time though. I did not lose hope, I had a problem-solving strategy to deal with it. For once, suicide was not the first thought. I lodged a complaint. The helplessness and hopelessness was absent because I had a plan. And it wasn't a suicide plan this time. In hindsight, I was moving along on a continuum from suicide as a real option at one end, toward a point along the way where suicide was just a fleeting thought, whose influence is waning. Moving out of overwhelming emotions, to rational thought and on to problem solving, works for me. However I still have to do intensive cognitive work to contain the anxiety.

My journey of recovery took many years. My study and career played a huge part, by helping me find myself, and find my future. My life needed to be better than it had been. Hope is vital in recovery. I needed hope. Hope that I had a better future. I needed to recover. To change all the negative thinking, I had to change the tapes in my head. "You are not good enough. You will never be good enough. Everything you do is wrong. You should be locked up." I needed to believe I wasn't a bad person. I needed to believe I was worthy as a parent. I needed to prove I wasn't what I had been painted as. Nothing would have changed if I hadn't solved "the problem" by leaving the relationship. I firmly believe that we need to try and work out what is the cause of our depression, our anxiety, and our suicidal thoughts. That is, to my mind, where the change needs to happen. Choose life but make that life better. I had to believe life outside the relationship would be better. I had to first, leave the dangerous relationship, then start to find myself. The self I had lost through years and years of abuse. Not all suicides are about domestic violence, but many suicides are about loss of hope and damage to the psyche. No hope that things will get better. Pain. Intense pain that doesn't seem to let up. No light at the end of the tunnel. Hope may be there, but we can't see it, can't find it. Those of us in that place have a reason to die, we needed and all do need to find a reason to live. To find hope for a better future. And make that future happen. One small step at a time.

For me, and I found with others too, suicide was/is deeply personal. What may not seem enough of a reason to take one's life to others, may just be the last straw in a build-up of things that are causing pain for the at-risk person. While the causes of suicide are many and varied, we need to look below the surface to the effects, of what

is going on or has gone on in the environment, on the sufferer. The cause of my attempted suicide is the message I took for myself from what was happening/done to me. I was no good, worthless, at fault, scared, and a coward, and there was no possible life for me away from the relationship. I was in effect, painted into a corner where there was not only no way out, there was no glimmering of an option other than the one I came up with – suicide. Leaving became impossible – I would be followed, killed, and have my children taken away. It was then that I briefly considered homicide, after I had given up on the idea that fate was going to rescue me. I know this does not put me in a good light, but I am trying to highlight the desperation at that point that you consider anything. The last thing children need is one parent dead and the other in prison charged with murder. At that time I did not have the strength to contemplate escape, I was trapped, stuck. Endure.

I have found with many of my clients that there has been significant damage to the psyche at some time in their life. This has made it difficult for them to have the resilience to deal with crises when they occur. For example, “when did you first notice depression coming into your life?” I often ask. “When I was a child and I tried to kill myself,” was a not uncommon response. Follow-up question – “What was going on in your life at that time?” And the story follows. What comes out of these interactions is often the clue to some damage that has been done to the psyche. Something that was said to them that they are still carrying around. A negative message about themselves. Much like my negative messages that had damaged my psyche. Bullying causing fear, and feelings of not being good enough, not being loved, not being wanted. Valueless.

My aim, when dealing with suicidal ideation and depression, is to find out where, in a person’s story, that damage was done that might still be causing distress. What message about themselves they have taken from that event. Though we don’t know it at the time, this moment, or series of moments, can change our life. Often because we allow ourselves to be damaged by absorbing negative messages about ourselves. A personal message that is still with us. Still causing problems in our lives, often by diminishing our self-esteem, making us feel that we can’t achieve. Messages like “you are hopeless, you will never be any good.” These messages can come from people trying to hurt us or from thoughtless comments just thrown out without regard for the consequences. These messages can be given in moments of despair or wrongly used as motivators. However they often cut to the heart and do significant and long-lasting damage. The message that has followed us around, often since childhood, or for others like myself at a later age, can mean that we believe we are not ok, and will never be any good. *Worthless. Unlikeable.* A perpetuating cycle of self-blame and negative self-worth. A negative cycle. A low self-esteem can dictate the choices made throughout life. Maybe you don’t aim for the best in jobs, career, or relationships because you don’t think you are worth it. Maybe you rely on drugs, alcohol, gambling to either zone out life’s problems, or give you a lift. Then you have the problems you started with plus the things that often go along with alcohol, drugs etc. Addiction, loss of money, loss of cognition, loss of relationships, violence.

After years of failing at life, people can end up with no confidence, no self-esteem, and no tools to self-rescue. They may not be resilient to perceived threats to

the psyche and just sink lower. They may feel both helpless and hopeless and this is what can lead to suicidal ideation. Things will never get any better – there is no light at the end of the tunnel. To give up, to find a way out. To end the pain. It's like they have gone off on a side track instead of continuing on the main rail track, and have been stagnant or very limited in their progress. Getting them back onto the main trunk line means repairing damage and moving forward. Reframing. Rationalization. Reality Checks. Who would they have been if they hadn't been damaged, if their progress hadn't been stunted? Finding, recovering, repairing that person, their potential true self.

I often work from a perspective of situational analysis. "What did that person actually say?" "How did you take that message?" Or "what message did you take from that that you are still carrying around?" Often it is self-blame, we are good at that. If we turn it around and look at the behavior of the person who said whatever, we can see things from a different perspective. Instead of absorbing a comment from someone and using it to further beat ourselves up, letting the comment bounce off us limits the damage it can do to us. Looking rationally at this, what a person says to us can be about the other person having a bad day, or picking on us. It doesn't mean it's true or earned. We clutch it to us and it often dictates how we feel about ourselves for decades. We also assume we know what other people think about us. This is at best not possible, and at worst very damaging. We are not mind readers!! Don't even try!!! If you want to know ask, if not don't worry about it.

What can we do to help prevent suicide? Education for everybody on suicide prevention. Everybody needs to know what to do if they think someone is at-risk. There was a time when the word "suicide" was like a swear word. Many people thought, and maybe some still do, that if we mention suicide it will put someone at risk. About two thirds of health professionals in a workshop I attended once, struggled to actually ask "have you thought about suicide?" That was only in a role playing situation. We need to be brave enough to ask. Remember, it shouldn't be about our fear, it should be about the other person's well-being. Ten years ago I was in a Masters Level counseling course, with a mix of new and experienced therapists, and was castigated three times by tutors, for trying to introduce the subject of suicide. I was appalled. Again, everybody, especially therapists, but not just therapists, need to know what to do about suicide risk. Family members can be the ones who notice subtle clues. They need to know what to do to try and help that person. There is fear around talking about suicide. We do need to be careful how we talk about suicide. However we do all need to know what to do if we think someone is at-risk. We are TRYING to prevent suicide. Don't let your fear get in the way of possibly saving a life. However, it is always about the choice of the person at-risk at the end of the day. I advocate being aware of risk, listening, asking the person if they have thought about suicide, getting them help and keeping them safe. Some at-risk of suicide give no indication they are this troubled. We become very good actors. Others will drop a hint or a clue because they want someone to help. This may be something like saying they don't want to be here. It's important to ask "have you thought about suicide?" It's a hard question to ask. However if we don't ask we might miss an opportunity to help. If you get that chance, take it. Resist the

temptation to change the subject to something more comfortable for you. Listen, listen, listen!!

Safely talking about suicide. In New Zealand we do not publicize in the media how a completed suicide took their life. Reducing access to means is important. In New Zealand we have laws restricting firearms.

Children need to grow up to be resilient with good self-esteem and confidence. They need to be prepared to deal with difficulties in life. Anxiety seems a huge problem for young people. Teaching life skills in school is vital, I believe – the earlier the better. Learning how to deal with what makes us anxious. I believe that kids need survival skills. With suicide prevention, ideally we are dealing with early intervention from conception. Babies prior to birth know what kind of environment they are being born into. Violent, angry, calm, soothing. Parent education is needed to teach how to limit damage to children growing up and to give them skills that will prepare them better for life ahead. A family violence atmosphere can impact on children as much, if not more, as the impact on the adult victim. Perpetrators of family violence are also role-modeling to their children how to be in a relationship. How to treat a partner. They are normalizing violent behavior. Perpetuating cycles of violence. Again damage to the self-esteem and confidence from a violent upbringing or a neglectful upbringing. Children need to know they are loved by their parents and this tells children they are able to be loved by others. My evidence is practice-based. I see many people in their 20s, 30s, 40s, and older who suffered damage early in life, either in the home, bullying at school, etc., and are failing later on in life. Some of these people disclose the past suicide of a family member, and how that has impacted on them with serious loss and grief, and in some cases the suicide is role modeling a problem-solving strategy. Suicide is not the only option. Learn to come up with more than one response to situations.

Impulsive behavior can result in a suicide if a sudden crisis occurs where there is that loss of hope without rational thinking. Young men can act on impulse without thinking through the consequences of suicide. We can't come back from suicide. Teaching impulse control – maybe in schools. Problem-solving skills, maybe in schools. Or for parents to ensure these skills are taught. Resilience is vital to survival. Good self-esteem and self-confidence is vital. Whatever the intention of a put down, sometimes to motivate, sometimes to highlight bad behavior, it often causes damage that children may never recover from. We need to think before we speak, about the possible damage we can do with our thoughtless words. Insults do not motivate – they hurt, they damage, they linger. Think it, don't say it. Then think about what you can say that won't damage. Love the child, hate the behavior. It's the behavior you want to change.

I have now been working in suicide prevention for 32 years. In that time working with very many suicidal people. That may not be why they came for help, but the suicidal ideation can be just below the surface. I always contract with my clients to stay alive while we are working together. A commitment to life while we explore, repair, and work toward positive change.

In 2010 I wrote *“Survive and Thrive Choose Life, a handbook for those at risk and those who want to help.”* This incorporated some of what I had learnt about

preventing suicide. I am at present the New Zealand Representative to the International Association for Suicide Prevention (2017–2022). During the really down parts of my life, there appeared to be no hope for a better future, no escape from the nightmare. I might not have been alive today. I'm glad I am. It didn't happen overnight but it did happen. I made it happen, one small step at a time. My children and I broke the cycle of generational family violence and I'm immensely proud of that. I chose life and made that life better, hopefully my words will help others to choose life and make that life better for themselves.

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Suicide as Syndemic

4

Chris Caulkins

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Abstract

Suicide is a serious public health problem throughout the world. An interdisciplinary approach is needed to better understand and prevent suicide and life-threatening behaviors. Syndemic theory accounts for the role that culture plays in exacerbating risk factors that too often result in self-inflicted death. The culture of silo mentality in the suicidology community impedes significant progress in understanding and preventing suicide. This chapter outlines the use of syndemic theory in the study of suicide and introduces the concept of the anthropsy, which incorporates the framework on the psychological autopsy to research suicidality on a macro scale. A syndemic in the US Intermountain West is believed to be of syndemic origin. A review of an anthropsy informing this conclusion is made.

Keywords

Suicide · Syndemic · Anthropsy · Culture · Theory

Worldwide, there were over 793,000 suicide deaths in 2016 [74]. For every death it is estimated there are 20 suicide attempts [75]. There are numerous theoretical constructs that have served as a framework for explaining suicide and related phenomena. These theories have sprung from the disciplines of psychology, biology, and many other fields. When a significant problem is complex, it needs an organized means of inquiry, and is not easily explained by one approach; it necessitates an interdisciplinary approach [57].

The old adage is “it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail” ([40], p. 15). My fear – anecdotal as it may be – is that suicidologists gravitate towards their own academic disciplines in their approach to the study of suicide. As John Muir [45], the noted naturalist said, “When we try to pick out anything by itself, we find it hitched to everything else in the universe” (p. 10). The widely hailed founder of suicidology, Edwin Shneidman [60], famously said, “Suicide is everybody’s business” (p. 238) and advocated for a multifaceted approach to the study of suicide. The suicidology community would do well to consider both Muir and Shneidman’s assertions in tandem. It is my contention that syndemic theory is well suited to compliment, incorporate, and embrace theory from across the academic spectrum.

Culture

Before going any further, it is necessary to give a brief background on the term and culture and define what is being referred to as culture in this chapter. Culture is a concept originally developed by anthropologists, with the premise that it encompasses the features unique to a specific group of people, unaffected by the influence of others [36] – a rather dated idea when considering the impact of globalization.

Today, culture means different things to different people, with even anthropologists unable to agree on one universal definition (p. 44). Some scholars define culture as “things” that are impressed upon us as we grow up, such as manners or religion ([43], p. 2). Others define culture as the sum of a complex system of “knowledge, belief, arts, morals, law, custom, and any other capabilities and habits acquired” as a result of belonging to a particular society (Tyler 1871 as cited in [59], p. 40). Archeologists maintain that culture is reflected in artifacts produced [56] and food consumed by a specific group of people, which can be determined in a multitude of ways (pp. 163–192). Linguists assert that language is a part of culture and that we are limited in our understanding, perception, and interpretation of the world by the words and grammar of our respective languages. This language limitation is referred to as *linguistic determination* and is part of the well-known Sapir-Whorf hypothesis [24].

While categorizing people into social or cultural groups is common practice, a warning has been issued that such categorization may pose problematic when used for research purposes [26]. When considering cultural category, it is important to note that cultures vary by observer perspective, are often dictated by, and change throughout history, that individuals may move between categories, and that category sometimes interferes with the phenomenon being studied (pp. 392–397).

In the context of this chapter, we are defining the features of culture as:

- The sum of a complex system consisting of “knowledge, belief, arts, morals, law, custom, and any other capabilities and habits acquired” as a result of belonging to a particular society (Tyler 1871 as cited in [59], p. 40)
- Extending to language, dress, and dietary habits
- Includes thought patterns and reactions to stimuli
- Shared by the majority in a group of people
- Comprised of subcultures
- Dependent on the perspective of the observer and potentially obscured by the limits of one’s language, including jargon within a culture/subculture
- Malleable and dynamic in nature
- Having the capacity to influence, and be influenced by, other cultures
- Consisting of features that are not only impressed upon one growing up but shaped by experiences throughout the lifespan
- Subjectively determining what is normal versus deviant
- Possessing a unique discourse – written, spoken, and symbolic communication
- Social discord, expression of distress and eustress, and cultural sanctions on a given topic, like suicide [15]

My working definition is an attempt to get at the ethos of a given culture – the very essence, spirit, and character. Having said everything I have said about culture, I would like to caution that not learning from the historical missteps of the academics who established anthropology – for instance, that the shape, size, and features of a human skull are indicative of one’s level of intelligence – is a dangerous and downward spiraling effect that can truly hurt others [70]. Other hazards include

ethnocentrism – seeing our own culture as superior and the center of all perspectives, and not understanding cultural relativism – judging others by our own cultural standards [43].

Intersectionality

The term intersectionality is credited as originating in 1991 from the work of Kimberle Crenshaw [28, 49], who utilized it to acknowledge the fallacy of looking at oppression from one lens – racism or sexism – rather than both, as a more complex means of deconstructing identity politics [17]. As such, intersectionality is defined as belonging to one or more social identity construct (e.g., combinations of race, gender, mental health status, etc.) that results in complicated systems of concurrent or alternating privilege or oppression [28]. Intersectionality is an important consideration in the study of a phenomenon, like suicide, because not accounting for intersectionality in research draws on only one variable to the exclusion of others (p. 91) and “ignoring differences within groups contributes to tension among groups” ([17], p. 1242).

Because intersectionality entails multiple identities in a single person that are enmeshed with each other, teasing the issues out regarding these identities is important. Future research must also take into account the compounding effects of intersectionality. At present, there is significantly more research on the single identities of race/ethnicity and sex.

Syndemic Theory

Syndemic theory is of anthropological origin and advanced by Merrill Singer [67]. The word, “syndemic,” is a neologism that describes a synergistic epidemic. The theory asserts that a public health issue is the result of two or more physiological factors combined with a cultural factor [67]. Syndemic theory encompasses, compliments, and builds on the social determinates of health (SDH) theory and the bioecological theory of human development (BTHD).

The World Health Organization [76] defines SDH as:

... conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.

SDH theory asserts that the aforementioned conditions and forces impact the health of individuals and communities.

Bronfenbrenner’s BTHD [10] posits that five systems, and individual characteristics and traits, interact to influence a particular person’s development. These systems are as follows:

- **Microsystem:** A series of interpersonal relations.
- **Mesosystem:** Influences from the interaction of two or more settings in which the individual is involved directly (e.g., home and work, school and home).
- **Exosystem:** Interactions between two or more settings, at least one of which does not usually involve the individual directly.
- **Macrosystem:** The overarching system comprised of all of the others within a cultural context.
- **Chronosystem:** Changes that are experienced over time.

The US Centers for Disease Control and Prevention (CDC, [72].) and the US Surgeon General and National Action Alliance [73] utilize a modified version of the BTHD as a framework for violence and suicide prevention.

As of this writing, syndemic theory has primarily been used to study sexually transmitted diseases [51, 66, 78] but has also been used, to a lesser extent, in the study of tuberculosis outbreaks [13, 54] and chronic disease conditions [50]. Research that employs syndemic theory to study suicide is limited, with the main focus being that of suicide among sexual minority men [20, 47] and suicide among people using opioids [51].

Culture and Suicide

While psychiatric issues undoubtedly play a significant role in the subjective ingredients resulting in suicide, it would be a mistake to only take pathology into account and not consider sociocultural factors [32, 33]. The much-touted statistic that 90% of suicide deaths are attributed to an underlying mental illness – popular even among the suicidology community – has a root in research utilizing the psychological autopsy as a means to retroactively determine if a victim had an undiagnosed mental health disorder [27, 34]. However, the psychological autopsy was designed as a tool to help the coroner assign a mode of death [64], and the purpose was never meant to retroactively diagnose mental illness and may be conducted by individuals who are not mental health clinicians [3]. Shneidman [61] contended that “The problem of suicide should never be addressed directly, phenomenologically, without the intervention of the often obfuscating variable of psychiatric disorder.”

A study conducted by the Centers for Disease Control and Prevention (CDC) epidemiologists revealed that 54% of Americans dying by suicide between 1999 and 2016 did not have a known psychiatric disorder [68]. Of course, the interplay between culture and mental health can have a negative or positive impact when it comes to suicide.

We know that certain types of suicide may have a predominantly – if not complete – cultural component. Examples include Durkheim’s [19] classification of suicide for altruistic reasons (e.g., the overly cliché throwing oneself on a grenade to save others), self-immolation among Tibetan monks [16], the practice of Sati [39], and the use of suicide as an atonement or restoration of honor in Japan [58].

Cultural Variations

When it comes to suicide, we know there are variations by culture, and researchers would do well to consider these differences in the greater context of the phenomenon. These variations occur in many different groups, including race and ethnicity [8, 21, 53], sex [46], sexual orientation [23, 31], mental health conditions [1, 14], and religion [25, 71].

Methodology in Research

To effectively grasp the complexities of syndemics and their constituent factors, methods must be employed that contribute to the epistemology of the phenomenon. Researchers must embrace a qualitative, quantitative, and mixed-method approach and come to the realization that one method does not best another.

Unfortunately, there is a prevailing attitude of intolerance towards qualitative research among quantitative researchers [22]. This belief in the superiority of quantitative over qualitative extends to the aristocracy of the suicidology community. The three leading suicidology journals have all demonstrated a consistent bias against the publication of qualitative research with a scant 2–10% acceptance rate [32]. This bias is myopic and forsakes the “why” of a given phenomenon, which is critical [42]. Conversely, not recognizing the important contributions of quantitative methodologies would be a commensurate mistake. The sage advice and observations of Shneidman [63] and Muir [45] call to the suicidology community. The question is will our community answer those calls, or continue our silo mentality, pitting psychology against clinical social work, social sciences against the hard sciences, qualitative against quantitative, clinicians against those with lived experience, and on and on? To be clear, silos do not damage the effort; however, silo mentality does [48]. A failure to engage in metacognition to change the prevailing culture among suicidologists will most certainly – and likely already has – cost lives. The proverbial hammer must be replaced with a multi-tool.

Syndemic Case Study

There are limited instances in which suicide has been studied from a syndemic perspective. The following is a summary of the research I conducted and will be highlighted as an example. Note this is but one way to employ syndemic theory and is not meant to be prescriptive by any means.

The Situation

The United States Intermountain West has an overall suicide rate markedly higher than the national average. The rates of suicide in the Intermountain US West are

correlated with high elevation [9, 18], even when sex, age, race, income, population density, and firearm versus non-firearm deaths are controlled [9]. Many theories existed as to why the rates were so high, including decreased oxygen levels as elevation increases. Critics posited that a false association (ecological fallacy) may be in operation [7]. There is a positive correlation between altitude and suicide rates [9, 18].

Location Details

Park County, Wyoming, was chosen as a study site because it had sufficiently high altitude, enough of a population base to interact with and observe the residents, and had a suicide rate of 40 per 100,000, compared to Wyoming at 20.4 and the United States at 12 [12]. In the study area, there is a lack of military bases and reservations nearby, and the population is 96.2% Caucasian, which limited confounding factors (p. 14). Cowboy culture was mentioned as a possible cause of a spike of suicides in Park County by the state suicide prevention coordinator [30]. The cowboy culture and the “cowboy-up” philosophy were also advanced as a significant risk factor on the State of Wyoming Suicide Prevention Plan [77].

Assessment

An ethnographic study was initiated in one county in the Intermountain West. Evidence-based suicide risk factors, as employed in the psychological autopsy technique [62], were used as a foundation to conduct a community-wide assessment for suicidality. This method is referred to as an anthropological biopsy or “anthropsy” for short. It should be noted that an autopsy occurs on nonliving organism, whereas a community is still “alive,” hence biopsy.

An ethnographic approach was employed. A total of 23 days was spent living in the study area, which consisted of participant observation, a series of semi-structured interviews (see Table 1) – with questions modeled after those contained in the

Table 1 Informants interviewed

Informants	#
Suicide prevention personnel	2
Mental health professionals	2
Public health personnel	3
Mental health advocates	3
Law enforcement	2
Politicians/government officials	2
Saloon owner/local historian	1
Suicide prevention personnel	2
Mental health professionals	2
Public health personnel	3

psychological autopsy [2] – and keeping detailed field notes. This was supplemented by discreet photographic documentation of events and artifacts. Interviews were audio-recorded and transcribed. All data was uploaded to Atlas.ti qualitative analysis software for coding and theme recognition.

War Paths

The findings of the anthropy are as follows. Whereas psychological autopsies use the mnemonic, IS PATH WARM, the anthropy employs the use of WAR PATHS.

Withdrawal. Mental illness and associated stigma contribute to withdrawal from the community. Fear of bullying and being seen seeking mental health help may contribute to this. The spirit of independence may also enhance the effects. Traditional places of inclusion, like faith communities, become sites of denial and stigmatization, causing further withdrawal.

Anxiety. Increased by stigma and the perceived or real difficulty of accessing mental health services in a confidential manner.

Recklessness. Some residents engage in reckless behavior including substance abuse and driving while intoxicated, lack of concern for safety as evidenced by lack of helmet use, noncompliance with the seat belt law, and tobacco use. The subculture of the rodeo cowboy may include additional reckless behaviors, such as the risk of life and limb in rodeo events and a lifestyle that may encompass increased sexual promiscuity.

Purposelessness. The threat of the loss or diminishment of the cowboy identity. Perceived lack of usefulness of individuals to society, particularly among the elderly, who may see themselves as a burden.

Anger. This is fueled by substance abuse, the general sense of pessimism, and bullying among youth and adults. Nonheterosexual people are the frequent target of aggression.

Trapped. Limited opportunities for career growth or diversity and, to a lesser degree, availability of enough different leisure activities. Isolation also factors into the feeling of being trapped and may occur geographically, socially, and psychologically.

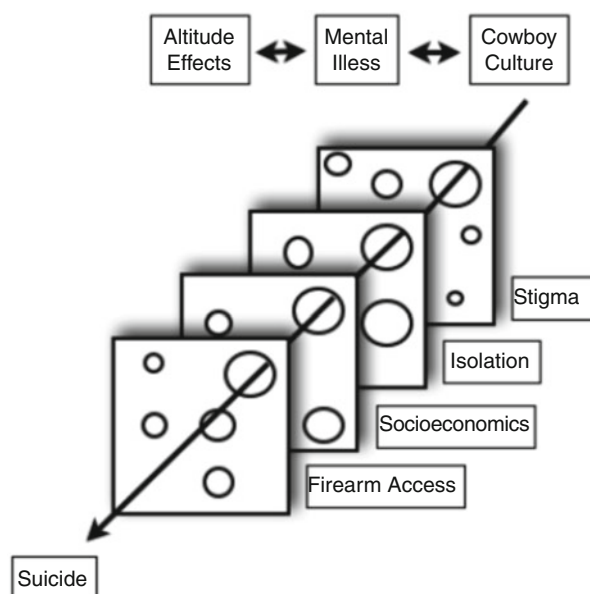
Hopelessness. Fostered by the feelings of pessimism about where the government, economy, and other issues considered important are headed. Isolation accentuates this and bullying behavior has a negative effect on hope.

Substance abuse. Particularly surrounding alcohol, prescription opioids, and nicotine. This includes the presence or absence of laws and regulations that are conducive to abuse, such as those that pertain to the high proof of alcohol available, no criminal penalties for serving the obviously intoxicated, etc. Altitude is known to amplify the effects of smoking and alcohol [55].

The Syndemic

Cowboy culture, combined with mental health issues and the effects of altitude, increase suicidality and likely result in a syndemic. See Fig. 1 for a visual of the

Fig. 1 Swiss cheese model applied to syndemic theory



findings. Additional anthropies need to be conducted in other Intermountain West areas to gather more evidence of a regional syndemic and to establish greater external validity.

Physiological Factor: High Altitude Effects

Imaging studies of pilots subjected routinely to extremely high altitude show a marked increase in white matter lesions in response to low-pressure environment exposure [41]. High altitude can cause dehydration, sleep disturbance, and cognitive disorientation. Those with respiratory and heart diseases may have their conditions exacerbated by altitude ([11]) and are at higher risk for suicide [6].

Physiological Factor: Psychiatric Disorders

Too often, society fails to understand that mental illness is a physical illness with physiological indicators and ramifications. In imaging studies of those with depression, lesions on the basolateral amygdala have been found to inhibit nerve cell generation [37]. Imaging has also identified white matter deficits in the brains of those with alcoholism that disrupt the limbic-prefrontal connections and results in emotional dysfunction [29].

In the course of my ethnographic research, I discovered evidence of pervasive substance use disorders (alcohol, opioids, and nicotine), anxiety (tied to pessimistic

discourse), and depression (secondary to bullying and isolation). Of course, altitude is known to foster and exacerbate paranoia, hostility, and depression [4].

Cultural Factor: Cowboy Culture

Wyoming is known as the Cowboy State and that ethos is blatantly obvious. Homann [35] defines several classifications of cowboy, and informants corroborated the existence of the system with a few modifications. These are the rancher/ranch hand cowboy, the rodeo cowboy, the movie star cowboy, and the “wannabe” cowboy. Regardless of whether or not residents identify with a particular type of cowboy, the residents – male and female – are influenced by, and are a part of, the cowboy culture. Residents of the Intermountain West appear to continue to be a suicide risk even when leaving their home regions to areas of lower altitude [65].

Swiss Cheese Model

Reason’s Swiss cheese model [53] is useful for visualizing the components of the syndemic uncovered in Park County, Wyoming. Figure 1 depicts the reciprocal relationship between the physiological and cultural contributors. The model draws an analogy between slices of Swiss cheese and a disastrous outcome. The central idea of this model is that removing one of the “slices” will prevent the calamity. This model has been used successfully in aviation and is widely hailed as the reason air travel is one of the safer modes of transportation [38].

Current Events and the Future

At the time of this writing, the world is in the grip of the novel coronavirus disease 2019 (COVID-19) pandemic. While it is too early to anticipate the effects of the pandemic on suicidal ideation, attempts, and deaths, it is known that mental health crisis agencies are experiencing markedly increased demand for their service by individuals whose mental health challenges are being exacerbated by COVID-19 [5]. The pandemic has become politically charged. Some people cite the scientific evidence and comply with public health requests and expect compliance by others, while others believe the pandemic is a human-initiated conspiracy and go as far as saying the pandemic is a hoax. Many others are on the spectrum between the two viewpoints. Regardless of the reality, culture is bearing heavily on the situation.

Simultaneously, civil unrest surrounding serious and social justice disparities, as a result of prolonged and pervasive systemic racism – and catalyzed by the police-caused death of George Floyd in Minneapolis – has sparked protests across the globe. The festering sores of a traumatic history Black people have experienced have been ripped wide open, and the full psychological toll is yet to be determined. The suicidology community is very concerned about increases in suicide and suicidal

behavior because of the many social and cultural factors in which this crisis is rooted [44, 69].

Suicidologists should study these current events and the implications on suicidality in the context of a syndemic, with the interplay of cultural factors thoroughly explored.

Summary

Suicide is a significant worldwide public health problem that demands an interdisciplinary approach. The consideration of culture and its interaction with other factors, viewed through the lenses of various professions and academic disciplines, is imperative.

Culture is made up of multiple components of beliefs, customs, and shared experiences of a group of society. There are many subcultures within a culture and people often belong to multiple groups, which is referred to as intersectionality.

Syndemic theory holds that an adverse outcome – like suicide – occurs as the result of two or more physiological conditions that are combined with cultural factors. Syndemic theory compliments other theoretical constructs. Researchers should embrace multiple methodologies and schools of thought and practice.

The powerful nature of culture in suicide has not been as fully appreciated as it should be, with assumptions of mental illness as the predominant root cause. It is known that suicide varies by culture and subculture. Qualitative research is more frequently employed in the study of culture. Because of an anti-qualitative bias, cultural anthropology is too often excluded from the body of knowledge – or at the least, suppressed. Qualitative and quantitative research can complement and support each other.

Syndemic theory has many applications. A case study was presented on a likely syndemic occurring in the US Intermountain West in an area disproportionately impacted by suicide. The cowboy culture of the US Intermountain West interacts with the physiological effects of altitude and pre-existing psychiatric conditions. This interaction is likely responsible for a large portion of the suicide deaths in the region. A Swiss cheese model of a syndemic may be a useful tool in preventing the adverse outcomes of syndemics.

The current pandemic and social unrest are syndemics in the making. Suicidologists would do well to research suicide and related phenomena related to this crisis in the context of a syndemic.

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Risk and Protective Factors for Suicide from a Cultural Perspective

5

Teresita Morfín-López

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Abstract

The purpose of this study is to identify the suicide risk and protective factors among young adults from a cultural perspective, specifically Mexican women and men who have attempted suicide. Young adult population in Mexico has one with the highest suicide rates, 9.3 per 100 k inhabitants, and the suicide rate in Mexico is 5.4 per 100 k inhabitants.

Thirty-two young adults who had attempted suicide were interviewed. Participant's thoughts, feelings, actions, interactions, and circumstances around contemplating and attempting suicide were documented. A qualitative interpretive analysis based on the grounded theory was conducted. Eight categories were constructed which group and organize the participants' experiences regarding the causes, feelings, thoughts, actions, and circumstances related to suicide and suicide attempted.

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The suicidal risk factors from the perspective developed in this study are mainly present in the family circle, characterized by a violent environment, lack of support, loneliness, precariousness, and silence. Under these family conditions, the persons at suicidal risk tend to establish an internal dialogue with themselves where their thoughts and feelings lead them to consider that there is no other way out, but to commit suicide. The community, comprised of the neighborhood, neighborhood associations, friends, school, and church, is an environment, poor in support resources, to which the participants do not usually turn. These social institutions do not offer accessible and timely support whenever the participants have resorted to them. The participants propose the following preventive measures: have a trustworthy person to be able to talk to about their situation, psychotherapeutic help, and family support.

Keywords

Suicide attempt · Domestic violence · Cultural factors · Young adult · Communication

Introduction

Suicide is an act in which the relationship of the subject, with his or her social surroundings, is expressed in multiple forms. From the perspective presented in this study, it is a cultural response to existential and vital problems. This response is diverse and varies from culture to culture. Even within the same culture, it can present variations according to financial, social, and political circumstances.

The International Association for Suicide Prevention (IASP) and the World Health Organization (WHO) sustain that suicide is preventable. In fact, the IASP affirms that every suicide is preventable. It is necessary to know the cultural conditions that enable the development of a suicidal behavior [1, 2].

Addressing suicide from a cultural perspective implies answering the following questions:

- What kind of communication interactions does the suicidal young adult establish within his or her family circle, community, and society?
- What are the conditions under which these communication interactions take place?
- For this population, how is suicide an alternative to dealing with their problems?

The aim is to answer these questions and retrieve the participants' subjective experiences regarding suicide. This involves reconstructing aspects in their everyday life that influence their decision to commit suicide.

It is crucial to explain concepts that can support the theoretical approach of suicide and suicide attempted in this study.

Theoretical Perspective: The Social Constructionism

According to Schütz [3], a social phenomenologist, the meaning of life is built around two basic elements: the *subjective meaning*, which corresponds to the processes that occur in the person's consciousness and create significance, and the *objective meaning*, which concerns the most broad contexts of meaning in culture and is shared socially.

The significance that grants meaning to reality is built in this psychocultural relationship, which happens between reality and the person itself. The language in this relationship is essential for it allows order and communication between the person's external and internal world.

This approach applies the way reality is known and built according to the concept of social constructionism [4].

A semi-structured interview was applied to gain access to the participants' subjectivity [5–8], as a tool to identify and understand the experiences and meanings of suicide and suicide attempted.

Methodology

The study's population was young adults from the city of Guadalajara, Mexico, since this group is among the population with the highest suicide rates in Mexico. The suicide rate in Mexico in 2017 was 5.4 per 100 k inhabitants and 9.3 per 100 k inhabitants in young adults between the ages of 18 and 45 years old [9, 10].

The suicide rate in the state of Jalisco in 2017 was 8.04 per 100 k inhabitants. Sixty-five percent of the people that committed suicide were between 18 and 45 years old [9, 10]. In this study, the age range of a young adult should be between 18 and 45 years old [11, 12].

The research method that was applied is the qualitative method based on the grounded theory [13, 16]. The instrument of research used was a semi-structured interview [5–8]. The participants were 32 people that had recently attempted suicide, 20 women and 12 men. The participants were self-aware individuals, with no psychotic disorders or addictions and have a monthly income between USD \$ 250 and \$ 500.

The participants were interviewed immediately after the suicide attempt, before any psychological intervention.

The interviews were held in mental health centers for people who had attempted suicide in the metropolitan area in Guadalajara, Jalisco, Mexico.

The following questions were asked during the interviews:

- What are the causes that make a person attempt suicide?
- What does a person who attempts suicide feel?
- What does a person who attempts suicide think?
- What does a person who attempts suicide do?
- What can be done to prevent suicide?

The questions were done in the same order while conducting the interviews, and relevant aspects from the participants' experiences pertaining to suicide and suicide attempted were explored.

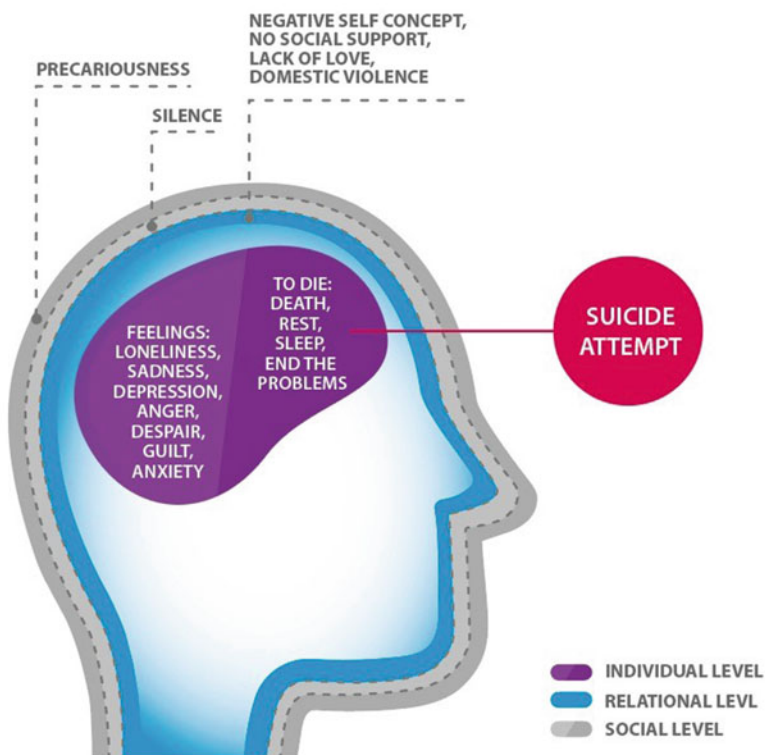
All the interviews were recorded digitally (audio) and transcribed. Participants' identity has been protected through the use of pseudonyms.

Analysis Results: Categories and Subcategories

The identified categories and subcategories interrelate in a specific pattern that explains what goes on in the reality of a person with suicidal behavior. These are feelings, thoughts, actions, interactions, and circumstances that lead them to deal with their problems in a specific way.

Based on the data analysis, eight categories were constructed [13–16].

Resulting Categories



The different categories maintain a better identification in one of the three levels, although they keep a permanent interaction between them. (Source: author’s elaboration)

The categories are: (1) die, (2) feelings, (3) self-concept, (4) social support, (5) lack of love, (6) domestic violence, (7) precariousness, and (8) silence.

Below is a brief explanation of these categories and subcategories as well as bullet points exemplifying the categories.

The explanatory outlines are presented from the point of view of the person who has attempted suicide. They could explain what is happening in the person, his or her family environment, the community context, and the social context.

Die

For the participants the concept “to die” is a consequence of the relationships, mainly conflicting, violent, lacking support, or lacking communication, that the participants had established with people in their family, community, and social circles (Fig. 1).

They express their wish of death as “just die,” “rest,” “sleep,” “be done with problems,” “they will be better off without me,” “join a deceased relative,” and “ask for help.”

Even though the person expresses the wish to rest or stop suffering, the actual actions are targeted to end his or her own life.

Roque, a 19-year-old male, single. Additional information: None.

- **E:** The last push, what did you mean by that?
- **C:** *The end, death.*
- **E:** And, what else does someone feel? How does it feel right at that moment or before?

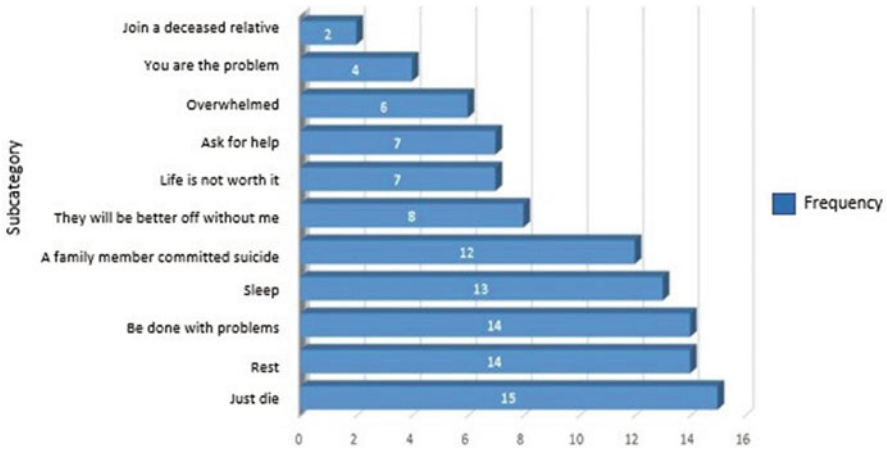


Fig. 1 Die: An intimate act, done in a conscious way and with a definite purpose: to terminate one’s own life. Total: 102 mentions. (Source: author’s elaboration)

- [...]
- **C:** *In finishing, the sooner, the better . . . , In doing things faster . . . to stop feeling all that I am feeling [17].*

Amalia, a 44-year-old female, single. Additional information: Sexually abused as a child.

- **E:** Do you have any other feelings, maybe in everyday life?
- **C:** *In the everyday life? Mmm.*
- **E:** Yes, every day.
- **C:** *In dying.*
- **E:** Do you think about it a lot?
- **C:** *Yes, yes, I do think about it a lot.*
- [...]
- **C:** *[...] well, not taking the medication, but there are a lot of ways to commit suicide. I think a lot about my sister, she has given me so much. I can kill myself, slit my wrists or many other ways. But I don't know, I don't even know what is stopping me, because I don't want to live anymore, I don't want to live [17].*

Rosa, a 24-year-old female, married. Additional information: High school education. First attempt.

- **C:** *[...] just that I was going to rest, I would forget everything, I wasn't going to go through everything I'm going through here, that they insult me and feeling bad.*
- [...]
- **C:** *Just rest and not having to be bother by anything, that no one tells me anything [...] [17].*

Carmen, a 39-year-old female, lives in domestic partnership with her second partner. Additional information: None.

- **C:** *[...] that nobody loves you, and well, you think that the door is the easiest way to go, and go like: "That's it. . . , that's enough, so many problems, I am going to solve them," and so you think that this is the best solution [...] [17].*

Martha, a 20-year-old female, single. Additional information: Living with her parents and siblings. Third attempt.

- **C:** *Sleep, That's what I wanted, but it wasn't possible.*
- **E:** Did you want to sleep for a while?
- **C:** *All my life [17].*

Francisco, a 25-year-old male, single. Additional information: Living with his parents and siblings, does not feel support from his family.

- **C:** [...] *mom told me that's it, that's enough . . . , that it was my fault, that I was the one that didn't want to be ok and that **she would rather see me hanging than having to hang herself for watching me**, and there, that's when I made my decision: "**You are right, I am useless**" and that is why I tried to commit suicide.*
- [...]
- **C:** [...] *I didn't want to keep on living; **I didn't want to be a burden to my family** [17].*

Ramón, a 23-year-old male, single. Additional information: He is homosexual, just ended his five-year homosexual relationship. He says his suicide attempt was a way to seek help.

- **C:** [...] *all I wanted was like, **give a red alter** to everyone, not so much as wanting to kill myself, but more of a: "**Help!**" [...] **I wanted to draw attention to myself**, I wanted to fill a void [17].*

Lilia, a 37-year-old female, divorced. Additional information: She lives with her mother. Her husband left her for another woman. She has two adolescent sons who live elsewhere because she cannot support them. She is in a relationship with a younger man who beats her.

- **C:** [...] *depression is what sometimes gets the best of me, it is the sadness. **It all comes together; is a whole package and it happens when everything crams in together and that's that** [17].*

The multiple meanings surrounding the fact of committing suicide indicate that in order to do it, the actual fact and its consequences are labeled other than death, such as *a better way of life for their relatives, that they will be better off when he/she is not around, or that the problems they are facing will be over once they put an end to their lives.*

Feelings

An emotional state is shaped around the decision to die, where the feelings the subject experiences do not help them find solutions or possible alternatives to their situation. These feelings feed themselves, together with the unfavorable circumstances in which they are submerged: domestic violence, lack of support, and lack of love, thus creating an emotional state pervaded by hopelessness (Fig. 2).

Culture determines the emotional repertoire of a society and provides that society with meanings, expectations, goals, interests, and values. Each culture defines a specific world; this is the result of certain preferences. The culture then tries to get each of its members emotionally conformed to the symbolic horizon built; this process lays roots in deep levels of the personality. Culture cannot be considered as an experimental science in search of law, but as an interpretative science in search of meaning [18].

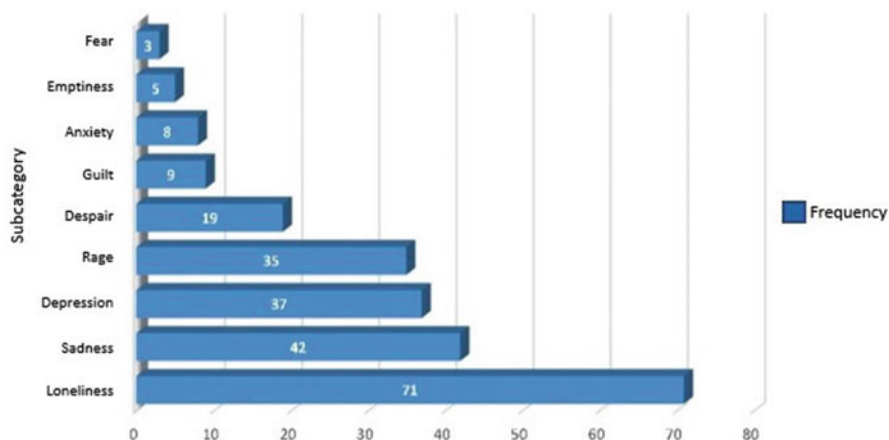


Fig. 2 Feelings: A feeling appears related to a specific object or representation. A feeling is established on the subjective interpretation of an object's perception. Total: 229 mentions. (Source: author's elaboration)

The feelings expressed by the participants with suicide attempted were *loneliness*, *sadness*, *rage*, *despair*, *guilt*, *emptiness*, *fear*, and *anxiety*.

Loneliness

The term “loneliness” refers to a state in which a person feels alone, even though that person is not “necessarily alone.” This means that there are people who are in fact alone but do not feel lonely. It can be assumed that the frequency and quantity of the social relationships can help to avoid the feelings of loneliness; however, it is essential that these relationships are constructive.

Weiss [19] defines two different types of loneliness according to the sort of relationship an individual lacks: emotional loneliness, which results from the lack of a truly intimate tie or attachment to another person, and social loneliness, as the consequence of missing a network of social relationships [20].

Social norms state that, at each stage in life, it is “normal” to maintain certain relationships, such as having a group of friends, being married, or having a partner. Failure to meet these expectations can influence the experience of loneliness [21].

When asked the question about the causes that bring a person to commit suicide, Lourdes responded:

- **C:** [...] well, *loneliness* too... , *sadness* [17].

Martha, a 20-year-old female, single. Additional information: She lives with her parents and three siblings. There are six members in the family. This is her third suicide attempt.

- **E:** *So, what caused the second [suicide attempt]?*
- **C:** *Depression. **I was feeling alone**, I have always felt alone. Like, without affection, without love [...].*
- **E:** [...] *What do you think a person that attempts suicide feels?*
- **C:** ***A stone on the back, a huge burden, pain. That stone carries pain, disappointment, anguish, fears, horror. Just as if you were alone, bleeding to death** [17].*

Lilia, a 37-year-old female, divorced. Additional information: She lives with her mother. She is in a relationship with a young man who abuses and beats her. They both are substance abusers:

- **C:** [...] *Ever since my divorce, **I have been alone**, there is no one. **I do not have anyone's support**; I am just with my mom; I am living in her house [...].*
- [...]
- **C:** [...] *I am in my mom's house, **but I am alone**, sometimes I do not even get out of bed [...] **my loneliness is incredibly sad and uncomfortable** [17].*

Juan, a 25-year-old male, living in domestic partnership. Additional information: He claims to have relationship problems:

- **E:** [...] *what does someone who has tried to commit suicide feel?*
- **C:** *What do they feel? Well, stress. No. . . , well, **I felt alone** . . . , [...] *I wasn't in touch with my friends, or my parents. I don't even see my family anymore* [17].*

Agustin, a 42-year-old individual, married with children. Additional information: None.

- **C:** *Sadness, more than anything. **You feel alone, you don't feel people's support, not even from your family.***
- [...]
- **C:** [...] ***you feel loneliness**, even though you are spending time with them, but **within you, you feel this loneliness**, a void that you have to fill with your relatives or with your folks* [17].

Loneliness in people with suicidal behavior is a widespread experience that could be compensated to some extent through the family's support within suitable family relationships. This would mean a step further in preventing suicidal behaviors [21].

Rudd [22] validates the importance of family support when suicidal behavior arises. Usually people with suicidal behavior perceive an important level of support from their friends, not so much from their family members. The author interprets these results by stating that relationships among friends can never replace the need for family support; thus, despite all the support a person can receive from their friends, unwanted conducts will still develop.

Sadness

Sadness is a feeling that appears frequently among the feelings referred by the participants. It relates to personal and affective situations with their significant others, mainly relatives, partners, and friends.

For the participants there is no difference between depression and sadness. Depression is an emotional disorder with specific characteristics [23]; however, this study's individuals who attempted suicide use this term undifferentiated from sadness.

When posed with the question about the causes for suicide or what does a person that attempts suicide feel, some of the participants say they experience sadness.

Lourdes, a 38-year-old female, separated. Additional information: None.

- **C:** [...] *family problems... , conflicts... , and, hum, and... , and, well, loneliness too... , **sadness**.*
- [...]
- **C:** [...] *yes, **here in my chest. I feel, like... I have so much sadness** [...]* [17].

Lilia, a 37-year-old female, divorced. Additional information: None.

- **E:** [...] *What are the causes that a person tries to commit suicide?*
- **C:** *Well, it is so many things, but for me, **depression** is what gets the best of me. Sometimes it is the **sadness**. It all comes together; is a whole package and it happens when everything crams in together and that's that.*
- [...]
- **C:** [...] *an urge to cry, I don't get hungry, **I don't want anything, I don't want to go out, I am abandoned*** [17].

Claudia, an 18-year-old female, single. Additional information: None.

- **C:** [...] ***I feel lifeless** [...]* ***lifeless, tired*** [...] [17].

Roque, a 28-year-old male, single. Additional information: None.

- **C:** ***Feeling sad*** [17].

Patricia, a 22-year-old female, single. Additional information: None.

- **C:** *You don't feel anything, well, **incredibly sad**. An urge to run away from... , of just running away... , of getting out of this void that you feel. But it really **doesn't feel anything else, just sadness and despair, and this void*** [17].

Mario, an 18-year-old male, single. Additional information: High school degree. Diagnosed with depression.

- **C:** [...] *there are some days that I am super happy [...] and sometimes **I am sad**, and, well, **I cry** and all.*
- [...]
- **C:** [...] *I did let myself go, led by my feelings. I didn't think about anybody else.*
- [...]
- **C:** *Well, **depression, sadness** [17].*

Juana, a 40-year-old female, single. Additional information: High school degree.

- **C:** [...] *loneliness, Lack of love, **sadness**, feeling useless.*
- [...]
- **C:** ***Lots of sadness.***
- [...]
- **C:** [...] *I've gotten into **this sadness, into a depression** [...].*
- [...]
- **C:** [...] *it is rare when **I don't feel sad** [17].*

Lucia, a 19-year-old individual, single. Additional information: Diagnosed with depression. High school education.

- **C:** [...] ***sadness, most of all, sadness.** Nostalgia, self-loathing [...] feelings that things are not worth it and that you, certainly, are not worth it [...]* [17].

Rage

The rage that the participants express or feel is an emotion that has accumulated throughout the years. It relates to situations of rejection, the lack of support by significant members of their intimate or family circle, relationship problems with their partners, different forms of domestic violence, bullying, infidelity, financial problems, and unemployment. Sometimes rage arises from frustration from situations that are beyond their control, i.e., death or abandonment from their loved ones, breakups in relationships, neglect, and lack of care from family members, parents, children, and siblings.

Inés, a 27-year-old female, single. Additional information: Diagnosed with borderline personality and bipolar disorders. Second attempt.

- **C:** [...] *So, it's like... , the glass is filling up, filling up, with very simple stuff, and... , and the moment comes where... , the most simple thing, like a glance, a phrase, makes you lose it... , is... , is a time bomb, so, suicidal people, we are a time bomb.*
- [...]
- **C:** [...] *I did cut my arms with a razor blade [shows the scars], because **I was feeling so angry at myself** and **I just wanted to hurt myself**, I couldn't go back to the company [...]* [17].

Lilia, a 37-year-old female, divorced. Additional information: She is depressive. Abused by her partner. First attempt.

- **C:** [. . .] *a lot of rage and not thinking, because if you think, you don't do it. It's only a minute, if you are going to do it, do it or else just don't do it at all. I get so enraged by all that has happened to me* [17].

Mónica, a 25-year-old female, single. Additional information: Bachelor. Third attempt.

- **E:** And if you could like, describe, name those feelings that came over you: despair, emptiness, what else?
- **C:** *Despair, emptiness, **rage, rage with myself**, because I looked for to the easy way out; joy, because I was going to be reunited with the only family that ever truly loved me, my grandparents and my sister, who passed away* [17].

Ramón, a 23-year-old male, single. Additional information: Elementary education. First attempt. Homosexual.

- **C:** *So much frustration, it was like a domino effect of one feeling becoming another. I clung to my partner and to having him with me, then **anger and rage would hit me, because of what he was doing to me and I couldn't do anything to him**. Then the anguish by not knowing how to cope with my grief* [17].

Despair

Despair appears in situations that are impossible to modify, that are not accepted as they are, or that the individual would like to change, but it is not possible to do so.

Amalia, a 44-year-old female, single. Additional information: Elementary education. Sexually abused as a child. Second attempt.

- **C:** *Despair, because I want to get it quickly, not this time either. They took me to the clinic [the name of the clinic has been omitted], I only remember that I took the medication, that's as far as I remember* [17].

Miguel, a 39-year-old male, married. Additional information: Elementary education. Second attempt.

- **C:** *Oh!, it's so many things, uhm, it comes a time where you are overwhelmed by so much stuff; you **despair and more than anything, when you are full of doubts and you are about to lose your job**. You look for that way out, to die. I attempted suicide twice because of the **despair of not finding a way out*** [17].

Guilt

Guilt appears because the subject believes he or she has failed at some aspect in life.

José, a 23-year-old male, separated. Additional information: High school education. First attempt.

- **C:** *That's probably it. . . **Guilt** of not having done things. . . , things that could have been done better. So many things. . . of not having gotten to the point they did. . . That's it [17].*

Lilia, a 37-year-old female, divorced. Additional information: She suffers depression and domestic violence by her partner. First attempt.

- **C:** *[. . .] Well, yes, it hurts a lot. I remember everything and think "what for?" . . . , "why am I alive if I don't have them with me" [her children]. They are the only thing that I would want to fight for, but I feel so lonely. I **did make a lot of mistakes and now I am paying for them, I am paying for them in such terrible way** [17].*

Emptiness

Emptiness is another feeling that appears as part of the subjects' experience related to the suicide attempt.

Inés, a 27-year-old female, single. Additional information: Diagnosed with borderline personality and bipolar disorders. Second attempt.

- **C:** *I don't know, nothing fulfills you; not eating, not going out, not having someone say something nice, **nothing fulfills you. you feel . . . , alone. Like you have nothing, empty, sentimental emptiness, existential void, a void. You cannot fill it with anything, I tried to fill it with food. I used to eat so much, I would eat until I could not eat any more food and afterwards, I would vomit everything I ate. That's how I've been. . . , I've been like this for these past months. I didn't have this problem before but now I do, I eat until my stomach is like this** [makes a round figure on top of her stomach with her arms] **and I can't eat any more. My stomach and head ache from all the food I ate, and then I throw up everything. Then I feel terrible because I ate all that and then threw up, so it's emptiness. I think what I feel most of all is emptiness, and fear** [17].*

Ramón, a 23-year-old male, single. Additional information: Elementary education. First attempt. Homosexual:

- **C:** *I wanted to draw attention to myself, **fill a void.***
- **E:** *How long have you had this void?*
- **C:** *For the past 3 years [17].*

Fear

Fear is another feeling that several of the participants expressed.

Iván, a 26-year-old man, separated in the past 15 days. Additional information: Elementary education.

- **C:** *It's just that, since she left, I haven't been able to sleep. I just been crying. . . , fearing seeing her with another man [. . .] [17].*

Inés, a 27-year-old female, single. Additional information: Diagnosed with borderline personality and bipolar disorders. Second attempt.

- **C:** *I feel that everyone criticizes me., I hide from people. . . , from everyone. **I am afraid of people.** When I go to a very crowded place, I start having severe anxiety crisis, then. . . , I'm afraid of **going out, afraid of people, afraid of the street, that sort of things** [. . .] [17].*

Anxiety

Through anxiety expressions of Miguel, a 39-year-old male, we can identify an inner dialogue between his own ideas concerning his problems. He seems unable to stop it:

- **C:** *Well, every time I start thinking is about the same things, always the same things. I think about work, about debts. I sound like a broken record. I keep returning to the same things, but in negative way, I am all negative, negative. My wife tells me: - "You are inside [the hospital], I am outside, let me! But I know there is no money to pay, there will be no money" [. . .] [17].*

The difficulty of empathetically perceiving emotions relates more to a culture of emotional constriction rather than a culture of emotional expression; the latter is developed in countries and cultures with more democratic systems and horizontal authority structures [24]. The inability of family members to assume an emotionally closer role that promotes trust and communication and can sense the emotional needs of other members can be attributed to the fact that in the traditional Mexican family, these emotional communication abilities are not developed due to the fact that the strong family cohesion is bond together at the cost of individuals expressing their own ideas and feelings. Several authors name this way of interaction as "Familism"; this means that family assumes a predominant position in the social and personal life of its individuals, and it keeps the family's unity and integrity above the satisfaction of its member's personal needs [25–28].

Negative Self-Concept

A person's self-image can be a variable that influences his or her emotional well-being. Therefore, if the self-concept is negative, it is important to consider the possibility that the person might want to self-destruct or harm himself or herself [21] (Fig. 3).

The negative self-concept can be observed throughout all the participants' narrations. This is the result of interactions they have experienced with significant people in their lives, and these interactions can be classified as despise, disability, violence (in several forms), lack of care, and abandonment. The person's identity nucleus that Mead calls *the self* [29] is characterized by a negative self-concept in the participants. They tend to consider themselves as "a drag," "a failure," or "a disgust,"

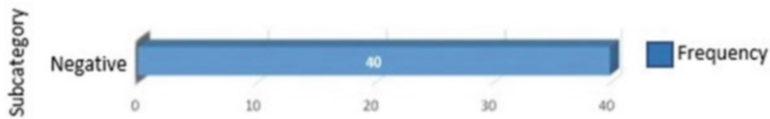


Fig. 3 Negative self-concept: It is the mental image or perception that a person has of themselves. This is the result of what other people think of that person and how that person thinks about himself or herself. Total: 40 mentions. (Source: author's elaboration)

Katia, a 20-year-old female, married. Additional information: Elementary education. Second attempt. She lives with her parents and siblings in a household of seven. When asked what does a person who attempts suicide feel, she expresses the following:

- **C:** *Sadness, I just cry, I feel I am worthless. I tend to go looking for medications [17].*

Mario, an 18-year-old male, single. Additional information: High school education. First attempt. Diagnosed with depression. His brother committed suicide 3 years ago.

- **E:** [...] What does a person who attempts suicide feel? What do you have here? [The interviewer puts a hand to his heart].
- **C:** [...] *right now I feel like, I don't know. I feel like I am worthless, because I did cause my mom a lot of worries, to my dad and, well, to everyone who has come to visit me. I feel like a fool for having done this [17].*

Ramón, a 23-year-old male, single. Additional information: Homosexual. He lives with his parents and a brother. Just before his suicide attempt, he ended a relationship with his partner, a man several years older than him who supported him financially:

- **C:** *I think it is due to emotional instability, being so isolated from people. Overwhelmed with lack of time because of school, work, depression. A low self-esteem [17].*

Inés expresses the same feeling. She is a 27-year-old female, single. Additional information: She lives with her parents. Bachelor's degree. Second attempt.

- **C:** [...] *I am so angry at myself. You could even say that I hate myself, I totally hate myself and, my self-esteem is extremely low, so that results in me not wanting to be here anymore [her voice breaks one more time]. For me it is easier to hurt myself because I don't love myself. I don't accept myself; I don't like myself at all. I feel ugly, fat, stupid, and I am not really all those things, but I feel it so and believe it [17].*

It does not seem possible that a negative self-concept will spring in a person surrounded by a familiar and social environment that provides support and a positive image of himself or herself. The subject with a suicidal behavior tries to get out of his or her unhappiness by creating a mental deconstruction of reality, cognitive deconstruction. According to Baumeister [21], this mental stage favors disinhibition enabling the individual going from suicidal ideation to the actual suicide attempt.

Roque, a 28-year-old male, single. Additional information: Elementary education. Drug user. Lives with his parents. First attempt.

- **C: *Being a failure, a loser* . . . , *someone no one needs*** [here he pauses for seven seconds and then resumes], **scum** . . . [17].

The daily humiliation and despise that the participants with suicide attempted experience in their family environment condition the way they see themselves. The way other people look at them tells them they are worthless, they are despised, or they are humiliated by them. These other family members are their “mirror,” and as a result they convince and tell themselves: “I am a good-for-nothing,” “I am useless,” “nobody loves me,” “no one will care” [if they die], “I am worthless,” “I am scum.” In this sense, it is clear the essential role, in the ego’s configuration, the self-perception, and the self-worth, that interpersonal communication has.

Social Support

The studies measuring the connection between the social support perceived by the subject and the suicidal behavior lead us to the conclusion that the subject’s perception of his or her relationships, mainly those in the family circle, is an aspect to have in mind while studying suicidal tendencies. In general, suicidal people have a more negative perception of their families than nonsuicidal people. They also express to have less people whom to trust and from whom they could feel love and support (Fig. 4).

This lack of support leads them to feel hopelessness; they perceive themselves as incapable of solving their own problems. If they think that they are alone, and no one will help them, they feel as if there is no way out of the situation they are in, so they resort to suicide as a way of resolving their problems.

Martha, a 20-year-old female, single. Additional information: She lives with her parents and siblings. Lack of support can be identified in her expressions:



Fig. 4 Social support: Social support refers to the acceptance and availability for support from the family members, partner, peers, or institutions. Total: 26 mentions. (Source: author’s elaboration)

- **E:** What is the cause for this pain?
- **C:** *The people that surround you. **The very people around you are the ones that hurt you.***
- **E:** And how do they cause you pain?
- **C:** *In every way, talking behind your back, turning their backs on you, **not supporting you, ignoring you, letting you down, pretending, lying, so many ways** [17].*

Mónica, a 25-year-old female, single. Additional information: Bachelor. Lives with her father and siblings. Third attempt.

- **C:** *First of all, **having your family's support.** Make you feel like you exist, that you are not just part of the decoration [. . .] To feel part of the family. . . , **that they are with you, just plain and simple, and not because you started to grow older they ignore you. . . , a hug is always welcomed.** I haven't cried since I was ten years old, because **my mom used to say that crying was for the weak** [17].*

Rosa, a 24-year-old female, married. Additional information: High school education. First attempt. When questioned if she ever asked for help to solve her domestic abuse situation, she said no. The interviewer asked why. Her answer:

- **C:** *I don't know, out of neglect. I didn't find anywhere to go. I **thought I would be able to manage it on my own** [17].*

Juana, a 40-year-old female, single. Additional information: High school education. Second attempt.

- **C:** *Well, that **nobody cares about me, I do things to help others and I don't ever get a "thank you" back, I don't get anything back** [17].*

Carmen, a 39-year-old female, domestic cohabitation. Additional information: Bachelor. Second attempt.

- **C:** *Mi partner, my partner. . . , he makes me feel, makes me remember the past a lot and that traumatizes me. The past is past, right? and it can stay past. . . No, **my mother, of course not, she won't help me. No one has ever supported me, given me a hand, it's always been me, alone, since I was a child. There are problems that have no solution anymore, and well, that's what you do** [17].*

Social isolation plays a direct role in suicide. If social isolation is a primary condition in suicidal acts, to prevent these suicidal acts, the individual must have an appropriate interaction with meaningful personal relationships in his/her life [30].

Social support is crucial in people who have attempted suicide. The typical family of a person with suicidal behavior conducts themselves in a very particular way. The familial environment is full of relationship problems, interpersonal conflicts, anger,

ambivalences, rejections, and communication difficulties besides a myriad of stressful events [21].

Prior to a suicide attempt, people with suicidal behavior have an intrapersonal communication, i.e., a dialogue with themselves. Difficulty to express and effectively communicate their problems and feelings leads people with suicide attempt to live in emotional isolation. Communication is executed among one's own feelings, emotions, and thoughts, in an enclosed and circular feedback. Some of the participants claim to have stated their intention to kill themselves as a cry for help; however, they did not get the response they were hoping for. This lack of support leads them to believe that no one will help them and that there is no other way out other than suicide.

Lack of Love

Love is important for this study since its absence creates the feeling of being away from others. The subject experiences emptiness and isolation; for some people this causes emotional suffering, while for others it can be an unbearable experience (Fig. 5).

The kind of love expected from the other person, such as a partner, father, mother, son, or daughter, is a love that supports, accompanies, cares, understands. . . It is an unconditional and total kind of love.

Martha, a 20-year-old female, single. Additional information: She lives with her parents and siblings. Third attempt.

- **E:** What made you stay with him [her boyfriend]?
- **C:** *Love, because **when you love someone, you love them as they are, faults and all, as they say. I felt I could change those faults, but I was wrong, I couldn't change them, I will never be able to change them, that's how he is*** [17].

When Martha is faced with the question of the causes that make a person attempt suicide she responds:

- **C:** *Because no one pays them attention, because people despise them. **Because they show no love, not one detail and I don't mean financially, but a small detail; a snuggle, an embrace, an "I love you", I don't know, just anything.***
- [...]

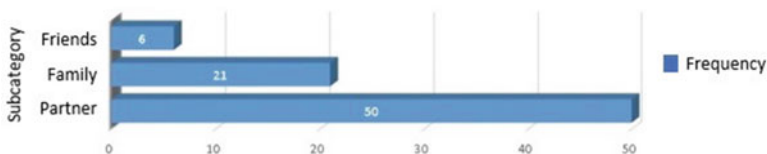


Fig. 5 Lack of love: Lack of love is the inability to be intimate with another person while maintaining one's integrity. Total: 77 mentions. (Source: author's elaboration)

- **E:** And that feeling has prevailed until now. . . do you believe this has affected your decision?
- **C:** *I think so, it was like everything came, everything, everything just came: the grudges, the hatred, **the love that could have been at that moment**, everything appeared in that instant [17].*

“Lack of love” is the absence of communication, affection, and care. People with suicide attempted suffer from their partner’s violence, infidelity, several kinds of abuse, and other problems. However, their attachment to the partner prevents them from getting away from the relationship. The participants mentioned suicide attempt as a strategy to make their partners reconsider, thus tying this answer to the one that considers suicide as a solution to the person’s problems.

Some participant’s relationships are what Márquez [31] calls “unbreakable couples.” The unbreakable couple has a pathological dynamic, being this dynamic so rigid that it is impossible for them to operate in a different way; when the couple is together, they are in a permanent conflict, but when they are apart, they cannot work the separation out and seek to go back to the relationship in spite of the conflict [31].

Domestic Violence

Interpersonal violence is expressed in two forms: violence within the family or to an intimate partner. Interpersonal violence is also known as domestic violence; it takes place usually, but not exclusively, at home and among family members or with an intimate partner (Fig. 6).

Violence can be physical, sexual, or psychological or due to abandonment or deprivation. The environment where these violent acts happen as well as the relationship between the perpetrator and the victim must be taken in account [32, 33]:

- Psychoemotional violence:* This is the most frequent kind of violence. It is performed through acts or omissions that involve prohibitions, coercions, restrictions, intimidation, threats, demeaning attitudes, abandonment, insults, mockery, silence, and aggressive gestures. This kind of hostile behaviors tend to humiliate, offend, frighten, and have serious repercussions on a person’s security, self-esteem, and emotional stability [34].

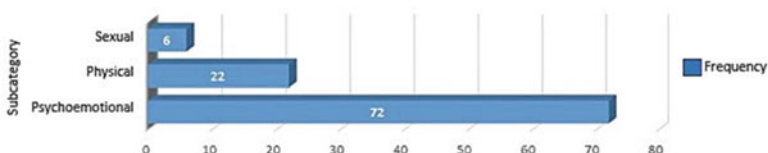


Fig. 6 Domestic violence: Domestic violence is constructed by abusive behavior, both physical and emotional, that breaks the coexistence rules and affects the physical and mental integrity of the family members. Total: 100 mentions. (Source: author’s elaboration)

Martha, a 20-year-old female, single. Additional information: She lives with her parents and siblings. Third attempt.

- **C:** *So, we crashed, and he stepped on the gas and, hum. . . , and I was running behind him with my brother tagging along and he left us there. He sped up [the car].*
- [. . .]
- **C:** *A lot, because it's not the first time that he leaves me there, he just dumps me, it's been more than a few times that he just leaves me alone.*
- [. . .]
- **C:** *Uh-huh. Yes, he humiliates me, he shouts at me, he tells me nasty stuff.*
- [. . .]
- **C:** *Well, he tells me that I am a whore, that I am a slut, a tease, all those things [17].*

Katia, a 20-year-old female, married. Additional information: Elementary education. She lives with her husband and children. Second attempt.

- **C:** *I couldn't go out; he wouldn't let me go out. I had to be locked in, but he could go out with his friends. He would get home around four o'clock in the morning. He wouldn't let me visit my family, if I would go visit them, he would show up and get me out, furious. He said I had no business there. When I got out of work he was already dialing [calling on the phone], he would tell me he wasn't feeling right, that he had a headache or that I should take him to the doctor [Social Security medical assistance] [17].*

People with suicide attempted have a limited ability to express their feelings and regulate their emotions. Usually before the suicide attempt, they have had extended periods of emotional weariness due to conflictive situations, bullying, abuse, and violence.

- **C:** *Well, I am telling you, he is home three days and gone three days. He says he is going to work and that his workplace is too far away [sic] and blah, blah, blah, that kind of thing. . . And then, he just works and works but he never gets paid. . . [Keeps silent for a moment and when she speaks again her voice starts breaking]. What do you think would happen if I went to work and wouldn't get paid. . . well. . . , I don't show up Monday, don't you think? But he works and works and never has a dime. . . , and this woman sends me texts saying he bought her this and that, and he did this, and this to her, and so on.*
- [. . .]
- **C:** *[. . .] it's not fair, what he is doing to me. . . , I've never disrespected him. . . , ever. . . , His mom and dad say that I have taken so much crap from him, that they don't know how I do it. . . , I honestly don't know how I do it. . . , and his parents help me [17].*

Physical violence: This is committed directly against a person's body. It is an intentional use of physical force or power that harms the physical integrity of a person. This kind of abuse can cause injuries such as traumatism, bruises, cuts, burns, or fractures, among others. It is any act that inflicts nonaccidental damage by use of physical force or some kind of weapon or object, which either results in or has a high likelihood of resulting in injury, or physical harm, may it be internal, external, or both [34].

Violence, abuse, and abandonment within the family or intimate partner are hard to identify since the victims hide their situation out of fear to the attacker or because of the social stigma that this implies. Domestic violence is usually kept hidden and silenced. Both men and women can experience domestic violence from their partners, parents, or siblings.

In societies with stereotyped and rigid gender roles, such as those in Mexican society, the role a woman has in fact enabled the naturalization of violence, since women tend to suppress these violent situations [35].

Rosa, a 24-year-old female, married. Additional information: High school education. Lives with her partner who beats her. First attempt.

- **E:** What kind of feelings did you experience?
- **C:** *It was horrible, I didn't feel any support. My husband was doing his own thing, but I couldn't do anything. Just because **he is a man, he could go out but not me. Stuff like that.***
- [...]
 - **E:** Were you thinking on that option several times?
 - **C:** *Yes, every time I'd fite [sic] with him, when my children would see what he did to me. **Even if I wanted to defend myself I couldn't, I was so tired. He beat me like he hadn't beat me before***
 - **E:** When did he beat you?
 - **C:** *Yesterday* [17].

The facts related to domestic violence behavior in couples have similarities all over the world. Some of these facts are disobedience or arguments with the male partner, questioning the male about money or female friends, not having meals ready on time, ignoring the caring of the home or children, refusing to maintain sexual intercourse, and the male being suspicious of the woman's infidelity [34].

In some cases, the suicide attempt is preceded by a violent incident, making suicide a legitimate way to get out of a situation that they seem incapable of solving otherwise.

Lilia, a 37-year-old female, divorced. Additional information: She suffers depression and domestic violence by her partner. First attempt.

- **C:** [...] *I was laying facing down, suddenly he got on the bed, **grabbed my foot by the ankle, and just like when you crack the chicken's lucky bone, he broke my ankle. The other foot too. Maybe but just the nerve over here, he pulled it. It was***

a terrible pain, I couldn't get up, so bad was the pain. Not happy with all he had done, he grabbed a pair of scissors, those industrial ones that they use to cut wire, with a little hook, and he cut me here [pointed to her back] and that was also what made me do it [attempting suicide].

- [...]
 - **C:** [...] *He is a good person but he's very explosive, he gets mad at everything and ¡boom! Not me, I'm very relaxed, although lately I wouldn't take it anymore. Once he did beat me so bad that all this was black, I had all this area of my body black, my bone was sticking up [...] [17].*

Rosa, a 24-year-old female, married. Additional information: High school education. First attempt.

- **C:** *Because regardless of the way he is [beats her] I wouldn't like to see him locked up or anything like that, it feels terrible. I do love him, I don't know how I can love someone that treats me in such a way, but I do [17].*

Sexual violence: Any degrading action to the victim's sexuality that poses a threat to that person's sexual freedom and physical integrity. It is an abuse of power where the other person is considered an object to satisfy the aggressor's desires [34].

Amalia, a 44-year-old female, single. Additional information: Elementary studies. Sexual abuse background.

- **E:** What don't you like about your life?
- **C:** *Nothing, nothing, I don't like it, I don't find life interesting.*
- **E:** Since when you don't find it interesting?
- **C:** *Many years now.*
- **E:** How did you started to find it uninteresting?
- **C:** *Probably since my parents died. That was a long time ago, it has been like fifteen years since they died. I kept on living and all. People used to tell me to get myself a partner, that I should settle down and start a home, but I didn't find that interesting either.*
- **E:** Why didn't you find that interesting?
- **C:** *Because, as a child, three different man abused me, and so... , no [17].*

Mónica, a 25-year-old female, single. Additional information: Bachelor. Third attempt.

- **C:** [...] *when they explained it to me, I was in high school. We studied science books, anatomy, and all. They were explaining and I made the connections... Well, what they tried to do was rape me.*
- [...]
 - **C:** *It was an attempt [rape]. I told my mom: "Why, why didn't you say anything? You knew! I did tell you". [The mother answers:] "Oh, why would you want me to*

*say anything?, Do you want your dad to go to jail or what?, so **just keep your mouth shut, and don't say anything at all**".*

- [...]
 - **C:** *No, it wasn't my dad, **it was a nephew of an aunt by marriage**. But I told my mother and she would tell me: "Why would you want to say anything? **It's over! keep your mouth shut already**". And I was like. . . , **we are all afraid of mother** [...] [17].*

In this study, to die by suicide is a decision that is made because of living in a continuous abusive and violent situation. Men and women with suicide attempt experience violence in diverse ways; women experience more physical, psychoemotional, and sexual violence, and men usually refer to a psychoemotional violence. Physical violence refers to punches or beating that causes physical harm. Psychoemotional violence referred to, but not limited to, insults, threats, intimidation, or infidelity. Sexual violence refers to being forced into some form of sexual encounter using physical strength or threats without the consent of the person suffering violence [36].

The parenting patterns in families with domestic violence in Mexico are kept extremely differentiated for men and women, reinforcing the expectations for each sex; men are to be aggressive, showing strength and determination, while women must be docile, submissive, and obedient. These parenting patterns, as well as the bonds established within the family circle, affect the family dynamics, behaviors, subjective needs, and emotional displays. If and when the partner or the parents make use of violence, the resulting fear is not only toward the aggression itself but also to the possibility of a breakdown in the relationship, making them stay in a destructive relationship out of need of affection or sense of security and because they see and experience these patterns as something "normal."

Physical, emotional, sexual, and financial violence, combined with abuse, generate a violent family environment characterized by an excess of intense emotions: hostility, intolerance, hatred, and resentment, causing stupor, surprise, feelings of pain, and injustice in the members of the family. These various forms of violence inhibit in both the attacker and the victim the free circulation of affection, tenderness, and care toward the family members [37].

Precariousness

The living environment of the participants with suicide attempt displays various aspects of precariousness. This precariousness, in some cases, is due to the lack of employment and financial dependence to another person, such as a partner, father, mother, brother, or sister. The lack of financial resources and/or employment makes it difficult for the participants to improve their relationships and material circumstances. The financial situation affects the providing role, mainly of the male participants, and leads them to consider themselves as a burden to the family, increasing the risk of considering suicide as a way out [38] (Fig. 7).

Some participants referred experiencing a precarious financial situation; this could be considered a suicidal risk factor when paired with other circumstances in

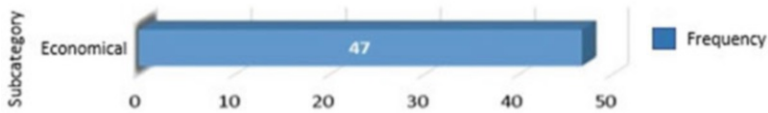


Fig. 7 Precariousness: Precariousness refers to an insufficiency in resource to adequately satisfy the daily needs. It denotes a general condition of vulnerability, displacement, and insecurity. Total: 47 mentions. (Source: author's elaboration)

their personal and family environment. The participants that have a financial dependency feel trapped by their situation causing them stress.

Regarding financial independence, men seem to be more affected than women by unemployment. In 11 out of 12 cases, men mention unemployment or financial difficulties as a factor.

Ramón, 23-year-old male, single. Additional information: Elementary education. Homosexual. First attempt. He refers to economic problems due to a financial dependency to his partner. Ending this relationship implies financial difficulties.

- **C:** *I was in a five-year relationship with my ex-partner until yesterday, I was the one that made the decision of living this person's home. **The idea was to remain roommates**, but I couldn't stand it. I had to go through my grief. **I was very dependent on him, emotionally and financially** [...].*
- [...]
- **C:** *I wouldn't consider **the financial issue** as a problem, **but it did have an impact**, I felt pressured, that I couldn't manage my own finances, because **I had to pay debts, pay some things that I owe at school** [17].*

Mónica, a 25-year-old female, single. Additional information: Bachelor. Lives with her father and two siblings. Third attempt.

- **C:** [...] ***I just lost my job**, last May, and... **last night my dad called me: "Parasite, stupid"**, all the names you can think of... **he kicked me out of the house** [...].*
- [...]
- **C:** [...] ***"[her father's words] What is your contribution to the house? Tell me, what is your contribution?"** [...].*
- [...]
- **C:** [...] ***"U". says [her friend's name was omitted]: "Let's go to my place", That would be lovely, for god's sakes, I don't have a job. I don't have an income. There are seven people living at her place. That is totally out of the question!** [17].*

Roque, a 28-year-old male, single. Additional information: Elementary education. Drug user. First attempt. Lives with his parents. Unemployed. He refers to himself as a loser since he is unsuccessful workwise.

- **C:** *Not being able to be up to the expectations. . . , not being able to do what you must do . . . , nothing ever comes out right, you are always going back to the same place. . .*
- **E:** So, what would be “being up to the expectations”?
- **C:** *Being up to the expectations is like. . . , do what you must do, regardless if it’s work related or anything at all, it just must be successful [17].*

Miguel, a 39-year-old male, married. Additional information: Elementary education. Second attempt.

- **C:** [. . .] *I was thinking that I am worthless. I was thinking what’s the point, like: “No, life is not worth it and I am fed up”, and: “I have no job and I can’t figure out how to get my kids ahead in life”, like: “I am broke”, and also thinking that I was tired [17].*

In a situation like this, being the man and not being the provider affects the relationship with their partner.

Silence

Communication is a preventing measure for people with suicide attempted is what participants mention the most; being able to communicate what is happening to them and having someone they can talk to can help these people find other ways to cope with their situation. It can be a therapist or some other mental health professional (Fig. 8).

When the participants were inquired about the causes for attempting suicide, they frequently refer to family problems and lack of communication among them. Silence is a way of not “confronting” problems. Not expressing their feelings or acknowledging their importance is a constant factor. This kind of silence can be found at various levels: individual, family, community, and social.

José, a 23-year-old male, separated. Additional information: Junior high school education. First attempt. His answer to the causes for attempting suicide.

- **C:** *In my family probably the lack of communication, I think. . . . Within a person. . . . With the family members. . . , lack of communication [17].*

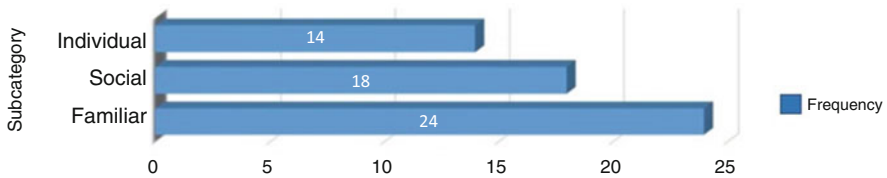


Fig. 8 Silence: Silence refers to not speaking about certain subjects, such as suicide and suicide attempted. It refers to the fact that, in an attempt to turn these troubling realities invisible, people avoid talking about them. Total: 56 mentions. (Source: author’s elaboration)

María, a 32-year-old female, divorced. Additional information: Bachelor's degree. Diagnosed with borderline personality disorder. Twelve attempts.

- **C:** *Healthy relationships, and a better. . . , a better structure. . . , or how can I put it? Structure, no, more like a better methodology to treat it [suicide]. I have been very consistent taking my medication, but. . . , **you always need it. . . , the psychological help and the family's support** [17].*

Isabel, a 27-year-old female, domestic cohabitation. Additional information: Elementary education. Suffers domestic violence:

- **C:** *Well, **solving problems better, talking.***
- *[. . .]*
- **E:** *What's another way to fix it?*
- **C:** *Well, now that I think of it, **going to a psychologist** [17].*

Rosa, a 24-year-old female, married. Additional information: High school education. First attempt.

- **C:** ***Ask for help, talk about it, let it out** . I always used to say: “I am going to a psychologist”, but I never did. **Maybe, if I had, I wouldn't be going through this** [17].*

Flor, a 38-year-old female, married. Additional information: High school education. First attempt.

- **C:** ***With therapy**, but I only went once. I got into a program that helps people with drug problems. On top of everything, my son became a dealer. But you **need to look for help** [17].*

Patricia, a 22-year-old female, single. Additional information: Bachelor. Second attempt.

- **C:** *I don't know. . . , **listen to people** I don't know. . . , try and **understand them, hear them**, not meddle in their lives. Hear them **without judging**.*
- *[. . .] also, I think **there should be subjects that talk about this, about when you are feeling sad and can't find the way out of your problems**, I think there should be subjects in school that help you detect when a classmate is having a hard time or when you see that things are wrong. . . . I think there **should be more information about it** [17].*

Agustín, a 42-year-old male, married. Additional information: Diagnosed with depression. Fourth attempt.

- **C:** [. . .] *sometimes it's also **lack of communication** . . . , **lack of communication**. And I truly, truly, truly, think it is all this depression thing, and getting this far are symptoms and red alerts we all have [. . .]* [17]

Ramón, a 23-year-old male, single. Additional information: Elementary education. Homosexual. First attempt.

- **C:** *Not being alone, having **one person, at least, that you can talk to**, or at least **espres** [express] everything you are going through now* [17].

In some cases, silence hides a violent environment that is rarely spoken about, since it is a social taboo as well as the embarrassment caused by accepting being a victim of violence [37]. When bullied, victims do not report or ask for help.

In some other cases, silence is the way to cover up what is going on. The silence “isolates” and “protects” persons from being vulnerable when they think other people know about their situation or their incapability to solve their problems leading them to the desire to commit suicide. Social silence toward suicide makes it evident that the State has no answers for this problem.

Discussion

Participants in this study have experienced daily conflictive relationships, mistreat, abuse, and violence. At some point in their lives, a critical situation develops: a breakup, a beating, the loss of a job, or a severe family conflict; this is when suicide is regarded as a way out.

Overwhelming feelings prevent the participants from thinking clearly, feelings like loneliness, sadness, anger, fear, anxiety, blame, and despair. The subjects maintain an internal dialogue with themselves; this dialogue validates the thoughts and ideas resulting from these feelings. According to the Interpersonal Theory of Suicide (ITS) [39], the capability to engage in suicidal behavior is a process separate from the desire to engage in suicidal behavior. The desire itself is not enough to commit suicide, because suicide is not an easy thing to do. According to this theory, to be able to go through with suicide, individuals must lose some of the fears associated with suicidal behavior. These fears are gradually shed by being continuously exposed to situations of physical and emotional pain, like domestic violence situations where the person becomes increasingly tolerant to pain, in both quantity and intensity.

The individuals keep their emotions to themselves; they do not talk to anyone about what they are going through, even when they are suffering or experiencing severe psychological pain. They pretend that “everything is fine” or that “this is transitory,” “I will get out of this myself,” “it is a matter of will,” or “this is a matter of time.” The participants in this study live in a violent environment that remains

unseen, and the topic remains unspoken, either because it is a social taboo, because they are embarrassed to admit being a victim of violence, or because they do not know how to solve their problems and then wish to be dead [37].

The participants' low self-esteem made them consider themselves *uncapable*, *worthless*, *good for nothing*, *a drag*, or *scum* and that *their family or partner will be better off without them*. The Interpersonal Theory of Suicide [39] proposes that the simultaneous presence of three common elements, family conflicts, unemployment, and physical illness, highly increases the probability that a person will develop a perception of being a burden to his or her family.

The support that participants get from their families is either scarce or nonexistent or is totally inadequate for their current circumstances. They do not perceive any possibility of support from groups in their community or social institutions. Some have sought help from public entities, but do not obtain it in a timely manner.

They experience hardly any love from their relatives and close people; they call this experience "Lack of love."

Domestic violence is common among both women and men. Women suffer psychoemotional, physical, and sexual violence, while men suffer psychoemotional violence.

The participants live in a precarious financial situation which affects other areas in their lives, limiting their possibilities to satisfactorily solve their needs within the critical situation they are immersed in.

Not expressing feelings in the relationships of a person – individual, community, and social – relates to individual hardships and the way to cope with that person's feelings, sometimes by remaining silent since it is the only known cultural way. There is a lack of knowledge on how to adequately address the emotional and affectionate needs of the family members; this creates an unpropitious environment for expressing emotions and feelings [40], moreover if the expression of such emotions and feelings threatens family unity.

This cultural assessment shows that people in suicidal risk have no relevant information that would lead them to seek help. Silence is present in all levels from individual to social. This kind of environment enables a higher probability of suicide and suicide attempt than one with higher levels of communication and trust within the family would [41].

Conclusions of This Study

A superior category "emotional closeness in the family" can be drawn from grouping family support, family affection, partner support, childcare, and family communication. As mentioned above, conflicts and problems within the family and couple relationships are the main causes for suicide.

A preventive measure to avert a person from attempting suicide is closeness and emotional stability as a solution toward family problems [42]. Having someone to talk to, either a health professional or a confidant, can prevent suicidal behavior [43], as well as favoring communication and the act of listening. Then we can confirm the

need to implement intervention programs that should be available and within the population's reach, so everyone throughout the nation can benefit from them.

The parenting style in Mexican men and women has certain characteristics that enable the normalization of violence. Some of these characteristics are expressions of socially deep-rooted cultural beliefs of what is considered appropriate for men and women [35].

From childhood, the education of Mexican and Latin American women is based on the value of personal sacrifice for the family as something positive and desirable, particularly when family cohesion is at risk [44]. Traditional women's role of subjugation is a normal practice in gender relationships: They are not allowed to have an opinion, to decide over their own lives, to decide if they want to work or not, to decide if they want to have sexual relations or not, or to decide who their friends are [45, 46].

These behaviors are accepted and reproduced by institutions such as family, school, and media. These are the socially accepted models and conducts for "femininity" and "masculinity." In addition, Mexican broadcasters widely transmit these models. Women are presented as good, sensible, and chaste [47]. Heroines are weak and dependent, and they are energetic and fight to defend their children, parents, or beloved one from adversity. The censoring of certain undesirable behaviors is done by the attribution of those behaviors to the villains: active, aggressive, independent, daring, powerful, and fiery. While patriarchy is being questioned in some social spheres, women still exist in a subordination role toward men.

According to the National Survey on the Dynamics of Household Relationships [48], the highest frequency of violence against women is found within an intimate couple relationship, making the husband, partner, or boyfriend the main aggressor.

Forty-nine-point-three percent of women in Mexico who have or have had a couple, whether by marriage, cohabitation, or courtship, have been assaulted by their partner at some point of the relationship.

The fact that violence is exercised in the household environment at the levels and frequency reported by ENDIREH's (2016) survey is indicative that gender equality is far from being a reality in the lives of the participant women in this study.

Limitations of This Study

The findings and conclusions of this study are limited to its population's characteristics: young adults with suicide attempted within the metropolitan area of Guadalajara, Jalisco, Mexico. It is crucial to reproduce this kind of study in other populations and age groups to comprise a greater knowledge on the problems involved in this study.

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Protective Factors in Suicidal Behavior

6

Gerard Hutchinson

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Abstract

This chapter identifies a range of protective and preventative strategies that can be utilized to diminish the prevalence of suicide. These include improved mental health access and treatment, the active development and facilitation of social and emotional support mechanisms, and the promotion of positive health-related behavior. There should also be increased research and policy attention to prevention and protection against suicide-related ideation and action.

Keywords

Suicide · Protective factors · Prevention

This chapter will attempt to review the literature in order to identify the factors that mitigate against suicidal actions and act as protection thereof. It will therefore provide a framework for prevention rather than intervention. Prevention can be achieved either by reducing or eliminating risk factors or strengthening protective factors. My focus will be on the literature that addresses the latter.

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Suicide-related and self-harm behavior is either the result of hopelessness as part of a mental or physical illness spectrum, an impulsive or persisting response to acute or chronic distress, and/or existential despair and suffering. The occurrence of suicide also tends to distress the rest of society and hence it is treated as a psychiatric and medical emergency.

Decision-Making and Behaviour

There are several influences on behavior and decision-making. These influences culminate particularly in the interaction between emotion and cognition and the perceptions that inform healthy goal-consistent decision-making and behavior [6]. There is a debate regarding the extent to which the process of decision-making is affected by conscious and unconscious mental processes as well as the impact of context and the awareness of these various influences [19, 30]. It is therefore a complex interaction of genetics, developmental experience, environmental exposures, and stimuli and physiology. These all coincide with personality, and the literature on decision-making in suicide suggests that trait impulsivity is broadly correlated with the decision-making pathways that lead to suicidal actions [13]. This view interprets suicide-related actions as a response to perceived intolerable stress with a flawed estimation of the likely benefits of the outcomes [14]. These may also be affected by one's overarching worldview and the expectations that an individual has come to have on their life. Existentialist notions as described by Albert Camus posits suicide as the ultimate philosophical problem and frames it as one that must be resolved if one is to respond to the inevitable struggles and perhaps ultimate futility of life [34]. In so doing, suicide can be partially removed from the sphere of mental illness and be seen in the context of the decision-making that informs the human capacity to continue with life in spite of its challenges.

Resilience

While most epidemiological studies focus on the establishment of risk factors for disease and mortality, there is increasing attention being paid to protective factors. Developing protection seems especially important in the context of chronic conditions like depressive disorder [4]. Rutter [35] defined protective factors as those factors which modify, ameliorate, or alter a person's response to some environmental hazard that predisposes to a maladaptive outcome. This is intimately related to the concept of resilience which refers to an individual's capacity to adapt successfully to adversity. Resilience is increasingly being seen as a major protective factor against suicide [39]. The association of mental illness and psychological distress to life events and biological or social adversity suggests that it is in response to adversity that resilience and these protective factors become important [20]. In addition, protection against the development of pathological behavior must not only be seen as the absence of risk factors. There are also positive influences that enable an

individual to adapt positively to the demands of life, and these may be fundamental to the acquisition and maintenance of good mental health. These also in turn ensure that the exposure to risk factors will not result in the development of maladaptive responses. It also posits that resilience is a function of person-environment reciprocal interactions at the micro and macro levels, from caregiving to the environment in which one develops and lives over time in conversation with the evolving personality traits that lead to adaptation [41]. This in turn suggests that risk, protection, and resilience may be both time and context dependent and reflect an allostatic response to experience that is constantly changing based on anticipation and adaptation [21]. There will be individuals who are able to engage in life in a way that protects them from negative mental health and behavioral outcomes. Resilience is therefore a dynamic concept that is evolving alongside the individual's development [36]. Principal among the psychological factors that may affect this capacity for resilience are the traits of impulse control and emotional regulation [28, 29]. Enduring mental health has also been studied as although most individuals will develop a diagnosable mental disorder at some point in their lives, there is a minority that do not develop mental health problems. This phenotype is characterized by greater educational and occupational attainment, more adaptive personality traits, greater life satisfaction and higher-quality interpersonal relationships, and therefore greater resilience [38].

Mental Health

This brings us to suicidal behavior and its relationship to mental health. People with mental health problems are at increased risk for suicide, and two distinct pathways have been reported for this: one where life events and stressors preceded diagnosis and the other where diagnosis came before exposure to life stressors and events [9]. The combination of mental illness and life events and stressors seems to be necessary to result in suicide. However, mental health is not always implicated as some who die by suicide, do not have a mental illness, or may not have sought any help [8]. Still the risk of suicide associated with mental illness cannot be ignored and has been estimated to be as much as eight times that of those without mental illness; therefore, prevention and treatment of mental health problems is perhaps the first line of protection [37]. Adequate provision and access to mental health services must therefore be a priority in terms of prevention. This investment in mental health services is the first line of protection against the risk of suicide and suicidal behavior [33]. This will likely impact on the socioeconomic environment in a country and have both direct and indirect benefits on all aspects of health and well-being in a society [27]. One specific area of protection and prevention in this context is related to substance abuse [2] which alongside depressive and mood disorders, personality disorders, and psychoses constitute the greatest contribution to suicide. It has been reported that up to 40% of individuals seeking help for substance dependence have a history of suicide attempts. This is especially applicable to those with comorbid mental disorders and a range of psychosocial stressors such as relationship and financial stressors and a history of sexual abuse [46]. The burden of suicide is seen

particularly in alcohol use disorders [11]. Substance use disorders and poverty in the United States were found in one study to predict first-time suicide ideation and attempts [40]. All efforts designed to prevent the development of substance use disorders can therefore be incorporated into the arsenal of protective measures against suicide. Increased family cohesion, having strong confiding relationships with friends, and more empowering community and social support can protect against suicide ideation even when substance use may be present [17].

Social Factors

Protective factors can thus be summarized at this point to include the increased provision and access to care for mental health and substance use-related problems, facilitating increased family cohesion and strong interpersonal relationships with empowering social support. These factors are especially relevant to adolescents [1]. An interesting study among adolescents in Taiwan suggested self-esteem enhancement programs that are school based, improved emotion regulation skills, coping with stress strategies, early attention to substance use, and mental health issues alongside intensive anti-bullying measures were useful in reducing suicidal ideation [44]. Problem-focused coping strategies seem more effective than those that are emotion based and when applied with additional social support and self-esteem development can be useful in reducing suicidal ideation [31]. Higher levels of physical activity may also be associated with reduced suicidal ideation and attempts, but the evidence is not well researched at this stage [43].

In young people, dysfunctional mental processes can be modified to help prevent suicidal outcomes in high-risk vulnerable individuals. One of these is an intervention addressing maladaptive mood repair which seeks to modulate the ways in which sadness is regulated [22]. This approach seems to override the effect of both protective and risk factors. Teaching problem-solving skills and self-efficacy in working through the demands of life may also mediate against suicidality particularly when associated with impulsivity [16].

In the elderly, positive adaptation to the increasing loss of control over one's life and actions is thought to protect against suicide in the demographic group. Successful aging involves embracing the developmental changes that contribute to the loss of function by anticipating and engaging in positive lifestyle habits [15]. The effective management of chronic physical illness, early recognition and treatment of depression, and monitoring for abuse of prescription medication should be goals of engagement with the elderly when they engage the health services [10]. Helping older adults in articulating reasons for living and finding meaning in life may also act as protective factors in this age group [18]. Other important psychological factors include an internal locus of control, high levels of self-efficacy, and a general satisfaction with life [24]. Grit and gratitude may also be important with regard to persevering through difficulty which is likely to be more intimidating in older adults as well as being grateful for the life that has been lived. Rumination and brooding

also interact with grit and gratitude in a way where the latter diminishes the facilitating effect of the former [45].

Belief systems may also play a role in protecting against suicide. Moral objections to suicide (MOS) have been shown to be associated with diminished suicidal ideation and attempts in bipolar patients [12]. A review [42] found that MOS did counteract suicide and suicidality. There may be differential effects in some ethnic groups, so it is an area that requires further research [32]. It may also be a proxy for other factors as social and family networking and support.

Reasons for Living

Since suicidality is often a response to hopelessness, individuals who can identify definite reasons for living are more likely to be protected from suicidal-type actions even when they may be depressed or are facing adversity. Developing an optimistic perceptual framework within which to view life is therefore another protective factor against suicide [25]. The reasons for living may also coalesce with better coping skills and social support to improve resilience and in so doing protect against suicidal thoughts and behavior [3]. However, some have reported that diminishing reasons for dying is more effective than enhancing reasons for living in those already at risk of suicide [5]. Social connectedness as a means of reinforcing a sense of belonging is another useful construct in this regard. Its antithesis, thwarted belongingness has been found to be associated with suicidal ideation and may be mediated by clinical issues such as insomnia [7]. These may all act as contributors to the establishment of meaning in life which has been shown to be a buffer against suicidal acts in clinical and nonclinical populations [26].

Summary

In summary, therefore, early detection and treatment of mental health problems including substance use disorders; increased self-care, self-esteem, and self-efficacy; and social support and connectedness have all been identified as protective factors against suicide. Managing impulsivity, establishing reasons for living, and having a more optimistic view of the future are psychological states that also protect against suicide. Restricting the means of access to the means of suicide has also been a long-standing preventive and protective strategy for populations, but it will only be successful for individuals if the underlying mental health and psychosocial issues are also addressed. Cultural factors such as those mediated by religion and belief systems are also influential. General health-protective activity, for example, physical exercise and appropriate nutrition, serves to enhance well-being and acts as an indirect measure of prevention and protection against suicide. These may be seen as universal preventive and protective strategies [23]. The needs of specific groups, e.g., adolescents, the elderly, those with diagnosed mental health problems, the homeless, the incarcerated, and those with previous self-harm or suicide attempts,

may demand a wide range of strategies to ensure protection from suicide. One area of research that needs to be emphasized is the development and nurturing of resilience [39]. Resilience is useful at the universal, selected, and individual levels. The engagement with social and political policy makers to facilitate the development of these protective factors described will be critical to the success of the goal to eventually reduce suicide-related behavior. There is also a need for a greater research focus on protective factors as these will have a universal benefit and likely improve the mental health of populations.

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Unmet Needs in the Management of Suicide Risk

7

Maurizio Pompili

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Abstract

Although suicide is a major public health issue worldwide, mental health professionals and lay-people struggle to cope with suicide. Part of the problem comes from the myths, obsolete paradigms, and stigma associated with suicide, which results in anxiety and fear. However, most suicidal individuals want to live even when facing serious suicidal stress. Clinicians are, therefore, called upon to unlock the suicidal mind, relieve the suffering, and pay attention to the unmet needs of these individuals. There are so many unmet needs in individuals at risk of suicide. Too often, the medical model is imposed as a treatment plan. Therapists are more likely to treat the psychiatric disorder and, therefore, assume that this treatment also reduces suicide risk. In this way, the “one fits for all” model precludes understanding the suicidal mind, with its unique characteristics for each subject. Furthermore, there are still no agreed-upon models for managing patients accessing the emergency room and, besides, there is still no data on patient adherence to prevention programs at follow-up. One of the central elements of caring for people at risk of suicide lies in formulating the question, “What is it like to be suicidal?” To answer this question, the therapist must necessarily leave his

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formal position and try to identify himself with the subject in crisis. It is an exercise that is not necessarily easy but for which you can train. Throughout this chapter, the reader is helped to understand the suicidal mind to facilitate this action. This chapter focuses on some of the unmet needs of suicidal patients and points to some key elements for clinicians in managing suicidal individuals. The concept of mental pain as the main ingredient of suicide is used to explore some of the most prominent features of the suicidal mind.

Keywords

Suicide

Although suicide is a major public health issue worldwide, both mental health professionals and lay-people struggle to cope with it. Part of the problem comes from the myths, obsolete paradigms, and stigma associated with suicide, resulting in anxiety and fear. However, most suicidal individuals want to live even when facing serious suicidal stress. Clinicians are, therefore, called upon to unlock the suicidal mind, relieve the suffering, and pay attention to the unmet needs of these individuals.

There are so many unmet needs in individuals at risk of suicide. Too often, the medical model is imposed as a treatment plan. Therapists are more likely to treat the psychiatric disorder and, therefore, assume that this treatment also reduces suicide risk. In this way, the “one fits for all” model precludes understanding the suicidal mind, with its unique characteristics for each subject.

Furthermore, there are still no -upon models for managing patients accessing the emergency room and, in addition, there is still no data on patient adherence to prevention programs at follow-up. The emergency department is often crowded where the clinician engages in data collection and brief assessments suitable for understanding the current crisis. The clinician’s need to collect preliminary information in a limited time often results in the patient’s image of a therapist who is not empathic and available. The result is that the patients will not be motivated to return and will not have observed the clinician’s skills for dealing with suicide risk.

One of the central elements of caring for people at risk of suicide lies in the ability to formulate the question, “What is it like to be suicidal?” To answer this question, the therapist must leave his formal position and try to identify himself with the subject in crisis. It is an exercise that is not necessarily easy but for which you can train. Throughout this chapter, the reader is helped to understand the suicidal mind to facilitate this action.

The increasing number of articles on suicide facilitates a significant increase in our understanding of suicide, but the therapist’s role as a critical element in determining the outcome of therapy with a patient at risk of suicide has received only limited attention.

It is widely believed that patients at risk of suicide arouse anxiety in the therapist, and their treatment takes on the aspects of a therapeutic challenge in which therapists confront the ghosts of death with their professional skills. In certain treatment

moments, it is evident how much the patient's life is subordinated to the therapist protecting his career. Experiencing the loss of a patient from suicide affects the personal and professional balance of the therapist significantly [1]. Furthermore, even the fear that this event may occur has consequences for the patient and the therapist. Some psychiatrists fear that a patient may choose suicide sooner or later in clinical practice. It is estimated that about half of all psychiatrists lose at least one patient from suicide during their career [2].

The emotional difficulties experienced after a suicide are greater than those experienced after other forms of death. The former is usually experienced as an offense to the therapist's ability to understand and help clients. He experiences the unpredictable, unknowable, and uncontrollable. The therapist's experience is, without doubt, of primary importance in managing the patient at risk of suicide.

However, both young therapists and those with more experience react similarly to the risk of a patient's suicide, showing anxiety reactions and feelings of incapacity [3]. Also, those who have thought of suicide are undoubtedly more vulnerable in managing the risk of suicide, especially if the therapist shows behaviors such as avoidance in the face of strong feelings, defensiveness, and passivity. In reading articles on the treatment of suicide risk, the frequency in which the word *assessment* or *evaluation* is used as a synonym for therapy is noteworthy. These articles are usually designed for guiding and helping the therapist treat the potentially suicidal person [4]. They contain a series of practical recommendations such as: "Do everything to eliminate firearms and drugs that are potentially lethal from the home of the suicidal patient"; "Check carefully the prescriptions of potentially lethal drugs"; "Alert family members"; and so on.

Such precautions or warnings may seem reasonable, but in reality, reflect a state of mind and a way of relating to patient suicides which often jeopardize successful treatment. As many suicidal patients are struggling with management and control of themselves, an excessive emphasis on precautions and on the evaluation, dictated by the therapist's apprehension, can facilitate one of the most lethal aspects of the suicidal person, that is, his tendency to make someone else responsible for keeping him alive. Some patients have an approach to therapy in which they attempt manipulation.

There is evidence in the literature in which therapy for the suicidal patient is based on the belief that the unbearable mental pain will eventually pass and that the crisis is time-limited. This belief is based on the example of other patients who found themselves in similar situations but who improved. It is often stressed that the behavior of the suicidal patient can interfere with therapy. Since treatment cannot help the patient if he is dead, it is necessary to remind the patient of his feelings for the spouse, children, or pets. To encourage a suicidal patient to live for the sake of his family reinforces what many patients already feel, that is, they are living just for the sake of others.

A therapist threatened by the fact that a patient may kill himself while he is in his care cannot help that patient. Indeed, the emergency measures necessary to prevent suicide and make therapy possible often reflect the therapist's anxiety and make treatment impossible.

Fear of responsibility when taking care of patients at risk of suicide, and the anxieties that this entails, serves as conscious motivation for therapists to avoid treating suicidal patients. Patients with suicidal tendencies are usually sensitive to the therapist's anxieties. Many suicidal patients (including those who eventually kill themselves) have learned to use the anxiety they can arouse in others by the threat of their death in a coercive or manipulative manner. Suppose the therapist, in the face of death threats, responds to the unreasonable demands of the patient. In that case, there will be an escalation of requests from the patient accompanied by growing anger and dissatisfaction in both the patient and the therapist. Unless these attitudes and patient expectations are explored, the therapist may make himself the slave of the patient, with terrible therapeutic results.

Wheat [5] conducted a retrospective study of the therapeutic interaction of 30 patients who had died by suicide during or after admission. He reported three factors that partially explain these suicides: (1) the refusal of the therapist to tolerate the patient's childlike dependence [6], (2) a discouraged attitude on the part of the therapist regarding treatment progress, and (3) an event or crisis of enormous importance for the patient that the therapist does not adequately recognize.

Bloom [7], in a similar study on the treatment of suicidal patients conducted by training psychiatrists, recognized that some elements appeared to be precipitating factors. Specifically, the rejection of specific behaviors of the patient by the therapist with verbal and facial expressions of anger, premature abandonment of the patient, reduction in the frequency of psychotherapy sessions, and a lack of availability of the therapist himself.

Lesse [8] emphasized that the experience and competence of the therapist, as well as self-knowledge, are of vital importance in the treatment of suicidal patients. He stressed the need for constant and competent supervision of the beginning therapists in training as they deal with patients with suicidal tendencies. In these cases, the dominant idea felt by the therapist is that a suicide attempt is a form of rejection of the therapist. At a professional level, it is necessary to correctly evaluate the patient's ability to act impulsively and follow his feelings of the moment. If the patient dies by suicide, the therapist might believe that he is not a good doctor. He may fear the disapproval of his colleagues, blame from the coroner, and bad publicity.

The Formulation of Suicide Risk

The so-called suicide risk formulation offers the clinician a valid method to assess the danger of suicide, which integrates the clinical presentation material, the history of the patient, his current illness, and the current mental state. There are five components in the formulation of suicide risk [9]:

1. Evaluate the patient's responses to stress suffered in the past, especially resulting from losses
2. Assess the patient's vulnerability to adverse life events, loneliness, contempt of self, and homicidal anger

3. Assess the nature of the resources available and external support
4. Evaluate the emergence and the emotional importance of fantasies of death
5. Evaluate the patient's capacity for analyzing reality.

Understanding the Suicidal Mind

Campaigns have been launched to make sense of what makes a specific individual suicidal. However, encountering a suicidal individual remains a challenging task for most professionals and common people. We know that suicidal individuals give definite warning signs, mostly derived from their ambivalence about ending their own lives. Among the constructs used to describe the wish to die, a simple but extraordinary model has proved, at least for its straightforwardness, to be useful in describing the suicidal mind. Edwin Shneidman [10] first posited that the suicidal individual experiences unbearable psychological pain (*psychache*) or suffering and that suicide might be, at least in part, an attempt to escape from this suffering. Shneidman [10] considered *psychache* to be the main ingredient of suicide. According to this model, suicide is an escape from intolerable suffering, emphasizing that suicide is not a movement toward death but rather an escape from intolerable emotion and unendurable or unacceptable anguish. Experiencing negative emotions, with an internal dialogue making the flow of consciousness painful and leading the individual to the ultimate conclusion, may be related to the fact that, if tormented individuals could somehow stop consciousness and still live, they would opt for that solution. Suicide occurs when the *psychache* is deemed by that individual to be unbearable [11].

For Shneidman [12], suicide is the result of an explosive mixture consisting of four basic ingredients. He listed such ingredients as follows: heightened inimicality (acting against the individual's best interest), exacerbation of perturbation (refers to how disturbed the individual is), increased constriction of intellectual focus, tunneling or narrowing of the mind's content (dichotomous thinking), and the idea of cessation: the insight that it is possible to stop consciousness and put an end to suffering.

The concept of inimicality, in this instance, refers to those attitudes of the individual that lead him to act in a way that is not at all friendly to himself, to the point of becoming his perverse enemy. In suicidal individuals, this state is present, and the individual is struggling with pressures of various kinds such as physical health, refusals, feelings of failure, pain, and other negative emotions. Unfortunately, the individual fails to manage these issues with the resources he has available.

Shneidman believed that in suicide, "death" is not the keyword. The keyword is "psychological pain" and, if the pain were relieved, then the individual would be willing to continue to live.

Two main concepts are relevant to this discussion: perturbation and lethality. Perturbation refers to how upset (disturbed, agitated, discomposed) the individual is, while lethality refers to the likelihood of an individual dying by suicide in the future.

Understanding the suicidal mind requires knowledge of the perturbed state of the individual in crisis since this provides the motivation for the individual to contemplate suicide. Therefore, asking where the suffering comes from and how it has changed and become more acute is a method of intervention that, although simple and intuitive, is often forgotten by those who are responsible for managing the person in crisis. In the internal debate, essentially involving ambivalence, being able to tune into the suffering of the person makes it possible to stem such ruminations and bring the discussion back to a position of vitality and hope.

Perturbation supplies the motivation for suicide; lethality is the fatal trigger. Everyone who dies by suicide feels driven to it and thinks that suicide is the only option left [13]. The concept of “constriction” is defined as tunnel vision or finding oneself with fewer options to cope with the suffering. Suicidal individuals experience dichotomous thinking, wishing either some specific (almost magical) total solution for their perturbation or for cessation, in other words, suicide. It seems that although there may be effective supports from family and friends, the individual is unable to benefit from them. The pleasant memories and their history in relation to others are not helpful, and the individual focuses on intolerable emotions and how to escape from them.

The concept of cessation comes into play when the individual develops the idea that one can put an end to the drama that takes place in his mind through dying. The individual then realizes that with death, he will bring a solution to his experience by eliminating all the elements that torment him in life.

Suicide results from an interior dialogue during which the mind scans its options [13]. During the early phases of this process, suicide is considered as an option, but it may be rejected a number of times. Shneidman [14] reported an emblematic process referring to the word “therefore” *“almost every decision that a person makes (based on some unspoken reasoning in the mind): it is the logical bridge between almost every thought and every action (or deliberated inaction). Among all the . . . therefore, I . . .” sequences that are possible in the mind, one of the most important ones is contained in the words: I’ . . . therefore, I must kill myself.”*

Suicide planning is often a long and complex process. The person begins to think of a propitious moment; he must have time to prepare. During the weeks and days preceding the actual planning until the act is implemented, the individual continues to dialogue with himself or herself with many thoughts. They can refer to the fact of not being worth anything for themselves, let alone for others, of not having been a success, of being a burden for oneself and one’s loved ones, that no one will ever love them, or to be a coward so much that one cannot even die by suicide. After debating, to overcome the survival instinct, the person must have, at least just before the act, such impulsiveness and aggression as to make a gesture against nature. Thus begins an increasingly tight challenge in which a moment of excitement in the mood may also occur during which the person sees salvation in suicide, begins to glorify the act, and configures it as a plan to put into practice, avoiding any interference on the part of the others. One must think of an act that appears to the subject as something forbidden but which feels necessary to improve his state. Suicide is an act that, in many cases, is premeditated for a longer time than is believed. Only after

this time does the act become an impulsive gesture. The individual has repeatedly thought about taking his own life, but this option, every time it occurred, although it was discarded, took on a greater value. At this juncture, the subject at risk of suicide begins to give signals in which he conveys the message of being tired of living, thinking about death, and wanting to die. It is a problem of human life for which “emotional storms” occur, great movements of ambivalence, and at the same time, changes in sleep habits, appetite, personal hygiene, and social relations. In this period of premeditation of the lethal act, the subject at risk also thinks of his loved ones, feeling regret and guilt for considering such a tragic solution. In some cases, there are also complex dynamics within the family, with the partner, or with friends, such that the suicidal individual almost reproaches them for not receiving adequate help.

Moreover, the subject at risk feels hopeless, and his mental pain feels unique, and he reaches this conclusion after experiencing the fact of not being able to communicate his suffering to the people assigned to help. The desire to die happens in each person with substantially unique motivations and thoughts, which makes him different from all other people at risk of suicide.

Shneidman [10] also considers that the main sources of psychological pain are shame, guilt, anger, loneliness, and despair originating in the frustrated and denied psychological needs. In the suicidal individual, it is the frustration of these needs and the pain that results from it, which he considers to be an unacceptable condition for which suicide is seen as the most appropriate remedy. There are psychological needs with which the individual lives and which define his personality and psychological needs which, when frustrated, induce the individual to choose to die. We could say that this is the frustration of vital needs. These psychological needs include the need to achieve some goals such as joining a friend or a group of people, gaining autonomy, opposing something, imposing on someone, and the need to be accepted and understood and receive comfort.

It is essential to monitor suicide risk at all times by considering warning signs for suicide, such as any change in habits, especially if insomnia is presented, and any reference to the wish to die. People may feel trapped and engage in maladaptive behavior, such as drinking alcohol and using psychoactive substances. Suicidal individuals also often put their affairs in order and give away symbolic items, as if they wish another person will take care of a prized possession, regardless of their economic value.

Studying the content analysis of the pain narratives of suicidal patients, Orbach [15] refers to specific features of the suicidal mind: These include a change in the self, experiences of self-estrangement accompanied by dissociative characteristics, a sense of worthlessness, emotional impoverishment, and loss of self-esteem. Furthermore, the mind is often characterized by the experience of loss, such as events that lead to an interruption in one’s sense of self-continuity and loss in one’s meaning of life. There are also oxymoronic experiences, extreme contradictions in feelings, thoughts, and desires – to live and die at the same time or grandiosity vs. humiliation. Besides, the language of pain points to the fact that ordinary words do not suffice to describe these idiosyncratic experiences.

Critical Appraisal of Psychiatric Disorders in the Context of the Suicidal Scenario

Unlike the decision to confine suicide risk to the symptomatology of psychiatric disorders, nowadays new insights into the phenomenon of suicide have led to considering that psychiatric disorders do play a contributing role. Still, a more profound understanding of the suicidal mind is needed [16]. Rather than categorizing the suicidal individual under the diagnosis of psychiatric entities, clinicians need to be able to recognize the drama occurring in the mind of a unique individual who may also be depressed, bipolar, or suffering from other disorders. Most psychiatric patients do not die by suicide. Psychiatric patients are suicidal only when negative emotions are so painful that suicide is the only option left and when the suicidal mind is hosted in an individual's mentally disturbed brain. Suicide is not, therefore, a specific and narrow symptom of depression. Instead, it is a behavior "combining features of a declaration of war with a petition for bankruptcy" [17] as well as having profound social implications [18].

Considering suicide risk to be fully a symptom impairs the opportunity to investigate and understand suicide. Attempts to explain, predict, and control suicide require understanding what suicidal thoughts and feelings mean to those who live it. Other than collecting a huge amount of data for research activities, efforts should also be directed to understanding first-person data of the subjective, lived experience. Such an approach is an essential complement to the objective, third-person data, and traditional science methods. Understanding the unbearable mental pain means thinking phenomenologically. Therefore, the development of suicidal tendencies can be traced back to a state with similar characteristics as falling in love but flipped for affective valences. It is a pervasive condition with both psychological and bodily roots that incorporate the individual as a whole. An unpleasant sensation is often localized in the chest and hypochondrium. The mind tries each option to release the tension but never finds a safe haven and ends up convinced that nothing will bring relief.

Clinicians should distinguish suicidal contents from a psychiatric diagnosis; it is, therefore, necessary to think that the elements that support the desire to dying constitute a process in its own right, with a logic typical of the mind that suffers and that tries to devise a solution to reduce and resolve this suffering. Since the nature of suffering that results in suicide is due to the personality of the individual, to his frustrated psychological needs, and to the wounds of the ego (defeats, humiliation, shame, etc.), one can, therefore, differentiate that suffering from the typical suffering of depressive symptoms. Subjects at risk of suicide develop a dichotomous thinking process because they reason with only two options when confronting the suffering that has become unbearable: continue to suffer or obtaining immediate relief from pain by suicide [13].

This process derives from an inner dialogue that the individual has with himself to seek a solution to his drama in mind. Independent of psychiatric disorder, clinicians are required to understand this complexity, without which the risk of suicide cannot be decoded. Suppose this process is not interrupted by a change through, for

example, help from someone. In that case, the individual approaches the final decision and, to quote Shneidman, *“The spark that ignites this potentially explosive mixture is the idea that one can put a stop to the pain. The idea of cessation provides the solution for the desperate person”* [12].

Communication of Suicidal Intentions

Among the myths often cited to describe idiosyncrasies in the phenomenon of suicidal behavior, classical suicidology, and current opinion state that people who talk about killing themselves rarely die by suicide, whereas most people who die by suicide have given some verbal clue or warning of their intentions. Some studies show that as many as two-thirds of suicide deaths share their intentions before dying by suicide. The study by Robins and colleagues [19] was probably the first attempt to address this issue through collecting data for a sample of suicides. The study remains one of the few contributions to the literature in this area. Despite the understanding of the communication of suicidal intent, no previous work has examined this fact through a meta-analytic investigation. A recent meta-analysis has shown how suicidal communications are key elements preceding suicides, confirming for this element for the first time [20].

Unlocking the Suicidal Mind by a Proper Understanding of the Subjective Experience

Unlocking the suicidal mind is the most challenging of all tasks. Many models describing suicide fail to provide a proper understanding of this multifaceted human condition. Stigmatization and fear often provide reasons for empathic disconnection. Furthermore, even when dedicated clinicians are willing to consider all of the patient's needs, we cannot imagine how much these patients suffer. In fact, in order for empathy to occur, it is necessary that we should have, in our own experience and in our own minds, some points of reference that correspond to those of the patients' experience of states of intense suicidal arousal or excitement (Maltsberger, personal communication 1988) [21, 22].

I agree with Zoe Boden [23] in her view of the experience of suicidal individuals, *“Acknowledging the felt aspect of the experience is, I will argue, necessary for developing a fuller understanding. Recognizing that feelings do not exist solely within a person, but between people, intersubjectively, is also necessary to understand the experience of suicidality more deeply. However, because feelings are immediate and sensory, I will suggest that there are times when understanding is difficult, not because the experience or meaning is hard to discern, but because the visceral power of understanding can feel too much. Feeling overwhelmed is one of the ways that we respond at the edges of our understanding. In our suicide research, there were times when understanding, really understanding, was more problematic than I initially wanted to admit.”* The individual must be understood holistically and

met in his or her experience as it is, rather than broken down into risk factors and behaviors.

I also support what suicidologist David Jobes [24] recently stated. *“First, the goal of the clinician is to develop a mutual understanding of an individual’s suicidality with the respective patient. This goal differs from the medical model emphasis, which tends to emphasize immediate and overriding emphasis on clinical diagnosis. Second, clinicians must be cognizant of a suicidal person’s potential anguish and total loss of self-respect. Many patients are likely to withdraw and express vulnerability when discussing their own suicidal thoughts and behaviors. Third, the clinician should express a nonjudgmental and supportive attitude toward the patient. Empathy is significant in strengthening the therapeutic alliance, and the patient should be validated as the expert of their own experiences. Fourth, suicidal crises are not simply about the present but also often about the past. In the exploration of the crisis/crises, the clinician should encourage the patient to tell their story in a narrative fashion. Fifth, new models are necessary to conceptualize suicidal behavior so that the clinician and patient share an understanding of the patient’s suicidality. An objective of this guideline is to not view the patient just as someone with psychopathology, but as someone with logical reasons for being suicidal. Sixth, the ultimate goal in clinical work is to garner a therapeutic relationship with the patient, right from the initial assessment.”*

Conclusions

There are still many unmet needs for suicidal individuals, and too often, such needs are disregarded as unimportant or of secondary importance. Clinical experience and recent data point to the need for a broader understanding of the suicidal mind. Although many scholars emphasize the importance of risk factors for suicide, such factors are usually static and derived from studies of people not necessarily representative of suicidal individuals in the general population. Such cohorts are sometimes small and belonging to narrow subpopulations, which impair proper generalization.

Each individual is unique, with a unique presentation of suicidal wishes. However, most individuals can refer their suffering to specific unmet needs, allowing categorization according to the nature of what is lacking in their lives.

Modern psychiatry now witnesses that which is conveyed in a paragraph of the introduction of DSM-5 [25] that is *“Diagnosis of a mental disorder should have clinical utility”* but *“the diagnosis of a mental disorder is not equivalent to a need for treatment. Need for treatment is a complex clinical decision that takes into consideration symptom severity, symptom salience (e.g., the presence of suicidal ideation), the patient’s distress (mental pain)”* and *“Clinicians may thus encounter individuals whose symptoms do not meet full criteria for a mental disorder but who demonstrate a clear need for treatment or care. The fact that some individuals do not show all symptoms indicative of a diagnosis should not be used to justify limiting their access to appropriate care”* (p. 20).

Aside from being an unexpected phenomenon, suicidal behavior is characterized by many warning signs that often allow key clinical decisions to save individuals' lives in crisis. The challenge of suicide prevention is to painstakingly develop a culture both in clinical populations and the general population to take care of suicidal individuals starting from their basic frustrated psychological needs. The task is to adopt a phenomenological approach that directs the attention of helpers inside the human experience of mental pain. Although an empathic understanding of the pain of suicidal individuals is not sufficient, it is the start of a process that might prevent the individual's suicide.

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Reasons for Living as a Strength-Based Approach to Suicide Prevention

8

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Abstract

Reasons for living can be conceptualized as an individual's reasons for choosing to continue to live when faced with the thought of suicide. The theory behind the study of reasons for living is that as negative beliefs contribute to the development of suicidal thoughts and behaviors, so do adaptive beliefs decrease the

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likelihood of engaging in suicidal thoughts and behaviors. The question of why someone would choose to live when considering suicide can be described from a positive psychology perspective as a reflection on meaning and purpose, indicating a shift from studying the role of negative emotional states toward a focus on satisfaction with life and psychological well-being. In studies of reasons for living, core factors shown to be protective against suicide include beliefs about coping, a sense of belonging, social support, and religion or spirituality. This chapter argues for a holistic approach to suicide prevention and treatment, which focuses not only on the cause of distress but emphasizes personal strengths and ameliorative resources.

Keywords

Suicide prevention · Strength-based · Meaning and purpose · Psychological Well-being · Reasons for Living

Introduction

Suicide is a pressing issue, having been among the top ten causes of death in the USA since 2008 [1]. According to the World Health Organization, suicide claims approximately 800,000 lives every year [1], making it essential to develop and implement robust approaches to suicide risk assessment and intervention. Historically, suicide research and prevention efforts have focused on identifying risk factors and attempting to address the hypothesized causes of suicidality, such as emotional pain, hopelessness and helplessness, entrapment, negative personality traits, emotion dysregulation, and interpersonal difficulties. However, relying primarily on a problem-focused approach is clearly insufficient, as evidenced by continuously increasing suicide rates [1]. An alternative yet complementary approach of fostering reasons for living may serve to enhance suicide prevention by not only addressing problems but building on strengths.

Reasons for living can be conceptualized simply as an individual's reasons for choosing to continue to live when faced with the thought of suicide. The concept, as it is defined here, was popularized by Marsha Linehan and colleagues in 1983 when they began compiling a list of reasons why individuals in both clinical and non-clinical settings choose to stay alive when considering suicide [2]. The theory behind the study of reasons for living was that as negative beliefs contribute to the development of suicidal thoughts and behaviors, so would adaptive beliefs decrease the likelihood of engaging in suicidal thoughts and behaviors [2]. The question of why someone would choose to live when they are considering suicide may be conceptualized from a positive psychology perspective as a reflection on meaning and purpose, indicating a shift toward satisfaction with life and psychological well-being. The Reasons for Living inventory (RFL) has been shown effective in the assessment of suicide risk and has been translated and adapted, making it a viable option for suicide risk assessment across different populations and communities.

A Brief History

Suicide research has historically focused on factors contributing to an individual's decision to engage in suicidal behaviors. Toward the end of the twentieth century, researchers began to reconsider this unidimensional approach to suicide. Shneidman [3] posited that suicidal individuals experience considerable ambivalence and engage in an internal debate around living or dying. Kovacs and Beck [4] tested this hypothesis and found evidence that many suicidal individuals wish to live even while wishing to die. Additionally, individuals whose wish to die was more significant than their wish to live had the highest levels of suicidal intent compared with those whose wish to live was much greater, and those whose desires to die or live were balanced [4]. Kovacs and Beck [4] recommended that, in addition to addressing the suicidal patient's wish to die, therapists could incorporate strategies that foster the will to live in ambivalent patients.

In 1983, Linehan and her colleagues [2], inspired by stories of how Holocaust survivors maintained their will to live, theorized that non-suicidal individuals have specific characteristics, such as "beliefs about life and expectations for the future," that could serve as *reasons for living*, or important reasons to stay alive and not commit suicide despite stressful life-events. On the other hand, suicidal individuals were believed to lack these "adaptive, life-maintaining characteristics." In their study, Linehan and colleagues identified six main categories of reasons for living (i.e., survival and coping, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objections) and found that suicidal individuals indeed had fewer reasons for living and ascribed less importance to them. These results supported the theory that non-suicidal individuals differ from suicidal individuals in the extent to which they endorse having important reasons for living. The RFL was developed using the identified categories to assess the extent to which an individual values various reasons for living. These reasons are viewed as protective factors against suicide, and many suicide assessments and treatments now incorporate reasons for living formally and informally rather than focusing solely on suicidal intent. The RFL (which has been validated, adapted for various populations, and translated into multiple languages) has been used to assess risk for suicide, while other suicide assessments may simply ask patients to list reasons for living and reasons for dying and rank the importance of these reasons. Likewise, clinicians may encourage suicidal patients to identify reasons for living to mitigate suicidality.

A Holistic Approach to Suicide Prevention

Traditionally, mental healthcare has been concerned with understanding the root of psychological distress in order to resolve the cause of the distress and ease the individual's psychological pain. Problem-focused interventions grounded in theory often adopt a problem-solving approach or incorporate cognitive restructuring. The problem-solving approach suggests that the individual's suffering stems from

lacking the necessary skills to solve problems effectively and therefore teaches problem-solving skills (e.g., clearly defining the issue, brainstorming alternate solutions, and evaluating the effectiveness of options) to address these deficiencies [5]. Conversely, cognitive restructuring attributes symptomology to maladaptive thoughts and encourages the patient to identify, test, and correct these distorted cognitions and beliefs [5]. Rather than taking a problem-focused approach, it is suggested that an equal, if not greater, emphasis is placed on enhancing protective factors than is traditionally placed on problem-solving approaches. At the beginning of the twenty-first century, Seligman and Csikszentmihalyi [6] critiqued psychology's focus on pathology and urged psychologists to shift their attention to reinforcing positive qualities, thus ushering in the field of positive psychology. Positive psychology focuses on positive experiences and character traits, and, in the context of suicide, it examines reasons for living, individual strengths, and other protective factors instead of risk and vulnerability factors [7]. Several alternate theories regarding suicide, such as the broaden-and-build theory, have emerged from positive psychology in recent years [7]. Additionally, the nascent field of "positive suicidology" has developed various strength-based approaches to suicide prevention, such as fostering resilience, meaning, purpose, quality of life, and psychological well-being [7].

While it remains of vital importance to address the cause of distress, a more holistic approach, which also focuses on the strengths and resources of the individual, is outlined here. The RFL is one of the ways to gain an understanding of the strengths of the individual, including their unique differences, cultural identity, and values.

Problem-Focused Approaches

Problem-solving and cognitive restructuring are common problem-focused approaches used to treat suicidal patients [5]. These approaches target concomitant factors of suicide, including a) *emotional pain*, b) *hopelessness*, c) *entrapment*, d) *interpersonal difficulties*, e) *emotion dysregulation*, and f) *personality traits* [5]. The following sections provide an overview of these issues and their relation to suicide. Problem-focused approaches to each factor will be described along with ways strength-based approaches and reasons for living can be used as well.

Emotional Pain

Emotional pain is an essential factor associated with suicide risk. Shneidman [8] coined the term "psychache" to refer to the psychological anguish a person feels. He proposed that this psychache, or emotional pain, results from an inability to meet the psychological needs an individual believes to be necessary for his or her life. Suicide occurs when the perceived psychache becomes unbearable. From this perspective, suicide is a solution to end this intolerable pain, and suicide prevention efforts aim to decrease the intensity of the subjective psychache by addressing the unmet needs specific to the individual. Common unmet needs associated with suicide include the

need for control, independence, belonging, and acceptance and the need to avoid humiliation and failure.

Clinicians can help suicidal patients generate alternative solutions and compare the effectiveness of these alternatives in meeting their needs with suicide. Additionally, cognitive restructuring can increase the suicidal patient's tolerance for distress and reduce psychache. An exploration of reasons for living could broaden the suicidal patient's perspective, so his or her attention is not solely focused on the unmet psychological need and thus reduce subjective pain.

Hopelessness

Although initially identified as a risk factor for depression, *hopelessness* has been found to be a strong predictor of suicide [9]. Hopelessness involves expectations of adverse outcomes (i.e., desired outcomes will not occur, but aversive outcomes will) and helplessness (i.e., one's actions do not affect outcomes) [9, 10]. This negative mindset usually results from attributing an adverse event to stable and global causes (i.e., causes that are long-lasting and affect many domains); believing the consequences of the event are important, immutable, and far-reaching; and attributing negative characteristics to oneself [10]. Hopelessness contributes to the belief that the situation will not improve and there is nothing one can do to resolve the problem, which can, in turn, lead to or exacerbate emotional pain, thus increasing the risk of suicide.

Treatments that focus on developing the patient's problem-solving skills can empower them and increase self-efficacy for resolving issues, thereby decreasing helplessness and hopelessness [11]. Cognitive restructuring targets negative outcome expectancy by challenging misconceptions about the world, the future, and self, as well as associated maladaptive thinking styles [9, 10]. Suicide prevention efforts should also promote hopefulness in the patient. Reasons for living has been shown to be negatively correlated with hopelessness [11], potentially because it can instill a renewed sense of hope. Focusing on the suicidal patient's strengths could simultaneously dispel hopelessness and restore hopefulness as well.

Entrapment

Suicide as a method to escape has been observed frequently in clinical cases, suggesting that *entrapment*, or perceived inability to escape, is an important contributing factor [8, 12]. In fact, entrapment is a critical component of the escape theory of suicide and is associated with emotional pain and hopelessness. Baumeister [12] first proposed that entrapment occurs when outcomes or circumstances fall short of expectations (e.g., when an intimate relationship ends or when one becomes unemployed). According to his escape theory, the disappointing situation triggers self-blame and negative views of self, which in turn leads to increased self-awareness of one's shortcomings and negative emotions. One will attempt – and fail – to escape this aversive state by disengaging from meaningful thought and higher-level thinking and entering a state of cognitive deconstruction. Cognitive deconstruction is comprised of a constricted focus on the present and closed-mindedness. In this state, the unpleasant present seems interminable, and a

different future is hard to imagine; behaviors are motivated by immediate goals rather than more distal ones; and thoughts are overly concrete and rigid, without any abstraction or higher mental awareness. Consequences of cognitive deconstruction, including decreased inhibitions and irrational thinking, increase the risk of suicidal behaviors as a way the escape from reality and the feeling of entrapment.

Entrapment is also a concomitant factor with emotional pain and hopelessness. Schneidman [8] theorized that suicide occurs when psychache, increased negative attitudes toward oneself, a narrowed perspective, and a strong desire to end the pain are present simultaneously. The suicidal person experiences tunnel vision, which limits their cognitive abilities to consider all available options or recall positive memories [8]. This is similar to the rigid characteristics of cognitive deconstruction, where impaired cognitive processing leads to dichotomous thinking and the need for either a perfect solution to the problem causing the pain or cessation of the pain [8]. Cognitive deconstruction can also lead to hopelessness as a result of the inability to imagine a more acceptable future and the lack of realistic long-term goals [12]. The hopeless individual may then feel trapped because of the belief that there is no solution to the problem and there is nothing, except commit suicide, to change the situation. Ultimately, entrapment is the result of “attentional fixation,” which posits that the suicidal patient has a narrowed perspective that prevents them from identifying alternatives to resolve their distress and a preoccupation with suicide as the sole way to resolve this psychological pain [11]. Thus, for the suicidal individual who feels trapped, suicide may be perceived to be the only way to escape from the circumstances.

As with emotional pain and hopelessness, problem-solving approaches can allay feelings of entrapment by showing the suicidal patient that other options do exist and can be more effective at resolving the issue. Cognitive restructuring addresses entrapment in the escape theory by establishing more realistic expectations, challenging negative views of self, and supporting higher-level thinking. Positive psychological approaches can also be effective in lessening the sense of entrapment. Identifying reasons for living reminds the suicidal patient of what they hold dear in life and can shift their focus, helping the patient recall life-sustaining memories and thoughts, broadening their thinking. In fact, the broaden-and-build theory suggests that positive emotions broaden an individual’s thinking and behaviors, so they are more likely to generate novel ideas and engage in a greater variety of actions [7]. According to this theory, evoking positive emotions may be sufficient to counter the constricted perspective and alleviate entrapment.

Interpersonal Difficulties

One critique of emotional pain and hopelessness as predictors of suicidality is that they are too general. While many people who attempt suicide feel emotional pain and hopelessness, most people who experience one or the other do not engage in suicidal thoughts or behaviors [13]. In his interpersonal-psychological theory, Joiner [13] suggests that emotional pain and hopelessness lead to suicidality when they are triggered by *interpersonal difficulties*, specifically perceived burdensomeness and thwarted belongingness. Perceived burdensomeness is the belief that one is

ineffective or incompetent and, thus, is a burden to others [13]. This perception contributes to emotional pain, especially if one believes that loved ones are negatively impacted, and can lead to entrapment and feeling hopeless. Suicidality emerges when one believes the perceived burdensomeness is permanent and one's death would be better for others. According to Joiner, a sense of belonging develops from interacting with others and feeling cared about [13]. Thwarted belongingness then is the consequence of a lack of positive interactions and a feeling of being uncared for: interactions may be unpleasant or infrequent, and the individual may not feel connected to anyone. Thwarted belongingness is not merely loneliness but the feeling of total alienation [13]. This social exclusion is painful and increases the risk of suicide.

Problem-solving can mitigate feelings of ineffectiveness and incompetence associated with perceived burdensomeness by identifying ways that the suicidal individual can contribute to their community and be of assistance to loved ones. This approach can also be used to increase a sense of belonging by developing strategies to improve social integration, targeting deficits in social skills, and decreasing interpersonal conflicts. Cognitive restructuring can challenge suicidal patients' negative beliefs about themselves and their place in the world. In addition to these problem-focused approaches, strength-based approaches and reasons for living can be particularly beneficial for addressing these interpersonal difficulties. Identifying individual strengths directly counters the belief that one is ineffective. Clinical observations have found that identifying even one close relationship can be sufficient to deter suicide [13]. Similarly, identifying reasons for living related to responsibility to family and child-related concerns can reduce feelings of thwarted belongingness enough to lessen suicidality.

Emotion Dysregulation

Another risk factor for suicidal behaviors is *emotional dysregulation*, which is the result of heightened emotional vulnerability and poor emotion regulation [14].

Emotional vulnerability is characterized by sensitivity to emotional stimuli, emotional intensity, and the length of time needed to return to baseline [14]. High emotional activation also biases perceptions (i.e., interpretations and judgments made are consistent with the mood state) and memory (i.e., mood-congruent events are more easily encoded and recalled). These cognitive biases increase emotional sensitivity, thereby facilitating reactivation and prolonging the affective state [14]. Emotion regulation usually involves experiencing and labeling emotions before reducing stimuli that activate negative emotions [14]. Individuals with poor emotion modulation skills are more likely to attempt to control their emotions by merely telling themselves not to feel in specific ways, painful emotions that cannot be suppressed are viewed as problems, and suicidal behaviors are believed to be the solution to the intolerable pain. Emotion dysregulation relates not only to emotional pain but also to entrapment and interpersonal difficulties. Emotionally vulnerable people may be susceptible to feeling intense emotional pain for extended periods of time due to their heightened emotional sensitivity. They may also try to escape from the pain through cognitive deconstruction. Additionally, the cognitive biases

associated with affective reactivity can contribute to interpersonal difficulties by making negative interactions more salient. Thus, it can be challenging to resolve relational conflicts, leading to unsatisfactory relationships, feelings of not being cared about, and thwarted belongingness. Poor emotion regulation makes it difficult to tolerate the negative emotions that arise during relationship conflicts as well. This impedes one's ability to apply interpersonal problem-solving skills to the situation, which can exacerbate relational strains and impede belongingness. Addressing emotion dysregulation primarily uses a problem-solving approach focused on developing skills in deficient areas. Emotion regulation and distress tolerance skills, mainly through mindfulness techniques, can be taught to improve emotion regulation, while interpersonal skills can reduce conflicts and prevent thwarted belongingness [14]. Cognitive restructuring can target the biases associated with emotional activation, potentially decreasing emotional vulnerability. Paying more attention to positive emotions can counteract the salience of negative emotions and the associated biases [14].

Personality Traits

The diathesis-stress model of suicide proposes that diatheses, or predispositions, interact with environmental stressors to produce suicidality [11]. Fewer stressors are needed to trigger suicidal intent in someone with more individual risk factors. Diatheses include personality traits, such as trait-like cognitive styles and perfectionism.

Maladaptive cognitive styles can be trait-like or relatively chronic and stable [11]. For example, one can hold a persistently negative view of oneself even in the absence of an adverse event to trigger such a response. These trait-like cognitive styles resemble one's general outlook on life [11]. Dysfunctional thought processes described previously (e.g., attributing adverse outcomes to internal, pervasive, and ongoing causes; fixating on negative events and circumstances) can reflect the negative schemas one holds regarding oneself, the world, and the future [11]. These cognitive styles contribute to the onset and maintenance of the other concomitant factors of suicide described in this section (i.e., emotional pain, hopelessness, entrapment, interpersonal difficulties, and emotion dysregulation). Having these maladaptive cognitive predispositions would substantially increase the risk for suicide. These dysfunctional attitudes can also be indicative of other negative personality traits like perfectionism.

Perfectionism, particularly socially prescribed perfectionism (i.e., the need to meet others' expectations), is positively associated with suicide [11]. Perfectionism often involves maladaptive cognitive processes, such as all-or-nothing thinking and a tendency to focus on imperfections and failures, increasing the risk for suicide [11]. Elevated stress due to the perceived need to meet various expectations can increase vulnerability to emotional pain and hopelessness when faced with setbacks. Perfectionists usually have unrealistic standards and expectations, which can also result in entrapment when confronted by failure and disillusionment with oneself.

Other personality traits, such as neuroticism, low self-esteem, impulsivity, introversion, and borderline characteristics, are also more prevalent in suicidal patients [11]. Many of these involve dysfunctional attitudes and maladaptive cognitive styles, while others are more closely linked with interpersonal difficulties (e.g., introversion) or emotion dysregulation (e.g., borderline characteristics). Although personality traits do not directly lead to suicide, it is evident that they are interrelated. Moreover, they interact with the environment and other suicidal risk factors.

Since personality traits are closely related to other suicide factors, similar treatment approaches can be used. Additionally, increasing self-efficacy for solving problems can challenge negative views of oneself and improve self-esteem. Maladaptive thought processes and perfectionism could abate with cognitive restructuring, and strength-based approaches focused on one's strengths and developing a positive outlook.

Strength-Based Approaches

While it is important to address what causes or exacerbates suicide risk, it is also essential to strengthen protective factors and reduce risk factors to promote positive outcomes in suicide prevention [15]. The ability to adapt to stressful and adverse events may be viewed as an outcome of several protective factors (e.g., healthy interpersonal and emotional relationships, strong self-esteem, problem-solving social skills, strengthened support networks, emotional bonds, and trust), enabling the person to respond positively, overcome, and enhance their emotional response [15].

Resilience

A focus on resilience is vital in suicide prevention as “Persistence and Resilience” have been identified as catalysts for other support factors when facing risk factors of suicide such as social, interpersonal, and emotional stressors [15]. Additionally, one protective factor an individual can hold includes resilience; resilience is fundamental in the “realization of purposes, altruistic actions, resignification of lived experiences, strengthening of self-esteem and self-acceptance, desire to live, search for dreams and goals, and the de intention to ‘move forward’” [15]. This research suggests the importance of resilience through permanence and strengthening of supporting resources to reduce the risk of suicide [15]. To increase protection against suicide and enhance specific resilience factors, clinicians can play a role in developing therapies by examining the interactions of resilience and other factors (e.g., Negative Life Events) [16].

A closer look at the older adult population illustrates the importance of understanding resilience's impact on suicide. With an increased capacity for spirituality and transcendence with age, older adults demonstrated more psychological resiliency compared to younger adults, confounding other research suggesting high rates of suicide among older adults and necessitating an enhanced understanding of models of suicide risk and resiliency [17].

Meaning and Purpose

Findings by Heisel and Flett are consistent with prior research suggesting those who reported more significant meaning in life (MIL) or purpose in life (PIL) reported significantly greater psychological well-being, less psychological despair, and less suicide ideation [17]. Heisel and Flett's work is the first research demonstrating that MIL appears to protect against the onset or exacerbation of late-life suicide ideation [17]. According to Frankl [18], those perceiving life to continue to hold meaning (i.e., MIL), irrespective of one's current conditions or circumstances, may be protected from the incipient despair that is often associated with crises, losses, transitions, and stressors that can accompany aging [17, 19]. Aspects that mitigate the negative impact of physical, emotional, interpersonal, and situational challenges work by fomenting meaningful opportunities and purposeful activities related to the perceptions of one's personal identity and interpersonal relationship, thus building recognition of meaning in life, which can protect against suicide risk [17]. In a study of Australians aged 61 to 95 years ($n = 104$) examining the sense of belonging and reasons for living in an older adult population, those who felt a greater sense of belonging and those who were motivated to belong reported more survival and coping beliefs; a higher sense of belonging was related to more reasons to live overall [19]. Participants with more child-related concerns, greater responsibility to family, and more survival and coping beliefs had a higher sense of belonging [19]. These findings suggest that increasing an elderly person's sense of belonging may increase survival and coping beliefs (a factor of Reasons for Living), which may reduce suicide in older adults. The significant link between a sense of belonging and coping beliefs shines a light on these beliefs' importance in suicide prevention [19].

Quality of Life

Quality of Life is multidimensional. Like reasons for living, quality of life is a mental state, and it aims to describe an individual's well-being by summarizing an individual's physical, mental, and social functioning [20]. It is essential to focus intervention and treatment efforts on improving Quality of Life (QoL), to take further steps in suicide prevention, especially in adolescents with emotional and peer-related problems, as suggested by Goodman and colleagues' with their Strengths and Difficulties Questionnaire [20]. Regular assessment of quality of life is important since low QoL within the month before death was found to be a significant predictor of completed suicide [20]. Still, it does not include screening for psychopathology – which has been correlated with lower QoL in children compared to healthy peers [20]. In both nonclinical and clinical studies [21, 22], lower QoL has been associated with suicide when compared to people without suicidal thoughts. This association is also consistent after logistic regression was done to assess the impact of sociodemographic (e.g., age, gender, ethnicity, living satisfaction, living situation, and family SES) and clinical factors (e.g., depression, bipolar, schizophrenia) [20]. It has been found that quality of life directly affects the desire to hasten death and is mediated by depressive symptoms, loss of meaning and purpose, loss of control, and low self-worth [23]. In a sample of palliative care patients, most patients overall reported good quality of

life, which was mediated by the low burden of depressive symptoms, low levels of demoralization, high levels of perceived control and self-worth, and low desire for hastened death [23]. A significant inverse relationship between quality of life and desire to hasten death is consistent with qualitative studies which found that the desire to hasten death is future-focused [23]. This relationship is believed to be related to the person's perceived control in their life, as determined by fear of distress and not coping, rather than their current levels of distress or coping ability [23].

Psychological Well-being

Psychological well-being is defined as a multidimensional model of understanding a person's experience of making meaning and finding fulfillment, which serves to counteract the experience of meaninglessness which is believed to lead to suicide [24]. The Psychological Wellbeing Scale (PWB-42), developed by Ryff in 1989 and adapted by Krok in 2009, is based on the eudemonic concept of happiness, measuring six aspects of well-being and happiness: self-acceptance, purpose in life, positive relations with others, personal growth, environmental mastery and autonomy, which may predict orientation toward suicide prevention [24]. Holistic approaches to psychological well-being can include preventative health and can be used to address clinical issues such as suicide [24].

Linehan and colleagues postulated a protective factor against suicide are Reasons for Living, which is defined as reasons for "staying alive" and "not killing [one]self," such as Family-related Positive Life Events [2]. Research has found that Family-related Positive Life Events (PLE) and Reasons for Living are both negatively associated with suicidal ideation (SI) [16]. It is believed that focusing on reasons for living serves to increase psychological well-being and buffering the effects of Negative Life Events on SI [16]. Huffman and colleagues found that PLE's role in SI reduction can enhance patient well-being through short positive psychology exercises, such as writing gratitude letters or "counting the blessings," which entails recalling and in detail recording three events over the past week where they felt grateful [16]. Low-level well-being (World Health Organization-5; WHO-5) has been correlated with a high level of suicidal intent, depression and hopelessness [25]. WHO-5 is a brief depression screening instrument which measures the subjective psychological experience of well-being. A low score on a psychological well-being measure, such as WHO-5, may serve as an indicator for a clinician to investigate further the severity of depression and hopelessness associated with suicidal behaviors [25].

Reasons for Living as a Strength-Based Approach

Stressful life events are often viewed as a precursor to suicidal behavior; however, most people experiencing stressful events do not attempt suicide [26]. It is believed that purpose in life and reasons for living serve as protective factors against suicidal behavior when individuals are faced with stressful life events. Although purpose in

life and reasons for living have some overlap, these factors have distinct differences. Purpose in life refers to the global belief in one's life purpose; in contrast, reasons for living are focal factors that prevent an individual from committing suicide [26]. Positive effects on reasons for living were found from avoidance-oriented coping, which includes temporary distraction from problems, suggesting the utility of short-term approaches by allowing individuals to reflect on what makes their life worth living [26]. It is postulated that temporarily shifting focus away from their problems allows individuals to see other important aspects that make life worth living [26]. Research by Wang and colleagues suggests suicide prevention should also focus on increasing reasons for living and purpose in life, in addition to already used approaches like increasing task-oriented coping and decreasing emotion-oriented coping, by instilling both positive cognitions and positive affect [26].

Reasons for Living are adaptive beliefs and expectancies that mitigate suicide risk [2] and are compatible with cognitive and cognitive-behavioral theoretical approaches to suicidal behavior. Reasons for Living may be a better means to address suicide compared to measures that are not patient-centered and attempt to measure constructs that are difficult to measure, such as Quality of Life, as there is no single agreed upon definition and are usually relative to individual or cultural expectations and goals [27]. The RFL was created by asking participants three questions. For context, participants were asked to list (1) their reasons for not killing themselves at the point in their lives when they had most seriously considered killing themselves; (2) reasons why they would not now kill themselves; and (3) the reasons they believed kept other people from killing themselves [2]. Participants generated 72 unique responses, which were then distilled using factor analysis to yield the 48-item questionnaire [2] that is now widely in use and the subject of this chapter.

Overview of the Subscales

In addition to the wealth of research findings that support the efficacy of total RFL scores in suicide prevention, the subscales, and items within these subscales have been repeatedly shown to be correlated with suicidal ideation and behaviors. The RFL [2] consists of six subscales: 1) Survival and Coping Beliefs, 2) Responsibility to family, 3) Child-Related Concerns, 4) Fear of Suicide, 5) Fear of Social Disapproval, and 6) Moral Objections to Suicide.

Survival and Coping Beliefs

The Survival and Coping Beliefs subscale combines a number of beliefs about life and living and includes positive expectations about the future (i.e., "I believe everything has a way of working out for the best"), beliefs about one's ability to cope with whatever life was to offer (e.g., "I believe I can learn to adjust or cope with my problems"), and beliefs about imbuing life and living with specific values

(e.g., life is all we have and is better than nothing”). In both of Linehan’s original samples, the Survival and Coping Beliefs scale was identified as one of the most useful in differentiating the groups [2]. In terms of cultural variation, two young adult studies, one performed in China and another in Canada, both demonstrated that Survival and Coping Beliefs have possible protective effects in suicide [28]. In another study, Survival and Coping Beliefs scores were strongly, positively correlated with social desirability and correlated significantly and negatively with both past suicidal ideation and future likelihood of suicide [26]. Survival and Coping Beliefs (SCB) were related to suicidal behaviors and are consistent across age groups. The relationship’s stability and strength suggest SCB may represent necessary and important beliefs in an individual’s ability to cope with life stresses [29].

Responsibility to Family

The Responsibility to Family subscale illustrates the impact suicide would have on the family, including how the family would feel and the needs of the family (e.g., “It would hurt my family too much, and I would not want them to suffer” or “My family depends upon me and needs me.”). Family connectedness has been shown to be significantly protective against suicidal ideation and attempts. Individuals who reported never having suicidal thoughts had greater Responsibility to Family scores than the Brief Suicide Ideation, History of Serious Ideation, and History of Parasuicide combined. Further, those who reported brief, nonserious suicidal ideation had greater Responsibility to Family scores when compared to both those who reported serious past ideation and past parasuicidal behaviors combined [29]. Responsibility to Family scores were negatively correlated with past ideation and future probability of suicide [29].

Child-Related Concerns

The Child-Related Concerns subscale assesses possible effects on their children (e.g., “It would not be fair to leave the children for others to take care of.”). Linehan’s original study found that child-related concerns differentiated between individuals who were currently suicidal and those who were non-suicidal in a sample of hospitalized individuals [2]. Also, among this group of hospitalized individuals, this subscale distinguished between individuals who were experiencing current suicidal ideation and those who have attempted suicide in the past. Finally, Linehan and colleagues [2] found that this subscale differentiated between individuals who had no reported history of suicidal behavior or brief ideation and those who had a reported history of serious ideation or behavior in a general population sample. Studies have found important differences in responses to this subscale in terms of culture, gender, and age, indicating that the utility of this subscale is particularly variable based on the identity, cultural context, and phase of life of the respondent. This will be discussed in more detail later.

Fear of Suicide

The Fear of Suicide subscale measures beliefs about the act of suicide, including the reality and feelings of fear about the act (e.g., “I am afraid of the actual ‘act’ of killing myself (the pain, blood, violence) or “I am afraid of death.”). This subscale reflects the fears and concerns that an individual may have about suicidal behaviors encouraging the individual to face the reality of pain and violence that may result from their attempt to escape their emotional pain. Studies have found differences in responses to this subscale based on an individual’s history of suicidal behaviors, differentiating between those who have attempted suicide and those who have not. Support for this subscale is limited – while those who have engaged in suicidal behaviors respond differently to this subscale than individuals who have not engaged in these behaviors, this subscale tends to be less powerful of a discriminating factor than other subscales ([30]).

Fear of Disapproval

The Fear of Disapproval subscale assesses the person’s beliefs about how others would think about them and the act of suicide (e.g., “I am concerned about what others would think of me” or “I would not want people to think I did not have control over my life.”). This subscale may be the most influenced by cultural identity as it often reflects the values of community-focused individuals who perceive a sense of shame or responsibility to others in their community. Interestingly, this subscale has been found to be one of the subscales most significantly negatively correlated with suicide attempts among depressed individuals [30]. The RFL translated in Mandarin found that the Fear of Social Disapproval is not related to prior suicidal attempts; it is still negatively correlated with current suicidal attempts, the frequency of suicidal ideation, history of suicidal threats, and future likelihood of suicide [28].

Moral Objections

The Moral Objections subscale addresses beliefs about the morals around suicide (e.g., “I consider it morally wrong” or “I believe only God has the right to end a life.”). The Moral Objections subscale of the RFL has repeatedly been linked to religious and spiritual beliefs [31]. Individuals who reported never having suicidal thoughts had greater Moral Objections scores than the other SBQ groups [29]. Older adults score higher on the religious subscale [32]. Responses related to this subscale can distinguish between individuals with more serious suicidal ideation from those with less serious ideation [33]. Individuals with religious affiliation obtained a higher total score on the RFL than those who were non-religious [28]. Among individuals who have attempted suicide, this subscale has been found to differentiate between high lethality (lower moral objections) and low-lethality (higher moral objections) attempters [30].

Adaptive Approach to Suicide Prevention

The RFL is not only an effective measure of suicide risk; it is an intervention that is adaptive to age, language, and cultural context.

Reasons for Living by Age

It makes intuitive sense that an individual's reasons for living would change with age, based on their life-stage and evolving values, priorities, and meaning-making. When comparing older adults to younger adults, for example, older adults score higher than younger adults on the RFL items that assess moral objections and child-related concerns [34]. Conversely, it is essential to identify common reasons for living across the lifespan as this can provide a general point of intervention or a common approach appropriate for individuals of different ages.

Older Adult

While the original RFL was not developed or validated among older adults, the original RFL has been found helpful in reducing suicide risk among older adults [34]. Moreover, researchers created an older-adult version of the RFL (RFL-OA) for which researchers distributed open-ended surveys to 500 older adults and identified 69 unique reasons for living with similar themes as the original RFL, but more reasons for living pertaining to family and friends, religious beliefs, and moral objections to suicide [32]. A particularly strong protective factor among older adults is a sense of belonging [19], which can be described as a perception of personal involvement in one's environment or social system [18]. One study using the RFL-OA found that overall coping was positively related to reasons for living, particularly the subscales of survival and coping beliefs and child-related concerns [7]. Older adults score significantly higher on the original reasons for living in the moral subscales and higher on religion items of the RFL-OA [32].

College Students

The College Student Reason for Living inventory (CSRLI) was developed with results also different from the original RFL. The development of the CSRLI found 46 reasons for living with similar factors from the original RFL, the only exception was the Child Related Concerns factor not included, and a unique factor representing College and Future Related Concerns emerged [35]. Those of higher self-perceived suicidal risk has consistently been found to have significantly lower reasons for living on the total CSRLI scale [35].

Young-Adult

The development of the Reasons for Living Young Adult (RFL-YA) had a similar approach to the RFL-A with the use of a pool made up of 42 college students in several psychology classes [36]. In addition to a pool of college students, the version of the RFL-YA took 12 items from the RFL-A and initially generated 54 more fully

investigated items by a team that included a psychologist and youth counselor, which helped conclude a 52-item scale for the RFL-YA [36]. RFL-YA in India - Coping beliefs, family relationships, and future expectations were correlated with suicidal ideation [37]. Individuals reporting higher scores on the RFL-YA subscales and total score were able to identify significantly more positive protective factors than those with lower scores [36]. In the RFL-YA, the study found that when looking toward the future, it showed that strength of religious faith was the strongest predictor among individuals with serious ideation and those who had a previous suicide attempt [33].

Adolescent

A version of the RFL inventory that is important to mention is the Brief Reasons for Living adolescent (BRFL-A). This version consisted of 14 items and five factors [38]. The development of the RFL-Adolescent (RFL-A) found 32 overall reasons for living with five main factors. The version of the RFL-A differs in approach by using volunteers to help create the subscales. The RFL-A came directly from a pool of 30 high school students that volunteered to write down specific reasons to live and reasons not to commit suicide. In addition to this, a Masters's level clinical social worker and child psychologist working closely with youth also contributed to the subscale findings [39]. In the study that helped develop the BRFL-A, which was only 14 items, adolescents with moderate to extensive histories of suicidal ideations and behaviors scored lower on the BRFL-A subscales [38].

Gender Differences

When considering the internalized social constructs of gender on an individual's meaning-making, it is not surprising that gender differences repeatedly come to light in RFL studies. One RFL study done in Sweden found that women obtained a higher total score on the RFL, especially on items related to family and children, but scored lower than men on items concerning "what other people" would think (Fear of Social Disapproval: FSD) [40]. One RFL study among young adults found that women scored significantly higher than men on the survival and coping beliefs, responsibility to family, child-related concerns, and fear of suicide subscales [33]. Similar gender differences were noted in an Italian study, with women obtaining higher total scores on the RFL, higher survival and coping beliefs, and the fear of suicide subscales when compared to men, indicating that they were at lower risk of suicide [41]. Women generally indicated higher coping beliefs and considered suicide to be a less acceptable option than men did [41]. Additionally, self-efficacy and RFL were positively correlated and found that when self-efficacy is increased for women, suicide risk decreases. In contrast, increased self-efficacy in men was related to increased suicide risk [41], suggesting the importance of considering the possible impact of gender on suicide risk.

Reasons for Living Translations and Adaptations

The RFL has been translated into various languages and adapted to different cultural contexts. A brief overview of some of these adaptations is discussed to illustrate how the measure can be adapted and effectively used in different contexts, including some of the variations found between groups.

Sweden

A study done in Sweden used the RFL as a buffer against suicide as it has been shown to facilitate coping strategies and positive cognitions among individuals considered to be at risk for suicid [40]. The original RFL was translated to Swedish and administered to a random sample of 1336 Swedish citizens living in the county of Ostergotland. The study found that the Swedish translation of the RFL yielded different results in terms of the subscales from the original RFL, particularly with regard to cultural factors related to the Responsibility of Family and Child-related concerns, which in the Swedish version were collapsed into a single factor [40]. The Swedish translation of the RFL found that some subscales were more or less important when controlling for age differences. Age-dependent variations in RFL scores were noted where MO and FS scores were raised by age [40].

Italy

The Italian version of the RFL was administered to university students (aged 20–26) along with a brief self-report measure to assess suicidal ideation and history of attempts [42]. The six-factor structure of the original RFL was confirmed, and the Italian version of the RFL was able to distinguish suicidal from non-suicidal individuals, similar to the original RFL [42]. Another Italian study administered the RFL along with the Beck Depression Inventory (BDI) and Beck Hopelessness Inventory (BHI) to adults aged 26–65 across the country [43]. This study revealed that Survival and Coping Beliefs (SCB) was the only effective predictor of suicidal intent, with a negative correlation between the BDI and the SCB subscale [43]. Authors suggest that the SCB may be used as a stand-alone measure to assess suicidality, with the rest of the subscales providing ancillary data [43].

Latinx

The original RFL was translated to Spanish (SRFL-I) and found to be analogous to the original RFL in its factor structure and predictive ability [31]. Further analytic study revealed a seven-factor structure which includes Survival Beliefs, Problem Solving Beliefs, Suicide Appraisal, Suicide Self-Efficacy, Family Related Concerns, Moral Objections, and Fear of Suicide [44]. Both Spanish studies found that moral objections to suicide were similarly protective as in English-version studies. Of note, Latinx individuals reported significantly less suicidal ideation and made fewer suicide attempts when compared to non-Latin-x individuals, and scored significantly higher than non-Latin-x individuals on the Survival and Coping Beliefs Scale (SCBS), Responsibility to Family Scale (RFS), and the Moral Objections to Suicide

Scale (MOSS) [45]. Authors stressed that moral objections to suicide and responsibility to family might be particularly protective to Latin-x individuals due to traditionally strong cultural emphasis on religion and family cohesion [44, 45].

China

The RFL was translated to Mandarin and administered to psychiatric inpatients and outpatient clinics. The six factors of the original RFL were confirmed, and similar to the American studies, the subscales Survival and Coping Beliefs (SCB) and Responsibility to Family were predictive of likelihood of future suicide [28]. Authors of this study suggested that endorsement of responsibility to family and children, optimism, and moral concerns by participants who were married, have children, or have religious beliefs, might be important themes to consider in the prevention of suicidal behaviors [28]. The Chinese translation study of the RFL found that religious affiliation did not distinguish those who are suicidal from those who are not suicidal; however, individuals with religious affiliation obtained a higher total score on the RFL than those that were non-religious [28].

India

A study done in Kolkata using the RFL-YA among college students found that three components of reasons for living, coping beliefs, family relations, and future expectation were predictive of suicidal ideation [37]. Furthermore, individuals with fewer personal and social reasons for living were more vulnerable to fostering hopeless expectations when placed under negative, stressful conditions, and crisis situations [37]. The authors proposed that people who possess positive beliefs about their ability to cope with challenging life events are confident about their goal-directed activities, enhancing self-determination and ultimately leading to more hopeful thinking [37]. The study found that reasons for living were positively correlated with hope and negatively correlated with suicidal ideation [37]. Two components of reasons for living, future expectations and coping beliefs, were significant predictors for trait hope and state hope [37].

Summary

This chapter proposes taking a holistic approach to suicide prevention by focusing not only on the cause of psychological pain but also on the strengths inherent to this person and the available resources. The RFL stresses the importance of adaptive rather than maladaptive cognition and assumes that the loss of will to live is the most reliable indication of suicide risk. Some researchers believe that simply completing the RFL can have a protective impact as it prompts the respondent to reflect on the positive aspects of their lives [46].

The original RFL studies found that the Survival and Coping Beliefs, the Responsibility to Family, and the Child-Related Concerns subscales effectively differentiate between suicidal and non-suicidal groups [2]. Generally, individuals who perceive themselves at higher risk of suicide consistently report fewer reasons

for living [35], and those with a history of suicidal ideation tend to score lower on the RFL [38] and the survival and coping beliefs subscale is repeatedly identified as the subscale that is most negatively correlated with suicide [37, 43]. Regarding differences between groups, older adults tend to score higher on the child-related concerns and moral objections than younger individuals do [34], and women have been found to indicate higher survival and coping beliefs and higher fear of suicide than men [33]. Among young adults in India, coping beliefs, family relations, and future expectations were most negatively correlated with suicidal ideation [37], and in the Latinx studies, moral objection and responsibility to family were important in addition to survival and coping beliefs [45, 44]. The Italian [43] and Chinese [28] studies both confirmed the six-factor structure, and both found that the survival and coping beliefs subscale was most predictive of suicide risk. Like the Latinx studies, the Chinese study also found that responsibility to family was significantly protective against suicide [28]. Finally, the Swedish version collapsed responsibility to family and child-related concerns and found that age differences significantly affected moral objections and fear of suicide scores [40].

Not only is the RFL a reliable measure of suicide risk across cultural groups, but it facilitates taking a holistic approach to suicide prevention by considering the strengths and personal, as well as cultural resources, available to someone.

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Prevention-Oriented Risk Formulation

9

Update and Expansion

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Abstract

In this chapter, we review the background to prevention-oriented risk formulation Pisani et al., Acad Psychiatry 40(4):1–7, 2016 and provide updates about its implementation. Section “The Background: From Prediction to Prevention” begins with a critical examination of traditional approaches to suicide risk assessment which seek to stratify those at risk into categories based on likelihood of future suicidal behavior. Responding to the limitations of such approaches, we set out the criteria for a clinically useful “prevention-oriented” approach. Section “Prevention-Oriented Risk Formulation” outlines a framework for prevention-oriented risk formulation, originally published by Pisani et al. Acad Psychiatry 40(4):1–7, 2016, which seeks to meet these criteria. Since its publication, this framework has gained increasing traction in clinical settings around the world. Section “Updates and Modifications” examines what we have learned from the different contexts in which the model has been applied and how we have modified the model itself and methods for teaching it. Section “Prevention-Oriented Risk Assessment for Violence” then turns to the case for applying prevention-oriented risk formulation to risks other than suicide. Starting with a review of the science concerning co-occurrence of different types of risk, we argue that a unified approach to risk formulation may provide deeper insights into an individual’s risk. At the same time, such an approach also has the potential to streamline the risk formulation process to make its clinical application more efficient.

Keywords

Suicide risk assessment · Violence risk assessment · Risk formulation · Person-centered assessment · Prevention-oriented assessment

Introduction

Section “[The Gold Coast Achievement](#)” describes the successful rapid implementation of the framework across a health care system in Australia. We outline the procedures put in place to promote a paradigm shift in culture and to ensure fidelity using a data-driven continuous quality improvement approach. We then describe the results of this implementation, including a 35% reduction in suicide attempts for those placed on a pathway that includes prevention-oriented risk formulation. Finally, we describe recent efforts to develop an Integrated Formulation that combines risk of violence, vulnerability, and suicide into a single risk formulation process.

We end the chapter by considering the next steps to be taken to strengthen and develop the framework in both scholarly and clinical contexts.

The Background: From Prediction to Prevention

Initial Motivations

For a long time in our field, we have had difficulties with how to synthesize, summarize, and communicate about a person's risk for suicide. Traditionally, a suicide risk assessment has sought to assign a person a level of risk that predicts the likelihood of future suicidal behavior – typically “high,” “medium,” or “low.” Clinicians then select appropriate interventions based on the assigned risk level. However, there are significant problems with both the conduct and the conceptualization of such assessments.

Although risk stratification is necessary in certain contexts, there is a danger that risk categories rather than individual needs will be used to determine the allocation of resources and interventions [6, 51]. The clinician's efforts will thus be channeled primarily into identifying and responding to a risk level, rather than engaging explicitly with the factors underlying suicidal ideation and behavior.

More fundamentally, short-term prediction of suicidal behavior is currently not achievable. And even if future advances enhance predictive power, having better categorization tools will only bring meaningful clinical advances if we have frameworks to contextually anchor risk and to communicate and respond in a personalized way. Many studies have documented that psychiatrists and other mental health professionals are very poor predictors of future self-harm. A recent meta-analysis of 365 studies conducted across 50 years [17] concluded that, “across odds ratio, hazard ratio, and diagnostic accuracy analyses, prediction was only slightly better than chance for all outcomes” and that “no broad category or subcategory accurately predicted far above chance levels.” The authors also found that “predictive ability has not improved across 50 years of research” and thus advocate for new approaches to determining risk that do not rely on traditional risk factors. New technologies and computational approaches that draw on massive datasets from people's lives and records [36, 39] may be able to improve our predictive power in the future, but the traditional distinctions between “high,” “medium,” and “low” levels of risk do not provide a framework for making decisions and communicating about identified risk at an individual level.

A further problem with traditional risk stratification is that risk is dimensional rather than categorical. It is very difficult to find consensus on where boundaries lie between risk levels or to arrive at agreed methods for assigning category membership (e.g., by reference to clusters of symptoms; designations based on self-reports). Similarly, “acute risk,” is variously defined as risk of suicidal behavior “within days,” “within weeks,” or even “within several months.”

Categorization of risk into “high,” “medium,” or “low” assumes that the baseline for comparison is the population as a whole (e.g., “high in comparison to the general norm”), but use of this baseline can obscure important information and limit intervention opportunities. For instance, someone who has just lost their job might be judged

as “low risk” compared to the population as a whole. Yet even if this assessment is accurate, it fails to communicate that the person is at a higher risk than they have ever been before in their life and offers no path to responding to their elevated risk.

A New Approach

Lack of predictive validity, conceptual problems with a categorical approach, and lack of context relevant to the individual mean that standard approaches to suicide risk assessment provide inadequate clinical grounding for therapeutic management plans, and, ultimately, for the prevention of future suicidal behavior [38, 51].

What, then, can we do instead? Carter et al. argue that our goal should be to perform “an individual needs-based assessment followed by intervention to meet patient needs and to reduce exposure to modifiable risk factors” [7], p. 392. In the 2016 paper [34], we suggested that one way of achieving such a goal would be to shift from prediction-oriented assessments to *prevention*-oriented thinking, language, and actions. We identified the following three criteria that a practical approach to risk should meet.

1. Risk formulation should be anchored in the clinical context and patient population in which the assessment occurs [8]. Rates and risk of suicide differ across contexts [22], so clinicians in different practice contexts (e.g., outpatient, inpatient, and emergency services) will have a different experience base with distressed patients and hence different judgments about risk. A patient considered high risk in one context (e.g., a college counseling center) might be considered low risk in another context (e.g., an inpatient psychiatric hospital). These risk appraisals differ, not only because patient populations differ but also because each setting has different resources available for intervention. Likewise, the purpose of an assessment varies by setting. So clinicians must conceptualize and describe risk in relative terms. Describing a patient as “low risk” or “high risk” in the abstract is far less meaningful than describing the patient as at lower or higher risk *relative to other patients in the same context*.
2. Risk formulation should capture the fluid nature of suicide risk in the life of an individual patient [16, 37, 50] and explicitly state the following: (a) how the person’s current risk compares to risk at previous time points, and (b) how risk might change in response to future events.
3. Risk formulation should lead directly to intervention strategies [25]. Data points included should provide the building blocks needed to produce risk management plans.

Source: Pisani et al. [34]

To meet these criteria, we proposed moving away from the identification of risk levels. After some consideration, the language of “risk” was retained, despite its inherently predictive connotation. This language is widely used in clinical settings,

and “risk assessments” are often formal requirements in health and payer systems. Removing all talk of “risk” would thus create insurmountable institutional obstacles to the adoption of a new prevention-oriented approach. Nevertheless, the authors argued that the goal of risk assessments should be reframed. Rather than forming the basis for a predictive determination of risk level, the risk assessment process should instead be understood as the gathering of information that leads to a *formulation* of the individual’s current status. This formulation – a concise synthesis of evidence-based suicide risk data – can then lead to a treatment plan that is tailored to the individual.

Risk formulation is an example of what [5] describe as “structured professional judgement.” A formulation draws on data from a range of sources based on the clinician’s knowledge of suicide risk and then structures this data in a way that contextualizes risk. The goal of a formulation is to understand the patient through past, present, and future, creating a narrative that explains how the person’s current circumstances, behaviors, beliefs, thoughts, actions, etc. have come to be, how they have altered the patient’s life, and how they can be changed or supported in the future. An understanding of a patient’s past and present means we can better plan for the continuation of symptoms, the development of new symptoms, or the eradication/lessening of current symptoms.

This new approach is already impacting the field. As of 2021, the original paper has been accessed more than 24,000 times and has received 73 citations in other peer-reviewed papers. According to Altmetric, it is ranked in the 96th percentile of tracked articles of a similar age. The framework itself has been adopted in many health systems – in some cases at a regional or national level – and empirical data has shown that it can lead to a substantial reduction in suicide risk (see section “[The Gold Coast Achievement](#),” below).

In addition to drawing attention to the need for prevention-based formulation, the paper also offered a method for carrying out such formulations. This method includes the gathering and synthesis of eight categories of data, only two of which relate explicitly to suicide ideation and behavior. Expanding the information base in this way has pushed those working in the field to think more holistically about suicide risk, which has sometimes been identified solely with the severity of suicidal thinking. The introduction of other relevant categories has led to a shift in focus that helps clinicians set reports of suicide ideation or behavior within a contextually anchored picture of the person and their situation as a whole. In addition, the graphical representation of the eight categories in a spatial relationship to risk has allowed for a new perspective on what that risk means for the individual.

One key advance made by this approach is the distinction between “risk status” and “risk state,” terms adapted from the literature on violence risk assessment and management [14]. These contextually grounded categories relate risk to the person’s own particular circumstances at different times and in relation to different groups. Again, the goal when using these categories is not to predict future behavior, but to use these contexts to inform prevention-oriented planning. A second advance is the insistence on the identification of (a) available resources on which the particular individual can draw, and (b) foreseeable changes that are likely to lead to crisis.

Identification of the challenges the specific individual might face and the resources they have available to them steers the formulation toward practical prevention-oriented planning that is contextually anchored in the individual's circumstances.

In brief, the new approach:

- Moves away from a focus on prediction
- Sets aside the determination of risk in terms of stratified categories
- Provides a structure for considering the biopsychosocial dimension of the individual's presentation by considering more than just their current feelings/thoughts
- Distinguishes between risk state and risk status
- Includes within risk formulation explicit attention to what might change in the future to increase risk state (foreseeable changes) and what internal and external resources are available to address risk and aid care planning
- Provides a visual model that is repeatable and can be shared
- Focuses on practical outcomes: the things that might change in a person's life and how the person can be supported through these changes

Prevention-Oriented Risk Formulation

The approach to risk formulation advanced in [34] involves collecting clinical data relating to eight broad categories of information about the individual and their context. This data is then synthesized into a prevention-oriented formulation that can guide planning both to secure the person's safety and to help them get better. The categories fall into two loosely defined classes: those factors that are more enduring and those that are more dynamic. The naming of these categories acknowledges that there are almost no factors that are either entirely static or entirely fluid (Fig. 1).

More enduring factors provide the contextual background for understanding the person and their risk for suicide. They are identified by talking with the person and family members about their personal history and experiences. **More dynamic factors** relate to the present and future and may be subject to faster or slower change. Information about dynamic factors is crucial for helping the clinician identify changes that might result in someone being more or less susceptible to risk.

More Enduring Factors

More enduring factors include the following: (1) strengths and protective factors; (2) long-term risk factors; (3) impulsivity and self-control, including history of substance misuse; and (4) past suicidal behavior and ideation.

Strengths and protective factors. Starting an assessment by gathering information about what makes a person strong and special not only identifies background factors that will be important in understanding how to manage suicide risk, but also helps clinicians to see the person as a unique individual rather than just a case to be solved.

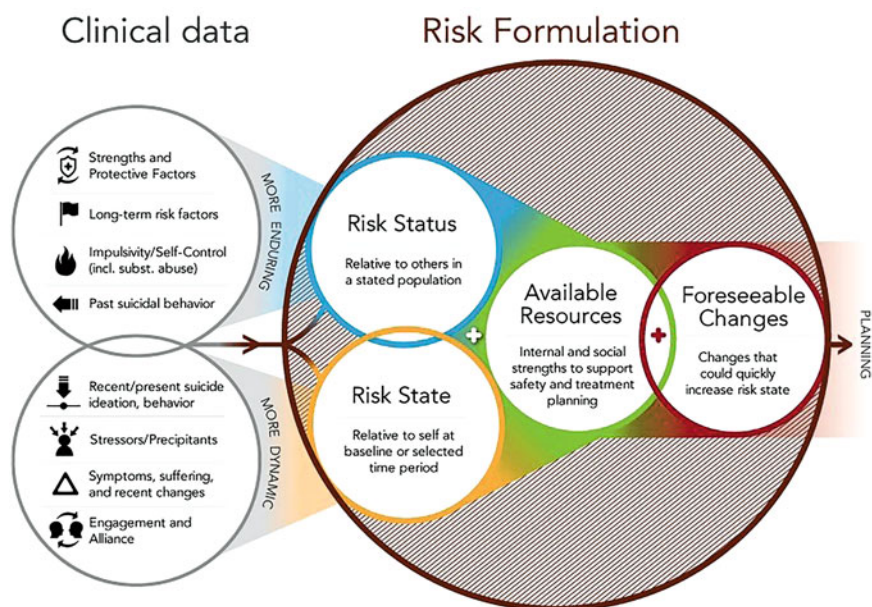


Fig. 1 Risk formulation as presented in [34]

This personal approach is particularly important when working with those at risk of suicide, since responding effectively to suicide risk requires forming a meaningful connection with the person.

Long-term risk factors. These factors provide the historical setting to a person's suicide risk. They are important both because they can guide assessments of relative risk and because they are central to understanding the individual's story – their struggles, burdens, and challenges. When gathering data under this category, it is particularly important to include information on childhood trauma and whether there is a family history of suicide, as well as a mental health history that goes beyond just asking about depressive symptoms. In addition, clinicians will also want to consider demographics under this category. While it is true that certain demographics are at greater or lesser risk than others, this is not the primary reason for collecting this data. Instead, the goal is to understand the challenges a person may have faced because of, for example, their ethnicity or sexual orientation, as this can help a clinician better respond to their needs as an individual.

Impulsivity/self-control (inc. substance abuse). A person's degree of impulsivity reflects the likelihood that they will act without thinking through the consequences. Misuse of drugs or alcohol can have an extremely high impact on impulsivity and judgment and can also impair the person's ability to find alternative solutions to problems. Knowing how likely it is that a person will stop to reflect before taking potentially dangerous actions can both help with understanding an individual's current situation and with planning for the future.

Past suicidal behavior. Information about past suicidal behavior is perhaps the most intuitively obvious data to gather when preparing a risk formulation. However, it is important to remember that, while there is a strong correlation between past and future suicidal behavior, the goal here is not predictive. Rather, knowing the “when” and the “why” of past behavior helps the clinician understand the kinds of situations that may precipitate such behavior in the future. This enables planning to avoid or respond to such situations if they arise again.

More Dynamic Factors

More dynamic factors include the following: (1) recent/present suicide ideation or behavior; (2) stressors/precipitants; (3) symptoms, suffering, and recent changes; and (4) engagement and alliance.

Recent/present suicide ideation or behavior. Again, recent or present suicide ideation or behavior is an obvious starting point. When asking about this category, it is important to pay attention to the feelings that lie behind or accompany the events, so clinicians should also ask about the stressors and precipitants to which the ideation or behavior is a response. Many of the stressors that are correlated with suicide are relatively commonplace events – e.g., relationship breakup or job loss – which most individuals will experience at some point in their lives.

Symptoms, suffering, and recent changes. Often, what turns stressful events into precipitants for suicidal behavior is that they leave the person feeling isolated, like a burden to others, socially defeated or humiliated, and/or trapped, with no way to escape from their painful experiences. Understanding recent changes in such symptoms and suffering – whether they are increasing or decreasing – will play an important role in developing a contextual grasp of a person’s risk and in shaping a risk formulation to make it useful for future planning.

Engagement and Alliance. The final category to assess is a person’s engagement and reliability. This will help the clinician to determine the quality (i.e., accuracy and completeness) of the other data they have collected. This is important not only because it impacts the likely accuracy of the formulation reached when synthesizing the data, but also because it can have significant consequences for safety and treatment planning. For instance, recognizing that there may be significant gaps in what has been shared can help a clinician determine the degree to which a more restrictive environment may be necessary to keep a person safe. Conversely, high engagement and reliability can increase confidence that all details of a safety plan are likely to be followed through. Judging a person’s reliability and openness does not involve a moral assessment of their honesty. Rather, this judgment is simply an important factor in helping the person achieve the best possible outcome.

Risk Formulation

Once all relevant information has been gathered, the next step is to synthesize it into a form that can guide prevention-oriented planning and be communicated easily and

effectively with the patient and other professionals. A prevention-oriented risk formulation will be contextually anchored in the person's history and their current setting. It will not be a static determination but will be sensitive to the changes that are an inherent part of the fluid nature of suicide risk. In particular, the formulation will state how a person's risk now compares to their own risk at different points in time and how it might change in response to the evolving circumstances of the person's life. Most importantly, it will be *actionable*, providing positive guidance toward steps that can reduce risk and move the person toward getting better.

A prevention-oriented risk formulation will include four elements: (1) risk status; (2) risk state; (3) available resources; and (4) foreseeable changes.

Risk status and risk state. Risk status and risk state are two ways of contextualizing risk in relation to baselines specifically chosen for their practical utility. Risk status is risk *compared to whom*, i.e., the individual's risk compared to a given population or setting. Risk status tells us how the person's risk relates to the healthcare setting they are in, or to the setting they have come from or may be transitioning into. For instance, we might say that John is at considerably higher risk than most of the other people in the primary care setting in which he is being assessed. This can help guide a decision that he may be cared for more appropriately in a specialist setting in which most of those being treated have a risk level that is similar to his. Risk state is risk *compared to when*, i.e., relative to the person's own risk at other times. For instance, Peter may have a low risk status relative to a given population but still have a high risk state relative to his own past history. Knowing this can help the clinician see that Peter may need more support now than he did previously, allowing support plans to be framed accordingly. In comparison to simple risk stratification, risk status and risk state allow responses to risk to be tailored to the circumstances of the individual.

Available resources. Available resources can often be identified by reflecting on the strengths and protective factors noted when gathering data about the at-risk person. However, it is important to remember that not all protective factors will be available resources on which a person can draw directly when in need (e.g., having children in the house is a protective factor but not a resource that someone can access specifically in response to a change in their situation). Available resources can either be internal resources, such as a person's ability to process feelings or solve problems, or external resources, such as a good friend or an AA sponsor who is committed to the person's sobriety and well-being.

Foreseeable changes. Foreseeable changes are the types of events that might happen or circumstances that might arise which have the potential to increase risk rapidly. By drawing on a person's history and context to identify changes that might precipitate a crisis, the clinician can work with the person proactively to develop safety plans that will respond to these specific situations. For instance, Rob tried to end his life after finding out that his wife was having a relationship with another man. A foreseeable change identified by the team that treated Rob in the ED was the possibility that Rob's wife, Louise, might decide to leave him. When Rob and Louise engaged in marital therapy, the therapist was made aware of the ED's risk formulation, including the foreseeable changes. Rob was optimistic that trust could be rebuilt, and Louise insisted that she had no intention of leaving. However, to build

a plan around the foreseeable change, she agreed that she would inform the therapist first if she did decide to leave. When Louise ultimately did decide to leave, she acted in accordance with the contingency plan and told Rob in the therapist's office, so Rob had immediate help on hand to ensure that he was supported through the moment of crisis.

When identifying foreseeable changes, the clinician should pay particular attention to the data gathered under "Stressors/Precipitants" to pinpoint scenarios that may leave the person feeling as if they have no control of events, are isolated, humiliated, trapped, and/or a burden on others. In developing a risk formulation, the clinician should identify at least two foreseeable changes to address in the person's safety plan.

Updates and Modifications

Since the initial publication of the prevention-oriented risk formulation approach in 2016, a range of improvements and developments have emerged from ongoing research. In addition, tens of thousands of health care workers have now received training that includes exposure to risk formulation. This adoption has both increased confidence in the usefulness of the approach and has allowed for the delivery system to be refined in response to direct feedback, with the goal of facilitating the clinical understanding and application of the framework.

A. Embedding Risk Formulation Within a Broader Framework for Recovery-Oriented Suicide Prevention. A major development has been the embedding of risk formulation into wider frameworks for recovery-oriented suicide prevention. This has been attempted in various ways in different settings and countries around the world. One such framework has its origins in Pisani's work with a wide range of organizations to transfer research from academic settings to live healthcare contexts. This framework was first introduced in New York State and has since been rolled out at the regional and national level in health systems across the USA, Australia, and New Zealand.

The SafeSide Framework supports the gathering and synthesizing of data and then defines steps for responding to the formulation with safety planning and interventions as appropriate, and then extending care and support beyond the immediate healthcare context. The core tasks of the framework (Connect-Assess-Respond-Extend) act as a map of best practices that provides health systems with a common language and consistent structure for approaching suicide prevention.

- **Connect.** Involves asking directly about suicide and about the person's story and experience. The goal is to form a meaningful and collaborative connection with the person so that the clinician and the at-risk individual can work together toward the person's safety and future well-being. This connection is foundational for the successful gathering of the data that inform the risk formulation.
- **Assess.** This core task involves gathering data under the eight domains discussed above and then synthesizing this information into a risk formulation.

- **Respond.** The respond core task covers the specific actions, plans, and resources identified as appropriate for the person at risk and for others in their lives. This includes how best to work as a team to provide and document the care that is delivered.
- **Extend.** Focuses on extending the impact of care beyond the individual and beyond the specific healthcare setting in which they initially receive it. This gives additional confidence that plans and treatments will continue to have a positive impact on the person's life in the long term. Steps taken to extend care can range from ensuring a warm handoff when making a referral to the use of empirically validated techniques such as nondemand caring contacts.

B. Conceptual Evolution of Risk Status and Risk State. Feedback on the presentation of risk status and risk state has led to a number of clarifications.

The presentation of the elements in the original diagram led some clinicians to assume a linear connection between more enduring factors and risk status, on the one hand, and more dynamic factors and risk state, on the other. To avoid this misunderstanding, we have removed the shading that appeared to identify these as fixed connections (as seen in Fig. 2, below).

A confusion sometimes arose from the use of the language of “populations” in the description of risk status as “risk relative to others in a stated population.” While many found this phrasing helpful, the term acted as a barrier in other cases because it evoked epidemiological language for some trainees. This led some clinicians to question their ability to make judgments if they did not know the suicide risk rates for a given group, while others were uncomfortable with their ability to formally define a given population. After experimenting with different wording in training sessions over several months, Pisani settled on “Risk relative to others in a given setting (current or being considered).” This phrasing led both to greater clarity about how to use the framework and to fewer questions about how to select a “population” with which to compare the person. Although level-of-care decisions are not the only kinds clinicians need to make, they are decisions that need to be made often. Being able to say, “This person is at higher risk than anyone else we have seen in our clinical setting in the last three months” provides a clear way of understanding and communicating how a person can be helped. Conversely, if someone in inpatient care is at a lower level of risk than is typical among such patients, and is at a level of risk that is similar to that of other people typically referred to the outpatient service, then that is a good sign they may be ready for discharge.

In addition to, or instead of, using a person's current or prospective setting for the comparison to determine risk status, other reference groups can usefully be selected. It is often the case that making *multiple* comparisons will help the clinician to understand and explain the situation of a particular person. For instance, we might want to say to someone, “The current risk you're facing is more than we feel we can support you with safely just with you coming here every few weeks and keeping in touch by phone. On the other hand, the risk isn't at the level where we would normally think a hospital might be an appropriate setting. So, as we have found with other people in a similar situation, what we think would work best for you is to have

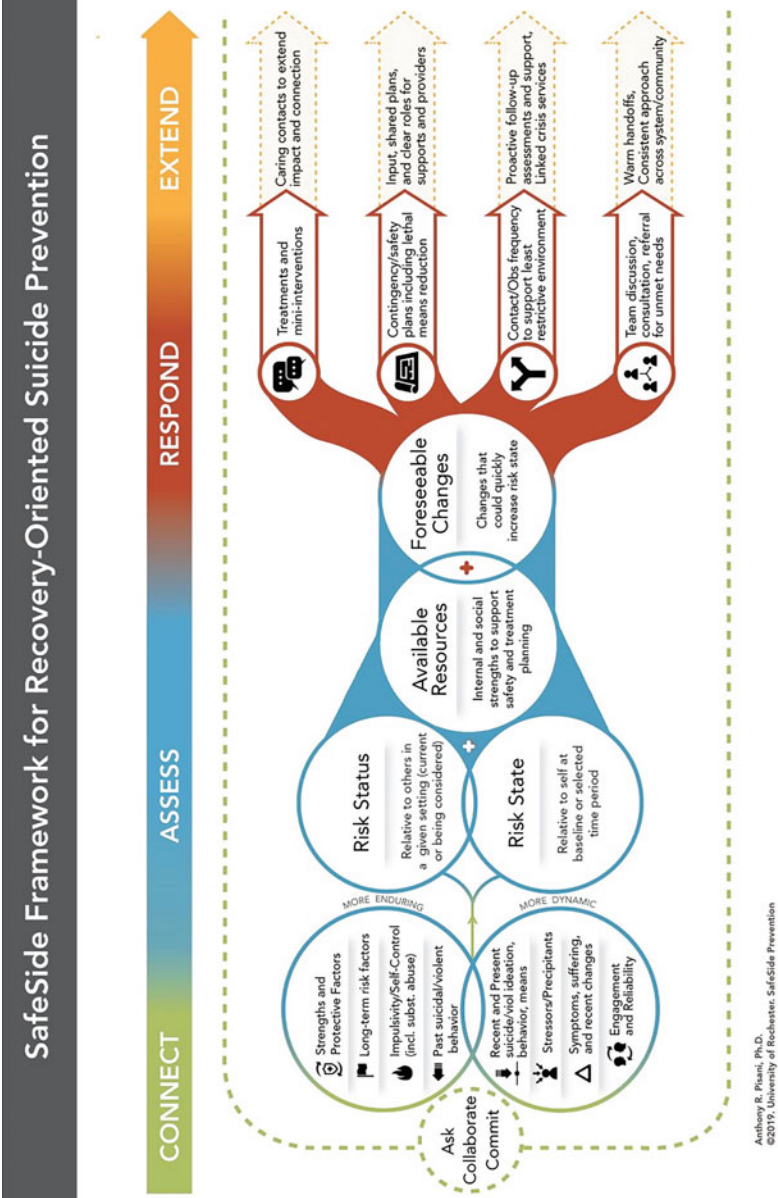


Fig. 2 A framework for recovery-oriented suicide prevention

an outreach team visit regularly with you and your family for the next six weeks to provide you with some additional support.”

Some clinicians found making comparisons with other people they work with uncomfortable when talking to an at-risk person. A common worry was that such a comparison could be dispiriting if it was understood as implying that the person was worse off than many others. To avoid running this risk, Pisani now advises framing these comparisons in terms of the appropriateness of the match between what a person is going through and the supports that would typically be offered in a given setting (“We feel that the current setting doesn’t offer enough support for someone in your position”). Approaching the language in this way enables clinicians to avoid direct comparisons to other people while still conveying the same clinically useful information.

Finally, to make it clear that risk status is not just a new term for “chronic risk,” additional emphasis is now placed on the goal of anchoring the risk in a context that facilitates communication, drives decisions, and nudges the individual and system toward greater transparency.

C. Emphasizing the “Why” Over the “What.” An important point that was not stressed in the original article is that the “why” that lies behind someone’s suicidal behavior or ideation is more important than the “what.” This means that the reasons a clinician identifies for assessing that risk state is higher now or risk status is similar to others supported in a given setting are at least as important as the assessment of the state/status itself. This is because the formulation is primarily a tool aimed at prevention, communication, and making the thinking behind decisions transparent. Saying that someone is at “higher risk than X” gives a clinician less to work with in relation to these goals than does grasping the reasons *why* this is the case. The reasons identified will be specific to the person and are more likely to be useful in planning and prevention than just knowing whether someone’s risk is at a higher or lower status or state.

D. Moving Beyond the Prediction/Prevention Polemic to a Greater Emphasis on Personalization. The 2016 article had a polemical goal: to argue that a focus on categorical stratification was unhelpful for communicating about suicide risk and informing preventive responses. This was framed in terms of a shift from prediction to prevention. With more experience, and with the broad adoption of our formulation model in everyday practice, polemical focus has since diminished in our work.

We now see risk stratification and the endeavor to develop predictive models as two separate issues. Risk stratification has to do with the attempt to categorize who is at greater risk and to allocate resources accordingly. While studies continue to confirm problems with stratification (e.g., Wyder et al.), we also accept that some degree of stratification is inevitable when seeking to manage limited resources and when assigning people to pathways according to their relative needs. In addition, we have seen that organizations do not, in practice, need to completely reject stratification if they are to successfully adopt the type of risk formulation we advocate: Formulation can, for instance, live alongside the use of stratification when it is required in certain types of documentation.

Although our article emphasized the futility of rigid categorization in the face of a lack of predictive capability, this has sometimes been misunderstood as a rejection in principle of research into potentially useful predictive techniques. In fact, with more advanced technologies and the ability of machine learning algorithms to parse very large numbers of variables, it is possible that our capabilities in this field may advance significantly in the future. Of course, if this happens, we will still need a framework for thinking through and contextualizing this data. However, a commitment to risk formulation does not imply a rejection of the search for better data to inform our assessments.

Updates to the Model Since 2016

- Risk formulation embedded into broader frameworks for recovery-oriented suicide prevention
- Evolution of conceptual presentation of risk status and risk state
 - Revision of diagram to avoid suggestion of fixed connection between a) more enduring factors and risk status, and b) more dynamic factors and risk state.
 - Change in language from “risk relative to others in a stated population” to “Risk relative to others in a given setting (current or being considered).” Encouragement to use multiple comparisons.
 - Rather than make comparisons to other people, clinicians have the option of making comparisons between a person’s needs and the levels of support offered in different settings.
 - Additional emphasis placed on anchoring risk in context that facilitates communication, drives decisions, and nudges individual and system towards greater transparency.
- Emphasizing the “Why” over the “What”
- Moving beyond the prediction/prevention polemic

Prevention-Oriented Risk Assessment for Violence

Many clinicians who adopted the prevention-oriented risk formulation for suicide were quick to ask whether the process might be expanded to address violence risk. The reasons for this question are straightforward. First, many clinical contexts require assessments of both types of risk, whether due to internal clinical policies and procedures, or to broader legal requirements. Indeed, conditions described using phrases such as “danger to self or others” are common bases for involuntary civil commitment to psychiatric facilities in the USA and other countries. Second, maintaining entirely separate approaches to assessing risk for violence and risk for suicide seems inefficient. After all, clinicians will explore many of the same domains (e.g., substance abuse, impulsivity, resources, coping strategies, etc.) to inform each assessment and might consider many of the same interventions to prevent either type

of harm. Might there be a way, clinicians asked, not only to efficiently gather the data needed to consider both types of risk, but also to approach violence risk with a prevention-oriented model?

Like the field of suicide risk assessment, the field of violence risk assessment has long struggled with an overemphasis on prediction, imprecise risk categories, and other similar challenges. Yet those working in some areas of the field, primarily within forensic psychology, often acknowledge many of the limits to prediction-focused models and have consequently moved toward distinguishing between violence-prediction approaches and those that focus on violence risk management [21]. There are, thus, good reasons to think that the fields of violence risk assessment and suicide risk assessment may be mutually informative, and that emerging practices in one may also be applicable to the other. For example, the explicit distinction between risk status and risk state – a key element in the prevention-oriented suicide risk formulation model – was drawn from emerging best practices in violence risk assessment [14].

In short, there are strong conceptual reasons to think that both violence risk assessment and suicide risk assessment should move toward more prevention-oriented approaches. There is also a strong scientific basis for thinking that clinicians should simultaneously consider both the risk of violence and the risk of suicide.

Scientific Basis

Put simply, self-harm and harm-to-others often co-occur, and each form of harm is a risk factor for the other. Data supporting this conclusion have been drawn from a variety of methods (e.g., comprehensive reviews, population-based studies, individual samples, etc.) and populations (e.g., clinical and nonclinical, adolescent and adult, etc.). While a comprehensive literature review is beyond the scope of this chapter, it will be useful to consider a number of illustrative key findings.

In a systematic literature review of 123 studies, violence and self-harm were clearly associated with greater aggression in self-harming populations and greater self-harm in aggressive populations when compared to control groups [31]. The researchers emphasized that this finding was robust across population, setting, measures, and data collection methods. They concluded that engaging in one behavior increases the chance of engaging in the other, and thus patients referred for suicidality should be screened routinely for their risk of violence as well.

An influential single-sample study reached similar conclusions. The MacArthur study of violence and mental disorder [26, 44] is considered the most comprehensive and exhaustive study of violence and mental disorder, the “gold standard” study underlying modern violence risk assessment. In a follow-up to the original study sample, researchers examined 951 psychiatric patients and found that violence against others, violence against self (self-harm), and being a victim of violence (victimization) were highly co-occurring [28]. A total of 30% of the sample had engaged in both self-harm and harm to others, and the vast majority

of these had experienced violence from others as well. The authors concluded that “given the substantial overlap among the three forms of violence, clinicians should routinely screen patients who report one form for the occurrence of the other two” [28], p. 516.

In a population-based longitudinal cohort study of nearly 2 million young (age 15–32) Swedish citizens, researchers identified those who received clinical care for deliberate self-harm (3% of the total sample) and considered their risk for subsequent violent crime [40]. Those who had received clinical care for self-harm were far more likely (i.e., a five-times higher crude hazard ratio) to be convicted of a violent crime than those who had no known instances of self-harm. Even after adjusting for psychiatric comorbidity and environmental factors, self-harm was still associated with violent crime, and this relation was particularly strong for women. On a practical level, the authors concluded that “the risk of violence, as well as the risk of suicide and self-harm, should be assessed among offending and self-harming individuals” (p. 615).

Another study of the general population underscored the co-occurrence of self-harm and harm to others. In data from the US National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III), which included several questions related to self-directed violence and other-directed violence, 4.4% of the adult population endorsed self-directed violence, while 2.8% endorsed *both* self-directed and other-directed violence [20]. Substance abuse and psychiatric disorders were more common among those who endorsed both forms of violence, as compared to those who endorsed either one or neither. Personality disorders (particularly antisocial and borderline personality disorders) were most strongly associated with the combined category of violence. Once again, researchers concluded with practical guidance: “Clinicians are advised to explore homicidal risk among patients who attempt suicide or who have suicidal ideation and, conversely, assess suicidal risk among patients who report violence” (p. 391).

Of course, even without such explicit guidance that one type of harming behavior should prompt clinicians to assess for the other type, an exploration of relevant risk factors may lead clinicians to consider both types of risk. Researchers have long noted the substantial overlap among the risk factors for violence and suicide and even speculated that these may reflect a shared propensity for impulsive aggression [1, 23, 35]. Knowing, for example, that a patient tends to act impulsively, drink heavily, and react strongly to fears of abandonment should probably prompt a clinician to consider that patient’s risk for violence *and* suicide, and to take steps to mitigate both risks, even if the patient is known *only* to have previously been aggressive toward self *or* aggressive toward others. Finally, an obvious, explicit threat of one type of behavior should prompt consideration of the other. Researchers recently concluded that “threatening homicide was . . . a novel predictor of suicide risk” [3]. That is, among a unique sample of “threateners,” known to the health and/or justice systems for threatening to kill a person other than themselves, half of those who died in the follow-up period died by suicide (more than any other cause). Threateners were more likely to kill themselves than to kill others [48, 49].

Practical Basis

In light of the strong scientific basis for considering suicide and violence risk together, it is reasonable to reflect on the practical rationale as well. Certain rationales, mentioned earlier, are obvious. Concerns about violence arise in many of the same contexts as concerns about suicide: psychiatric hospitals, community clinics, and even schools. Many health care settings already *require* clinicians to address both types of risk in their intake assessments and documentation. Either type of risk may provide a basis for involuntary hospitalization. Given that the risk factors for each type of risk overlap to such a significant extent, assessing these risks through separate processes may be inefficient and unnecessarily duplicative. Conversely, assessing both risks in a complementary manner offers the chance of not only greater efficiency, but also greater insight, given the possibility that each type of risk will cast light on the other when considered together.

There may also be a number of less obvious advantages to the integration of violence risk assessment into a combined prevention-oriented risk formulation. Violence risk assessment is “a required professional ability for every clinical psychologist” [19], p. 928, and most other mental health professionals, just as is suicide risk assessment. Yet violence risk assessment is not a standard component of most clinical training programs, and most clinicians in routine practice have had little, if any, formal training in violence risk assessment or management [4, 24, 41]. Psychiatry textbook sections addressing violence risk typically mention commonplace, static risk factors for violence (e.g., young age, male sex) and instruct clinicians to ask about violent ideation [36, 39], but this guidance stops far short of a detailed approach to risk formulation. To be clear, there exists extensive research and training on violence risk assessment, but these have rarely spread beyond the professional specialties of forensic psychology and forensic psychiatry, and the related discipline of threat assessment. These fields have developed a rich literature addressing base rates of violence and risk factors for violence, as well as tools and practices to assess the risk of violence (for summaries, see [8, 21, 32]). However, these resources are more often used in the context of forensic facilities and formal forensic evaluations that allow for ample time to conduct extensive record review and collateral interviews, which clinicians in routine clinical practice settings (e.g., busy community clinics) may be less able to perform. In short, nonforensic clinicians in routine practice settings usually lack substantial knowledge of violence risk assessment and thus default to unstructured prediction-type approaches. Many would greatly benefit not only from a basic literacy in the fields of violence risk assessment and threat assessment [29], but also from a prevention-oriented approach that can be integrated into routine clinical practice.

Therefore, the integration of a violence risk assessment approach with a well-established prevention-oriented suicide risk assessment approach may allow for richer consideration of the risk-relevant data that may be less fully or formally considered in standard, default approaches to violence risk. This sort of integration would also address the need in violence risk assessment, as in suicide risk assessment, to move beyond prediction. When the goal is violence *prevention*, the aim

becomes not only an overall risk estimate, but rather, ongoing identification and mitigation of any factors that may be conducive to violence or that may suggest a patient is progressing toward violence, as well as strategies to collaborate with the patient and others in these efforts (see [29]).

Process

In our view, the prevention-oriented risk formulation model for suicide, first advanced in [34] and since modified as described in section “[Updates and Modifications](#)” above, lends itself well to facilitating a similar assessment of violence risk. Given the substantial overlap in the risk factors for violence and for suicide, much of the clinical data-gathering process is the same. Thus, “adding” a violence risk formulation is less a matter of conducting a second assessment, and more a matter of considering much of the same data (with a few additions) in light of its potential relation to violence as well as suicide. Indeed, so closely aligned are the factors that we were able to develop a supplemental module on violence risk formulation and easily integrate it with a training program developed for suicide risk.

Of course, there are a few additional elements that are crucial when considering violence risk. The most obvious is eliciting a detailed history of prior violent behavior. Although identifying past violence is also prioritized in predictive models – based on the strong empirical relation between past violence and future violence – the goal here is to understand not just the occurrence, but the context, antecedents, motivators, and consequences of the violence. While asking explicitly about violence risk may seem self-evident, clinicians are often reluctant to do so. We thus urge all clinicians to *ask questions specific to past violence*, just as they would ask about past suicidal behaviors. Such questions include a thorough review of all past instances of violence.

Eliciting information about past violence is essential to understanding the contexts and situations in which the patient would most likely commit violence in the future. These details not only help inform assessments of risk status, but also inform both the “foreseeable changes” later in the model and strategies to extend care. We also encourage clinicians to ask about instances in which the patient was nearly violent but did *not* proceed with violence. These instances may provide clues to patient strengths and resources, as well as risk-management strategies a clinician can use later.

Example Questions for Reviewing Past Violence

- What was the nature, type, frequency, and severity of the violence?
- Who were the past victims?
- What was the context or setting for the violence?
- What events preceded and followed the violence?

(continued)

- How recent was the last instance of violence?
- Is there any evidence of escalation of violence?
- Were there incidents in which the person was nearly violent but did not proceed with the violence?

Beyond considering past violence (or near-violence), other clinical data to be gathered generally follows that summarized in the prevention-oriented suicide risk formulation model [34] and in Fig. 2. As in the case of suicide risk, it is important to consider impulsivity, self-control, substance abuse, and mood, as well as “symptoms, suffering, and recent changes.” Some clinical conditions – such as paranoia and irritability or anger – may bear a stronger relation to risk of violence than risk of suicide. Although psychiatric symptoms are a primary focus for clinicians, clinicians must also consider the much broader range of (nonpsychiatric) risk factors for violence. As Monahan and Steadman emphasize, “A person with serious mental illness – *even one that bears a causal relationship to violence* – may have a high (or low) overall likelihood of violent recidivism for reasons independent of their illness” ([27] p. 247). Thus, clinicians should consider carefully “stressors and precipitants” that may be less psychiatric in nature, and more related to relationship conflict, loss of status, and perceived provocation.

As in the application of the original model to suicide risk, in the assessment of violence risk we emphasize the distinction between *risk status* and *risk state* (this distinction was, itself, originally drawn from the violence risk literature; see [14]). Risk status involves *a patient’s risk of violent behavior relative to others in a particular population or context*. Some patients remain at higher risk status and warrant closer risk monitoring for long periods of time because of unalterable historical characteristics, such as past violence or early onset violence. In contrast to risk status, *risk state* refers to a person’s *current* violence risk compared with their own risk at baseline or prior points in time. In other words, *risk state* involves the “individual’s propensity to become involved in violence at a given time, based on particular changes in biological, psychological, and social variables in his or her life” ([14], p. 349).

Therefore, assessing risk state involves a focus on current clinical status. Are there changes in the psychiatric symptoms that seem most relevant to violence risk? Is the patient increasingly abusing substances? Has conflict with family escalated? In many ways, these are the types of tasks with which clinicians are already most comfortable – assessing improvement or decline in clinical functioning and intervening appropriately. But clinicians must be comfortable considering these clinical changes as they relate to violence potential, and explicitly discussing with patients the prospect of violence.

As with the suicide risk formulation, *available resources* are a crucial focus. The identification of internal or social strengths on which the person can draw to help mitigate their risk of violence is an essential aid for safety planning. Likewise, identifying *foreseeable changes* that are liable to increase risk or precipitate a crisis

can help in shaping a safety plan that responds directly to the circumstances that are most likely to lead to violence.

Fairly recently, violence risk scholars have begun recommending “scenario planning” [15], a similar concept in that it involves identifying the most likely changes or scenarios that may leave a person more inclined to act aggressively, based on their particular risks and vulnerabilities. Identifying foreseeable changes, or conducting scenario planning, may involve identifying potential victims. In contrast to suicide risk formulation, in which the potential victim is obvious, violence risk formulation must consider the person(s) at risk of harm. This may involve clearly identifiable victims (e.g., a spouse or partner in situations marked by relational conflict or violence; an individual toward whom the patient has a grievance), but it also may involve potential victims unknown to the patient, but at risk due only to proximity or chance.

Indeed, the need to consider victims illustrates one of the challenges to prevention-oriented risk formulation that may be greater with violence than with suicide. Although both outcomes can be impulsive, many types of violence are even less deliberative than suicide, reflecting greater impulsivity and more immediate contextual influences: Consider the man who is intoxicated in a bar and responds aggressively to another angry and provocative patron, or consider the psychotic woman who misperceives a stranger’s innocuous behavior in ways shaped by her paranoid delusion. We acknowledge that it is likely impossible to plan for *all* foreseeable changes, risky contexts, or potential victims. But as with suicide risk formulation, the goal is to identify the primary, or most likely, types of changes (e.g., losses of support, status, or protective factors; increases in substance abuse or particular symptoms) that would contribute to violence.

Conclusions and Future Directions

Integrating a prevention-oriented violence risk formulation into the suicide risk formulation has strong conceptual and practical appeal. Accounts from GCMHSS of steps taken to develop an “Integrated Formulation” (described in section “[The Gold Coast Achievement](#),” below) suggest that it may be practically feasible to bring these elements together in ways that improve both efficiency and comprehensive care.

Of course, much work remains to be done. Recent moves toward integrating violence and suicide risk formulation will require study from a variety of perspectives, addressing both the feasibility of implementation and the potential outcomes.

The Gold Coast Achievement

Rapid Implementation of Prevention-Oriented Risk Formulation

In 2016, Gold Coast Mental Health and Specialist Services (GCMHSS), in Queensland, Australia, rapidly implemented prevention-oriented risk formulations into routine clinical practice across the entire mental health service. GCMHSS is a public

mental health service serving all age groups across a population of approximately 600,000. It provides inpatient and community care and supports one of the busiest emergency departments in the country.

The implementation of prevention-oriented risk formulation occurred within the context of the broader implementation of a Zero Suicide framework within the service (see Table 1, below), with high fidelity to the seven core elements of leadership, training, identify, engage, treat, transition, and improve [9, 46].

The leadership component of the Zero Suicide framework underpinned a shift in the mindset on a range of topics, which spread from service leadership to staff at every level. This change in perspective led to (1) a growing understanding of the limitations of a categorical risk prediction approach; (2) a move away from using diagnosis as a gateway to treatment; (3) the introduction of suicide-specific interventions; and (4) a shift in culture that aspires to the elimination of suicide in consumers (the GCMHSS terminology for “patients”) under care. At the same time, the Zero Suicide framework led to the embedding of a restorative Just Culture that supports consumers, families, clinicians, and the organization as a whole in feeling safe. This developing culture challenges nihilistic views about suicide prevention efforts and engages staff actively in understanding that, although we cannot predict suicide risk, we can improve safety and well-being through a systems approach to suicide prevention.

A Restorative Just Culture

Incident review processes should align with principles of a Restorative Just Culture, which focuses on forward looking accountability and the avoidance of blame, and supports a healing, learning, and improvement process.

Restorative Just Culture

- replaces backward-looking accountability with a focus on the hurts, needs and obligations of all who are affected by the event.
- asks: Who is hurt? What do they need? and Whose obligation is it to meet those needs?
- promotes the healing of trust, relationships, and people and empowers first and second victims.
- moves away from asking *who* did something wrong and what should be done about them, to *what* was responsible for things going wrong and how this can be addressed.
- accepts that involved staff can have both accountabilities and needs, and is predicated on the principle of inclusive engagement of all stakeholders.
- is action oriented, assigning roles and responsibilities for all who have a stake in the event.

Adapted from: “Inconvenient Truths in Suicide Prevention: Why a Restorative Just Culture should be implemented alongside a Zero Suicide Framework,” Turner et al. (2020).

Table 1 Elements of Zero Suicide framework, associated goals, and steps taken by GCMHSS in achieving those goals

ZSF element	Goal	Steps taken at GCMHSS
Leadership	Create a leadership-driven, safety-oriented culture committed to dramatically reducing suicide among people under care. Include suicide attempt and loss survivors in leadership and planning roles	Engagement of all stakeholders through a clinical redesign process Challenging the status quo and current culture; introducing new ideas Review of models of Just Culture
Train	Develop a competent, confident, and caring workforce	Training identified and modified to be specific to the clinical pathway of care to be implemented within the service. Supervision and support provided to assist embedding training into practice
Identify	Systematically identify and assess suicide risk among people receiving care	Development of the clinical pathway of care (Suicide Prevention Pathway)
Engage	Ensure every person has a pathway that is both timely and adequate to meet their needs. Include collaborative safety planning and restriction of lethal means	
Treat	Use effective, evidence-based treatments that directly target suicidality	
Transition	Provide continuous contact and support, especially after acute care	This overlapped with the pathway of care and focused on transitions of care Strengthening connections with the broader community and partnership with the Primary Health Network
Improve	Apply a data-driven quality improvement approach to inform system changes that will lead to improved patient outcomes and better care for those at risk	Development of a Research and Evaluation Strategy Review of responding to and learning from suicides with a focus on embedding new practices that aligned with Restorative Just Culture principles

The systems approach taken by GCMHSS included the development of a clinical pathway of care (the Suicide Prevention Pathway, or SPP) which built on existing skills and approaches to the assessment of and engagement with the consumer. The goal here was to include support for clinicians to improve their skills in the exploration of suicidal intent through the use of Shawn Shea's "Chronological Assessment of Suicide Events" (CASE) model and in the use of the prevention-oriented risk formulation [42]. This approach provided support for a move away from categorical risk prediction. Instead, staff focused on understanding individual and contextual factors that could support the development of an individualized care plan, safety planning interventions (including counseling on access to lethal means and consumer and family education), and rapid follow-up into the community with warm handovers of care. Importantly, the systems

approach also includes tailored training to support all components of the pathway, including cultural and mindset shifts, and has a strong focus on data-driven continuous quality improvement.

As part of the implementation of this framework, deliberate efforts were made to engage clinicians right across the organization. The initiative included face-to-face discussions between the leadership of the service and all mental health teams, enabling stakeholders to explore these important cultural and mindset shifts, as well as the opening up of working groups to all clinicians via expressions of interest. These working groups contributed to the development of the pathway and the training needed to support its implementation.

When the SPP was initially being developed in early 2016, there was a lack of guidance in the literature regarding how to support staff in moving away from categorical risk prediction approaches, and the statewide electronic medical record forms continued to expect the use of the terms “high,” “medium,” and “low” to denote risk levels. The publication of [34] provided a potential solution to this issue. GCMHSS contacted Pisani, who provided guidance on the use of the prevention-oriented risk formulation. Pisani also provided training videos initially developed for a study that examined educational outcomes in primary health care [13, 33].

Building on the completion of the Suicide Prevention Pathway and the work already underway across the service to actively engage clinicians in this cultural shift, the service collaborated with the Queensland Centre for Mental Health Learning to adapt their training for Suicide Risk Assessment and Management in Emergency Departments. This training included both online (3 h) and face-to-face (1 day) elements and was updated to include training in prevention-oriented risk formulation, safety planning interventions, the SPP, and the philosophy of the Zero Suicide approach.

For planning purposes, following the engagement of clinicians across the service, a start date was selected for the SPP. This provided a target to work toward for the training of all medical staff and community staff (including those inreaching into the two emergency departments). As a result of competing demands stemming from the need to implement a change mandated by the statewide Mental Health Act, inpatient staff training was postponed to a later date. A roster of senior staff and educators was created to support the rollout, including through the provision of support across all shifts for a two-week period from the time of commencement of the new pathway. These staff provided coaching on and modeling of the application of new skills, including the use of the prevention-oriented risk formulation. Resources such as flowcharts and example formulations were printed and placed in all workplaces, as well as being made available online. An evaluation plan was developed that included a data-driven continuous quality improvement approach to embedding the new processes.

The training program initially used a “train the trainer” model, with a range of staff across the service being trained to disseminate the new practices. However, practical experience and new research on the train the trainer model [10–12, 18] and practical experience both drew attention to the severe limitations of this approach. Over time, it became clear that the most effective means of reliably delivering the

training was to use two experienced senior clinical staff members with training expertise and dedicate time to train the vast majority of staff across the service.

The Acute Care Team, who saw most of the consumers being placed on the SPP, faced some challenges during the initiation of the pathway. These were likely the result of a period of increased demand that coincided with the slowing down of processes as staff became familiar with the new approach and efficient in its deployment. These teething problems lasted for approximately 2 weeks, during which period a number of clinicians from across the service volunteered some of their time to support the team until the challenges were resolved.

An evaluation plan included the identification of all consumers placed on the pathway and measurement of fidelity to the core components of the pathway. This process included a manual review of electronic medical records (EMRs) to determine whether the components were being completed both in full and correctly. For example, for the prevention-oriented risk formulation, information was gathered to determine whether all components were being commented upon and whether terms such as “risk status” and “risk state” were being used correctly. The data gathered was then fed back to teams, including through the use of communiques which outlined areas of strength and reminded clinicians of processes in cases in which confusion or gaps were identified in the EMRs. The communiques also provided links to training that reinforced the SPP components. The pair of clinicians who provided the bulk of the training then provided further in-services and top-up training to teams who identified gaps in their performance. One familiar theme in the early implementation of prevention-oriented risk formulation was a degree of confusion around the terms “risk status” and “risk state,” so clarification of the meaning of each was a focus of the ongoing training.

In addition to a data-driven continuous quality improvement approach to drive ongoing improvement, sustainability across the system continues to be supported by the embedding of the training as part of the mandatory training expected at orientation for all new staff.

Results. As part of the evaluation process, an audit was undertaken of all consumers presenting with a suicide attempt pre- and postimplementation of the Suicide Prevention Pathway (including prevention-oriented risk formulation). Comparing March and April 2015 ($n = 132$) and March and April 2017 ($n = 95$), there was very strong alignment with a categorical risk prediction approach prior to the implementation, seen in the use of the terminology of “high,” “medium,” and “low” (88.6% using the categorical risk prediction approach in 2015; the majority of consumers in 2015 were rated as either low (58.3%) or medium (25%) risk). Following implementation of the pathway, there was a rapid move away from categorical approaches to prevention-oriented risk formulations (5.3% using a categorical risk prediction approach in 2017).

Fidelity to the prevention-oriented risk formulation for those placed on the pathway has continued to be tracked over time, with feedback provided to the teams. Fidelity to the formulation was reported across 2017 to 2019 and maintained levels over 80% [46]. Evaluation of the impact of the Suicide Prevention Pathway with its embedded prevention-oriented risk formulation has been undertaken,

demonstrating that the pathway is associated with a 35% reduction in suicide attempts for those who are placed on it [43]. Determining which components of the pathway have the greatest impact on these positive outcomes is the subject of further important work.

Conclusion. Prevention-oriented risk formulation was embraced by the GCMHSS as a solution to the dilemma of how to support clinicians in a move away from unhelpful paradigms of categorical risk prediction approaches. The available data shows that risk formulation was rapidly adopted, and clinicians have maintained a high fidelity in its use across multiple years. The implementation was supported by addressing cultural and attitudinal factors, and then supporting staff through both initial and ongoing training, including the provision of training in multiple modalities, such as online, in person, update communiques, and flowcharts for the workplace. The provision of high-quality data has assisted not only in evaluation of the Suicide Prevention Pathway, but also in a continuous quality improvement process which has seen sustained high fidelity to its use.

Developing and Implementing an Integrated Formulation

GCMHSS had significant success in rapidly embedding prevention-oriented risk formulation with good fidelity into routine practice within a Suicide Prevention Pathway. However, there was less evidence that risk formulation was being used as a routine practice for consumers who were not placed on the pathway. In addition, a number of issues were identified that required attention in order to further embed the Suicide Prevention Pathway and to mitigate any unintended consequences.

The following issues were among those identified:

- Consumers rarely present with just one domain of risk; those with suicide risk frequently also have risk for violence and/or vulnerability as well. Vulnerability includes a broad range of considerations, such as domestic and family violence, financial vulnerability, impaired decision-making, sexual disinhibition, and vulnerability to exploitation. There are complex and multidirectional relationships between these various domains of risk, including significant overlap between risk factors for both violence and suicide (discussed in section “[Prevention-Oriented Risk Assessment for Violence](#),” above). Risk factors such as past trauma, lack of social supports, sexual disinhibition, and cognitive impairments can increase vulnerability and other domains of risk. Some specific subpopulations, such as the recently incarcerated, may have increased risk in all domains. Using one process for suicide and different processes for other risks would lead to duplication and inefficiency for busy clinicians in our acute settings and would represent a potential missed opportunity to understand the interaction between risk domains.
- A risk-screening tool was already in use at the state level throughout Queensland, and it was felt that there was a need to further clarify how this screening tool and the recently implemented prevention-oriented risk formulation related to one another.

- In line with the Zero Suicide framework, a focus of the suicide prevention efforts occurring in the service was a move away from using diagnosis as a “gateway” to care and toward ensuring suicide-specific interventions. However, it was also important to diagnose and intervene in cases of mental illness, substance use disorders, physical health issues, and other issues when present, and it was felt that there was, at times, an underarticulation of mental illness and co-occurring disorders.
- It was recognized that formulation in general is an essential component of comprehensive care. Formulation takes a longitudinal perspective, ideally developed with the consumer in a collaborative manner, and helps to make sense of evolving information through the consumer journey via the development of hypotheses that can then guide care planning. It may include, but is not limited to, information regarding risk. It was also recognized that there are a range of formulation approaches available, including both theoretical and atheoretical approaches, and that current use of broader formulations across the service was inconsistent. How prevention-oriented risk formulation related to the broader formulation approaches was not clear.

A working group was engaged by GCMHSS in early 2019 to develop a formulation which addressed these issues. The working group included representatives from Child and Youth, Adult, Older Persons, and Alcohol and Other Drugs services within GCMHSS, as well as lived experience advocates, educators (including those with a statewide role), and Pisani, author of [34].

The working group created the “Integrated Formulation,” a prevention-oriented risk formulation suitable for gathering data about and guiding clinical responses to risks of violence, vulnerability, and suicide. The Integrated Formulation was shaped to do the following:

- Build on a familiarity with the “5 Ps,” with the specific aim of integrating this structure with a number of other important aspects of formulation. The “5 Ps” is an atheoretical formulation approach which synthesizes information under the headings of Presenting, Precipitating, Predisposing, Perpetuating, and Protective.
- Move from a focus on problems and deficits to integrating a more strengths-based approach and a more holistic view of the consumer, contributing thereby to the creation of more individualized care plans.
- Promote a more collaborative process in the development of the formulation and explicitly integrate the goals of the consumer into the formulation.
- Include a “pause to reflect” (cognitive forcing function) on the data gathered (more enduring and more dynamic factors) during risk screening and documented in the Risk Screen form. In addition to the central consideration of more enduring and more dynamic factors, consideration should also be given to the meaning of the events for the consumer. For example, in the case of suicide, some theoretical frameworks consider feelings of humiliation, social defeat, entrapment, thwarted belongingness, or burdensomeness to be particularly significant [30, 47], while for violence the senses of losing status, feeling provoked, or feeling humiliated are important.

- Embed an overt consideration of diagnosis, with a prompt for a “pause to reflect” to specifically challenge cognitive bias. This prompts consideration of a range of differential diagnoses (Mental Illness, Substance Use, Personality Disorder, Physical Illness, and Cognitive Impairment).
- Integrate a prevention-oriented risk formulation into the broader formulation, bringing together risk for suicide, violence, and vulnerability into a single formulation.
- Provide a practical approach to give staff clearer guidance on integrating the prevention-oriented risk formulation.
- Focus strongly on how the formulation links into an individualized care plan.

Later in 2019, a second statewide working group trialed a number of approaches to formulation across the state and obtained feedback from clinical teams. The Integrated Formulation obtained positive feedback, with the caveat that it would require training to accompany its rollout. There was variability across different services with respect to their familiarity with prevention-oriented risk formulation, so training specific to the use of this approach was also a requirement for some services.

A range of resources was developed with a focus on supporting implementation within teams and developing commitment to the approach. These included consumer and clinician handouts to support the collaborative development of formulation and sharing; handouts and posters of the flowchart of the Integrated Formulation, including prompts for considering the details to include in each section; a fictional consumer scenario which gave tangible examples of the Integrated Formulation; and webinars which gave insights from the perspective of Alcohol and Other Drugs and Child and Youth services, as well as raising cultural considerations. A video was produced to present the perspectives of consumers, carers, and clinicians regarding the benefits of the Integrated Formulation, with particular reference to collaborative approaches. Later, a further statewide video resource was produced, modeling the use of the Integrated Formulation as an effective and comprehensive, yet efficient, communication tool within a busy Emergency Department setting.

Further work is being carried out to continue to support clinicians as they implement the Integrated Formulation into an increasing number of teams. This is being implemented through a Brief Breakthrough Collaborative methodology, [2] supporting clinicians across the state to embed formulation, with one of the options being the Integrated Formulation. The project is being supported by the Queensland Mental Health Alcohol and Other Drugs Branch. A range of tools for evaluation are being developed, including audits, feedback surveys, and word searches within the electronic medical record.

What Comes Next

Prevention-oriented risk formulation has gained traction in many areas since 2016 and is becoming a highly prominent model in the suicide prevention community. It is now on the cusp of even wider adoption in Australia and the USA, with the approach

being rolled out across New South Wales in Australia, at a national level with the Australian Department of Veteran Affairs, and in several state-level projects in the USA. In light of this widespread adoption, preparatory steps are being taken for the next stage of development and scholarship.

The first step is to carefully consider the lessons that have been learned in large public health systems, such as Gold Coast Mental Health and Specialist Services. The challenges these systems have faced, and the solutions they have developed, provide a playbook for preparing other systems for change. In particular, the data gathered so far points toward the importance of informing and engaging leadership across the system to gain widespread support for a paradigm shift. In addition, strong educational support at all levels is a *sine qua non* for success, including ongoing training, mandatory training when onboarding new staff, and continuous data-driven quality improvement. With educational processes and materials now in their 5th generation, and empirical data to help inform us about what works [33], we now know what it takes to transfer learning into practice and to support sustained fidelity. The good news is that this training can be delivered rapidly and without imposing a heavy burden on already busy staff, so long as it is implemented thoughtfully [45].

The next phase of development and implementation will involve adapting the processes that have been tested in large organizations to make them appropriate for smaller systems and institutions (community-managed systems, NGOs, etc.). It seems likely that these smaller organizations will have significant advantages that can be leveraged, in that they may have more agility concerning workflows, procedures, and documentation, which are more challenging to change in very large systems.

With fidelity measures and systems for organizing change now in place in some systems, more research is needed to understand the precise effects of a prevention-oriented approach to risk on patient care and outcomes. A particular challenge to research on risk formulation is that it is often implemented as part of the adoption of a wider Zero Suicide framework that includes changing other elements of care at the same time. Consequently, it can be difficult to isolate the effects of the formulation from the other changes that usually accompany it, such as improved care planning, enhanced support pathways, integration of lived experience perspectives, and changing workforce attitudes. Nevertheless, research is ongoing.

One study in New Zealand (Fortune et al. unpublished) is carrying out a qualitative examination of service user and clinical staff experiences of prevention-oriented risk formulation to gather data about the effect of using the formulation on those involved. A second study (Veich et al.) is using a dynamic weight list design and a randomized rollout to evaluate the effectiveness of the SafeSide Framework for Recovery-Oriented Suicide Prevention, a suicide prevention framework that has prevention-oriented risk formulation at its heart.

It is also expected that ongoing research at GCMHSS will continue to yield important insights. In particular, the rollout of the Integrated Formulation will provide valuable data on the time savings generated by a combined risk formulation approach, while study of care plans will provide a vital link between assessment, treatment, and planning.

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The Narrative Crisis Model of Suicide: A Novel and Empirically Grounded Diathesis-Stress Model of Suicide

10

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Abstract

The Narrative Crisis Model of suicide (NCM) is a dynamic multi-stage model of suicide which incorporates well-documented long- and short-term risk factors for suicide. Very innovative, and yet in continuous dialogue with the other models of suicide in the extant literature, the NCM emerged out of the urgent need to better understand, assess, and treat imminent risk for suicide. The goal of this chapter is

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to provide a comprehensive presentation of the NCM and establish its contribution to the conceptualization and the assessment of imminent suicide risk. The first section of the chapter provides a comprehensive review of the underlying reasons for the creation of this model and the ways in which its components address common pitfalls in clinical conceptualizations of and assessment of imminent risk for suicide. The second section presents the different components of the model and the empirical evidence that supports each component as well as the model as a whole. The third and the last section of this chapter proposes a comparison of the NCM and the other leading models of suicide in the extant literature.

Keywords

Narrative Crisis Model of Suicide · Suicide risk assessment · Short-term risk factors · Long-term risk factors

Introduction

The narrative crisis model of suicide (NCM) is a dynamic multistage model of suicide which incorporates well-documented long- and short-term risk factors for suicide. Very innovative and yet in continuous dialogue with the other models of suicide in the extant literature, the NCM emerged out of the urgent need to better understand, assess, and treat imminent risk for suicide. This *raison d'être* will be presented in the first section of this chapter, followed by a description of the model's components and their empirical support in the second section. Last, we will compare the NCM to other models of suicide in order to highlight their shared features as well as the NCM's unique contribution to risk assessment and prevention.

The NCM's *Raison D'être*

Research suggests that about 50–70% of individuals who died by suicide saw a mental health professional or a healthcare provider within 1 month before the suicide [19, 48], raising concerns over the effectiveness of current methods to assess and treat imminent risk for suicide. Recent findings suggest that most suicide attempters deny experiencing suicidal ideation when asked about it by healthcare providers [47] and that only 25% of those who died by suicide between 1996 and 2016 ever disclosed suicidal intent [18]. While the phenomenon of patients hiding their suicidal ideation from their clinicians has been increasingly documented in the literature [5, 6, 36, 44], such denial can also be accurate since ideation and intent fluctuate [31, 41] and may emerge moments before actual suicidal behaviors [24, 73]. Altogether, these findings highlight the absolute necessity to develop clinically relevant models to guide clinicians' assessment of imminent risk without relying on patients'

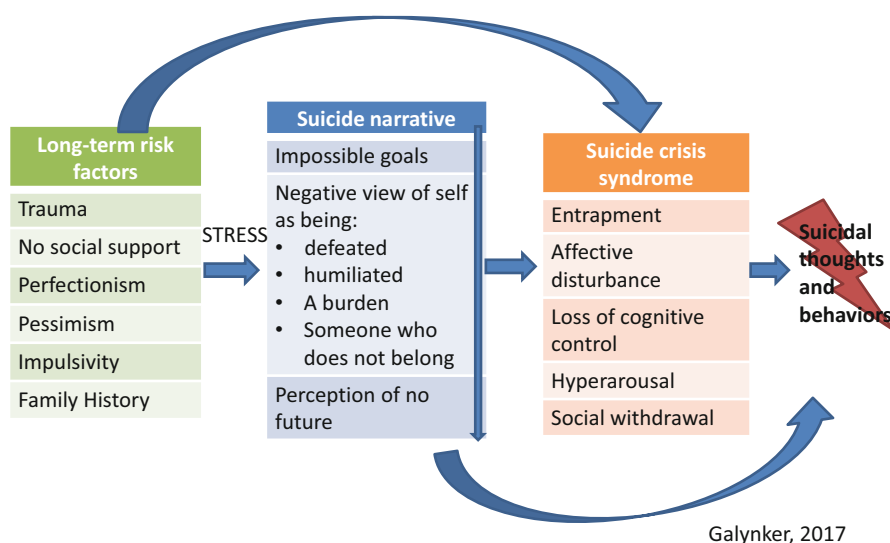
self-disclosure. This gave the first major impetus to develop the narrative crisis model of suicide.

The second reason can be traced to the growing body of research suggesting that while traditional risk factors for suicide discussed in the literature (i.e., mood disorders, past suicidal ideation and attempts, and predisposition traits) predict suicidal behaviors across the lifetime, they do not detect individuals who are at imminent risk [17, 25, 26, 56, 57, 69, 76], prompting researchers to investigate acute psychological processes indicative of imminent risk [2, 6, 26, 71]. Pioneers in this effort, Hendin et al. [34] suggested that feelings of desperation, hopelessness, abandonment, self-hatred, rage, anxiety, and loneliness may reflect the presence of a “suicide crisis” (p. 363) indicative of an acute risk. The suicide crisis syndrome (SCS), originally named *suicide trigger state* [88], was further developed to identify individuals at risk for engaging in suicidal behaviors in the short term. The SCS is characterized by a pervasive sense of frantic hopelessness, which can be described as entrapment with a sense of urgency and desperation, accompanied by affective disturbance, loss of cognitive control, hyperarousal, and social withdrawal [9, 15, 72]. As will be discussed in the next sections of this chapter, the SCS is significantly predictive of short-term suicidal ideation and behaviors [10, 91] and can thus serve both as a diagnostic tool, capable of guiding clinicians’ judgment of their patients’ imminent suicidal risk, and a conceptual formulation of the psychological processes that trigger suicidal ideation and behaviors.

Incorporating the contribution of long-term and short-term risk factors into a more comprehensive framework was nevertheless needed to help clinicians understand one’s progression towards suicidal behavior and suicide. A comprehensive framework was also necessary to inform suicide risk assessments, in which chronic factors could be evaluated together with acute factors to conceptualize and determine patients’ long- and short-term risk. Additionally, a comprehensive model was important to design effective treatments specifically targeting each stage in the cascade of processes that subserve the transformation of long-term risk factors into acute risk for suicidal behaviors. This was the third and last impetus for the development of the narrative crisis model of suicide, a model that provides a comprehensive empirically supported and clinically relevant framework to understand, assess, and treat suicidality [27].

The Narrative Crisis Model of Suicide: A Dynamic Diathesis-Stress Multistage Model

The NCM posits that when individuals experience negative stressful life events, those with long-term risk factors may develop certain views of themselves and society as a whole referred to as the suicide narrative. During the development of this narrative, individuals cling onto unrealistic life goals and perceive themselves to be defeated, humiliated, burdensome, and incapable of belonging. This eventually culminates into a perception of no future [21, 27]. As a corollary to the suicide narrative, individuals may develop the suicide crisis syndrome, an acute pre-suicidal



state of affective and cognitive dysregulation indicative of imminent risk for suicidal ideation and behaviors [28].

Long-Term Risk Factors

Also referred to as distal risk factors or trait vulnerabilities, certain interpersonal, social, psychological, or historical characteristics were shown to increase the likelihood of suicidal ideation and behaviors across the lifetime [20, 37, 76]. Among the childhood history and personality trait factors, a history of child abuse [40], insecure attachment [66], perfectionism [35], and impulsivity and deficits in problem solving [81] were demonstrated to be related to long-term suicidal risk. Additionally a history of parental mental illness and antisocial personality disorder [30] and mood disorders in the family were also found to increase one's long-term risk for suicide [49, 58]. Lastly, one's history of previous suicide attempts and recurrent depressive episodes was also found to increase long-term risk [65]. While such factors do not predict short-term suicide risk [17, 25, 26, 56, 58, 69, 76], their inclusion in the NCM enables clinicians to make more precise assessments about their patients' propensity to move up the stages of the model in the event of a stressor.

Stressful Life Events

Based on the diathesis-stress approach underlying the NCM, stressful life events (also referred to as stressors) are powerful catalysts able to activate pre-existing long-term risk factors and trigger imminent risk for suicide. Overall, the literature supports

the strong relationship between recent stressful life events and increased suicidal risk. Recent stressors have indeed been shown to be a precursor for proximal suicidal ideation and behaviors, particularly economic/financial strains and interpersonal problems [13, 54, 63]. A recent study suggested that some stressors such as interpersonal trauma may contribute to suicidal outcomes more than others [1]. This contrasts with prior work which suggested that the timing, rather than the type of stressor, may contribute to suicidal outcomes [70]. In their most recent study on the NCM, Cohen et al. [22] suggested that stressful life events serve as a mediator in the relationship between trait vulnerabilities and concurrent or near-term suicidal thoughts and behaviors.

The Suicidal Narrative

The suicidal narrative is a cognitive state triggered by the interaction between stressful life events and long-term risk factors, which precedes near-term suicidal behaviors [21]. This concept originally derived from research regarding life narratives suggests that identity is an ongoing and narrative process where individuals incorporate their life experiences into an internalized and evolving self-story [52]. The suicidal narrative is one such self-story, where an individual's response to stressful life events involves the internalization of distorted self-representation which leads to emotional distress and an increased risk for suicide [21].

The suicidal narrative includes seven components, or themes, that were established as short-term psychological risk factors for suicidal behavior in the empirical literature. The first, thwarted belongingness, occurs when an important need for connection or belonging is unmet [78]. This need to belong is described by Baumeister and Leary [5] as a fundamental desire to form stable, positive, and lasting interpersonal attachments. Thwarted belongingness comprises loneliness, or the experience of disconnect between self and others, and the absence of reciprocal care, where a person feels as though they have no one to care for or, in turn, care for them [78]. Associations between loneliness and suicide ideation (e.g., [74]) and social isolation and suicide (e.g., [75]) were documented in the literature.

The second theme is perceived burdensomeness which emerges from an unmet need for social competence [79], that is, when an individual feels incapable of having meaningful social interactions or relationships. Two indicators of perceived burdensomeness are self-hatred and a person's belief that they are a liability, namely, that others may believe that their death is worth more than their life [78]. Prior research found a relationship between self-hatred and suicidal behavior (e.g., [33, 67]). Research has also associated suicidality with expendability in different populations, for instance, in cancer patients [80] and adolescents [74]. Additionally, the perception that one is a liability or a burden may be related to major suicide risk factors, such as homelessness, incarceration, unemployment, and severe physical illnesses [78].

Per the interpersonal theory of suicide [39], the simultaneous, stable, and unchanging presence of both thwarted belongingness and perceived burdensomeness is a proximal cause of active suicidal desire [78]. Empirical studies indeed found the

concurrent experience of both factors to be associated with suicide ideation [14, 64, 77].

The third and fourth components of the suicidal narrative are defeat and fear of humiliation. The integrated motivational-volitional model of suicidal behavior emphasizes the role of both factors, in addition to entrapment, as proximal predictors of suicide ideation [60]. Defeat is also a crucial component of the cry of pain model of suicide (CoP; [83]) and is related to its concept of arrested flight, or the belief that one is socially trapped, coupled with a strong desire for escape [29]. Per Klein [42], humiliation occurs when one feels disparaged, scorned, or ridiculed for what one is rather than what one has done. The notion that suicide is a response to the fear or threat of humiliation is suggested in the literature [32, 42].

The fifth and sixth themes of the suicidal narrative involve a failure to disengage from unattainable goals and a difficulty redirecting one's efforts toward more realistic ones, respectively. These concepts were derived from the conceptual formulations and empirical findings on goal disengagement theory, which suggested that the ability to disengage from unrealistic goals and to reengage with more achievable ones is crucial for one's well-being and physical health [53, 85–87]. Being caught in an action crisis, in which one struggles to let go of unachievable goals and develop more adaptive ones, was found to trigger elevated distress [16]. O'Connor et al. [61] found that the inability to reengage with new goals was predictive of suicide ideation. Last, difficulty with goal reengagement was shown to predict future self-harm behavior in a population of suicide attempters [63].

The six themes of the suicide narrative are understood to trigger one's perception of having no future. Conceptualized as the cognitive counterpart of entrapment, the perception of no future involves one's belief that their challenges will never abate nor improve.

The Suicide Crisis Syndrome

The suicide crisis syndrome (SCS) refers to an acute pre-suicidal state of affective and cognitive dysregulation that represents the last step of the narrative crisis model (NCM) and is its core feature [27]. Coined the suicide trigger state, the original formulation of the SCS was conceptualized as a panic-like syndrome that combined symptoms of frantic hopelessness (a desperate sense of entrapment), ruminative flooding (negative, uncontrollable thoughts), and near-psychotic physical symptoms (pain) [88]. This formulation was grounded in the work of Hendin et al. [34] who coined the term suicide crisis to describe a state suggestive of short-term suicide risk consisting of desperation, hopelessness, abandonment, self-hatred, rage, anxiety, and loneliness. Models of suicide such as Baumeister's [4], which emphasizes the connection between hopelessness and suicide, provided further inspiration for the suicide trigger state. Additionally, research on the relationship between psychosis and suicidal attempts [68], combined with empirical findings on ruminative thoughts

by Nock and Kazdin [55], and their somatic correlates provided support for the inclusion of a ruminative flooding and near-psychotic somatization, characterized by physical pain that derives as a direct consequence of a panic-like state, in the condition.

The suicide trigger state [88] was revised and renamed the suicide crisis syndrome (SCS) after the inclusion of additional short-term risk symptoms for suicidal behavior documented in subsequent research [27, 89]. The resulting five SCS dimensions were (1) frantic hopelessness or entrapment, characterized by feeling trapped in an unbearable situation from which one could not escape despite a desperate urge to do so; (2) panic/dissociation, characterized by an altered sensorium and derealization, both associated with panic; (3) ruminative flooding characterized by uncontrolled and racing thoughts and somatic symptoms such as headache and pressure in the head; (4) emotional pain characterized by feelings of mental pain and anguish; and (5) fear of dying characterized by conscious fears of sudden death. This version of the SCS was found predictive of short-term suicidal attempts [3, 28, 90].

The current formulation of the SCS reflects the most recent empirical evidence on near-term risk factors for suicide and forms the basis of a diagnosis that was proposed to the DSM-5 scientific review committee. The SCS is characterized by a pervasive feeling of frantic hopelessness/entrapment (Criterion A) accompanied by affective disturbance, loss of cognitive control, hyperarousal, and social withdrawal (Criterion B) [9, 15, 72, 91]. In a state of entrapment, one experiences their current life situation as unbearable and perceives the escape from it as both urgent and unbearable. Entrapment was found to be significantly predictive of imminent suicidal behavior [38, 45] and was highlighted as the symptom with the highest number of interconnections to the other SCS symptom, suggesting its central role in triggering or reinforcing the SCS symptoms [9].

Affective disturbance can be presented through four discrete symptoms either individually or simultaneously [72]: (1) emotional pain, or *psychache*, is characterized by intense feelings of torment and hurt; (2) rapid surge of negative emotions and feelings toward the self and others; (3) extreme anxiety, manifested by a severe sense of panic and dread, potentially accompanied by somatic symptoms including headaches or panic attacks; and (3) acute anhedonia, experienced as the loss of interest and pleasure in activities that were previously enjoyed.

Loss of cognitive control involves several psychological progressions that may present in one or various combinations of four symptoms [72]: (1) ruminations about one's problem; (2) cognitive rigidity presented as an individual's incapacity to consider different outcomes or coping approaches; (3) ruminative flooding, which involves physical pain such as headaches or head pressure resulting from the overwhelming ruminations; and (4) failed thought suppression, characterized by multiple, unproductive attempts to suppress upsetting or disturbing thoughts.

Hyperarousal involves several distressing emotional and somatic experiences reflected in four symptoms that could be present independently or simultaneously [72]: (1) agitation; (2) hypervigilance, displayed by an acute and

disproportionate sensitivity to sensory stimuli and conceivable dangers present in the environment; (3) irritability; and (4) insomnia, involving trouble falling asleep or staying asleep for the duration of the night.

The last symptom of Criterion A in the SCS, social withdrawal, is reflected avoidance of social interactions with one's environment, in addition to their perceived lack of belongingness to their social surroundings [72].

The current formulation of the SCS, about to be proposed to the DSM-5 scientific review committee, was found predictive of near-term suicidal behaviors among an inpatient population [91]. Those meeting full criteria for the SCS were more likely to have a post-discharge suicide attempt as compared to those meeting partial criteria. Neither current suicidal ideation nor depressive severity was significantly related to post-discharge attempt within this sample. Analyses were replicated on an adult outpatient sample [92]. More recently, the SCS was found to significantly predict suicidal attempts as well as suicidal behaviors in a mixed sample including both inpatients and outpatients [12].

Empirical Validation of the NCM

In addition to the empirical validation of its components, a growing body of research provides emergent empirical support for NCM as a model. First, a study by Cohen et al. [20] suggested that the relationship between a group of trait vulnerabilities (perfectionism, impulsivity, substance abuse, insecure attachment, poor social support, and childhood trauma) and lifetime suicidal ideation and behaviors was significantly mediated by the suicide crisis syndrome (original version). In another study, Cohen et al. [21] demonstrated that the suicide crisis syndrome (original version) mediates the relationship between several themes of the suicidal narrative (i.e., thwarted belongingness, perceived burdensomeness, fear of humiliation, and social defeat) and lifetime suicidal ideation and behaviors. More recently, Bloch-Elkouby et al. [11] investigated the relationship between four out of five components of the narrative crisis model assessed longitudinally and explored the model's ability to predict prospective suicidal ideation and attempts. The study's findings suggested that each step of the model significantly predicted the next and that the model accounted for 10.8% of the variance in prospective suicidal ideation as well as 40.7% of the variance in prospective suicidal attempts. Last, a serial moderation and mediation analysis by Cohen et al. [22] investigated the model's predictive validity and the relationship between its stage components. This study, too, supported the hypothesized relationships between the model's components with the exception that stressful life events were found to mediate (but not to moderate) the relationship between trait vulnerabilities and the suicidal narrative. The study also demonstrated that the SCS (original version) predicted concurrent and prospective suicidal ideation and behaviors.

Contrasting the NCM with Other Models of Suicide

Stress-Diathesis Models

The NCM shares common features with several models of suicide. First and foremost, it is not the only model that includes a stress-diathesis approach, according to which distal factors act as a predisposition to respond to stress with suicidal ideation and behaviors. To cite just a few such models, Linehan's biosocial model of borderline personality disorder, for example, posits that innate emotional vulnerability, when coupled with an invalidating environment, can decrease one's ability to regulate their emotions, cognitions, and behaviors [23, 46]. The resulting trait-like dysregulation is then exacerbated in the face of stressors such as rejection, eliciting maladaptive coping strategies involving suicidal and non-suicidal self-harming behaviors [46]. While both models highlight the contribution of trait vulnerabilities and dysregulation in one's risk for suicide, they also differ in several ways. First, the trait vulnerabilities included in the NCM encompass a wider gamut of traits and childhood events. Second, while the NCM does not reject the idea that certain individuals' dysregulation puts them at chronic risk for suicide, it strives to underscore the very chain of processes through which such risk materializes. In this chain, the role of life stressors is central, for it triggers existing trait vulnerabilities, leading to the emergence of a suicidal narrative, followed by a state of affective and cognitive dysregulation described by the suicide crisis syndrome, which in turn predicts suicidal outcomes.

According to Beck's cognitive diathesis-stress model [81], dispositional vulnerability factors involving trait hopelessness and the propensity for attentional fixation predispose individuals to respond to stress by engaging in quickly escalating suicidal crises characterized by state hopelessness, anxiety, and agitation [81, 82]. The NCM's emphasis on entrapment, loss of cognitive control, and agitation as key components of the SCS parallels Beck's model.

Meanwhile, Mann's stress-diathesis model of suicide [50, 49] proposes that low serotonin and norepinephrine levels associated with impulsivity and hopelessness represent a diathesis for suicidal behavior. In the experience of a psychosocial crisis or psychiatric illness, these biological vulnerabilities, when present in an individual, may lead to suicidal behavior. Similarly to Mann's model vulnerability stage, the NCM includes a long-term risk factor stage that may be activated by stressors. The NCM departs from this model, though it includes two intermediate stages (the suicide narrative and the SCS) that play a pivotal role in the emergence of suicidal ideation and behaviors as well as a disinguisable suicide-specific mental state of the SCS.

Ideation-to-Action Models

In recent decades, the growing body of research showing that most suicide ideators do not engage in suicidal behaviors [59] has led to increasing interest in ideation-to-action models of suicide, which differentiate risk factors for suicide ideation from

risk factors for suicidal behavior [59]. While the NCM fundamentally differs from these models, as discussed below, it also presents important similarities. For example, according to the interpersonal theory of suicide (IPTS; [39]), active suicidal ideation results from an experience of perceived burdensomeness and thwarted belongingness. Both factors were included in the NCM as components of the suicidal narrative. Per the IPTS, suicidal ideation can morph into suicidal behaviors when an individual has an acquired capability for suicide [78], which may stem from past experiences such as prior suicide attempts or childhood maltreatment [78]. This later component is one of the trait vulnerabilities included in the NCM.

A second ideation-to-action theory of suicide is the integrated motivational-volitional model (IMV; [62]). The model describes a wide array of factors that may trigger the motivational stage, through which suicidal ideation arises, and the volitional phase, in which suicidal intent may trigger behaviors. Although three such factors are shared with the NCM, defeat, humiliation, and entrapment, their contribution to the emergence of suicidal behaviors is conceptualized quite differently.

The three-step theory (3ST) is a more recently proposed ideation-to-action theory of suicide and comprises three steps [43]. The first step suggests that a combination of pain (generally, psychological pain) and hopelessness can develop into passive suicide ideation. In the following step, suicidal thoughts may escalate into active suicide ideation if a person's experience of pain overwhelms their feelings of connectedness. Ideation may progress into action in the final stage, in the presence of dispositional (e.g., low fear of death), acquired (e.g., exposure to combat), or practical (e.g., access to lethal means) capability for suicide. While the 3ST posits that pain contributes to the development of suicidal thoughts, in the NCM pain belongs to the affective dysregulation symptom of the SCS, and it relates to imminent suicidal behavior. The NCM also includes entrapment/frantic hopelessness, which is close but not identical to hopelessness in the 3ST. Similar to pain, entrapment plays a central role in the development of suicidal behavior rather than ideation in the NCM. Connectedness, as described in the 3ST, refers to one's attachment to anything (e.g., a project, role, or hobby) or anyone that gives them a sense of purpose and supports their desire to live [43]. Disrupted feelings of connectedness to people, or perceived burdensomeness and thwarted belongingness in the NCM, play an important role in both theories in the emergence of suicide ideation.

The main difference between the NCM and the ideation-to-action models presented above lays in their conceptual formulation of suicidal ideation and its contribution to suicidal behaviors. The underlying assumption of ideation-to-action models is that suicidal behaviors emerge as the result of one's progression from suicidal thoughts of increasing severity to actual plans and actions [51]. The NCM diverts from this assumption, and rather posits that several paths can lead an individual to make a suicidal gesture. As mentioned above, the main path described by the NCM involves the progression from trait vulnerabilities to the suicide crisis syndrome via the suicide narrative, in such a way that conscious suicidal ideation and behaviors may both emerge within a short timeframe (as documented in the literature, see [24, 73]), as a result of the acute and severe affective and cognitive dysregulation caused by the suicide crisis syndrome. Accordingly, conscious suicidal ideation may not appear until the very last

moment or even not at all. This formulation fits in well with recent research showing that suicidal ideation fluctuates over time [31, 41] and thus does not build up in a linear way. Notwithstanding, the NCM does not preclude the possibility that in some cases, the culminating perception of no future triggered by the suicide narrative and its resulting SCS may elicit intense suicidal ideation that matures into planning and premeditated suicidal behaviors. With regard to such cases, and more generally in light of the growing literature documenting that patients tend to hide their ideation from their clinicians [7, 8, 36, 44], the absence of suicidal ideation in the NCM may be all the more critical, for it provides a comprehensive array of tools to assess and long-term and imminent suicide risk regardless of patients' readiness to disclose their suicidal ideation and intent.

Another key difference between the NCM and other theories of suicide is that the former postulates the existence of an acute distinct suicide-specific mental state, the SCS, which can be described and diagnosed regardless of patients' experience of suicidal ideation. In a recent review paper, Calati et al. [15] highlighted several biomarkers susceptible to being involved in the etiology of the SCS, paving the path for future pharmacological studies targeting the proposed biomarkers. Furthermore, several ongoing studies currently investigate the impact of pharmacological treatments on the SCS and their ability to reduce near-term suicidal risk.

Conclusion

The NCM provides a clear and yet comprehensive conceptual framework, which incorporates the long- and short-term risk factors for suicide documented in the empirical literature on suicide. Namely, each component in the model has been shown to predict suicidal ideation and behaviors. Furthermore, the model as a whole was also found to be predictive of suicidal ideation and behaviors in cross-sectional [22] and prospective [11] studies. While innovative, the NCM synthesizes features common to several models of suicide and can be expected to evolve further in order to reflect the new findings that continue to shed light on the processes that lead to suicidal ideation and behaviors. The contribution of the NCM to suicide risk assessment, prevention, and treatment can be thought of as multilayered. First, it provides clinicians with an empirically supported conceptual formulation of the progression from long-term risk factors to suicidal outcomes, upon which specific cases conceptualizations can be developed to enhance clinicians' ability to understand their patients. Second, the comprehensive inclusion of long- and short-term risk factors in the NCM can guide clinicians' assessment of their patients' imminent as well as future suicidal risk as well as future. Third, the clarity and conciseness of the model allow clinicians to use it as a psychoeducational tool that can help patients develop insight into the different processes that trigger suicidal ideation and behaviors. Fourth, the SCS can be taught in medical schools within a medical framework, similar to other DSM syndromes. Last but not least, the NCM provides the first framework for a comprehensive and multilevel approach to suicide prevention which includes psychotherapy, psychopharmacology, stress management, and means restriction.

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Clinician Emotional Response to Patients at Risk of Suicide: A Review of the Extant Literature

11

Saskia Newkirk and Igor Galynker

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Abstract

The emotional responses of clinicians to patients at risk of suicide have long been discussed in the theoretical psychodynamic literature but have been largely neglected by empirical research. A substantial body of evidence supports the notion that clinicians often experience strong negative or positive emotional reactions to suicidal patients (Gurrister and Kane, *Community Ment Health J* 14(1):3–13, 1978; Maltsberger and Buie, *Arch Gen Psychiatry* 30(5):625–633, 1974; Modestin, *Br J Med Psychol* 60:379–385, 1987; Richards, *Br J Guid Couns* 28:325–337, 2000). Nascent yet compelling research has yielded data to suggest

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that a unique combination of both positive and negative emotional responses may be characteristic of clinicians' responses to these high-risk patients (Galynker, *The suicidal crisis: clinical guide to the assessment of imminent suicide risk*. Oxford University Press, Oxford, 2017; Soulié et al., *Arch Suicide Res* 24(1):96–118, 2018; Yaseen [71, 72]). This phenomenon could prove to be a valuable addition to current suicide risk assessment models and may have notable implications for diagnosis of suicide risk in clinical settings.

Keywords

Clinician emotional response · Suicide

In recent years, suicide has risen to become the 10th overall leading cause of death in the United States, accounting for 48,344 deaths in 2018 alone [17]. Among Americans aged 10 to 34, suicide is the second leading cause of death [17]. The rate of suicide in the United States has continued to rise at an alarming rate, increasing 33% from 1999 to 2017 [36]. This rate has continued to accelerate steeply in recent years increasing 1% between 2000 and 2006, 2% from 2006 to 2016, and 4.9% in 2017 [17]. In addition to death by suicide, it is estimated that 9.8 million Americans consider suicide annually, and 1.3 million citizens make a suicide attempt each year [1]. Not only is suicide a growing concern in the United States, it also represents a major cause of preventable mortality throughout the world.

Estimates of global suicide deaths reached 817,000 in 2016 [51]. The number of global suicide attempts are even higher, reaching an estimated 25 million each year [23]. Due to the massive amount of stigma associated with suicide, these estimates are conservative, and in reality, these rates may be even higher than reported. The staggering rates of suicide in the United States and across the world have prompted countless efforts by researchers to identify risk factors associated with suicidality, investigate the efficacy of treatments, and work towards accurate prediction of suicide [30]. This research has undoubtedly deepened our understanding about the nature of suicidal thoughts and behaviors and has informed the development of many models and theories on the subject. In spite of these efforts, suicide rates have shown no appreciable decline in recent years.

Effect on Clinicians

In light of the growing suicide epidemic, prevention efforts have increased among mental health professionals. Although the majority of individuals who die by suicide have no contact with mental health professionals before their death, data suggests that one third of suicidal patients come into contact with a mental health professional in the month immediately prior to their death [58]. The far too common nature of suicide is also reflected in the experience of therapists, psychiatrists, counselors, and other mental health professionals. The majority of mental health clinicians, estimates

range from 50% to 95%, have worked with patients expressing suicidal ideation or a history of suicidal behaviors [61]. Surveys indicate that as many as half of all psychiatrists will lose a patient to suicide in their career [18]. Though interaction with suicidal individuals is commonplace, these interactions can be taxing for many clinicians. In fact, working with suicidal patients has been found to top the list of work stressors for therapists, and suicide death of a patient is recognized as an occupational hazard for mental health professionals [2, 19, 26].

The loss of a patient by suicide has a profoundly disturbing and potentially career-ending impact on clinicians [2, 21, 37]. Where other healthcare professionals experience the death of a patient as an unfortunate, yet sometimes inevitable, consequence of an illness, mental healthcare providers often experience the suicide death of a patient as a personal therapeutic failure [33, 47]. Following the suicide death of a patient, many clinicians are flooded with responses like grief, shame, guilt, fear of blame, and self-doubt [37]. Not only does the death of a patient by suicide have the potential to elicit powerful emotional reactions, it is also clear that the high-stakes task of working with suicidal individuals can also elicit strong emotional reactions on the part of the clinician. The potential for clinical judgment to be influenced by the taxing nature of work with suicidal individuals, combined with the lack of reliable suicide risk assessment tools, makes both assessment of suicide risk and treatment of suicidality a monumental undertaking for experienced and inexperienced clinicians alike. The proportion of suicidal patients who do, in fact, receive mental healthcare prior to completing suicide represents a sizable missed opportunity for targeted intervention and suicide prevention. To this end, suicide risk assessment scales have been developed, but currently none have demonstrated strong positive predictive value [30]. In this light, clinician judgment remains one of the most relied upon tools for establishing suicide risk among patients.

Suicide Risk Assessment Models

The scale and severity of the current global suicide epidemic have inspired a wealth of research aimed at uncovering a set of both proximal and distal risk factors that lead to suicidal thoughts and behaviors. Various researchers have developed their own, often overlapping sets of risk factors, theories, and models aimed at classifying patients into low- and high-risk groups. Recent meta-analyses, however, have pointed out that most suicide risk assessment models have poor predictive ability and limited clinical utility [9, 30]. In fact, despite the nearly 50 years of research on the subject, none of the current models assessed in these systematic reviews performed above chance levels [30]. Furthermore, many risk factors that have been studied extensively are distal, or so-called “trait” predictors. These predictors have limited value in clinical settings. Proximal or “state” predictors are far more useful to mental health professionals assessing imminent suicide risk in patients in clinical settings. The lack of reliable and comprehensive suicide risk assessment models has left practitioners largely unable to distinguish patients who will go on to make suicide attempts from those who will not. Thus far, none of the established

theories on the subject have integrated clinical judgment or the subjective experience of clinicians as an important facet of establishing suicide risk in patients. In this light, quantifying the emotional experience of clinicians in contact with suicidal individuals has potential to enhance suicide risk assessment models and strategies.

Countertransference

Clinicians rely upon their clinical judgment greatly when making treatment decisions. These judgments are comprised of both rational factors such as information gathered from clinical history and emotional factors informed by the clinician's emotional responses to the patient [4]. As posited by Hayes, Gelso, and Hummel [35], the concept of clinician emotional response, referred to as countertransference in the psychodynamic literature, has evolved greatly since it was coined by Freud at the turn of the twentieth century. In fact, the term has now been adopted by some cognitive-behavioral clinicians and researchers who argue that the term has now become transtheoretical [16, 43, 54]. Freud used the term to describe the psychoanalyst's unconscious and conflict-basted reaction to the patient's transference. In this original view, countertransference was viewed as a problematic phenomenon that should be minimized or eliminated completely [35]. This classical view on the role of countertransference persisted until the 1950s, when a totalistic conception of the phenomenon emerged [44].

According to the totalistic perspective, all of the therapist's reactions to the patient fall under the umbrella of the term countertransference, and every reaction is thought of as an important tool for understanding the patient [35]. A third conceptualization of the phenomenon emerged when it was posited that the clinician's reactions to the patient should be viewed as a complement to the relating style of the patient. In this view, the reactions elicited in the therapist by the patient should not be permitted to play out in therapy but can provide insight into the patient's interpersonal and relational style. The final conception of countertransference, the relational view, regards the phenomenon as originating mutually from the unresolved conflicts, needs, and behaviors of both the client and the therapist [35, 49].

Though the term has been conceptualized in a variety of specific ways, each with their own set of limitations, the definition has since evolved both in literature and in everyday dialogue to generally describe any emotional reaction that a therapist has in response to his or her client [32, 35]. By and large, the classical, totalistic, complementary, and relational definitions are used interchangeably and without much nuance. Few empirical studies on the subject specify which definition of the term is to be used and most simply utilize a loose definition of the term and operationalize countertransference phenomena using scales such as the Therapist Response Questionnaire (TRQ) which assess a wide array of emotional, cognitive, and behavioral reactions to the patient [73]. It is true, however, that the prevailing current view on

countertransference has moved away from the classical perspective and now emphasizes the potential of clinicians' reactions to help them gain a deeper understanding of the patient. In fact, a substantial body of research has identified distinctive patterns of clinician response to various patient characteristics including depression and various forms of personality pathology [10, 22, 63]. For the purposes of this review, the terms countertransference and clinician emotional response will be used interchangeably to refer to the emotional reaction experienced by clinicians in response to interacting with a patient at risk of suicide.

Negative Countertransference Phenomena

Though limited empirical research has been conducted on countertransference phenomena as it relates to work with suicidal patients, evidence suggests that overall, clinicians tend to have negative emotional responses or countertransference when working with suicidal patients. These negative responses, initially conceptualized as "countertransference hate" by Maltsberger and Buie [45], are thought to arise out of a combination of aversion and malice towards the patient. These emotional impulses have the potential to result in either the formation of a malicious, anti-therapeutic relationship between therapist and client or can alternatively result in the total abandonment of the patient. Although the latter may appear to be the less threatening option, abandonment of the suicidal patient is likely to precipitate the suicidal crisis [45]. The experience of "countertransference hate" is undoubtedly an uncomfortable experience for therapists, many of whose professional identities rest upon a foundation of non-judgment and compassion for the patients they serve. This discomfort with the aversion and malice felt towards the suicidal patient can prompt clinicians to turn this hate inwards. In this scenario, when confronted with feelings of malice towards the patient, the clinician redirects these negative emotions towards the self ("It is not the patient that I hate, it is myself. I lack the competence and ability to help my patient"), resulting in feelings of inadequacy, helplessness, and hopelessness [45].

Additional negative emotional responses to the suicidal patient typically include anxiety, irritation, and avoidance [11]. Though these patients cannot be accurately categorized in the same group as patients at risk of suicide, per se, qualitative studies of countertransference with regard to patients requesting physician-assisted suicide revealed similar patterns of negative emotional response in clinicians [67]. When confronted with their patient's wish for death, physicians exhibited anxious, overwhelmed, and helpless responses. These negative reactions also appear to emerge as the suicide risk of the patient escalates. A study of psychiatric residents working in the emergency department of a general hospital found that residents expressed anger and anxiety towards patients at high risk of suicide but expressed warmth towards individuals at low risk [27]. Clinician's negative emotional responses to patients expressing suicidal ideation have more recently been found to include specific reactions such as lack of hope, confusion, distress, and sense that the patient's life had little worth [48].

Positive Countertransference Phenomena

Though clinicians tend to have overwhelmingly negative reactions to patients at risk of suicide, working with these patients also has the power to elicit positive countertransference reactions in some clinicians [71]. These reactions include concern, protectiveness, and the desire to nurture the patient [34, 50, 55]. In work with patients at risk for suicide, some clinicians report feeling hopeful for treatment [71]. In their description of “countertransference hate,” Maltzberger and Buie [45] also theorized that as a defense against the hatred felt towards the suicidal patient, the therapist may turn this hatred into its opposite. In this circumstance, the clinician may indulge in fantasies of rescuing the patient and have a great deal of anxiety relating to their desire to cure or help the patient [45]. Though this type of positive response to patients at risk of suicide is useful in maintaining therapeutic affiliation and positive regard for the patient, overindulgence in concern for patients can result in overinvolvement or inappropriate optimism [45]. Thus, positive countertransference also has the potential to become counterproductive and may even result in crossing of therapeutic boundaries [55].

Mixed Countertransference Phenomena

The bulk of research on the subject has identified negative emotional reactions on the part of clinicians who interact with suicidal patients; however, evidence for both negative and positive countertransference phenomena has been identified in the present literature. These findings appear to be at odds, but this paradox could reveal a key pattern in the way that clinicians respond to suicidal individuals. It has been recently suggested that a combination of opposing emotional responses could be a specific feature of countertransference with patients at risk for suicide [62, 72].

In research on the Suicide Crisis Syndrome, a pre-suicide mental state, and its proposed DSM-V criteria, Galynker [31] identified two varieties of CT that may characterize the experience of interacting with patients at risk of suicide. The first, coined anxious overinvolvement, is characterized by “the presence of unrealistic expectations and efforts to save the patient from their painful situation” (p. 204) alongside anxiety and hope for the patient. It can be understood that anxious overinvolvement captures the key elements of the positive countertransference phenomena identified in the extant literature. The second is referred to as rejection-avoidance and features anger, hostility, and hopelessness which lead to “contact avoidance and premature termination of treatment” (p. 208). This dimension can be interpreted to represent the negative clinician emotional responses previously identified by researchers. Galynker [31] theorizes that both of these specific varieties of countertransference result from lack of awareness or maladaptive regulation of emotional responses on the part of the clinician. This theory was investigated further in research by Yaseen et al. [71] that examined the relationship between clinician emotional response and patient suicidal behaviors. In this study, conflicting clinician emotional responses of distress and hopefulness were predictive of suicidal behavior

post-discharge. Additionally, a combination of opposing clinician emotional responses was significantly associated with identifying patients who attempted suicide versus those who had not [71]. When treating imminently suicidal patients, clinicians reported moderately positive feelings including hopefulness for treatment alongside negative feelings such as avoidance, distress, and feeling overwhelmed by the patient [71]. Furthermore, factor analysis of psychiatry residents' responses to the Therapist Response Questionnaire Short Form provided additional evidence to support this idea [72]. The conflicting emotional response pattern of distress combined with hopefulness was significantly associated with suicide outcomes of patients post-discharge. Notably, this interaction effect retained significance when controlling for patient factors such as entrapment, depression, and suicidal ideation [72].

Research by Soulie and collaborators [62] on clinician emotional response to suicidal patients yielded further evidence in support of this mixed countertransference phenomenon. Factor analysis revealed a seven-factor structure that depicts the varieties of countertransference experienced by clinicians in their interactions with patients at risk of suicide. The two most salient of these factors experienced by clinicians in the sample were "entrapped/rejecting" followed by "fulfilled/engaging" reactions. The first factor is characterized by apprehension, desires to reject the patient, feelings of inadequacy, and hopelessness, whereas the second depicts eagerness to engage with the patient and professional fulfillment. The emotional states described by these two factors clearly mirror the varieties of countertransference described by Galynker [31]. These two opposing experiences together accounted for 70% of variance of the emotional experiences of clinicians in the sample. This data provides additional support for the theory that a paradoxical combination of negative and positive countertransference is characteristic of clinicians' emotional reactions to individuals in suicidal crises.

It is also compelling to consider the ways in which the emotional response of clinicians appears to mirror aspects of the suicidal state experienced by patients [62]. When interacting with patients at risk of suicide, clinicians themselves seem to experience similar feelings of inadequacy, hopelessness, and entrapment. Soulie and colleagues [62] hypothesize that this specific pattern of mixed countertransference can be understood as an adaptive, and possibly necessary, coping stance. In this view, the negative aspects of this countertransference pattern represent clinicians' empathic engagement with the suicidal state experienced by their patient, and the positive countertransference represents an attempt by the clinician to sustain hope and therapeutic engagement in spite of the patient's suicide risk [62]. According to this perspective, both positive and negative emotional responses serve important functions in the therapeutic relationship.

Individual Differences Among Clinicians

It is clear that specific patterns in clinicians' responses to suicidal patients have emerged in recent studies, but these interactions may also be influenced by individual factors. One such individual factor that has long been thought to contribute to

countertransference is attachment style of the clinician [41]. Studies have shown that healthcare professionals with a secure attachment style demonstrate higher self-reported levels of empathy towards patients than insecurely attached clinicians [25, 42]. It may be extrapolated from this data that securely attached clinicians may experience more positive countertransference than their insecurely attached colleagues. Theoretical orientation of the clinician also appears to be related to specific countertransference with patients at risk for suicide. Research indicates that psychodynamically oriented clinicians have significantly higher rates of “entrapped/rejecting” reactions to suicidal patients, whereas clinicians with an eclectic theoretical orientation demonstrate more “aroused/reacting,” “informal/boundary crossing,” and “mistreated/controlling” responses [62]. Clinicians with an eclectic theoretical orientation also exhibited less “protective/overinvolvement” countertransference than psychodynamic or cognitive-behavioral clinicians. Although it is indeed a possibility that theoretical orientation impacts the emotional responses experienced by clinicians, an alternative explanation provided for these differences is that theoretical orientation may simply have an impact on the countertransference literacy of the clinician [62]. In other words, clinicians with training in certain schools of psychological thought may have significantly increased or decreased awareness of their negative emotional responses towards patients.

Effect of Countertransference on Outcomes in Therapy

Though empirical research on the specific patterns of countertransference to suicidal individuals is still in its nascent stages, literature on the subject definitively indicates that work with suicidal individuals often elicits intense emotional reactions in clinicians [45, 55, 71]. Developing a greater understanding of clinicians’ emotional responses is crucial because unrecognized or unmanaged negative countertransference in response to high-risk patients has the capacity to damage therapeutic alliance, can impair clinical judgment, and may even contribute to poor patient outcomes.

Countertransference and Therapeutic Alliance

Therapeutic alliance, also referred to as the helping alliance or working alliance, is a fundamental element of psychotherapy that plays a pivotal role in treatment. In short, therapeutic alliance refers to the quality of the relationship between client and therapist and is comprised of three components. These include therapist-patient bond, agreement on the goals of therapy, and agreement on therapy tasks [14]. Therapeutic alliance has been demonstrated to be a strong predictor of outcomes across diagnoses and theoretical orientations [29]. Though it is important in all treatment, establishing a strong and genuine therapeutic alliance is especially critical in the treatment of suicidal individuals [8, 28, 39, 40].

The characteristics that typify many patients at risk for suicide also constitute challenges to establishing a productive working alliance [46, 59, 60]. The negative interpersonal perceptions and hopelessness characteristic of many individuals experiencing suicidal ideation are likely to result in reduced trust in the clinician and increased negative expectations of therapy [3]; Beck et al. [7, 65]. Similarly, clinicians' negative emotional responses to these patients also constitute a barrier to the therapeutic alliance. Distress, anxiety, unease, and aversion towards the patient may unwittingly result in rejection of the patient, decreased empathic communication, and increased mistrust between client and clinician [38].

It is clear that unmanaged emotional responses to suicidal patients is not conducive to formation of strong alliance between client and therapist and in some cases is liable to promote the formation of a poor or maladaptive therapeutic alliance. Quality of therapeutic alliance has a direct and undeniable impact on therapeutic outcomes. Data from qualitative surveys of clinicians indicate that countertransference with suicidal patients often "shifted the boundaries of the therapeutic alliance" and ultimately damaged therapy outcomes [55]. Though negative emotional responses to suicidal patients are common at the outset of therapy, they do not necessarily have an irreparable effect on alliance. The development of countertransference literacy can help repair ruptures in the therapeutic relationship [57]. Furthermore, effective management of negative countertransference and the eventual formation of a good working alliance has the potential to mitigate or reduce suicidal ideation in a number of cases [53].

A substantial body of research supports the notion that the emotional response of clinicians has a direct impact on treatment outcome [15, 41]. Evidence suggests that countertransference reactions are inversely related to therapy outcomes and that successful management of countertransference reactions is significantly related to better outcomes in therapy [35]. The stakes are undoubtedly significantly higher when this idea is applied to work with suicidal patients. It has been suggested that unmanaged countertransference reactions may even contribute to patient suicide [50]. Conversely, successful management of emotional reactions in therapy on the part of mental health professionals has been shown to result in faster decreases in suicidal ideation among patients [53]. A retrospective study conducted by Hendin et al. [37] found that clinician anxiety preceding the suicide death of a patient resulted in coercive or ineffective actions and insufficient treatment of symptoms. This notion is even more alarming when coupled with data suggesting that clinicians may often be totally unaware of their own emotional responses to patients and, thus, may be unable to appropriately identify or regulate them [66].

Awareness and Training

It is clear that, in general, clinicians appear to lack attunement to their emotional reactions to patients and that this appears to have great potential for negative outcomes specifically among patients at risk of suicide. New strategies for managing countertransference are needed, as meta-analytic studies have highlighted that the countertransference management factors studied to date do not, in fact, play a significant role

in attenuating these reactions in clinicians [35]. Evidence suggests that increased awareness of emotional responses to patients is directly associated with decreased countertransference behaviors in clinicians [56]. Thus, researchers have begun to consider the possibility of training mental health professionals in emotional self-awareness in order to remedy this issue. One strategy has been proposed by Cureton and Clemens [24], which makes use of affective constellations, a component of Interpersonal Process Model [64]. According to this strategy, clinicians should engage in self-reflection with particular attention to the affective constellations (i.e., sadness-anger-guilt, anger-sadness-shame, etc.), felt in reaction to the suicidal patient [24].

In practice, clinicians should attend to their own emotions throughout and following a session and should also have the opportunity in supervision to engage in honest discussion about the negative emotional reactions they may have experienced. If employed, this strategy not only may benefit the clinician in increasing their awareness of countertransference phenomena but also can aid the clinician in empathizing with the patient by drawing attention to the similarities that often exist in the emotions felt by both the patient and the therapist [24]. This may be critical as empathy has been shown to aid in the management of negative countertransference behaviors [35].

Diagnostic Value of Countertransference

Empirical research on the emotional reactions of clinicians to patients at risk of suicide is still in its nascent stages, but a growing body of evidence has emerged in support of the diagnostic value of clinician emotional response in other domains. Patterns of clinicians' subjective experience during initial patient evaluation have been associated with psychiatric diagnoses such as schizophrenia, cluster B personality pathology, and major depression [52]. Studies have identified unique patterns of clinician response to patients with a variety of diagnoses. For example, responses that include feelings of being abused, manipulated, or annoyance have been associated with narcissistic personality disorder patients [10], while overwhelmed and disorganized responses have been associated with borderline personality disorder (Colli et al. [20]). This body of literature underscores the importance of clinicians' subjective experience in the diagnostic process. The mixed countertransference phenomenon identified by Yaseen et al. [71, 72], which has been replicated by Soulie and collaborators [62], has already demonstrated value in prospectively identifying patients at high risk of suicide. This compelling preliminary research that has identified a distinct profile of clinicians' responses to suicidal patients could comprise a powerful novel tool for suicide risk assessment.

Clinical Implications

Although unregulated negative countertransference reactions have potential to damage therapeutic outcomes, once clinicians have gained insight into their emotional responses, it is possible to consider the immense potential this has as a clinically

useful tool. Clinical judgment, comprised of both rational and emotional factors, has been shown to be a powerful predictor of short-term suicidal behavior [4, 68]. This is a noteworthy finding as clinical judgment informed by emotional response is a tool that does not rely on patient self-report of suicidal ideation. Honest disclosure of suicidal ideation is difficult for many individuals, and concealment or denial of suicidal thoughts and behaviors is quite common among patients in psychotherapy [13]. Fear of hospitalization or shame may lead individuals contemplating suicide to conceal these ideations from their clinician. In an anonymous survey of patients in long-term psychotherapy, 31% of individuals reported having lied to their therapist about suicidal thoughts [12]. Capitalizing on the powerful signals provided by clinicians' emotional responses to patients could be a valuable resource for identifying patients at risk of imminent suicide, even if ideation is never discussed or disclosed. These emotional signals could also be used to identify patients at highest risk of attempt among patients who do, in fact, disclose their suicidal thoughts to a clinician. In this way, even negative emotional responses have potential clinical value if clinicians remain conscious of these reactions.

Future Directions

Countertransference and its potential utility to clinicians has long been discussed in the theoretical psychodynamic literature, yet empirical research on this subject has been neglected, especially with regard to patients at risk of suicide. Clinicians' emotional responses to patients at risk of suicide should be integrated into suicide risk assessment models. Preliminary studies have had promising results, but more empirical studies on the specific patterns of countertransference with suicidal patients are warranted to explore this phenomenon. Additionally, research on the mechanisms that underlie these patterns of countertransference should be conducted in a variety of treatment settings and with clinicians of varying theoretical orientations. More research on the diagnostic potential of unique patterns of clinician emotional reactions to discriminate between high- and low-risk patients should also be carried out.

Conclusion

Many clinicians can attest to experiencing a powerful emotional reaction or an undeniable "gut feeling" in response to interacting with a patient at risk of imminent suicide. Budding research on this topic has begun to identify a unique set of countertransference reactions that have potential clinical utility in suicide risk assessment. Preliminary data indicates that the countertransference reactions of clinicians specific to suicidal patients is prospectively associated with patients' suicidal thoughts and behaviors [72]. More specifically, a combination of both highly distressed and hopeful countertransference was linked to these suicide outcomes [72]. This data suggests that mixed clinician emotional response has potential

as a diagnostic tool for identifying high suicide risk among patients. Furthermore, researchers have begun considering the ways in which clinicians can develop better countertransference literacy and increase their attunement to the emotional responses brought on by these patients. Although empirical research on the subject is still in its earliest stages, evidence regarding the patterns of clinicians' emotional responses to patients at risk of suicide has shown great promise in becoming a powerful source of information for clinicians engaged in suicide risk assessment.

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How to Ask About Suicide

12

Alan L. Berman

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Abstract

Communicated suicide ideation is typically seen as the gateway to further evaluation of the patient as possibly suicidal. Both our research scales and our methods of clinical enquiry about SI remain lost in the weeds of unaddressed questions about just what it is we want our patients and our research subjects to tell us when we ask “the ask,” and just what is the meaning of what they tell us when they respond affirmatively to our questions about it. In this chapter the question of how we ask about suicide is addressed in both research and clinical settings and focused from the perspective of the language used in and the time frames incorporated into the questions posed. Best practice recommendations regarding how and when to ask “the ask” are offered to maximize the elicitation of a patient’s suicide ideation and its character. Cautions are also offered to help understand the clinician’s hesitancy to ask about suicide ideation, the meaning of

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both a patient's denial of suicide ideation and expressions of passive versus active suicide ideation, and the predictive value of suicide ideation.

Keywords

Suicide ideation · Risk assessment · Death by suicide

Introduction

The primary tool used by mental health clinicians to gain an understanding of a patient is the psychiatric interview. The term "psychiatric interview" is used here generically to refer to an interview conducted by mental health clinicians, not just psychiatrists, to ascertain and characterize a patient's presenting problems. Although the psychiatric interview may be preceded by self-report data gathered by scales administered in the waiting room or during emergency department triage and assessment, it is in the interview itself that the patient is afforded an opportunity to have their presenting mental health problems evaluated and treatment planned for. The psychiatric interview is also the primary vehicle used by the clinician to drive the assessment of the patient's risk for suicide.

The clinical interviewer must assume *a priori* that any and all patients have the potential to be suicidal, even when their chief complaint does not involve mental health concerns and/or when they only present with low-acuity chief complaints. In a classic study of "occult suicidality," of 1590 patients seeking emergency department care for nonpsychiatric reasons, more than 11% acknowledged passive suicidal ideation and more than 8% admitted to active suicide ideation; and nearly all of these patients also reported symptoms consistent with mood, anxiety, and/or substance-related disorders commonly observed among suicidal patients [1]. Further, it is important to be reminded that there are a great many medical conditions that are associated with heightened risk for suicide, ranging from those that are life-threatening and debilitating to those that are transient and treatable [2], hence the clinician should also consider that patients presenting with certain medical complaints might have potential to be suicidal.

The process of conducting a suicide risk assessment (SRA) is one of data collection. Inherent in this process and crucial to gaining an understanding of a potentially suicidal patient, no less that patient's potential risk to engage in suicidal behavior, is a clinician's recognition that the identification of a patient as at risk of suicide is not simply dependent on that patient communicating suicidal thoughts either spontaneously or in response to clinical enquiry.

As stated by Silverman and Berman [3 p421],

"An SRA gathers data about observable and reported symptoms, behaviors, and historical factors presented by a patient that are associated with suicide risk and protection, ascertained by way of psychiatric interview; collateral information from family, friends, and medical records; and/or screening tools,"

Hence, an SRA should begin with first gathering information about the individual regarding the presence of risk factors associated with heightened suicide risk, followed by gathering information related to a patient's suicide ideation [4].

A Focus on Suicide Ideation

Communicated suicide ideation (SI) is typically seen as the gateway to further evaluation of the patient as possibly suicidal. Tragically, a patient's denial to a posed question regarding the presence of suicidal thoughts is too often interpreted as an absence of any significant suicide risk and no further enquiry ensues. Multiple studies have found that the majority of patients who die by suicide deny that they are thinking of suicide when last asked by a clinical practitioner before, and often within days of, their death [5–18]. The mean proportion of patients in these studies that denied having SI at the last evaluative session before their death by suicide was 62%.

Just as a patient's admission to having SI does not automatically equate to that patient having near-term suicide risk, a patient's denial of SI should not be construed to mean that the patient is not suicidal; nor does it mean that they do not have SI. There are myriad reasons why patients on the brink of taking their life will not disclose their suicidal thoughts to clinicians [3, 19]. Among these are the following:

- Shame: "I believe that suicide is an admission to others that I am weak."
- Stigma: "I will be seen as crazy; it is a taboo to discuss suicide."
- Hopelessness: "I believe that nobody can help and that I am incapable of being helped."
- Fear of:
 - Negative Judgment: "I will be ridiculed and judged negatively by others."
 - Retribution: "I will lose my job and my career in the military/police/as a pilot. ..."
 - Involuntary Hospitalization: "The police will come to my door and forcibly remove me."
- Control/Autonomy: "I do not want to be thwarted should I decide to kill myself;" "Once I deny having suicidal thoughts, I will be discharged from this psychiatric ward."
- Religiosity: "I believe that suicide is a sin, hence my thoughts are sinful."
- Subconsciousness: "I have not had any thoughts of suicide" (but, in truth, I am simply not aware of these and they may well burst into consciousness at any moment).
- Temporality: "My thoughts wax and wane; at this very moment I am being asked, I am not thinking of suicide."

This last reason has been clearly demonstrated in a study by Kleiman and colleagues [20] who collected smartphone-based ecological momentary assessments (EMA) of SI and its severity every 4 to 8 h over a 28-day period from patients, both those who had made past year suicide attempts and/or those who had been

hospitalized for SI. For nearly all participants SI varied dramatically over the course of most days with nearly one third of all ratings of SI being a standard deviation above or below the previous response from its earlier rating. It is important for clinician's to keep in mind that SI is at times fleeting and context specific.

The context-specificity of SI means that an individual's life circumstances, no less psychology and biology, fluctuates. The common situational triggers for suicide typically involve loss – real, threatened, or anticipated – of something highly valued by the individual. For young adults, for example, it is an intimate partner problem that most often characterizes the precipitating circumstances of a death by suicide; for younger individuals, it is a conflict with parents. For others, it may involve a threat to one's finances, as in unemployment; a pending legal action, or something else that threatens a loss of autonomy or face. Suicides rarely occur in the absence of some triggering event that represents the proverbial straw that breaks, in this case, the individual's psychological back. For this reason Litman [21] coined the term “suicide zone” to characterize the period of heightened suicide risk that suicide-vulnerable individuals move in and out of, at times briefly and at times for long periods, as their life circumstances fluctuate. As Shea [4 p49] reminds us, “it is always wise to maintain a healthy respect for how rapidly [patients] can move in and out of a suicidal frame of mind.”

Nevertheless, the clinical enquiry must involve questions about suicidal thoughts. It is with this in mind that we now can address the intent of this chapter: How to ask about suicide?

How to Ask About Suicide

First, the good news. More than a dozen papers, published between 2001 and 2017, have unanimously found that asking patients and/or research subjects about SI has no iatrogenic effect, such as leading to an increase in SI [22, 23]. Obversely, Dazzi et al. [22] found that acknowledging and talking about suicide, in fact, might reduce rather than increase SI, a finding consistent with qualitative studies of pediatric and adult medical inpatients who remained supportive of suicide risk screening after they themselves had been screened [24, 25].

As Berman and Silverman [26] have written elsewhere, what is not such good news is that our field is confused about how to ask “the ask,” no less about what it is we are asking. Both our research scales and our methods of clinical enquiry about SI remain lost in the weeds of unaddressed questions about just what it is we want our patients and our research subjects to tell us when we ask, and just what is the meaning of what they tell us when they respond affirmatively to our questions about it. Shea [4 p120] shares a wonderful vignette to illustrate this point. When asked by a trainee “Have you had any thoughts of wanting to hurt yourself?” the patient responded, “no.” Given that this patient had a large number of suicide risk factors, the trainee later asked, “Have you had any thoughts of wanting to kill yourself?” to which she responded, “Oh yes, I’ve thought about it a lot.”

As another illustration, upon enquiry a patient denied that they were thinking about suicide, and later after discussion regarding how they were coping added, “but I feel suicidal.” This distinction is important, as Jobes [27] has noted, suicidal feelings may “include a sense of impulsivity, an urgent need to do something self-destructive, or a sense in the patient that he or she deserves to be punished in a self-destructive manner” (p. 102).

Words matter and it is the clinician’s responsibility as a standard of care to peel off the layers upon layers of a patient’s communications to truly understand what they are thinking, feeling, and telling us.

How Is Suicide Ideation Addressed in Research Scales?

In the United States, the Joint Commission [28] released a Sentinel Event Alert (24 February 2016) that offered recommendations for a broad range of healthcare organizations (emergency, primary care, and behavioral healthcare settings) in identifying and responding to individuals at risk for suicide. Included in these recommendations was one to “screen all patients for suicide ideation, using a brief, standardized, evidence-based screening tool.”

Perhaps the most commonly used screening tool is the Patient Health Questionnaire (PHQ-9), a 9-item self-report scale widely used as an initial screener for depression. Item 9 on the PHQ-9 asks, “Over the last 2 weeks how often have you been bothered by the following problem: thoughts that you would be better off dead, or of hurting yourself in some way?” Item 9, by itself, often has been used as a measure to assess the prevalence of suicidal ideation in research studies and as a brief screening measure to assess suicide risk in primary care waiting rooms [29].

Both Thompson, Henkel, & Coyne [30] and Silverman and Berman [3] have commented on the PHQ-9, item 9, asserting that it addresses SI via a compound question that is vague in its phrasing and inclusive of multiple types of thoughts referencing both passive and active SI and/or non-suicidal self-injury in the very same question. Just how is the clinician to understand a patient’s affirmative response? Are they responding to an understanding of the question as addressing non-suicidal self-injury (NSSI) or of attempting suicide? Moreover, the phrasing “bothered by” suggests being worried by having SI, or feeling guilty for having SI. Many patients with SI do not have these emotional responses to their SI, no less some employ thoughts of suicide as a way of coping with painful emotional states, hence would have no such reactions to their SI and would appropriately answer “not at all” to this question.

Similar problems pertinent to the use of research scales addressing SI have been noted elsewhere. For example, Valtonen, Suominen, Sokero, Mantere, Arvilommi, Leppämäki, et al. [31] asked 191 bipolar patients whether they had ever seriously considered suicide during their current bipolar episode and further evaluated SI via the Scale for Suicide Ideation (SSI), the Beck Depression Inventory (BDI, Item 9) and the Hamilton Depression Scale (HAM-D, Item 3). In all, three-quarters (74%) of patients had SI as measured by at least one of the three measures; but less than

one-third (29%) met the criteria for having SI on all three measures. These researchers concluded that, “Who is classified as having suicide ideation depends strongly on the definition and means of measurement of suicide ideation” [31 p53].

In another study by these Finnish researchers [32] the prevalence of SI was assessed in six different ways among primary care patients diagnosed with major depressive disorder (MDD). These researchers found that the prevalence of SI among these patients was strongly influenced by the method of its assessment. Of 153 MDD patients seen in primary care, only 8% tested positive for SI across all six measures.

Two scales more currently in vogue address this problem head on by posing to the patient multiple questions about the presence of SI, beginning with questions more broadly addressing thoughts construed as passive SI, then moving to questions more specific to active SI. The ASQ [33] is a four question yes-no instrument; two of these questions address suicide ideation within specific, but vaguely defined time frames:

1. In the past few weeks, have you wished you were dead?
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?
3. In the past week, have you been having thoughts about killing yourself?

The Columbia Suicide Severity Rating Scale (C-SSRS) [34] similarly begins with questions asking about thoughts or wishes to be dead or not alive anymore or wishes to fall asleep and not wake up (i.e. passive SI) and proceeds to questions about more active thoughts such as “Have you had any thoughts about killing yourself?” (i.e., active SI).

Indeed, screening scale items ask “the ask” in very different ways, and therefore affirmative responses have to be considered within the narrow frames of each specific scale question. To that extent, if these scales were to be used in clinical practice, guidelines such as those published by the American Psychiatric Association [35] (and the United Kingdom’s National Institute for Health and Clinical Care Excellence [36] make clear that they should not be used in lieu of a direct patient interview, but, rather, only as an adjunct to help inform and structure the clinical evaluation of suicide risk. The practitioner that relies solely on a screening scale is avoiding a face-to-face encounter with a potentially suicidal patient and the deep follow-up evaluation that is essential to effective treatment planning and intervention.

How Is Suicide Ideation Addressed in Clinical Enquiry?

In truth, we know little about how questions about SI are asked by clinicians, no less how often providers asked questions about SI at healthcare appointments, notably those held in proximity to the death by suicide of a patient. Three studies offer some data of interest to this last question, two of which are specific to evaluations of

patients who died by suicide; the third, and the only one of this sort to be published to date, is a fly-on-the-wall picture of real-time practitioner behavior.

Bommersbach, Chock, Geske, & Bostwick [9] reviewed medical records pertaining to the last year of life of 66 individuals who died by suicide in Olmstead County, Minnesota, noting whether the provider (not further identified by profession) documented asking about suicide. They found that an enquiry about SI occurred in only 27 (41%) of these cases. Berman [7] similarly reported on charted observations within the last 30 days of life of 157 suicide decedents from 40 US states and the District of Columbia who were in clinical care (by caregivers from multiple professions) and found that no enquiry was made about the presence of SI at the very last evaluation of 25 patients (16%). One-half (49%) of these last visits occurred within 2 days of these patients' deaths and almost three-fourths occurred within 7 days.

On a more general level, looking at psychiatric outpatients, McCabe, Sterno, Priebe, Barnes, & Byng [37] audiovisually recorded 319 psychiatrist-patient appointments in outpatient psychiatric clinics in urban, semirural, and rural areas in the UK. Of these 319 opportunities to ask about the presence of SI, SI was assessed on only 83 occasions (26%) by 35 psychiatrists.

Case Example A 21-year-old, single white female is hospitalized for the ninth time in the last 5 years due to poor outpatient management of her diagnosed anorexia nervosa and major depressive disorder. She has a history of NSSI, panic attacks, sleep disorder, and both prior SI and suicide attempt by overdose. On the day of this last admission she stated, "If I had a gun, I would shoot myself." On the unit she is charted as progressing well and after 5 days is removed from suicide watch. After a distressing visit from her father in which he behaved inappropriately, she was noted to have purged her lunch. Although observed to feel both "desperate" and "tense" that afternoon, no questions about SI or suicidal feelings were asked by the psychiatric resident on duty. That evening she jumped out of her hospital bedroom's fifth floor window.

Why Are Clinicians Hesitant to Ask About Suicide Ideation?

Cole-King and Lepping [38] note that professionals in the UK may feel disinclined to ask "the ask" because they lack confidence in knowing how to ask and how to respond. Quinnett (2019) opines that clinician discomfort with suicidal patients and fear drives this sort of avoidant behavior. Further, he posits, based on some earlier work [39] that this fear derives from perceived insufficient training. A more recent study [40] confirms this in finding that when providers feel sufficiently trained and efficacious in their work with suicidal patients, there may be a reduction in emotional and behavioral impediments to asking about SI.

McCabe et al.'s [37] study using real-time data examined how UK psychiatrists initiated enquiries about suicide risk (when they did, as the majority did not – see above) and found that the overwhelming majority (75%) of questions asked were

phrased in the negative, as in, “You don’t have thoughts of harming yourself?” Not surprisingly, when the question was negatively framed, patients were significantly more likely to say they were not suicidal than when the question was positively framed.

A second UK study [41] looked at how mental health practitioners addressed self-harm risk in young people in actual practice and found that of those practitioners who addressed the question (the majority did not), the two most common approaches were (a) incremental – a building-up style beginning with questions about emotions such as how the patient behaviorally dealt with frustration or sadness, then moving into specific questions about the link between emotion and self-harm; and (b) normalizing and externalizing – relying on being required by an external authority to ask the question, as in, “There is a question we have to ask everybody. . . have you ever thought about. . .?” Quinnett [42] opines that this polite probe (“. . . we have to ask everybody. . .”) “is a pre-apology for a pending face-threat question.”

Issues to Consider in Deciding How to Ask “the Ask”

1. Should We Ask About Thoughts of Suicide or of Self-Harm?

In the United States, the question asked typically focuses on thoughts of suicide or killing oneself. In the UK and elsewhere across the globe, the preferred term is self-harm. Of course, we do not know whether our patients understand that these are meant to be synonymous, especially if they interpret a question about self-harm to refer to what otherwise would be labeled as non-suicidal self-injury (NSSI). No study has yet been published that helps us to understand the connotations of these terms in our patients’ minds, to determine the meaning of their responses if either in the affirmative or negative. To confound this, NSSI and suicide attempts frequently co-occur [43–45].

As noted earlier, item 9 of the PHQ-9 asks both about active SI or NSSI (“hurting oneself”) and passive SI (“being better off dead”), and clinicians, as well, have no consistent guidance as to which question best affirms a patient’s suicidal thoughts that are most associated with near-term potential to engage a suicidal behavior. We know that suicidal thoughts are dynamic and can change rapidly; but just how rapidly passive thoughts of suicide may shift to active thoughts, planning, and/or impulsive action has simply not been established by research nor sufficiently explored to date.

2. Should We Ask About Both Active and Passive Thoughts of Suicide (or Both)?

In one sense, this is a difference that may make no difference. Active SI has little to no greater predictive value with regard to future suicidal behavior compared with passive SI [3]. Moreover, given the aforementioned EMA study by Kleiman et al. [20], it is highly probable that passive SI may shift to both active SI and a decision to

act on suicidal thoughts in a matter of minutes to hours. Berman [7] offers data to this point in finding that of 43 patients in or recently in clinical care who responded positively to having SI when last asked shortly before their deaths by suicide, almost equal proportions affirmed having active versus passive SI. Findings such as these bring into question the underpinnings of scales such as the C-SSRS that establishes a Likert scale for assessing SI with active ideation having greater clinical and predictive import than passive ideation. Notably, the positive predictive value of the PHQ-9 against the C-SSRS has been found to be only 22.5%, providing evidence that these two measures are essentially measuring different constructs [46].

Case Example A 44-year-old, married white male university professor in outpatient psychiatric care was found hanging in the basement of his home. He had a history of MDD and Generalized Anxiety Disorder. In addition he was observed to have angry irritability, feelings of hopelessness, sleep problems, and a family history of suicide. He was being seen in outpatient cognitive behavior therapy by a psychiatrist for the past 3 weeks. At his last outpatient session, 2 days before his death, he shared thoughts “of ending it all,” but no further elucidation of his suicide ideation or assessment of his risk of suicide was made.

3. What Is the Best Time Frame in Which to Ask “the Ask”?

Empirical study has yet to sufficiently address the time period in which to frame the questions clinicians (or screening scales) should ask about SI. Which of the following options has the greatest predictive value: “Are you currently thinking...?”; “In the past 2 weeks have you been thinking...?”; “In the past few weeks or month have you had thoughts...?”; “Have you recently been having thoughts...?”; “Have you ever had thoughts...?” The best answer to date is that none of these time frames may be best! Beck, Brown, Steer, Dahlsgaard, and Grisham [47] found that a retrospective report of SI *at the worst point in a patient’s life* was a better predictor of eventual death by suicide than was current (or presumably recent) SI. These findings have been replicated by Joiner, Steer, Brown, Beck, Pettit, and Rudd, [48].

4. Does Any if This Even Matter?

Large and Ryan [49] characterized as “mythical” clinicians’ belief that the presence of SI is a crucial sign for estimating the likelihood of a patient’s future suicide. In fact, as described by Silverman and Berman [3], the reporting of current or recent SI has very little correlation with the development or expression of suicidal intent or the progression from SI to suicide attempt or to death by suicide in the near term. A study by Britton, Ilgen, Rudd, and Conner [50] illustrates this last point. These researchers found that only 11% of 301 patients who died by suicide within 7 days of contact with Veterans Health Administration healthcare providers reported having SI at that contact and an even smaller percentage (7.5%) reported SI to their healthcare provider within the last 30 days of life.

Nevertheless, SI is associated with both suicide attempt and death by suicide in the long term. Hubers, Moaddine, Peersmann, Stijnen, VanDuijn, Vander Mast et al. [51] recently conducted a systematic review and meta-analysis of 81 studies to assess whether the expression of SI predicted subsequent death by suicide in various populations, including nonpsychiatric and psychiatric populations. They found that the absolute suicide risks were highest in psychiatric populations, with a suicide risk during the first year of follow-up of 1.4% compared with 0.23% in nonpsychiatric populations. Fortunately, the overwhelming majority of patients expressing SI do not die by suicide. Nevertheless, the assessment of SI is a priority in people with psychiatric disorders, if for no other reasons than the relatively strong association SI has to psychiatric disorders and other suicide risk factors, and because SI is a signal for treatment intervention [52].

How to Ask “the Ask”

Even though the field of Suicidology lacks consensus on how to ask “the ask,” there is general consensus on approaches that might be considered as best practices in maximizing the likelihood the patient will disclose suicidal thoughts, if present.

1. Establishing rapport with the patient and conveying empathy for both their help-seeking and the presenting problems that led to their help-seeking are crucial to maximizing trust and the patient’s comfort and openness to communicating their inner world. Building a solid therapeutic alliance and creating a safe environment are, perhaps, the most important steps in reducing the patient’s resistance to sharing their thoughts and emotions.
2. Expect the patient to be guarded and resistant and be on guard against strong counter-transferential reactions to provocation. Motto and Bostrom [53] found that a negative or mixed reaction to the patient by the interviewer was one of nine high risk variables that were associated with suicide by depressed and suicidal patients within 60 days of a hospital-based evaluation.
3. Patients at risk of suicide more often than not have interpersonal skill deficits. Accordingly, and as suggested by Rudd [54], reinforcing the patient’s openness should be straightforward and simple with empathic statements such as, “I know it’s difficult to talk about such personal issues, particularly with someone you just met. It takes a lot of personal courage to do so.”
4. Understand that at the heart of a suicidal person’s thinking is some level of psychological and emotional pain [55] and reducing that pain may ultimately be the first target of therapeutic intervention. Shneidman [56] conceptualized that pain as “psychache” and, with this in mind, approached his patients with an opening such as, “Where do you hurt?” rather than with the more typical “What brings you in to see me today?”
5. Open the enquiry about the potential presence of suicidal thoughts, if they have not been spontaneously communicated or otherwise indicated on a waiting room screening form, by empathically resonating to what the patient has communicated

and normalizing (Shea, 2012) the patient's pain and possible suicidal thoughts, such as by saying "Sometimes when people have had the kind of experiences you have told me about they have had thoughts that it's just too much to bear, like 'I'm just too tired of it all' or 'I'd just rather be dead or never wake up.' Have you had any thoughts like that?"

6. Always ask the ask reasonably early in the interview as (a) you will need sufficient time to fully explore it, if present, and (b) you will have sufficient opportunity to return to "the ask" later in the interview.
7. Always ask "the ask" in at least two ways and at least two times. One of the "asks" should be very direct and explicit using the words "kill yourself" or "suicide." This latter question should be asked by varying the phrasing of the behavior being questioned ("suicide," "take your life," "killing yourself," etc.). In all cases where the patient denies having any SI, but in which the clinician senses the very real possibility that the patient would be likely to have such thoughts given the emotional pain being described, it is imperative that "the ask" occur a second time after the patient's denial. Phrasing such as, "I know you told me that you have not now or recently been having thoughts of suicide, but given (the patient's reported symptoms and stressors), it would not at all surprise me if thoughts such as these, even fleetingly, crossed your mind. . .".
8. Always explore further and document what kind of thoughts the patient has had by asking "What exactly you have been thinking?" Over and above characterizing a patient's expressed SI as active or passive, always document the patient's SI using the patient's own words.

Text Box Examples of Passive SI in the Patient's Own Words. All of these patients died by suicide within 2 days of making these statements.

- "I would not care if I died"
 - "I don't want to deal with life"
 - "I just want to disappear"
 - "I see no purpose in me going on"
 - "It would be better if I had never been born"
 - "If I died tomorrow, I'd be happy"
 - The only way I can get close to God is to go to heaven."
9. A simple electronic health record (EHR) of SI present or absent, without an accompanying narrative, is insufficient for treatment planning (see Fig. 1).
 10. If the patient denies having current thoughts loop back in time to whether SI was present in recent weeks and, yet again, "at the worst point in your life."
 11. Do not accept at face value secondary minimizations offered by the patient, such as "But, I would never act on those thoughts because (it would destroy my children; I love my family so much; suicide is a mortal sin and I would go to hell. . .)." Berman [57] found that 8 of 43 patients (19%) who died by suicide and

MRN: [REDACTED]	[REDACTED]	[REDACTED]
Visit: [REDACTED]	Gender: Female	
Age: 40y ([REDACTED])		Current Location: Psych02

Suicidality:

☒ Ideation

☐ Intent

☐ means (potentially lethal)

☐ plan

☐ behaviors, including preparatory acts, self-injury, or suicide attempt

Fig. 1 Screenshot of the EHR of a 40-year old-female's inpatient psychiatric evaluation of suicide ideation made after an apparent impulsive suicide attempt by jumping out of a moving car while arguing with her husband

admitted to having SI when last asked before their death, specifically stated that they would not act on their suicidal thoughts because of their concern for how their suicide would hurt their children or family (e.g., “I love my kids too much,” “Only my kids keep me alive,”). If and when the pain is too great to bear and the urge to leave life is overpowering, these seeming deterrents will have no effect. A recently published systematic review of the literature [58] examined this question of whether expressed reasons for living (RFL), such as these, protected against suicidal thoughts and behavior and concluded that RFL (notably moral objections and survival and coping beliefs) may protect against SI and suicide attempt, but the potential protective effect against deaths by suicide is not clear, as no study investigating RFL expressed by individuals who have died by suicide had yet been published.

Case Example A 59-year-old, married white male is admitted to inpatient psychiatric care due to a 6 month worsening depression and anxiety. In the last 3 months he became less functional at work and experienced greatly increased stress; feeling overwhelmed he became fearful he would be fired. His sleep has been severely affected and medications have not been effective. The day before admission, he secluded himself in an empty room for several hours while contemplating hanging himself. In his intake psychiatric interview he described ongoing SI, but “denied any intent to harm himself at this time given his concerns that suicide would invalidate his life insurance policy.” The day after admission, he hanged himself in his hospital room's bathroom.

12. If SI is expressed, engage in an extensive follow-up enquiry, seeking specific details. Consider yourself to be an investigative reporter seeking to understand the what, when, where, and how of current and/or recent thoughts. Seek to clarify the patient's SI, as follows:
 - (a) If passive SI is expressed, explore what might shift the wish to die to the wish to kill oneself: “What do you think would need to happen for you to actively want to take your life?”
 - (b) If active SI is expressed (or if the patient describes the potential for active SI based on the above question). Ask:

- (i) How are you thinking about killing yourself? (or How do you think you would kill yourself?)
- (ii) Do you have access to that method (the gun, a bridge, the pills. . .)?
- (iii) Have you thought out how, when, and where you would do this?
- (iv) Have you rehearsed doing this or prepared for the possibility in some way?
- (v) Have you thought about other ways you might do this?
- (vi) How often do you have these thoughts?
- (vii) When you have them do you seem to dwell on them, have trouble getting them out of your mind?
- (viii) How long do they last (or are they fleeting)?
- (ix) When you have them how intense and/or demanding do they feel?
- (x) Are you ever scared that you won't be able to control these thoughts, that is, that you would act on them?
 - 1. The specific coping skills that individuals utilize when experiencing suicidal urges in order to avert escalation into a suicidal crisis underlie the use of safety plans as a preventive intervention [59]. Examples of suicide-related coping include engaging in distracting activities, seeking social and professional support, and limiting access to lethal means. Individuals who report having a degree of ability to control their suicidal thoughts have been found to be less likely to make a first suicide attempt [60].
- (xi) Is this the first time you have had these thoughts? If not, when did you first have them or similar thoughts? When did you last have them? Have they always been similar or have they been different? Have the circumstances been similar each time?
- (xii) What would most need to happen, do you think, for you not to have thoughts of taking your life?

This line of enquiry is not meant to be an all-inclusive primer for eliciting a patient's SI and its character, but, rather, is designed to lead the clinician to approach the patient's suicidal phenomenology, to best develop an understanding of the patient's mindset in the context of motivating forces leading to the consideration of ending pain via killing oneself. There are myriad ways to ask "the ask" and no agreement as to how best to ask the ask, what time frame best defines "the ask," and/or what terms to use to assert clarity in "the ask."

When to Ask the Ask

There is universal consensus among Suicidologists that asking about the presence of SI is a standard of care question to be addressed at the first evaluative contact with a patient. Just how frequently should "the ask" be asked thereafter is less clear, but the following guidelines appear to be appropriate:

1. Once a patient has initially communicated the presence of SI, follow-up questions should be asked at each and every session, at least until no further SI is admitted to for three consecutive contacts and none of the following conditions exists. The Collaborative Assessment and Management of Suicidality [27] considers this absence of SI for three consecutive sessions one criteria for “suicide resolution,” yet urges continued vigilance for a return of SI.
2. At every outpatient session following inpatient psychiatric hospitalization or emergency department (ED) care for SI or a nonfatal suicide attempt. The weeks to months after hospital-based care for suicidal behaviors are well-documented periods of very high risk [61–63]. Until the psychosocial stressors that triggered the need for inpatient or ED care are resolved and/or the psychiatric symptoms and diagnoses are well-enough controlled, continued vigilance for a return of SI is called for.
 - (a) At any observed change in mental status, environmental stress, or worsening symptoms, notably in this last regard anxiety and agitation and increasing sleep problems. Bjørngaard, Bjerkeset, Romundstad, and Gunnell [64] found that those who had insomnia symptoms had a twofold increased risk for suicide after controlling for depression, anxiety, and substance abuse; and Goldstein, Brent, and Bridge [65] found a ten-fold increased risk for death by suicide in youth who exhibited sleep disturbances in the preceding 7 days. Berman [7] found that 80% and 76% of 157 suicide decedents were observed to display anxiety and/or agitation and sleep disturbances, respectively, within days of their death.
3. For patients with a history of prior suicide attempt, an exploration of the specific triggers for these prior attempt(s) should lead to an understanding of precipitating circumstances that offer an understanding of the patient’s idiosyncratic vulnerabilities and an increase in an index of suspicion for situation-specific times and contexts for the presence of SI.
4. At times of management transition, such as the rotation of psychiatric residents on an inpatient unit, upcoming vacations by the clinical caregiver, etc. Patients in ongoing clinical care are reactive to conditions of instability in their interpersonal world and need to be more closely monitored at these times.

Is the Presence of Suicide Ideation Predictive of Future Suicidal Behavior?

As discussed by Silverman & Berman [3], currently expressed SI is, indeed, a significant risk factor for future suicidal behavior and death by suicide, but is much more closely associated with death by suicide in the long term than it is in the near-term [66, 67]. For example, Simon, Yarbrough, Rossom, Lawrence, Lynch, Waitzfelder, et al. [68] found only a single death by suicide among 1767 psychotic patients (a high risk group) within 90 days of an index outpatient visit in which they responded to item 9 on the PHQ-9 that they were having SI “nearly every day.” In spite of SI having little to no value in predicting near-term death by suicide

and in spite of our recognizing that the communicated presence of SI is neither necessary nor sufficient for the assessment of suicide risk, it remains as an essential component of a standard of care SRA.

Conclusion

Fortunately, only a small proportion of patients with SI die by suicide. Nevertheless, assessment of SI is an essential part of the psychiatric interview. When a patient expresses SI, a full understanding of its motivation and aim and its character and intensity is called for. That understanding is essential to guide the practitioner to develop appropriate treatment disposition and planning to reduce the possibility that thought will lead to lethal action. To date, our knowledge about why and when suicidal thoughts progress to potentially lethal attempts remains rather inadequate [55], but that is not an argument to ignore the potential significance of SI to our understanding of the suicidal individual and his or her future suicidal behavior.

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Collaborative Assessment and Management of Suicidality Approach

13

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Abstract

The Collaborative Assessment and Management of Suicidality (CAMS) is a flexible and adaptive evidence-based suicide-specific therapeutic framework. At the center of the CAMS approach is the use of the Suicide Status Form (SSF), a multipurpose tool that guides suicidal risk assessment, treatment planning, and tracking of patients who are suicidal. The effectiveness of CAMS (and its use of the SSF) is supported by extensive clinical research through numerous

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correlational/open trials, quasi-experimental studies, and five randomized controlled trials (RCTs). CAMS is a suicide-specific intervention, and suicidal ideation and behaviors are therefore kept center stage until suicidality is resolved. A main agenda of the CAMS approach is for the clinician and the patient to collaboratively elucidate and understand key constructs underlying the patient's suicidal state from the patient's point of view. Through the identification and understanding of patient defined "suicidal drivers," the clinical dyad can start the exploration and examination of alternative solutions and adaptive ways of coping that do not require the patient to terminate their life. Thus, CAMS is a patient-centered approach to suicide-specific care that enables the patient to cope differently, ultimately leading the patient to pursuing a life worth living with purpose and meaning.

Keywords

Collaborative Assessment and Management of Suicidality · Suicide Status Form · Stabilization Plan · Suicide · Suicidal drivers

The Collaborative Assessment and Management of Suicidality (CAMS) Approach

This chapter will describe the Collaborative Assessment and Management of Suicidality (CAMS) approach to working with a range of patients who are suicidal across a variety of clinical settings. Specifically, the chapter will consider the CAMS philosophy and the use of the Suicide Status Form (SSF) to guide clinical care, examine the empirical support for CAMS, and explore next steps for CAMS.

Case Example

"Alice" is 28-year-old white female physical therapist who is referred to a clinical psychologist named "Jen," who has recently transitioned from being a university counseling center staff member into full-time private practice. Alice is distraught over the breakup with her fiancé Bill after a 5-year relationship. In their intake session, Alice acknowledged that she was in crisis after the collapse of her engagement complaining that, "...Bill was my last shot at happiness, and I totally blew it!" Alice stated that the breakup was her fault for being miserable all the time, hating her job, flagrantly flirting with other men, and taking Bill for granted. She noted frequent suicidal thoughts, which she had previously had during high school when her boyfriend broke up with her. In this crisis she had overdosed on over-the-counter medication but induced vomiting because she was too "chicken" to go through with it. Jen assured Alice that she could help her, but they would have to focus on the suicidality as the first order of business (Jen was trained in CAMS at the counseling center and had used it many times with students).

In their first session of CAMS, Jen asked Alice for permission to have a seat next to her to complete the first page of the SSF. This initial assessment provided different rating scales and a chance to write out in her own words things that she was feeling (e.g., what she found was most painful: "... that I ruined my only chance at happiness with Bill"). When asked about reasons for living, Alice noted her parents, her sister, and her dog; in turn reasons for dying centered on never getting married, never having a family, hating her job, and ending the pain. Alice was asked to rank order certain constructs and candidly responded to additional assessment questions about her current suicidal thoughts and history, along with other questions. Jen seemed particularly concerned about Alice's recent heavy alcohol use and lack of sleep.

As they addressed the treatment planning section, Jen asserted that her goal would be to work with Alice on an outpatient basis if at all possible – this surprised Alice as she expected Jen would push for an inpatient admission. But instead, they carefully worked the CAMS Stabilization Plan, and Alice agreed to hand over her stash of pills to her sister for safe keeping. As their first session came to a close, Alice identified the two problems that put Alice's life most at risk – what Jen called suicidal "drivers." Alice noted her hopelessness about ever getting married and having a family and her hatred of her job. Jen assured her that she had various ideas about how they might best treat these problem drivers. Thus, armed with her Stabilization Plan and copies of the SSF they completed, Alice felt a glimmer of hope in the midst of her despair.

The CAMS Philosophy of Care

The CAMS approach to working with patients who are suicidal emphasizes four philosophical "pillars" of care that guide and shape clinical interactions over the course of care. These include empathy, collaboration, honesty, and being suicide-focused.

Empathy

A central component of the CAMS philosophy of care is empathy with the patient's suicidal struggle. Gaining a deep appreciation for what brought the patient to their current suicidal state is a necessary first step for engaging in the CAMS therapeutic framework. CAMS clinicians express this empathy throughout the course of treatment using nonjudgmental language. Importantly, empathy for the patient's suicidal struggle does not mean the clinician endorses relying on suicide as a means of coping. Taking this approach validates the patient's experience and allows them to open up and share about their struggle and ultimately what is driving their suicidal thoughts, feelings, and behaviors. In order for the dyad to get to the root of the "suicidal drivers" in CAMS, empathy creates a kind of door into the patient's inner struggle – the phenomenology of their consideration of suicide. Leading with

“empathic resonance” enables the provider to become a “therapist participant” who can enter into the patient’s inner world [14]. Through sensitive exploration of this inner struggle, the dyad can better identify the drivers of why the patient considers suicide. Based on clinical research, clinician-guided empathy is critical to positive treatment outcomes within CAMS-guided care [28].

Collaboration

Fostering collaboration between the clinician and patient is central to using CAMS – indeed, it is in the name. From the initial implementation of CAMS through outcome disposition, collaboration between clinician and patient is weaved into each and every step of the treatment process. The clinician and patient work together to get to the root of the patient’s struggle with suicide and to identify how to best address the current suicidal crisis the patient is facing. With the clinician’s guidance, CAMS patients are empowered to process through the how, what, when, where, and why of their suicidal thoughts, feelings, and behaviors. Both the clinician and the patient learn more about the patient through this collaborative process as they intentionally explore the patient’s “relationship” with their suicide. Much of the assessment and treatment planning work done in CAMS literally uses a side-by-side seating arrangement (with the patient’s permission), which communicates: we are on the same team. Suicidal risk is objectified, deconstructed, understood, and treated in a direct manner relying heavily on the therapeutic alliance which is built through the ongoing collaborative engagement of CAMS. The collaborative dynamic is meant to empower the patient to embrace their ability to understand and directly inform their own suicide-focused treatment plan [12] as the patient serves as a figurative “co-author” of their treatment.

Honesty/Transparency

At the heart of CAMS remains a commitment to being honest and transparent with patients. Candidly acknowledging that patients are capable to take their own life is a simple truth that often can reassure a skittish patient who is concerned about their “right” to suicide. In the same spirit, CAMS clinicians are candid about legal requirements to stop clear and imminent suicidal risk as a jurisdictional duty of a licensed provider [16]. By talking openly and transparently about the “rules of the road” so to speak, there can be an understanding struck within the therapeutic relationship about how the dyad may navigate around potential power struggles that may arise about imminent risk and the prospect of hospitalization. Ideally, CAMS is used on an outpatient basis with an expressed desire to keep the patient out of inpatient care if at all possible. These open and honest viewpoints and psychoeducation have been found to invariably strengthen the therapeutic bond. The clinician can acknowledge the patient’s ability to end their life without endorsing it as their best option and be plain about their desire to do what it takes not only to

prevent the patient's suicide but also to pursue a life worth living (the final stage of CAMS).

Suicide-Focus

Finally, CAMS does not approach suicide using the same conceptualization as many of the prevailing psychotherapy models. This conceptualization often places the focus of treatment on a patient's mental disorder, relegating suicide to symptom status with the presumed effectiveness of treating the diagnosis (which has little to no support within randomized controlled trials of suicide-effective treatments). Within the CAMS therapeutic framework, *suicide* is the main focus of care – independent of psychiatric diagnosis because suicide serves a functional role for patients [13]. In other words, the prospect of suicide often functions as a coping mechanism or as a problem-solving tool to meet a need for control or to end suffering. The ultimate treatment goal of CAMS is to identify what is driving a patient toward suicide. The effort to identify patient-articulated suicidal drivers leads to pragmatic treatment planning to address and ameliorate these problem drivers, therefore rendering suicide functionally obsolete. From a patient-centered perspective, making patient-defined suicidal drivers the center of treatment validates the patient's experience and care and then addresses those problems that put their life in peril. In CAMS, guided care drivers do not have to be 100% eliminated for progress to be made; managing and coping differently are the key to CAMS-guided recovery. Thus, CAMS provides a way for the dyad to move forward with a patient-centered approach to suicide-specific care, enabling the patient to cope differently and better and creating the prospect of ultimately pursuing a life worth living with purpose and meaning.

Using the Suicide Status Form (SSF) to Guide Clinical Care

As described in the opening case example, the Suicide Status Form functions as a multipurpose assessment and treatment road map of sorts. There are three versions of the SSF that cover the full course of care: the first session, all interim sessions, and the final outcome disposition of CAMS. Every CAMS session at all three phases of care begins with the patient completing the “SSF Core Assessment” ratings (in reference to their psychological pain, stress, agitation, hopelessness, self-hate, and overall behavioral risk of suicide). And every CAMS session across all three phases of care ends with a collaborative treatment planning discussion.

The First Session of CAMS

As a general matter, the first session is believed to be crucial to launching a trajectory for successful care. As seen with the case example of Alice, there are some surprises

in the first session of CAMS in terms of what many patients expect to happen in mental health care. The patient gets center stage in CAMS, and the clinician's job is to follow their lead both in terms of assessment and treatment planning.

Assessment

The first session of CAMS introduces the use of the SSF that will guide care from beginning to middle to end. The clinician and the patient complete the form together, with the clinician physically taking a seat next to the patient, always with permission from the patient. Using the first session version of the SSF, patients are asked to complete several rating scales, qualitative assessments, and rankings of constructs related to their suicidality. As noted earlier, the SSF Core Assessment includes rating of key suicide-related variables; beyond rating the constructs on 5-point scales, the patient is also prompted to write out their feelings of pain, stress, etc. and to rank order their respective importance. Patients then rate whether their suicidal struggle is related to themselves or to others. Next, patients list up to five reasons for living and reasons for dying, respectively, based on importance [15]. Then patients rate their relative wish to live vs. their wish to die using 9-point scales. Section A of the first session SSF ends with the patient identifying and writing out in their own words, "The one thing that would help me to no longer feel suicidal is _____."

Section B of the first session SSF is completed by the clinician, and it evaluates 15 different suicide risk and warning sign variables (i.e., suicide ideation, suicide plans, past suicidal behavior, access to lethal means, etc.). This section remains collaborative but transfers the paperwork back to the clinician to complete. Each variable is assessed by the dyad, and they delve into different considerations relevant to the patient's suicidal suffering that will help inform the treatment plan (including the CAMS Stabilization Plan).

Treatment Planning

Section C of the first session SSF focuses on the development of the CAMS Treatment Plan. Within CAMS-guided treatment planning, three main problems are identified as the focus of treatment. The treatment planning process begins with Problem #1, centered on the patient's self-harm potential and the related development of the CAMS Stabilization Plan (CSP). The CSP serves a key role in the dyad's ability to work on an outpatient basis by first identifying and reducing access to lethal means, establishing a list of five coping strategies and resources for reaching out for help, noting relational support, and identifying and problem-solving any potential barriers to treatment. Problems #2 and #3 of the treatment plan are called direct drivers of the patient's suicidality, which the patient identifies as problems that compel them to consider suicide (a romantic breakup or a serious financial crisis). The CAMS provider supports and guides the discernment of problem drivers, but the drivers should come directly from the patient's perspective. The dyad then lists the goals and objectives for the two problems listed as well as potential interventions for each problem. CAMS clinicians are encouraged to use various techniques, evidence-based approaches, and other strategies they know to target and treat driver problems. In this regard, treatment is not prescribed – it is up to

the clinician as to how they best aim to treat the patient-articulated drivers. Treatment planning ends when the patient verifies that they understand and agree with the plan. At this time, the clinician makes a summary clinical judgment as to the presence of imminent suicide risk (usually based on the quality of the CSP and how on board the patient is with pursuing CAMS on an outpatient basis). Both parties sign the first session SSF, and copies are made for the patient to take with them (or smartphone pictures of the SSF and CSP can serve the same purpose).

It should be noted that at this juncture there is a final page of documentation across all three phases of care which includes key progress note information such as mental status, diagnosis, a judgment about overall suicide risk, and case notes. Many settings where CAMS is used successfully develop policy to make the SSF the official medical record progress note for patients engaged in ongoing CAMS-guided care.

Interim Sessions of CAMS

All CAMS-guided sessions between the first session and the outcome-disposition session are called interim sessions in CAMS. For these sessions, the SSF tracking/update version is used repeatedly throughout interim care. These sessions begin with assessment and end with treatment plan updating.

Assessment

At the start of each interim session, the clinician presents the patient with the SSF Tracking/Update Interim version of the tool and the patient quickly completes Section A of the SSF Core Assessment of the form. Section A includes six self-reported rating scales that make up the SSF Core Assessment (Psychological Pain, Stress, Agitation, Hopelessness, Self-Hate, and Overall Risk of Suicide) and three additional yes/no questions assessing whether the patient had suicidal thoughts or feelings in the past week, was able to manage these thoughts and feelings in the past week, and was engaged in any suicidal behavior in the past week. Upon completion of Section A, the patient and clinician will review the patient's SSF Core Assessment ratings. Reviewing this assessment each session gives the clinical dyad an opportunity to monitor any progress or setbacks throughout the course of the treatment, something that many clinicians and patients find helpful. Continuous review and discussion of the patient's most current ratings on the SSF Core Assessment can not only aid the clinician in case conceptualization, but it can also help inform treatment planning and provide a natural segue to the discussion of the CAMS Stabilization Plan during each interim session. Consequently, following the completion of Section A, the dyad shifts their focus to suicidal drivers which are the focus of interim sessions.

Focus of Care

The treatment focus of all interim sessions of CAMS revolves around treating, managing, and addressing the patient's suicidal drivers. This signature feature of

CAMS is different from typical treatment approaches, wherein treatment is primarily based on the clinician's judgment and observations and focused on treating mental disorders with the presumption that suicidal thoughts and behaviors will be impacted. However, clinicians in CAMS-guided care never presume that a mental disorder is necessarily the cause of a patient's suicidal thoughts and/or behaviors. Rather, CAMS-guided care emphasizes the overarching importance of focusing on what the patient says causes their suicidal suffering. For example, for a patient feeling like they must end their life due to childhood trauma and a current financial crisis, CAMS treatment might employ exposure therapy for the trauma and help the patient receive advisement on financial literacy. In a different patient with drivers of imminent collapses of their marriage and seemingly uncontrollable anger, CAMS-guided care might help the patient and their spouse engage in couple's therapy while using breathing techniques, mindfulness, or anger management to address the latter driver.

Suicidal drivers within CAMS-guided care are of two types: direct drivers and indirect drivers. Direct drivers (i.e., Problems #2 and #3 within CAMS treatment planning) are problems and issues that are idiosyncratic to the patient's suicidal struggle. These drivers include various thoughts, feelings, and behaviors that may compel the patient to consider suicide and may trigger an acute suicidal episode. Patients are not typically suicidal 24 h a day/7 day a week – suicidal states tend to wax and wane. It follows that when direct drivers are triggered or activated, it may spur the patient down the road of suicidal coping. The notion of indirect drivers in CAMS speaks to issues, stressors, or certain situations that may make the patient more vulnerable to the activation of their direct drivers. Examples of indirect drivers are lack of sleep, fighting with close friends, homelessness, unemployment, insomnia, or even mental illness. By definition these indirect drivers do not make the patient actively suicidal, but they can set the stage for the direct drivers to kick in thereby making suicidal coping compelling. Indirect drivers can make a patient feel vulnerable to either the insidious or sudden activation of direct drivers that may engender a potential acute suicidal crisis. As a general matter, CAMS-guided care primarily focuses on direct drivers but if an awareness that a lack of sleep and social isolation (examples of indirect drivers) has often preceded an acute suicidal episode that is good to know from a therapeutic standpoint.

Within CAMS there is often an explicit goal to “sharpen” direct drivers through reflection and discussion over the course of care. This is exactly why the treatment plan is updated at the end of every CAMS session. Discovering in session four that a direct driver about not trusting others may be linked to severe childhood abuse might lead to an evolved driver focused on treating the abuse to help build trust in others.

As noted, within CAMS the treatment of suicidal drivers is up to the clinician, and the approach does not promote any specific interventions or treatment approaches. In this way, clinicians are encouraged to use clinical strategies that they know over the course of interim care. As long as the clinician focuses the intervention on targeting and treating patient-defined suicidal drivers during the interim sessions, they are being adherent to the CAMS framework. Thus, CAMS is problem-focused and flexible rather than strategy-focused and rigid.

Treatment Plan Update

As noted, interim CAMS care focuses on driver treatment, but the treatment is typically dynamic and ever changing, which is why there is a need to revisit the CAMS Treatment Plan at the end of every session. Therefore, the dyad once again takes side-by-side seating to update the CAMS Treatment Plan, which is Section B of the SSF Tracking/Interim Session version of the tool. The team will usually revisit the effectiveness of the CAMS Stabilization Plan and modify it if necessary. They will then reassess the problem drivers and evaluate whether the existing drivers remain the same or have evolved in some way since the last session. Suicidal drivers may remain consistent over the full course of the treatment. However, sometimes drivers change or evolve over time. It is therefore crucial that the clinician does not assume that the patient's suicidal drivers remain static. Rather, the treatment planning process should be dynamic and focused on the root causes of what makes suicide compelling to the patient. Following the reexamination of the problem drivers, the dyad updates the related Goals and Objectives sections as well as the Intervention and Duration sections of the SSF. As in the first session, both parties sign the SSF Tracking/Interim Session form indicating that they concur with the information recorded on the form, and the patient receives a photocopy or takes a picture of their interim SSF document. After each interim session, the clinician will independently and quickly complete Section C of the SSF Tracking/Interim Session form that addresses mental status, diagnosis, overall risk, and case notes. The extensive documentation inherent in CAMS reflects competent and thorough practice and has the side benefit of helping reduce the risk of malpractice liability, as documentation is so critical to the process of litigation.

In addition to the SSF Tracking/Interim Session document, there are other optional tools that CAMS clinicians may employ within interim care. For example, the CAMS Therapeutic Worksheet (CTW) is a tool that helps clarify the patient's history with suicide as well as better understand the nature of their direct and indirect drivers. The CTW helps the patient conceptualize their suicidality using a flow diagram to serve as a visual aid as to how indirect drivers may have created instability and vulnerability and consequently set the stage for the activation of direct drivers pushing the patient to consider suicidal coping. The CTW can be an effective tool that further deconstructs and elucidates patient's relationship with suicide and what they can do to cope differently (e.g., *when* they should know to use the CSP to avert an escalation of suicidal risk).

Case Example Interim Care

CAMS interim care with Jen focused on Alice's obsession with getting married and having a family – she acknowledged that she did not really love Bill; he was really a best friend and would have been a devoted husband and father. Using cognitive therapy Jen focused on Alice's distorted thinking (e.g., that she would “never have a

husband and children”), and they set behavioral goals to gently try out online dating (something Alice swore she would never do). She also referred her to a colleague for a vocational assessment, and based on the results, they agreed that physical therapy was not a good match for her vocationally. Alice’s beloved sister actually attended her fifth session, and there was a discussion about Alice working with her sister in her successful real estate business. With these developments Alice found herself thinking less and less about suicide, and she had successfully used her Stabilization Plan when she Facebook “stalked” Bill who posted pictures of himself with another woman.

Final Session of CAMS

There is not a prescribed number of CAMS interim sessions. Rather, there are as many interim sessions as needed to make therapeutic headway to ideally achieve resolution or other treatment outcomes. Specifically, the patient meets resolution criteria when their ratings of overall risk are a 1 or 2, and they have been able to successfully manage their suicidal thoughts/feelings along with no suicidal behaviors for three consecutive sessions. While there is no set recommended number of sessions, various clinical trials have shown that resolution of suicide risk usually occurs within 12 sessions [18] and many cases resolve in 6–8 sessions of care [4, 20, 25].

Assessment

CAMS-guided care thus concludes when the previously noted resolution criteria are met, which is noted on Section A of the outcome-disposition version of the SSF. Practically speaking, when CAMS patients are on the cusp of resolution with criteria met in a second consecutive session, the patient is made aware that the end of CAMS may occur if these criteria are met by the next session. That said, sometimes the dyad may decide to wait to resolve CAMS based on their desire to ensure that ending CAMS feels right.

In the penultimate session prior to the resolution session, it is wise to engage the patient in a full discussion of their treatment outcome and the patient’s disposition. Once again, this direct discussion of treatment disposition with the patient further emphasizes the collaborative nature of the treatment and gives the patient an opportunity to incorporate their voice into what happens next after CAMS has been brought to an end. In these final sessions, there is a golden opportunity to take stock of what has been learned and to reflect on what would help make the patient’s life more worth living; an overt discussion of how to find more purpose and meaning in a post-suicidal life invariably serves the patient well [12].

Sometimes it seems that care is approaching resolution only for there to be a setback where suicidal risk reemerges. In such situations the model can be reasserted, and the resolution clock can be reset. CAMS clinicians should always be patient, understanding, and supportive about how the CAMS clinical resolution plays out, and not rush or pressure the patient into resolution prematurely.

The Outcome/Disposition Final Session version of the SSF has three separate sections. Similar to the Interim Session version of the SSF, Section A of the Final Session form includes the SSF Core Assessment accompanied by the three yes/no questions assessing the presence of suicidal thoughts, feelings, behaviors, and the patient's ability to manage the thoughts and feelings. If indeed CAMS is being resolved, two additional open-ended questions are addressed asking the patient to specify any aspects of the treatment that were particularly helpful. In addition, there is a query about what they have learned from their care that they could use if they were to experience another suicidal episode. The two outcome questions were adapted from the National Institute of Mental Health (NIMH)-funded Collaborative Study of Depression [8] and help generate discussions about the patient's clinical accomplishments and potential relapse-prevention resources.

Outcome Disposition

Section B of the Final Session SSF is completed by the dyad noting the range of possible clinical outcomes and what – if anything – lies ahead for the patient in terms of their disposition. The patient should receive a copy or take a picture of the final SSF for their own use. There is a final Section C for the clinician to complete the documentation of the case that addresses the patient's mental status, diagnosis, overall risk, and final case notes.

Obviously, the optimal clinical outcomes in CAMS-guided care are suicide-specific treatment-based outcomes and include no completed suicide or suicide attempts, the elimination of suicidal ideation and reduction of symptom distress, and the development of alternative ways of coping. For cases in which suicide was resolved, one potential disposition after CAMS could be continued psychotherapy with the clinician (or a referral) to address any other existing issues in the patient's life. Once suicidal risk has been resolved, the patient might be in need of other specialized treatment (e.g., group therapy). Thus, making an effective clinical referral could potentially be the optimal outcome, helping the patient receive the care that they need and deserve. Another positive outcome is the mutual termination of psychotherapy as CAMS-guided care comes to an end. For certain patients, a short-term course of care to effectively recede suicide is enough for them to proceed in life.

But of course, not all outcomes are desired – some patients drop out or need to be hospitalized. For patients who drop out or choose to discontinue care, reasonable efforts can and should be made for them to re-engage or be offered referrals and/or resources. In any case, the full range of outcomes can be fully documented on the final version of the outcome-disposition SSF.

Suffice it to say, no suicide treatment is perfect and compatible for every single patient. And no matter the level of expertise or amount of effort, no clinician can guarantee that a patient who is suicidal will always be successfully treated and never attempt or even die by suicide. Nevertheless, the CAMS framework is a proven and reliable, evidence-based, and suicide-specific treatment that provides the basis for ensuring the best possible care for patients who are suicidal. Its use can ensure that

excellent suicide-specific care has been rendered, and the extensive SSF documentation reflects that care and decreases one's exposure to malpractice liability should a fatal outcome occur.

Case Study Outcome Disposition

Alice met criteria for CAMS resolution by session 8, but they delayed resolving until session 10 when Alice felt confident that suicide was no longer a viable option for her. Alice had some success with online dating; having had a few lunches with a couple of men, she left guardedly hopeful that she could perhaps meet someone to marry one day, but she told Jen that she wanted to take the pressure off herself and take things slow. One major decision was to quit her physical therapy and to start working with her sister in real estate. By resolution of CAMS, she was taking online courses to take her real estate exam in the coming months. Alice and Jen continued to meet in psychotherapy after CAMS for about 6 months, at which point Jen referred Alice to a group therapy run by a colleague that Alice found extremely helpful.

Empirical Support for CAMS

The empirical support for CAMS and the use of the SSF are extensive, replicated, and still growing. There are now eight published correlational/open trials and five published randomized controlled trials demonstrating the effectiveness of CAMS.

SSF-Focused Studies

Currently, CAMS-guided care and the SSF are used in a wide range of clinical settings in the United States and around the world. The effectiveness and efficacy of CAMS and the SSF in clinical settings are increasingly supported by a line of ongoing correlational and randomized controlled trials (RCTs). There is also clear evidence supporting the psychometric validity and reliability of the SSF Core Assessment [3, 5, 17]. One of the first studies of CAMS was conducted in 1997 by Jobes and colleagues in an outpatient setting. This was a psychometrics study of the SSF conducted with a sample of 106 college students who were suicidal and seeking treatment at a university-based counseling center [17]. The results from this study indicated that the six items on the SSF Core Assessment (Psychological Pain, Stress, Agitation, Hopelessness, Self-Hate, and Overall Risk of Suicide) operate quasi-independently, have good to excellent convergent and criteria-prediction validity, and have moderate to good test-retest reliability. Results from subsequent psychometrics studies of the SSF Core Assessment indicate that the SSF is psychometrically sound among psychiatric inpatients who are high risk and suicidal [5] and teenagers who are suicidal [3].

Correlational Clinical Trials

A second study from 1997 with college students who were suicidal by Jobes and colleagues examined treatment-related outcomes of CAMS. The findings from this within-group pre-/posttreatment study revealed a significant decrease in the patient's self-reported ratings on the SSF Core Assessment over the course of the treatment. Additional analyses utilizing multilevel modeling also found a significant decrease in overall symptom distress and suicidal ideation from pre- to posttreatment [19]. Further examination of the clinical utilities of CAMS was also conducted at two US Air Force outpatient mental health clinics [18]. The results from this archival data analyses revealed that CAMS-guided care was associated with reducing suicidal ideation significantly more than treatment as usual (TAU). Findings also indicated that CAMS patients had significantly fewer emergency department visits and medical appointments than TAU patients in the 6 months after the start of suicide-related mental health treatment.

Although CAMS was initially developed for outpatient use, it has been adapted and used in a series of inpatient trials at the Menninger Clinic, a psychiatric inpatient hospital setting. In one naturalistic study at Menninger, 20 patients who were suicidal and high risk received CAMS showing significant statistical and clinical reductions in hopelessness, depression, suicidal ideation, suicidal-relevant cognitions, as well as reductions of the SSF Core Assessment when comparing admission ratings vs. final treatment ratings [9]. Two subsequent quasi-experimental studies were conducted at the Menninger Clinic using propensity score matching to compare a group of patients receiving CAMS vs. patients receiving TAU [10, 11]. The comparison of CAMS to TAU in these two studies found patients in CAMS improved significantly better than TAU on a wide range of outcome measures (i.e., suicide-related cognitions, levels of depression, suicidal ideation, functional disability, and well-being) [10, 11].

Randomized Controlled Trials of CAMS

Although many correlational studies in naturalistic settings have established robust external validity of CAMS, more recent clinical studies of CAMS have focused on RCT designs in order to further enhance internal validity and examine the *causal* impact of CAMS. The first RCT was a feasibility study comparing CAMS to “enhanced care as usual” (E-CAU) with a sample of outpatients who were suicidal [4]. In this study, 32 participants were randomly assigned to CAMS or E-CAU in an outpatient mental health treatment clinic within a larger medical center. Despite the limited statistical power with the small sample size, there were significant findings for primary and secondary outcome measures showing the superior effectiveness of CAMS-guided care in terms of reducing suicidal ideation, reducing overall symptom distress, and increasing hope. More importantly, the most robust between-group difference was detected at 12 months after the start of the treatment,

demonstrating the possible enduring impact of CAMS many months after treatment ended.

Additional RCTs comparing CAMS with E-CAU or TAU have been conducted in two larger outpatient studies, one with 148 US Army soldiers who were suicidal [20] and another with 62 college students who were suicidal [25]. In the US Army study, participants in the CAMS condition were significantly less likely to have any suicidal ideation at 3 months after baseline assessments. Specifically, at the 3-month follow-up, only 37% of participants in the CAMS condition reported any suicidal ideation compared to 61% of participants in the E-CAU condition. When comparing TAU with CAMS in a RCT with college students who were suicidal, CAMS was found to have a significantly positive impact on depression, hopelessness, and suicidal ideation throughout the course of the treatment and especially among students who were suicidal but less complex (i.e., those without a multiple suicide attempt history or borderline personality disorder features) when comparing to TAU [25]. Finally, in a RCT comparing CAMS to dialectical behavior therapy (DBT), a treatment for self-injurious behaviors supported by extensive empirical literature, no statistically significant between-group differences were detected between CAMS and DBT for non-suicidal self-injury and suicide attempts [1]. It is important to note that this study was underpowered and CAMS impact on self-harm and suicide attempts was trending somewhat better than DBT, which is by far the most proven treatment for reducing self-harm and suicide attempts [6].

Several studies conducted outside of the United States have also validated the cross-cultural utility of CAMS and the SSF. Two naturalistic studies from Denmark with a range of patients who were suicidal in outpatient community mental health settings have demonstrated the feasibility and clinical utility of CAMS and have further shown statistically significant pre-/post changes on all SSF Core Assessment items [2, 24]. Additionally, 74–80% of the participants in the two studies expressed that CAMS was the main factor in eliminating their suicidality. Furthermore, a more recent RCT from Norway with patients who were suicidal in inpatient and outpatient care found that CAMS outperformed TAU at the 6-month follow-up. After 6 months, patients in the CAMS condition reported lower levels of suicidal ideation. Moreover, patients in the CAMS condition also experienced greater reductions in general mental health distress at the 6-month and 12-month follow-ups [26].

In summary, results from a vast number of correlational and randomized controlled trials (RCTs) have supported the effectiveness and efficacy of CAMS and the SSF in multiple clinical settings with patients of different backgrounds. Future studies of CAMS will continue to endeavor to empirically validate CAMS in RCTs and experimental replications.

Other and Ongoing CAMS-Related Research

Although the accumulation data to date overwhelmingly supports the effectiveness of CAMS in reducing suicidal risk, additional CAMS-related research studies are currently underway to further validate and replicate the empirical support for CAMS

in different clinical settings and among diverse groups of patients who are suicidal (e.g., children and adolescents). One such study is the Aftercare Focus Study, a RCT of 150 participants comparing the effect of CAMS to standard care on suicidal ideation and future suicide attempts. Other RCTs are also in progress at the San Diego VA medical center and in an inpatient facility in Germany [27]. Furthermore, a large-scale multi-site study across several college counseling centers in the United States examining treatment effects of CAMS and DBT on 700 college students who are suicidal is just beginning. Other CAMS-related research includes the adaptation and creation of a CAMS-inspired virtual platform for patients who are suicidal in emergency departments [7], as well as the development of an electronic version of the SSF (e-SSF) that can import key medical record data into electronic health records. Finally, feasibility clinical trials comparing a group version of CAMS (CAMS-G) with veterans who are suicidal are underway.

Conclusions and Next Steps for CAMS

CAMS is a proven patient-centered framework that can be used across a range of clinical settings with different types of patients who are suicidal [21]. Current efforts are underway to use CAMS within a telehealth modality [23] and to further evolve the electronic use of the SSF. Future clinical trials will establish the effectiveness of CAMS for teens and children who are suicidal [22]. CAMS is thus providing clinical relief to a range of patients who are suicidal, offering a treatment focused on their suicidogenic problems with the ultimate goal of giving the patient a life worth living beyond the specter of suicide.

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Differentiation of Suicidal Behavior in Clinical Practice

14

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Marieke H. de Groot

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Abstract

A clinical differentiation model of suicidal behaviors may improve clinical practice. It may be helpful to determine which type of treatment is most appropriate for subtypes of suicidal behaviors and may improve adherence to suicide prevention guidelines. Also, differentiation of suicidal behaviors may create clarity about the role of healthcare providers, patients, and social networks in the prevention of completed suicide. From clinical experience, we developed a new model to differentiate subtypes of suicidal behaviors, the hypothetic four-type model of entrapment (H4ME), distinguishing the origin of entrapment that may result in a suicidal state. The subtypes are (1) perceptual disintegration (PD), (2) primary depressive cognition (PDC), (3) psychosocial turmoil (PT), and (4) inadequate communication/coping (IC) (emphasizing emotional pain). The SUICIDI-questionnaire was designed to identify subtypes of entrapment. In this chapter, we briefly describe previous models of subtypes of suicide, the

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background of the H4ME development, and a study design to examine the proposed models' validity.

Keywords

Differentiation · Subcategories · Subtypes · Historical · Suicidal behavior · Suicidality

Introduction

While suicidal behavior is common, suicide, the “end-product” of suicidal behavior, is rare. For example, in the Netherlands approximately 400,000 people per year experience suicidal thoughts. There are about 96,000 suicide attempts and around 1,850 people end their lives [1]. This means less than 0.5% of people experiencing suicidal thoughts ultimately end their lives. Because of the enormous impact of suicide thoughts, there is more attention and focus for suicide than for the more common suicidal behavior.

Clinical differentiation of somatic disorders is common, for example, the differentiation and classification of breast cancer [2], diabetes [3], dementia, [4], etc. Differentiation and classification of disorders have resulted in improved diagnosis, more effective treatment, and targeted counseling strategies. Suicidal behavior is complex and multilayered; it never occurs in isolation because there are always several factors at stake. Except for a distinction between suicidal behavior with or without attempt or between acute and chronic suicidal behavior, general guidelines, scientific research, and general texts about suicidal behavior do not differentiate suicidal behavior. Still, it continues to be defined as a uniform concept [5–7].

When it comes to treatment or management of suicidal behavior, risks assessment for suicide is extremely difficult. Even though some predictive, treatable factors are known, the main emphasis seems to be on treatment of underlying psychiatric illness and general safety planning rather than on the suicidal process that may lead to suicide. Suicidal behavior occurs in a variety of psychiatric disorders [8], but only for borderline personality disorder and/or major depressive disorder suicidal behavior is one of the possible symptoms required to meet the DSM classification criteria. There is some knowledge and evidence of effective, specific forms of psychotherapy and biological treatments for suicidal behavior [9]. However, we observe a discrepancy between knowledge and the practical application of what we know. Theoretical results from neuroimaging, research into genetic vulnerability for suicide and psychiatric research into suicidal behavior, for example, are often difficult to apply into practice.

Mental health services have extensive knowledge and experience with suicidal behavior and are almost automatically expected to manage people presenting with suicidal behavior.

The matter of professional responsibility and liability is extremely complex whether it is about collective responsibility or individual responsibility of members

of a mental health team or other caregivers. Responsibilities of professionals are partially determined by the way people with suicidal ideation present themselves to services. Taking into consideration that in the Netherlands, 60% or less of the people who end their lives were not known to mental health services [10], we might wonder whether specialist services should be solely responsible for managing suicidal behavior. Inpatient units can admit patients when a community team is unable to manage the risks; however, admission is also an opportunity to shift the risks from the community to the inpatient unit. It is a misconception that an inpatient unit is better able to keep a patient safe; however, the effectiveness of admission is not known. We do know though that admission is not a determining factor for the ultimate suicide risk and can even lead to iatrogenic damage both on the short and long term [11, 12]. Management of suicidal behavior by non-specialist services – who may not have the extensive knowledge and support system to fall back on – is not straightforward and this will raise further questions about issues around responsibility. The complex dynamics and the risks resulting from suicidal behavior may lead to formalized and restrictive, “defensive” practice.

Theoretical typologies are useful in generating new hypotheses about suicide risk, treatment, and prevention. Classical, contemporary, and empirical typologies of suicide have been established (see for an overview [13]). A well-known example of classical typology is Emile Durkheim’s model that distinguishes

1. Egoistic
2. Altruistic
3. Anomic
4. Fatalistic suicide

Durkheim compared suicide rates for various groups (e.g., Protestants and Catholics, soldiers and civilians) and put in place a theory of suicide deduced from the influence of social forces. He argued that suicide rates are a reflection of the degree to which individuals were integrated into and regulated by society [14]. An example of a more contemporary typology of suicide is the psychodynamic conceptualization of suicide, based on “cessation,” defined as “discontinuation of capacity for any further conscious experience” [15]. Shneidman used the term “psyde” to represent cessation and delineated four subtypes of suicidal individuals:

1. Psyde-seekers
2. Psyde-initiators
3. Psyde-ignorers
4. Psyde-darers

Empirical studies on typologies of suicide [1, 16–21] were conducted when more comprehensive statistical methods became available. Risk factors for suicide, identified in epidemiological studies, served as (sets of) variables to quantify typologies. For example, Reynolds and Berman (1995) attempted to distract the major subtypes of suicide previously reported in the literature and empirically reduce them to a

useful number. They identified significant overlap between typologies proposed by earlier theorists and simplified them into five distinct subgroups [16]:

1. Depression/low self-esteem
2. Escapist
3. Aggression
4. Confusion
5. Alienation

The identification of typologies of suicide has been useful to formulate theories to explain suicide, such as the cry of pain (CoP) hypothesis [22], the interpersonal theory (IPT) [23], and the escape from self model – which extends existing theories of escape and arrested flight [24]. We need however to bear in mind that theoretic types of suicide do not clearly discriminate between completed suicide and non-fatal suicidal behaviors. A relatively new approach in this context is the integrated motivational-volitional model of suicidal behavior [25] aiming at making a distinction between persons with suicidal thoughts and those who engage in suicidal acts. Even though a differentiation model of suicidal behavior would be helpful to develop and investigate successful treatment strategies, no clear differentiation systems for “suicidal behaviour” are available [13].

The common, unpredictable, unstructured, and risky presentation of suicidal behavior in clinical practice and the lack of structure and differentiation of management and diagnosis of suicidal behavior have been the inspiration and the foundation of the development of a model for clinical differentiation of suicidal behavior: the (hypothetic) four-type model of entrapment (H4ME). Its availability would enable clinicians to develop specific forms of management of suicidal behaviors and may enhance scientific research of suicidal behavior at biological, psychotherapeutic, and social level [8, 26–28, 29, 30, 31]. The H4ME model is purely based on clinical experience and assessments of a diverse range of suicidal presentations in mental healthcare practice. Hence, clinical practice is the starting point of the model’s development.

The Context of Development

The H4ME has been developed in response to the publication of the Dutch multidisciplinary guideline on the assessment and treatment of suicidal behavior [32]. The implementation of the guideline by the Dutch mental healthcare system has been supported by the PITSTOP study [33], a cluster randomized trial, examining the effect of an e-learning-supported train-the-trainer model to train mental healthcare workers in applying guideline recommendations, compared with “the usual” implementation strategy. The PITSTOP training was specifically developed for this study [34] and is based on an integrated model of stress vulnerability [35] and entrapment [36] to explain the onset of suicidal behaviors (Fig. 1), designed and introduced by the authors of the Dutch multidisciplinary guideline [32].

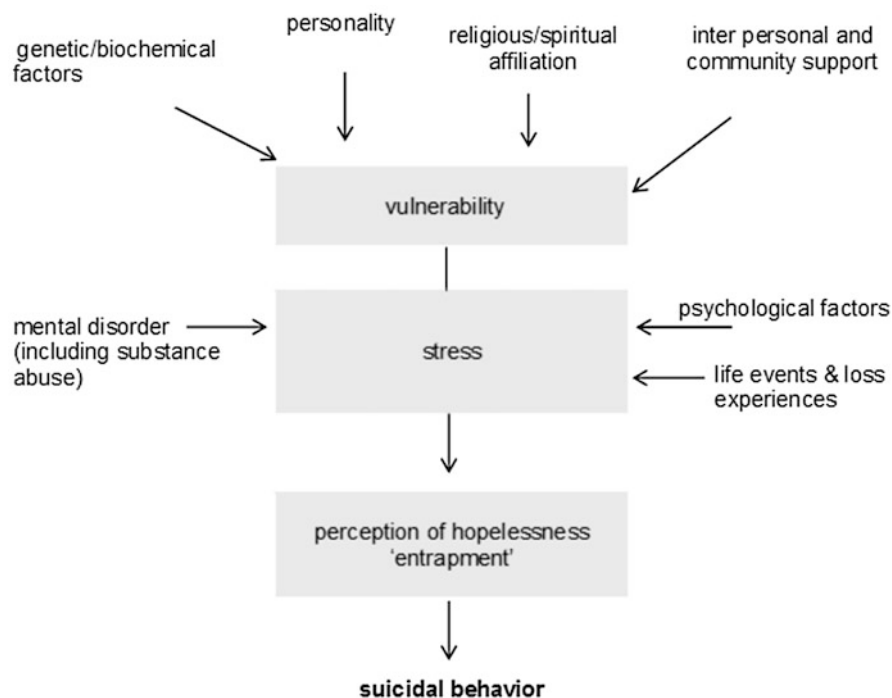


Fig. 1 Integrated model of stress vulnerability [35] and entrapment [36] of suicidal behavior

During the PITSTOP training, mental healthcare workers are trained to assess suicidal behaviors according to the clinical assessment of suicidal episodes (CASE) method [37] (Fig. 2), a four-step interview for the assessment of suicidal behavior. First, the current suicidal condition is examined to estimate the likelihood of completed suicide at the time of the interview. Second, stressful events contributing to the onset of the suicidal behavior are examined. Third, vulnerability and protective factors for suicide are assessed, and fourth, the patient's prospects of the future are addressed. The extent of entrapment, the feeling of being trapped and the cognition that escape is only achievable through death [36] are established by looking at the outcome of the first (current suicidal condition) and the last step (the patient's view of the future) of the CASE interview. For example, a patient who is an immediate risk of suicide and cannot see a future or an improvement of his situation is more likely to feel "entrapped" than a patient considering suicide because his wife is insisting on a divorce. On the basis of the CASE interview outcome, an appropriate multidisciplinary treatment strategy is established, for instance by moderating the impact of stress factors or by strengthening factors that protect the patient from getting entangled by the entrapment (Fig. 3).

The PITSTOP training resulted in an increased adherence to the Dutch multidisciplinary guideline compared to usual implementation strategies [38, 39]. The PITSTOP training has become the "golden standard" in the Netherlands when it

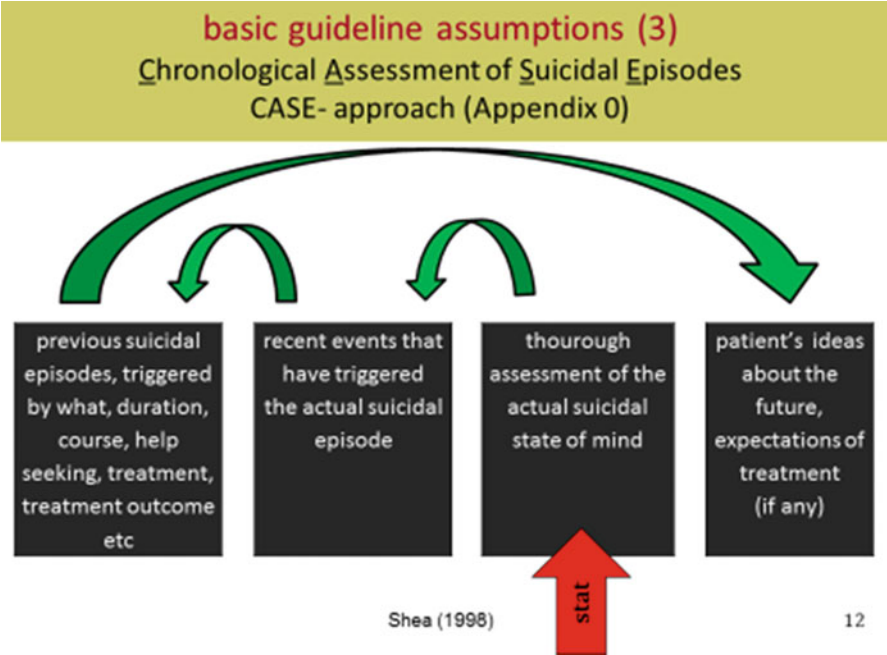


Fig. 2 CASE interview [37]

comes to training mental healthcare workers in suicidal behavior assessment and prevention strategies. Over the years, more than 40,000 mental healthcare workers of all professional disciplines were trained by the PITSTOP training. We found that mental healthcare professionals are becoming more familiar with the concept of “entrapment” and more skilled in looking at – and discussing – the pathway to entrapment. These essential skills are learned with the PITSTOP training. Currently, estimating the level of entrapment is the key strategy for assessment of short- and long-term suicide risks in patients presenting to mental health services with suicidal behavior.

The Benefits of Clinical Differentiation of Suicidal Behaviours

We believe that theoretical and empirical typologies of suicide have limited use in clinical practice. First, sets of variables representing a suicide typology may result in an unreliable estimate of the acute suicide risk. Additionally, whether patient factors or social factors increase or moderate the suicide risk depends on the context of in which it occurs [40]. For example, unemployment is a risk factor for a patient who recently lost his job and is a vulnerability factor when long-term unemployment has resulted in depression. When a patient lacks social skills to maintain himself in employment and is entitled to unemployment benefits, unemployment may be a protective factor. Secondly, clinicians are not primarily

Subject	Observing/questioning	Increasing risk	Decreasing risk/protective	
1 Current suicidality	Acuteness of suicide risk	Strong wish to end life	Low intention to die	
		Little control over own actions		
		Pressure to execute suicide plans		
		Perceived burden to others		
		Dichotomous thinking		
		Severe perceived sense of suffering		
		Tunnel vision		
2 Recent stressors	Illness/poor health Impact of life-changing events	Access to means		E
		Psychiatric symptoms	Connectedness with others	
		Substance abuse	Positive therapeutic relationship with mental health professional	Z
		Somatic illness		T
		Loss	Parenthood	R
		Psychosocial stressors	Involvement with religious organization	A
		Humiliation		P
3 Protective factors	Personality characteristics History of suicidal behavior Extent of social support Minimum needs for fulfilment have been met	Impulsivity		
		Lack of problem-solving skills		M
		History of suicidal ideation		
		History of suicide attempts		
		Family history of suicidal behavior		E
		Reduced sense of meaning		Z
				T
4 Future planning	Can see improvements and change for the better	Strong wish to end life	Expectation that things will change or improve positively	
		Lack of control over behavior		
		Pressure to execute suicide plans		
		Burden to others		
		Dichotomous thinking		
		Experience of severe suffering		
		Tunnel vision		
		Access to means		

Fig. 3 Theoretical aspects of the CASE for the assessment of suicidal behavior

interested in future suicide risks, but mostly want to know how to act to prevent suicide when assessing the immediate suicide risk. This may explain why international guidelines [41–43] do not distinguish between types of suicidal behavior.

We notice that a practical rather than a theoretical approach to management of the presenting behavior would be preferable for clinical practice. The presented H4ME model is a practical way to create order in the complexity of suicidal behavior. It distinguishes between different presentations of suicidal behavior and makes it easier for all stakeholders to assess this. The model supports clinicians to decide on the most appropriate, evidence-based management of suicidal behavior and allows a critical appraisal of roles and responsibilities of all stakeholders involved (the community, specialist, and non-specialist health services, neighborhoods, patients, relatives of the patient) in a practical and non-judgmental way. We assume that this will result in a change in dynamics and allow for best practice solutions and more evidence-based treatment.

The Hypothetic Four-Type Model of Entrapment (H4ME)

The Dutch multidisciplinary guideline [32] distinguishes between chronic suicidal conditions and acute suicidal conditions [44]. Van Luyn states that chronic suicidal behavior can be part of a diagnostic feature of borderline personality disorder. A

patient with a borderline personality disorder may become acutely suicidal in response to a life event or when suffering with a comorbid depression. An increased sense of helplessness and despair may (temporarily) increase the suicide risk. There is a difference in response of mental healthcare professionals to acute and chronic suicidal behavior. While a patient with chronic suicidal thoughts is expected to be able not to act on those thoughts, mental healthcare professionals are expected to protect the person if the suicidal intent suddenly becomes more acute and the risk of suicide increases [45].

Van Luyn's view (2010) inspired us to differentiate "the aetiology of entrapment." Etiology refers to the study of causation and onset of the condition. Looking at typologies as the starting point of the assessment of suicide risks and suicide prevention [13], we set out to develop a four-type model (H4ME) of entrapment rather than a model based on different types of completed suicide. We believe it is possible to categorise any form of suicidal behavior encountered in clinical practice into one of the four types and think that the H4ME is generally applicable irrespective of specific patient features like age, gender, diagnostic category, or any other subgroup feature. However, we cannot rule out that some patient – or environmental – characteristics may be associated with one or more types of entrapment. Additionally, we can foresee that "entrapment types" will need a more specific description or further differentiation. This is currently studied in a validation study [46] (see paragraph 6).

Screening of suicidal behavior will be improved if instruments and procedures are based on a small number of subtypes, and typologies should be based on existing models of suicidal behaviors [13]. The H4EM is based on the theory of entrapment, stating that the more the patient perceives "entrapment," the higher the actual suicide risk [36]. The model is further based on the assumption that suicide risks may vary between patients and within patients over time [32].

First, we will describe the four types of entrapment of the H4ME, and subsequently we will present the SUICIDI-2 classification (suicidal differentiation version 2): a preliminary instrument by which entrapment can be classified in type I, II, III, and IV. Table 1 displays vignettes of the four types.

The H4ME* distinguishes between four types of entrapment etiology:

- I. Perceptual disintegration (PD) – entrapment originated from the context of disturbed perceptions and/or behaviors
- II. Primary depressive cognition (PDC) – entrapment in the context of (a) depressive cognition(s)
- III. Psychosocial turmoil (PT) – entrapment in the context of acute reactivity to a (deemed or actual) loss, offence, adversity, or doom
- IV. Inadequate communication/coping(IC) (Emphasizing Emotional Pain) – entrapment in the context of communicating intense suffering

*Substance abuse and/or somatic symptoms can be viewed as modifiers whose effect depends on the subtype of entrapment (Fig. 4).

Table 1 Vignettes of entrapment typology**Vignette 1**

This case is about a 31-year-old woman, developing suicidal thoughts 2 weeks after delivering her first child, believing her stepfather fathered the child and not the biological father of the child. There is a history of sexual abuse as a young girl, with stepfather as the perpetrator. Patient believes her child will return to the “immaculate universe,” which is – according to the patient – a timeless entity without inequality. Patient has a history of previous psychotic episodes and two serious suicide attempts and except for a partner who is a lorry driver, there is little support and/or network at home

Vignette 2

This case is about a 24-year-old student who is convinced suicide is the only way out in a situation perceived as unbearable and unlikely to improve. He was recently diagnosed with bipolar affective disorder (BPAD) when he presented with a depressive episode, and the suicidal ideation gradually got worse. The patient experiences severe side effects of psychotropic medication and worries about “ending up” like his father, who was also diagnosed with BPAD. Patient sees himself as a failure and cannot foresee himself living his life as a “psychiatric case.” Several members of his family tried to kill themselves when depressed and patient is vulnerable to adopt a similar behavior pattern. Protective factors are fellow students, housemates, and his younger sister who is still living with their parents. He considers himself to be a burden to others and finds it difficult to contain his impulse to hang himself

Vignette 3

This case is about a 47-year-old man who became suicidal after his wife ended the marriage and kicked him out when she caught him watching child porn on his computer. His wife reported him to the police and informed the board of the school where he worked as vice headmaster. Patient ran off with his car and was reported missing for several hours. He was picked up by the rail-track the same evening, waiting in his car for the freight train. He was desperate, thinking he could not continue living out of shame and feared he was going to lose contact with his wife, children and family including in-laws, work and church, just about everything that made his life worth living. Even though his son assured him he would continue supporting his father, patient did not want to face anyone. Patient is convinced he is better off dead and deserves God’s punishment for his behavior

Vignette 4

This case is about a 56-year-old, divorced woman who attempted to take her life by taking 20 tablets of Oxazepam 10 mg and a bottle of wine. Patient warned her daughter after the overdose, who then found her. Reason for the overdose was a comment from her daughter that she thought it was better for patient not to see her grandchildren and patient felt rejected. Half a year ago patient had a CVA, ever since she suffers with a right-sided paralysis and is wheelchair-bound. She is known with alcohol dependency and chronic suicidal behavior and has a history of suicide attempts. Patient tried to kill herself after her other daughter died (1996), her partner (2011), and when her grandchild was diagnosed with neuroblastoma (2014). Patient is angry she did not manage to kill herself and is resentful towards her daughter because she called 999. For her, life is not worth living with physical disabilities and not being able to see her grandchildren

A multidimensional approach, making use of theoretical aspects of different forms of psychopathology and different dimensions of personality deficiencies playing an important role in the different presentations of suicidal behavior, was used for the theoretical foundation of the model. The model includes two clinical subtypes recognizable in clinical practice which are derived from the theoretical model of “affective dysregulation and perceptual disintegration” [47] and dimensions of the Cloninger

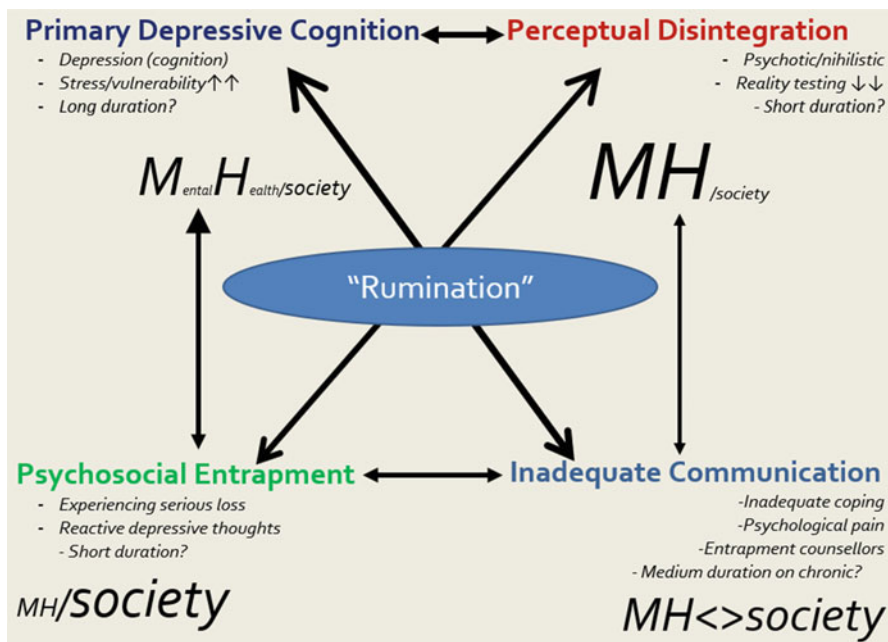


Fig. 4 The four subtypes of suicidal behavior and theoretical aspects

model for temperament and character [48] with the “personality deficiency dimensions” of temperament (harm avoidance, novelty seeking, reward dependence, and character) and character (self-directedness and cooperativeness).

SUICIDI-2: An Instrument to Classify Entrapment

The SUICIDI-2 (suicidal differentiation version 2) was designed to assign the entrapment status to type I, II, III, or IV. The SUICIDI-2 should be considered as a provisional description of the four types of entrapment. Over the last 3 years, the ongoing development of the H4ME model and the SUICIDI-2 was presented to psychiatrists, psychologists, and nurses. The H4ME model and the SUICIDI-2 were presented in meetings in the context of suicide prevention in the Netherlands and abroad [46, 49, 50–53]. Those meetings provided feedback of attenders; feedback was processed and resulted in the adoption of new versions. The SUICIDI-2 (and earlier versions) was repeatedly tested to examine its usability; it was discussed and adjusted after thorough discussion among suicide prevention experts during the last 3 years. The model was well received by colleagues and turned out to be suitable in clinical practice. It supports a clearer distinction between different phenotypes of suicidal behaviors and promotes a more tailored management and treatment strategy. The model has been used as a basis to develop a treatment algorithm for suicidal patients to investigate suicidal behavior, as part of the Dutch national suicide prevention policy [52, 54] (Table 2).

Table 2 The SUICIDI-2 classification of entrapment types

Type	Explanation	Description
I	Perceptual disintegration (PD)	0 = not applicable 1 = the suicidal behavior is associated with disturbed perception caused by perceptual disintegration and/or behavior but may also be explained by (an) other cause(s)* 2 = the suicidal behavior is mostly explained by disturbed perception caused by perceptual disintegration and/or behavior* *Probability of psychosis may be explained by a number of contributing factor. For example, a patient developed psychosis with suicidal thoughts while going through bereavement. In this case, psychosis is the cause; a 2 must be scored. This will also be the case when psychosis is triggered by substance use
II	Primary depressive cognition (PDC)	0 = not applicable 1 = the suicidal behavior is associated with depressive, negative thoughts or is related to dreariness, perceived sense of failure or imperfection 2 = the suicidal behavior is associated with depressive, negative thoughts or is related to feelings of depression, failure, or imperfection There is no psychotic symptomatology. The condition does not suddenly occur as a consequence of a negative event
III	Psychosocial turmoil (PT)	0 = not applicable 1 = the suicidal behavior is a reaction to an unexpected event accompanied by a loss. However, the onset of the suicidal behavior may also be explained by (an) other cause(s) 2 = the suicidal behavior is mostly explained by a real or imaginary experience of loss, adversity, or doom. Depressive symptoms may be present but last for less than 2 weeks. Negative cognitions are present, but they do not stem from psychosis. The suicidal behavior is not initiated and used as a tool to convince others to help or change the situation
IV	Inadequate communication/coping (IC) (Emphasizing Emotional Pain)	0 = not applicable 1 = the suicidal behavior is a way to express how suffering has increased the burden and/or the behavior is initiated to convince others to make changes to the situation the clinician has the impression that the patient does not have communicative skills to express their distress. Still, the clinician cannot fully assess whether the suicidal ideation is genuine 2 = the suicidal behavior is clearly used as a way to bring about change, however for others to initiate the change. Depressive or psychotic symptoms are absent

Validation Strategy of the H4ME

Future research into the model may demonstrate that the model is not just applicable in practice but carries scientific validation and evidence. The hypothetical H4ME model has not been validated yet and as such may not cover the whole spectrum of suicidal behavior. Proposed subtypes may overlap or need further differentiation. It is not known yet, whether the SUICIDI-2 will capture the complete range of behavior as encountered within mental health services and may need adjustment. This is why we have initiated the VAMOS-G study the “validatie model suïcidaal gedrag” (validation model suicidal behavior) [7]. The aims of the study are:

1. Determining whether the preliminary clinical model H4ME [52, 54] accurately describes the complete spectrum of suicidal behavior as encountered in specialist mental health services
2. Checking whether the SUICIDI-2 allows classification of the four types as described in H4ME
3. Investigating whether (and how) the SUICIDI-2 needs to be adjusted in order to classify suicidal behavior in four or more types or if there is overlap

Further research may answer the questions we raised and may result in an improvement of the model.

Discussion

Suicide risks vary in severity, which determines the urgency with which it needs to be managed. Suicide risk varies between the different types of entrapment and within the groups of identified patients. Progress varies, the etiology may be different and risks may recur. The model is not a statistical model and one type of suicidal behavior does not necessarily exclude the other. Management of suicidal behavior often depends on management of underlying issues, be it psychological, psychiatric, social, or physical.

Guidelines advise on treatment of comorbid or underlying mental illness and include psychological treatment and support, not just for personality disorders but also in case of inadequate coping skills. Examples are dialectical behavior therapy (DBT) metallization-based psychotherapy (MBT) and transference-focused psychotherapy (TFP) which are all effective for suicidal behavior in borderline personality disorder, achieving a reduction in suicidal behavior [55]. Mindfulness-based cognitive therapy (MBCT) has been shown by several studies to be effective [27], although – looking at the model – we do not know for which kind of suicidal behavior this would work best.

Table 3 describes – per type – features, diagnosis, treatment policy (pharmacological), and follow-up risk assessment; recommendations are based on empirical evidence and best practice.

Another promising way to manage suicidal behavior, focusing on the suicidal process, is CAMS [26, 28]. This method zooms in on the motivational drivers forming the basis of suicidal behavior. The above-named treatments and management of suicidal behavior might work best for the entrapment category of “depressive cognition” but also for Inadequate communication/coping(IC) (Emphasizing Emotional Pain), and more research is needed to find out if differentiation may improve the indication for specific psychotherapeutic treatment.

There is convincing evidence that cognitive behavior therapy is effective for treatment of suicidal behavior [56]. However, does this entail that it is equally effective for all types of suicidal behavior [31]? We are unable to elaborate on all and every form of psychotherapeutic treatment option that is available and need to be very careful about suggesting any, but we do know that the differentiation model may be helpful in allocating specific forms of treatment to specific forms of suicidal behavior.

There is insufficient evidence for the effectiveness of antidepressants, antipsychotics, mood stabilizers, anxiolytics, or ECT for isolated suicidal behavior [29, 57]. Only for clozapine and lithium there is evidence of a relation between reduction in suicidal behavior and psychotropic medication; however, the type of suicidal behavior for which it might be effective has not been specified [9, 58]. Perhaps it will work best for perceptual disintegration.

Hypnotics help to improve sleep for all groups, especially for the “psychosocial entrapment” group. But there is no strong evidence it will help with the reduction of suicidal behavior when there are serious sleep problems and ruminations.

ECT is more effective in reducing suicidal behavior than in reducing other symptoms associated with depression; however, there is still no convincing evidence that it lifts suicidal behavior completely. Perhaps clearer boundaries between groups and improved subtyping of suicidal behavior may generate research into evidence that it may help for the “perceptual disintegration type.” Treatment with ketamine may play a role in treatment of treatment-resistant depression [59] and may especially be effective for the “primary depressive cognition” type.

As mentioned before, the H4ME model may also shed a light on responsibilities. Defensive practice and risk aversion may lead to attempts to shift responsibilities to other services, for example, from the community mental health service to the acute admission ward. This will lead to the emphasis being put on the responsibility of services and not on the best treatment for the patient. The model may help to allocate the appropriate form of care to a specific group and may prevent iatrogenic damage. Admissions for patients with personality disorders or people from the “Inadequate communication/coping(IC) (Emphasizing Emotional Pain)” group may be counterproductive [12]. Ideally, for patients from the “psychosocial turmoil” group, admissions are kept brief. Long admissions may lead to alienation of a patients’ support network, paradoxically worsen the symptoms or increase the stigma.

Research of the effect of admission on suicide either in a locked or open ward does not show convincing effect on the reduction or prevention of suicide. The

Table 3 Subtypes of suicidal behavior and possible relations and hypothetical policy

	Perceptual disintegration	Primary depressive cognition	Psychosocial turmoil	Inadequate communication/coping (IC) (Emphasizing Emotional Pain)
Severity of the suicide risk	++++	++	+++	+
Duration	Days/weeks	Weeks/months	Days	Days/hours; often exacerbation of chronic suicidal behavior
Expected course	Reduction after treatment of psychosis	Reduction after biological and/or psychological treatment	Reduction when tunnel vision decreases Reduces when peak of mourning has passed	Nonspecific reduction within hours/days or when behavior has been exposed or when underlying problems have come to the surface Risk of acute shift to chronic risk and shift to another type
Recurrence	New psychotic episode Triggering of trauma	Recurrent affective disorder	Recurrent episode of psychosocial stress or continuation of severe stress Received “narcissistic” affront	Interpersonal stress and perceived powerlessness Lack of external recognition of underlying suffering
Reassessment of suicide risk	Several times a day Continuous during treatment After recovery With the recurrence of a new episode As precaution during trauma therapy	Several times a day Regularly during treatment After recovery New episode, when the mood deteriorates	Several times a day Ranging from a few times a day to zero In the aftermath of an acute suicidal episode During a new episode of severe psychosocial stress and/or new setback	After the suicidal episode When continued or renewed lack of recognition of underlying suffering During interpersonal stress and perceived powerlessness

Pharmacotherapy	Antipsychotics (clozapine) and/or mood stabilizer (lithium) Possibly additional benzodiazepines in the event of major anxiety	Antidepressant and/or mood stabilizer Restrained use of benzodiazepines when increased risk of impulsivity Short-term benzodiazepines for sleep deprivation	Restrained use of medication Possibly symptom relief for sleep deprivation and/or great anxiety	Hold back medication when possible (changes in or addition to) pharmacological treatment
Actions during crisis	Admission (if needed) Intensive home treatment if risk is acceptable	Emergency care - Intensive home treatment	Short admission	(F)ACT, crisis plan
Follow-up	Outpatient treatment of psychotic symptoms Trauma treatment	Outpatient treatment of depressive symptoms with CBT, CAMS, etc.	General practitioner	(F)ACT Additionally DGT or CAMS or collaborative care, etc. Vigilant for change of symptoms
Responsibility patient	Increasing when disintegration reduces	Increasing when depressive symptoms reduce	Increasing when “tunnel vision” fades	Holding back or taking over control Offer maximum support Recognize emotional suffering

question remains: had a better differentiation of suicidal behavior been available, would the outcome have changed?

Conclusion

We are convinced suicidal behavior needs to be viewed as a heterogeneous concept and that we need to differentiate between various forms of suicidal behavior. Differentiation will promote introduction of alternative and innovative ways to manage suicidal behavior and professional responsibilities. It will allow research into biological, social, and psychological factors contributing to suicidal behavior being lifted to a higher level. We understand there is still a long way to go and this is a first attempt to introduce this kind of entrapment typologies.

The development of the H4ME model is a venture into unknown territory, and rather than taking the usual route of applying theoretical knowledge into practice, we took the reverse route by developing a theoretical model based on practical experience.

Development of the model involved a paradigm shift, a change in conceptual thinking about suicide, and the realization that suicidal behavior is heterogeneous and multifactorial rather than a uniform concept.

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Postdiction in the Psychological Autopsy: A Clue or Algorithm

15

Antoon A. Leenaars

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Abstract

Clinicians have long looked for **the** clue to suicide, whether depression, the perception of being a burden, deception, whatever. Different practitioners have focused on different cues, often with many suicidal people dying. It will be argued that the most important development in suicidology, since Shneidman and Farberow's 1957 original work on multidimensional clues to suicide, is the conclusion that an algorithm or formula may be more predictive than a single cue. The classical example of this approach in health is anesthesiologist Virginia Apgar's use of multiple variables in a formula to predict possible brain damage or death after infant birth. Her, now called, Apgar score saved and continues to save lives. She argued for a formula. It is suggested that similarly the use of a

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multidimensional approach is equally more effective in suicide prediction than any single symptom or clue. This is as true in death scene investigation (DSI), called the psychological autopsy (PA), as in the therapy room. The question, posed in this chapter, can suicidology develop an effective tool to postdict in DSI, a death as a suicide versus another mode of death (e.g., homicide, accident). This chapter will explore the question, “Should we use a cue or formula in our formulations in the PA?” An answer will be provided, based on decades of research, and illustrated by the internationally known forensic case of *The State of Indiana vs. Bei Bei Shuai*. Conclusions will be addressed.

Keywords

Death scene investigation (DSI) · Psychological autopsy (PA) · Postdiction · Algorithm · Multidimensional

Introduction

The concept of investigating deaths, which are uncertain (equivocal) as to the mode of death – natural, accident, suicide, or homicide (NASH) – is at least as old as the work of John Graunt of London, England in the seventeenth century. By that time, death records were being kept; however, Mr. Graunt’s genius lay in aggregating the mortality data into population estimates and constructing the first mortality tallies. Graunt was for the first time, in an accurate formula way, able to show the regularities (patterns) in the deaths and, thus, showed that mortality data had great advantage for police, physicians, and the government in assessing individual causes of death and death investigation. Yet, death scene investigations (DSI) have always been shrouded in deep veils of mystery. Thus, the purpose of this chapter is to show that it need not be that mysterious. It can, as Graunt already showed, be evidence-based. Not only Graunt but also clinical suicidologists can master it.

The recent American history of DSI on suicide focuses around the Los Angeles Suicide Prevention Centre (LASPC). In the 1950s, the Chief-Coroner and Medical Examiner of Los Angeles County, Theodore J. Curphey, asked the leaders of the LASPC – Drs. Edwin Shneidman, Norman Farberow, and Robert Litman – to assist him with coroners’ cases which were ambiguous as to the mode of death, usually between accident and suicide – although there were cases of homicide and suicide too. These were cases that depended on the decedent’s *intention*. The Centre’s three leaders were designated as deputy coroners and attended to the scenes of death, where they gently interviewed a number of key informants, and then reported back to Dr. Curphey in a consultation setting that was strictly non-partisan; that is, no one had a brief for one mode of death or another (e.g., homicide or suicide). Shneidman labeled this clinical-scientific procedure the psychological autopsy (PA), although whether you call the death scene investigation, a PA or the traditional term, DSI, is a matter of personal/ecological preference. Regardless of the name, it is a death scene investigation from a psychological/psychiatric view, just like other experts come at

the death from their view, such as the police. This chapter reflects Dr. Edwin Shneidman's – my mentor's – words and teachings. The PA can be like fingerprinting and DNA analysis; at least, Dr. Shneidman and I believe so. It allows one to see for oneself. The PA is, at this time, the best road map to uncover the intent of the suicidal mind.

Since Graunt's work, there has been a sizable percentage of deaths that were equivocal as to mode precisely because the psychological factors were unknown. Medical examiners, coroners, and police officers throughout the world can be, however, empowered when they employ the special skills of behavioral scientists (e.g., psychologists, psychiatrists) in cases of equivocal deaths. The skills of behavioral scientists should be employed in the same way as the skills of biochemists, toxicologists, microscopists, and other physical scientists. The time has long since passed when we could take advantage of the luxury of disregarding the basic teachings of the twentieth-century – and for that matter, the twenty-first-century – psychology and psychiatry. DSI procedures (and the death certificates on which the mode of death are recorded) should reflect the role of the decedent in his own demise, and in equivocal cases, this cannot be done without a PA.

As Dr. Shneidman notes:

The retrospective analysis of deaths not only serves to increase the accuracy of certification (which is in the best interests of the overall mental health concerns of the community), but also has the heuristic function of providing the serious investigator with clues that he may then use to assess lethal intent in living persons. (Leenaars [18], p. 401)

The PA allows you to do DSI, not in a mysterious way. It will empower not only the coroner or medical examiner but also police investigators and mental health professionals. In this chapter, we take a look at the question, "Should we use a cue or formula (algorithm) in our formulations in the PA?"

What is an algorithm? An algorithm is a formula. It comes from the Greek, *arithmos*, number. Algorithm is often associated with the mathematician Abu Ja'far Muḥammad ibn Mūsā (c.800–47); he is a widely translated author on arithmetic and algebra (algorism). An algorithm, according to the OED, is "a procedure or set of rules for calculation or problem solving." It is now most often associated with a computer; however, it can be done by hand, as Abu Ja'far Muḥammad ibn Mūsā taught. This is my working definition in this chapter. First, however, we have to explicate, "What is suicide?" In the main text, we will then look at the following:

- How do we study suicide?
- A model of suicide
- The psychological autopsy
- *The State of Indiana Vs. Bei Bei Shuai*
- Dr. Virginia Apgar
- The algorithm that postdicts
- Conclusion

Suicide

Suicide is violence. It is intentional self-directed violence. The World Health Organization [54] defines violence as:

The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation. (p. 5)

Intentionality is central. Yet, suicide is more; it is a multidimensional event [14, 17, 46, 49]. It is not simple; it is not simply depression, or being a burden, or whatever single factor. Only a complex multifactorial model helps to understand and thus predict or postdict the nature of the death [46]. Suicide is the result of an interplay of individual, relational, social, cultural, and environmental factors. The WHO [54] states that to understand suicide, we need an ecological model (see Fig. 1).

Shneidman [49] may have defined suicide best with the following heuristic definition:

Currently, in the Western world, suicide is a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which suicide is perceived as the best solution. (p. 203)

What this definition means was the subject of an entire book, *Definition of suicide* [49]. *Intentionality* is central. Suicide is an intentional act [36, 37]. As Litman [36] noted:

The concept, which defines a death as suicide rather than an accident, is intention. For example, we assume that when a man shoots himself in the head with a gun, he intended to die. Therefore, the death was a suicide. However, if in fact, he intended to survive, for example, if he thought the gun was not loaded, the death was accidental. (p. 88)

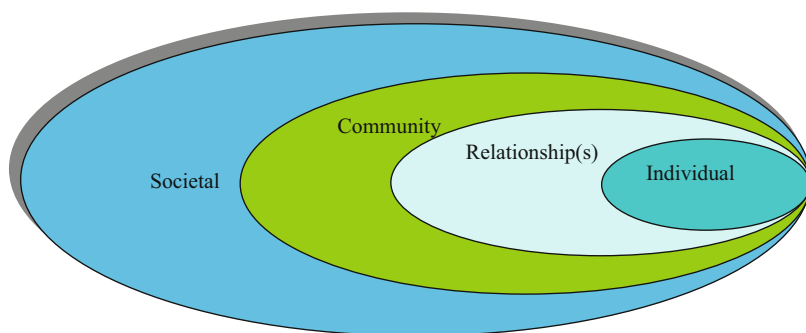


Fig. 1 Ecological model for understanding suicide

Therefore, the concept, which defines a suicide, is intention. Suicidal intent can be defined as “understanding the physical nature and consequences of the act of self-destruction” [43, p. 53]. The concept of suicide requires that the self-directed violence has, for at least one of its purposes or goals, the death of the person. Litman [37] further stated:

The concept ‘intentional’ signifies to me that the individual in question understood, to some degree, his or her life situation and also understood, to some degree, the nature and quality of the self-destructive action (the proposed action representing to some degree, in the person’s mind, killing one’s self as a solution to the life situational problem). (p. 72)

Thus, the person who intends to die, by Litman’s definition, would have to understand the finality of the act. A common question, often asked by people is, “How is suicide intent determined?” The question is: “How can you reach an opinion about what was in the mind of a person who is now dead?” Of course, it would be best to ask a person what he or she intended and/or understood; yet, in all cases of suicide, we cannot. As Nolan (a lawyer) [43] stated:

Since the suicide victim is dead and unavailable for direct inquiry as to his intention, professionals charged with making such determinations have developed the standard investigatory technique now known as a psychological autopsy. (p. 56)

Litman [37] makes the further obvious point about intention even in living people. He stated:

Unfortunately, absolute certainty about human intentions is seldom achieved even with the living, including our patients, colleagues, and families. We constantly act upon our own evaluations of others’ intentions based upon their verbal communications, their behaviors, their previous track records and the social context. (p. 78)

This is the task in postdiction!

Next, we examine, “How do we study suicide?”

How Do We Study Suicide?

Many researchers from around the world have used different methods to study suicide. Shneidman and Farberow [52], Hawton and van Heeringen [9], and others have suggested the following avenues: national mortality statistics, third-party interviews (often called psychological autopsies [PA]), the study of nonfatal suicide attempts, and the analysis of documents (such as suicide notes). All of these avenues have their limitations. Mortality statistics by themselves reflect only numbers and are, at best, only a representation of the true figures. A third-party interview, such as in a PA, can only provide a point of view, which is not necessarily the suicide’s view. Nonfatal attempters may be different than fatal completers. Documents may provide only a snapshot of an event that requires a full-length movie. (But, sometimes they

provide a vignette of sufficient length so that some essential issues of the event can be reasonably inferred.) Yet, each of these methods has been shown to have benefits and to extend our understanding of suicide and suicidal behavior [9, 24]. One of these methods, suicide note analysis, has been the focus of Leenaars' studies.

Historically [52], the following methods of suicide note analyses have been used: descriptive/content, classification (such as male/female), and theoretical-conceptual. Shneidman and Farberow [52] have argued that the theoretical-conceptual approach offered the most promise. Leenaars used a theoretical-conceptual analysis, which uses a schema (construct, theory) approach, to understand the event, grounding the data in a foundation of science [2, 4, 13, 41]. The method utilized a thematic conceptual analysis of samples of suicide notes (see, e.g., [14, 17, 21]). Leenaars [14] developed his multidimensional model of suicide derived from the formulations of ten significant contributors in the suicidological history: A. Adler, L. Binswanger, S. Freud, C. G. Jung, K. A. Menninger, G. Kelly, H. A. Murray, E. S. Shneidman, H. S. Sullivan, and G. Zilboorg. In his model, utilizing an ex post facto research design [12], Leenaars isolated 100 protocol (theoretical-conceptual) sentences, 10 each from the 10 theorists, and reduced them empirically to 35 sentences (hypotheses). Twenty-three protocol sentences were found to be highly predictive (descriptive) of the content of suicide notes (i.e., one standard deviation above the mean of observations) and 17 protocol sentences significantly discriminated genuine suicide notes from simulated notes (i.e., control data), with five sentences being both predictive and discriminative [15, 22]. After a series of studies utilizing Leenaars' model, a cluster analysis (Varaclus procedure, oblique component) was undertaken [15]. The analysis produced a classification of eight discrete clusters (where an eigenvalue of 1.00 was used as the criterion). This number of clusters accounted for 56% of the variance (see Millon [41] on cluster analysis). The eight clusters, grouped heuristically into five intrapsychic (mind) and three relational aspects, were as follows: Unbearable Psychological Pain, Cognitive Constriction, Indirect Expressions and (Self)Deception, Inability to Adjust/Psychopathology, Weakened Resilience (Ego), Interpersonal Relations, Rejection-Aggression, and Identification-Egression [17, 26]. (Appendix 1 presents the 35 protocol sentences, organized in each cluster, presented in a heuristic assessment tool, the Thematic Guide to Suicide Prediction [TGSP].)

Independent research on suicide notes [42, 45], investigations of suicidal Internet writings [1], and biographical studies of suicides [34] have supported the utility of Leenaars' approach to suicide notes, or any narrative analysis (e.g., poems, Twitter posts). Independent studies of inter-judge reliability (e.g., [1, 45]) and four decades of study by Leenaars and international collaborators show that the percentage of inter-judge agreement has been satisfactory (>85%). Reliability has also been established in different countries, and we will next briefly highlight those studies.

Much of our understanding of suicide may be culture specific. Thus, caution is needed in the field. Studies from Australia [28], Canada [16], Germany [23], Hungary [25], India [29], Lithuania [31], Mexico [3], Russia [27], the United Kingdom (Northern Ireland) [44], the United States [14], and Turkey [30] showed that there were great similarities on Leenaars' variables. Thus, compared to most suicidological theories, there is a great deal of cultural applicability. It is not culture specific, say American only [19].

A question, however, arises, what about other methods of study? Can we find corroborative evidence for Leenaars' schema with other sources of data? Verification is a basic in science [2, 41]. Leenaars, Dieserud, Wenckstern, Dyregrov, Lester, and Lyke [32] corroborated the theory by way of a psychological autopsy (PA). A PA study was undertaken in Norway, with 120 survivors/informants. The sample consisted of five to nine informants for each of 20 suicide victims. Interviews, i.e., narratives and in-depth questions, based on Shneidman's procedures/protocols, were conducted (see more below). The survivors overall told stories that supported the people who died by suicide's view. Suicide victims and survivors tell the same lived experience.

A Model of Suicide

Suicide is *intrapsychic* (mind). Suicide as a solution occurs in a mind. However, suicide is not only intrapsychic, it is *relational*, often interpersonal. Metaphorically speaking, suicide is an intrapsychic drama on a relational stage. Suicide, we have learned, can be clinically and forensically understood from at least the following evidence-based commonalities or patterns, both mind (intrapsychic) and relational (often interpersonal) factors. It is a multidimensional perspective, entirely consistent with the WHO ecological view. (I have here attempted to update my terms and language to more current usage, e.g., ego strength was a common term; however, today, resilience is more used.)

Here are five main clues (evidence) of the suicidal mind that we have learned:

I) *Unbearable Psychological Pain*

The common stimulus in suicide is *unbearable* (unendurable) psychological pain [49, 50]. The enemy of life is pain. The suicidal person is in a heightened state of perturbation, an intense mental *anguish*. The author, William Styron [53], called it, "The howling tempest of the brain." Dr. Edwin Shneidman [50] called it a "psychache." Shneidman wrote: "*Suicide is caused by psychache* (sik-ak; two syllables). Psychache refers to the hurt, anguish, soreness, aching, psychological pain in the psyche, the mind. It is intrinsically psychological – the pain of excessively felt shame, or guilt, [*or depression, or anxiety*], or fear, or angst, or dread of growing old, or dying badly, or whatever." It is the pain of feeling pain, the *pain* of pain. It is especially the feeling of hopelessness-helplessness that is so painful for many suicidal people. The suicide is functional because it abolishes the pain and provides what the person perceives as "the best solution."

II) *Cognitive Constriction*

The common cognitive state in suicide is mental constriction. Constriction, i.e., rigidity in thinking, narrowing of focus, tunnel vision, concreteness, etc., is the major component of the cognitive state in suicide. The suicidal person is figuratively wearing horse blinders and is intoxicated by the blindness. Although there are more cognitive distortions (beliefs) in the suicidal mind, something is almost *always* either A or not A; there are no grays (harassment at

work or not, married or not, fit for duty or not, whatever, either, or). It is black or white thinking. (Listen for words like, “ever,” “always,” or “never.”) The constriction is one of the most dangerous aspects of the suicidal mind. It kills!

III) *Indirect Expressions and (Self)Deception*

Ambivalence is the common internal attitude to suicide. The suicidal person is at least of two or more minds. There are indirect expressions. In everyday (Aristotelian) logic, something is either A or not A; yet, in the suicidal mind, something can be *both* A and/or not A (spouse and/or no spouse, fit for duty and/or not fit for duty). We can both love and hate. Not only is it, love and hate, but it may also be a conflict between survival and unbearable pain. There are concomitant contradictory feelings, attitudes, and/or thrusts, often even toward life. Indeed, the suicidal person may be least aware of, or perplexed by the reasons *why* death is chosen (self-deception). It may be unconscious. There are likely more reasons to the suicide than the person is consciously aware of and/or communicates. Thus, it follows that we cannot often see the planned intent (clues). It may be *equivocal*. There is masking or camouflaging (keeping secrets). There are walls. Shneidman calls the masks *dissembling*. To dissemble means to conceal one's motives. It is to disguise or camouflage one's feelings, intention, or even suicide risk. In a recent published PA study, we found that over 80% of informants/survivors reported a mask [33].

IV) *Inability to Adjust/Psychopathology*

People with all types of pains, problems, psychopathology, etc., are at risk for suicide. Psychological autopsy studies suggest that 40–90% of people who kill themselves have some symptoms of psychopathology and/or problems in adjustment; whether one uses the word/concept of impairment, imbalance, problem, distress, disorder, illness, psychopathology, or the like is a matter of personal/ecological preference. Many people who died by suicide appear to suffer from mental disorders (e.g., depressive disorders, bipolar disorders [manic-depressive disorders], anxiety disorder, borderline personality). Yet, a relatively large number of cases may be most consistent with a disorder not otherwise specified. They are totally paralyzed by pain and have no reason for living. An important point: it is crucial to remember that suicidal people experience unbearable pain (psychache), not always depression (or anxiety), and even if they do experience depression, the critical stimulus is the “unbearable” nature of the depression (or some other mood). Suicidal people see themselves as in unendurable pain *and* unable to adjust (adapt).

V) *Weakened Resilience (Ego)*

Resilience (or ego strength) is defined as the capacity to adapt successfully in the presence of risk and adversity [40]. It is the ability to adjust to challenging life experiences and even suicide risk. The suicidal mind lacks resilience. The OED defines ego as “the part of the mind that reacts to reality and has a sense of individuality.” Ego strength is a protective factor against suicide. Suicidal people, however, frequently exhibit a relative weakness in their capacity to develop constructive tendencies and to overcome their personal or system adversities [55]. The suicidal person's ego has likely been

weakened by a trauma or a steady toll of traumatic life events. This implies the following fact: There is in the suicidal mind, to put it in one simple word, vulnerability. There is a lack of resilience. This weakened (do not read, weak) resilience correlates positively with suicide risk. Resilience (ego strength) is a protective factor against suicide, and building resilience allows a wounded person to prevent the final exit!

Having discussed the suicidal mind, next here are three main clues (evidence) of the suicidal relational (often relationship[s]) context that we have learned:

VI) *Interpersonal Relations*

The suicidal person has problems in establishing or maintaining attachments (with a person[s] or with another ideal[s]/relation[s], such as employment, health). Most frequently, there was/is a current and/or long-standing disturbed, unbearable interpersonal problem. It may have been a suicidal (suicidogenic) relationship. A calamity prevailed; some of the reported problems in our PA corroborative study were as follows: relational (marital) break-up, abuse in childhood, death of a parent, parental divorce, family secrets, parental conflict, bullied at school, loss of job, work-related problems, business failure, unaccepted by a person (e.g., lover, father, mother), divorce from partner, separated from lover, and more. The suicidal person has problems in establishing or maintaining relationships (object relations). The person's psychological needs were frustrated. Suicide appears to be related to an unsatisfied or frustrated attachment need (to a person and/or another relation/ideal), although other needs, often more intrapsychic, may be equally evident.

VII) *Rejection-Aggression*

Wilhelm Stekel first documented the rejection-aggression hypothesis in the famous 1910 meeting on suicide of the Psychoanalytic Society in Freud's home in Vienna [14]. Loss is central to suicide; it is, in fact, often an interpersonal rejection or abandonment, although the loss can be another relational ideal (e.g., health). It is an unbearable narcissistic (excessive self-centered, all-encompassing, overwhelming, *unbearable*) injury. This injury/traumatic event(s) leads to unimaginable pain (psychache) and in some, maybe many, masking and (self-directed) aggression. Shneidman and Farberow [52] reported that both hate directed toward others and self (self-blame) are evident in suicide [52]. Aggression is, indeed, a common emotional state in suicide.

VIII) *Identification-Egression*

Freud [8] hypothesized that intense identification with a lost or rejecting person or, as Zilboorg [55] showed, with any lost relation/ideal (e.g., health, youth, employment, and freedom) is crucial in understanding the suicidal person and especially the suicidal relationship(s). Identification is defined as an attachment (bond), based upon an important emotional tie (relation) with another person (object) or any ideal. If this emotional need is not met, the suicidal person experiences a deep pain (discomfort), deeper than thou would be aware. Deep is the crucifying *agony*. There is an intense desperation and the person wants only to egress. Suicide *is* the best solution. Suicide is *escape*.

In concluding, we have shown [19, 21] that the theory proposed is useful to not only meet the challenge on “What is Suicide?” but also to develop complex models of prediction and, thus, postdiction. It, thus, allows us to control/prevent the event.

Furthermore, in concluding, to address the question, “Why do people kill themselves?” or, more specifically, “Why did that individual die by suicide?” we need a psychology of suicide. We, fortunately, have a psychology of suicide. We have answered the question, “What are the important psychological dimensions of suicide?” – rather than, “What kind of people die by suicide?” The common consistency (“commonalities”) in suicide, among people around the world, has utility in understanding suicide and, thus, forensic investigation, prediction, and control. . .the very aims of forensic science.

Next, we briefly look at the PA as our DSI tool.

The Psychological Autopsy

Our question: What was the mode of death? Natural? Accidental? Suicide? Homicide? (NASH). An answer: Imagine we have a person, who died by falling from a tall building. The question asked is the NASH question, “what is the mode of death?”. Was it natural; did the person fall after suffering a fatal heart attack? Was it an accident; did the person slip, due to a wet environment? Was it a suicide; did he intentionally jump? Was it homicide; did someone push him off the building? How do you decide?

The psychological autopsy (PA) is the work of Edwin Shneidman [18]. The PA was devised to clarify what the mode of death was; why did the individual do it; and how did the individual die, and when – that is, why at that particular time [5, 18, 21, 38, 48, 50, 51]. A psychological autopsy is an objective procedure that seeks to make a reasonable determination of what was in the mind of the decedent vis-à-vis his or her own death. It does this by looking at the history of the decedent, the lifestyle, the intrapsychic and relational (interpersonal) characteristics, the cognitive style, the psychopathology, and so on. On the PA, Shneidman stated: “It legitimately conducts interviews (with a variety of people who knew the decedent) and examines personal documents (suicide notes, diaries, and letters) and other materials (including the autopsy and police reports) that are relevant to the psychological assessment of the dead individual’s role in the death” [18, p. 414]. Of course, a major limitation is that the story learned in a PA is the survivor’s beliefs, not the deceased’s beliefs [21], something the study of suicide notes attempted to address [52].

The psychological autopsy is primarily performed by talking to some key persons – spouse, lover, parent, grown child, friend, colleague, physician, supervisor, and coworker – who knew the decedent. This does not mean that the PA is not without controversy [10, 21, 47]. In their review paper, Pouliot and De Leo [47] emphasized several of them; e.g., most PA studies being conducted under the medical model paradigm often imply a causal link between a mental disorder and suicide; the use of nonstandardized and/or ill-defined instruments in the diagnostic process; and the use of responses from proxies, although the instruments have not been designed for this

type of use. Also, there may be problems with interviewer bias as well as lack of systematic control of number of informants and type of informants or their relationship with the deceased. Further, qualities of the interviewers and time between death and interviews vary by study. We believe that we should be especially mindful of the number of informants (witnesses) and their relationship to the deceased, whom we need to interview. No good detective, after all, would interview just one witness.

Not only may the memory of informants be unreliable, but close survivors (such as a parent) may actively be denying any role in the suicidal process [35]. For the closest relatives (e.g., parent, spouse), for example, the narratives of the survivors may be influenced by shameful feelings and, therefore, they look outside of the family to find explanations (blaming work, colleagues, lovers, spouses) [7]. This may be particularly true for parents of deceased younger people who died by suicide. Therefore, it is important to secure information from many informants and to include informants who position themselves in different ways to the deceased. This may be crucial in getting the kind of information we need to be able to better understand significant reasons behind suicides. Our conceptualization of suicide may be highly enriched by interviewing several informants around each case; often, this is called alternative constructions.

What was the mode of death? The answer is often easy in unequivocal cases. The *equivocal* (uncertain) case is, however, often perplexing. Yet, it does not have to be mysterious. The concept of investigating deaths that are uncertain as to the mode of death – NASH – is as old as the work of John Graunt. The PA is generally considered today to the best procedure/method to answer the question of mode, as well as why [5, 21, 38, 47, 48].

The question, posed next in this chapter, can suicidology develop an effective tool to postdict effectively and credibly in DSI, a death as a suicide to another mode of death, the NASH question. We will explore the question, “Should we use a cue or algorithm in our formulations in the PA?” An answer will be provided, based on decades of research, and illustrated by the internationally known forensic case of *The State of Indiana vs. Bei Bei Shuai*.

The State of Indiana vs. Bei Bei Shuai

Bei Bei Shuai was born on September 6, 1976, in Shanghai, China; she got married, and, with her husband, emigrated to the United States in 2000. Unfortunately, her marriage ended in 2008; she struggled economically. Bei Bei subsequently developed a relationship with an older married man (Zhiliang Quan; his name is a matter of public record), who promised to divorce and marry her. After an 18-month relationship, she became pregnant. She experienced severe depression during the pregnancy; she had three documented episodes of suicidal ideation and attempts. There was intimate partner dissembling and abuse. Mr. Quan abandoned her in the end, leaving Bei Bei Shuai on her hands and knees, clearly emotional, in a parking lot, throwing money at her as he drove off. He told her he did not want her or the baby.

Bei Bei Shuai had suffered from depression; she became very distraught, felt abandoned, was deeply shamed, and was suicidal. In China, there is great shame for being pregnant and unmarried. She wrote the following (translated) suicide note:

How could I be abandoned this way and not feel any sorrow? Am I supposed to pretend?	(First Page) Zhiliang Guan. Why is a man's mind so cruel, so unfeeling? Ah! At the moment when you threw money and turned away, it made me so sad and desperate. Why does the man who used to be intimate with me now try to stay away from me like I'm a snake or a scorpion? Throw all love and justice. <i>(This is a Chinese proverb that Describes someone who forgets about love and loyalty to each other in the past)</i>. I am just a dirty rag that you can't wait to get rid of. You even see my sorrow and tears as an act to earn sympathy. Zhiliang Guan, what kind of person you are! Your words are like a knife piercing deeply into my heart. This makes my wounded soul even more painful – and my heart and lungs are in deep sorrow. At the very moment my heart broke into pieces. Zhiliang Guan, have you really forgotten me – a person of flesh and blood with feelings? A woman who is about to give birth to a baby! Zhiliang Guan, I have been working hard with my two hands in this foreign land of America for over ten years. I have been very passionate about helping and caring for everyone around me. I've never given into the temptation to take another person's belongings. I really don't understand why I have become such a bad woman in your family's eyes. (Second Page) I have poured out all the love and caring for you that a woman can give. I always think of you first. I've given you the best and loved you with all my heart. Why would your family see me as a woman with vicious intentions? Why would your family talk about me as if I were a skittish, bad woman? Zhiliang Guan, right now I know that my existence as well as the child's is a burden, trouble and even a hindrance to your own happy life. So I choose death to give you a successful and happy life in the future. I am only asking you to have DNA tested or find a parent/child association after my death. Please prove my innocence to your family and show them that half of baby Crystal's genes are your own, Zhiliang Guan. I am taking this baby, the one you named Crystal, with me. There is no need to find my friends. Why bother? On the way to Hades (death), I will take care of her. Please leave me with a bit of personal dignity after my death

On December 23, 2010, Ms. Shuai attempted suicide by consuming rat poison, a common method in China. She did not die. She was hospitalized, as well as diagnosed with and treated for major depression. She was assessed to be at risk for suicide. Bei Bei Shuai survived her attempt; however, complications occurred with her child (fetal). On December 31, 2010, her baby was delivered by cesarean surgery, but 10 days after the attempt, her daughter, Angel, died on January 3, 2011. Detectives began an investigation and Bei Bei Shuai was arrested on May 14, 2011. She was taken into custody in the high-security Marion County prison. She was charged with murder and feticide. She was in jail for 435 days and faced a sentence of 45 years to life.

There was a law in Indiana, enacted in 1979, to protect pregnant women from violence by their partner, such as abusive husbands. Shuai's case was the first in the history of Indiana in which a woman was prosecuted for murder for attempting suicide while pregnant. The American Civil Liberties Union, National Advocate for Pregnant Women, and health groups like the American Association of Suicidology, and the American Medical Association, came to Ms. Shuai's aid. Indeed, international press coverage and support arose for Bei Bei and all pregnant women who may be suffering from mental illness and suicide risk. Of course, it would be obvious that if Shuai was convicted of murder, women would be discouraged from getting help. Pregnant women would be branded; that is *stigma*! However, despite the national and international protest, the prosecuting team persisted with the murder charge. Among other independent professionals, I was retained by Pence Hensel, LLC, to provide expert consulting service for Bei Bei Shuai. I was to be a suicide expert at trial. I provided a deposition, on June 27, 2013; I will present some verbatim testimony below. I was set to testify at trial in September. However, after the depositions, the charges of murder and feticide were dropped; her lawyer believed that I was one of the reasons ("You were wonderful!").

The Evidence

From a systematic review, we know that studies have reported low suicide rates during pregnancy; depression is often associated [21]. The low risk is, however, for suicide; pregnant women are at high risk for suicide attempts and suicide ideation [21]. There was abundant evidence that Bei Bei Shuai was, at the time of her attempt (and before), at a high level of lethality and perturbation. She was depressed and highly suicidal; her mind was a suicidal mind. Her relations were dysfunctional, especially interpersonal. She had little resilience. One could use her case as a prototype for discussions on suicide [21]. The purpose here is not to detail the idiographic assessment and facts. On *the* issue in this chapter, there was no question in my mind that she was suicidal and was suicidal at the time she wrote her "genuine" suicide note. If she had died, the mode of death was "suicide." We also have a good idea, why, and why at that particular time. As I always do, I scored her note with the TGSP (see [Appendix 1](#)) before I looked at

any other data. Bei Bei's note had the following characteristics of suicide: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15f, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, and 35. (That is a near "perfect" suicide note.) The assessment tool, TGSP, has met legal admissibility criteria in American courts [21], and I have been accepted in courts as an expert on suicide and suicide notes. There is no question in my mind that Bei Bei's note had abundant characteristics of suicide. Of course, one always places the note or any evidence within the larger context of the case: all of the evidence. One never makes an opinion on an alleged suicide note alone! Next, I present some abbreviated testimony.

My Testimony

On June 27, 2013, I provided a deposition. Bei Bei's defense was headed by Linda Pence (she had no questions); the prosecutor was Courtney Curtis. I present verbatim (with some editing of oral text to written) my testimony that pertains to the issues posed in this paper. The full text can be found in Leenaars [21]. For the reader, I have inserted a few remarks in *[insert]*. (I have also placed in **bold** my words, when there was a clear increase in intensity in my voice.) I present the text:

Courtney Curtis: I'm going to assume that you have reviewed the suicide note in this case.

Al: Yes.

Al: ...There's no question that at the time of writing, this person had suicide on her mind...

... what I did with Bei Bei Shuai's note. I looked at this note; I read it a number of times. I did not look at any other information or anything before; that is my practice forensically. And then I scored her note... *[I discussed in detail the history, theory, research, peer-reviewed and independent-author(s) publications on the clusters and 35 factors/protocol sentences, reliability/validity, gender, cultural aspects and validation, etc. – see Leenaars [21]]*

... What I find is almost all these 35 factors tend to be evident in her note. There are some that are not, but the majority of the factors that I would expect were in her note. So there's no question in my mind that at that point, when that person wrote it, there was suicidal **intent**. And I can get into the specific things if you like, but you know, it depends on what you want...

Curtis: Well you know I don't think that we're contesting that it's a suicide note. I was just curious as far as your review of it... Are there, maybe, just a couple of things that stood out for you that struck you as particularly genuine?

Al: I'm concerned about the domestic violence; the bullying that occurred to this woman at the time that she wrote the note. I think she was quite sad and desperate. I think, she didn't understand how he *[Zhiliang Quan]* could throw away all love and justice, like being a rag. What also struck me was that she felt like a knife was pierced into her heart deeply. She felt wounded and in **pain**. There was a deep sorrow. She was in the pain of pain; the howling tempest of her brain was there, I think... I think, she sees herself as a good person, that she's worked hard in this country as an immigrant, like many immigrants do; and she doesn't understand why suddenly his family would call her a bad woman and this and that. I think, therefore, she ends up killing herself. The motivation is because of the proximal cause. If you will, it's sort of 'but, for the last straw', the camel's back would not have been broken. But,

for what the man said to her and what he did, throwing the money at her and leaving her there in the parking lot, I don't think this would have happened. I think he, although suicide is multi-determined, was the proximal cause of her suicide attempt. What also struck me was that she felt she was a burden. Thomas Joiner... has a whole theory that being a burden is absolutely one of the major reasons why people killed themselves. Terry Maltsberger, a Harvard psychiatrist, would call it suicidal worthlessness. I was struck that she saw herself as ... a trouble and even a hindrance to his life. I think that's why, in a mentally constricted mind, she decided to kill herself; so that, she would not be ... a trouble. And, of course, in the Chinese culture, there are all sorts of things about unmarried women and being pregnant. I think, she must have agonized over his accusation that the baby may not even be his child. I think the straw that broke her back was him. I think, if it was not but for him, this would have never occurred...

Curtis: Alright, thank you. When you say that her partner, the baby's father, was the proximal cause of her suicide, do you mean their relationship or do you mean his activities on that last day before her suicide attempt?

Al: ... I believe it's the relationship over time which was both something she wanted and was *[something she found]* confusing. But, I think, what really traumatized her was that last event. I don't think she was expecting it, when they're in that parking lot; I believe this because I've read his deposition. I specifically asked for that deposition from Linda ... And so, there's no question in my mind from my clinical point of view. You know, if it was a psychologist, doing that *[being liable]*, he would lose his licence; he may be criminally charged...

Curtis: Okay. And then, you looked at other pieces of evidence or other documents to do what?

Al: Well the main thing I wanted to know was whether this was actually a suicide. People believe there was a suicide attempt, at least from the facts. The information that I've gotten, there seems to be an acceptance that this was a real suicide. I've been involved in cases where there's a note, but no suicide. Some people write a note and then they decide not to kill themselves and they put the note away. In terms of being suicidal, for suicidal-at-risk people, it comes and goes... Therefore, the important thing for me was that it was *[a genuine suicide]*, and I wanted to know a little bit about what occurred specifically in the event; so, I got the deposition...

I mean, I would love to do a complete psychological autopsy in this case. I would love to interview the people involved, Quan, etc., the police, the doctors, but that is not my responsibility. That's yours in this case.

Curtis: ... So, when you reviewed Ms. Shuai's note, it makes no difference that she survived; what you're looking for is her suicidal intention.

Al: That's correct.

Curtis: Can you review a suicide note and determine if someone has a mental disorder from its content?

Al: You know, I can make some inferences, but I would never make a diagnosis simply from the note in terms of, that a person has a mental disorder from simply a note, or from a poem, or from whatever. You'd want, as a clinician, to have much more. Now, for research purposes, you might want to do that. This is where having more information about Bei Bei Shuai would be helpful to me in terms of understanding her; but, my belief is that she was suicidal. But, I would never say, because I'm clinically allowed in this province *[Ontario]* to make a diagnosis, I would never say she clearly has a mental disorder; she clearly has a depressive disorder...

Curtis: Ok, since we can't make a diagnosis of a mental disorder, we are just speaking about suicide or, I guess, someone who is suicidal in this instance. Correct?

Al: Yes, but, you know, I believe she was ... depressed, but I would want more information to say she could have been diagnosed *[with a mental disorder]*. I don't want to do any kind of jumping to conclusions from a factor that I see, and then, the clinical or

legal thing of making a diagnosis. I would want much more information. I would want the doctor's notes. I would want to speak to the doctor; I would want whatever information is available. . . . to know whether there is a mental disorder, you need more information. . .

Curtis: Do you have enough information in this case to make a similar determination?

Al: All I can say is that based on the note, I think, she was extremely mentally constricted and I think she was overwhelmed, traumatized; she felt to be a burden. I can make those kinds of statements. But, I can't determine whether she's sane or insane from that note. I mean that's a much larger question. But, it's quite clear that she was mentally constricted, in my mind. I mean, I make those kinds of inferences in terms of **intention** every day in my office. I (We) make inferences about what people plan and intend, based on what they say in my office, people's behaviors, what they write and maybe even the books that they ask me about or what they say is their favorite book. . .

Curtis: Have you prepared or are you prepared to speak about the criminalization of suicide?

Al: Yes, if asked.

Curtis: What would you say?

Al: I have presented to my [*Canadian*] parliament, a parliamentary committee; stigmatization and criminalization were clearly part of that report. I think, it would be a horrible mistake [*to criminalize suicide*] because if you criminalize a small group of people for being suicidal, history shows that you are going to get a lot of people not getting help. If I'm depressed and pregnant and think I might get arrested, I'm not going to go to a doctor. Most of us in the field, and including in associations, the American Association of Suicidology, of which I've been a President, the only non-American, would fight this, would be opposed to this. This would result in many more people not getting help. It's like, in the military, people that were suicidal were put in jail. In police services, if I'm a police officer and I'm depressed, I will lose my gun and my badge. So, we know from studies and from the history that criminalization of depression, being suicidal will result in less people seeking help. . .

. . . The problem is that people, who were suicidal, used to be seen as, especially women, as witches. They were burned and thrown into the water. I don't want to get back to that kind of thing, where we're going to see pregnant women, because of a natural hormonal, and complications, like witches. And, that we go on a witch hunt, towards women who are pregnant and suicidal. We need to get rid of the stigma. Stigma is one of the major killers and not only stigma by the general population but, you know, by people in my profession. . .

Therefore

Therefore: I think that we can be reliable, credible, and . . . Yet, you may ask, "How did you make the forensic decisions? Did you use one clue? Or a formula?" I will next attempt to illuminate our method, using Bei Bei's suicide note. I do this only to be simple in my illustration, a full PA case study/analysis can be found in Leenaars [21]. Of course, in our real life PAs, suicide notes can have a great deal of meaning, if they are put within the context of the trove of details of the deceased's life [49]. To put it plainly: we need all of the evidence, not one datum. I have been involved in multiple forensic cases, for example, where there is a "simulated" suicide note, but no suicide [21]. In general, furthermore, I want to be cautious in giving an *absolute* outline, but inasmuch as methods have been requested now and then, I will present *a* formula below with caution to investigators to be always mindful of the ecological fallacy; i.e., going from the nomothetic (general) to the idiographic (single/individual). For example, you may hear the sound of hooves outside your window, assume

it is a horse, but it is a zebra, and rarely may be an elephant. Thus, how do we best determine the mode of death in a PA? Before I answer our pivotal question, however, we first must digress to a discussion of Dr. Virginia Apgar.

Dr. Virginia Apgar and Formula

Many researchers believe that formulas are better than single cues [11, 39]. This is especially true when predictability is poor as is the case in equivocal death scene investigation (DSI). Meehl [39] suggested “to maximize predictive accuracy, final decisions should be left to formulas, especially in low-validity environments” [11, p. 225]. Usually, one cue in our cases results in numerous errors; we need to be multidimensional. Suicide *is*. Therefore, we cannot use one factor; yet, how do we translate multidimensional into a simple *Carnapian* equation? The formula should not be too complex. (One is not a computer.) In fact, equal-weighting schemes are best; for example, one should *not* put the highest value on one cue, most often in our field, for example, depression. Rather, “formulas that assign equal weights to all the predictors are often superior, because they are not affected by accidents in sampling” [11, p. 226]. You do not have to be a computer; in fact, in court, such information is not readily understood.

From his meta-review, Kahneman [11] concluded, “it is possible to develop useful algorithms without any prior statistical research. Simple equally weighted formulas based on existing statistics or on common sense are often very good predictors of significant outcomes” (p. 226). Despite a few calls for *only* computer prediction in suicidology, I believe that you do not need to be a computer. In fact, we should not use such complex statistical equations in our DSI. Simple formulas are best, but they are formulas nonetheless. Working from Meehl’s studies, Dawes [6] had, in fact, clearly shown that simple, constant formulas are statistically significantly better than complex computer models (e.g., multiple-regression models). Maybe, all you need is your trove of evidence and a piece of paper to calculate your algorithm.

Probably the best-known classical example of the wisdom of simple formulas is the work of Dr. Virginia Apgar. Dr. Apgar was an American obstetrical anesthesiologist in the twentieth century. Dr. Apgar, among many other achievements, was the first female full professor at Columbia University College of Physicians and Surgeons.

Infant mortality has throughout the ages been a concern. From the 1930s to the 1950s, at least in the United States, infant mortality rates had decreased and remained constant. Virginia Apgar, like Abu Ja’far Muḥammad ibn Mūsā and John Graunt in their respective fields, noticed a trend and began investigation of lowering (preventing) infant mortality within the first hours of birth. She asked, “How can we distinguish healthy infants from infants at risk?” What do we look at?

Obstetricians knew at the time that a newborn not breathing normally within a few moments after birth is at risk of brain damage and/or death. Standard practice at that time was that physicians used single cues to assess a baby’s distress. Different physicians used different clues. Some would monitor the breathing; they believed it was the best clue. Others focused on color; still others whether the baby cried. They *all* believed that

they had discovered what predicted mortality best (as we see in our field of suicidology today). There was an enormous list of *the* factor; every expert espoused his or her belief. Yet, no single efforts decreased the risk. Why? Likely, as Apgar wisely concluded, without a standardized formula, danger signs were missed, and many infants died.

Dr. Apgar's genius lay in her belief that assessment must be multidimensional. No single cue would predict accurately and validly, she believed. Thus, she designed the first standardized formula or algorithm to evaluate the newborn's transition to life outside of the womb. From her investigations, that met enormous resistance from the so-called experts (as, again, no different in our field today), she isolated five main clues (evidence) of infant mortality risk: heart rate, respiratory effort, muscle tone, reflex response, and color. Each of the five factors are observed and given 0, 1, or 2. A score of 0 meant being in distress. A score of 2 meant a newborn is in an optimal condition. A 1, thus, was a midpoint. The points are totaled to arrive at a baby's overall score, the Apgar score. The scores were compiled for each newborn and can range from 0 to 10, with 10 being the "perfect" score. These babies always survived (although, of course, Meehl's familiar "broken-leg rule" applied – there are always unexpected very rare events; for a magnified example, the hospital gets bombed). The score was assigned 1 min after birth; an additional evaluation, as needed, could be given in 5-min increments. They would help to guide the intervention over a short time. It is simple. No computer was used by Apgar; just a simple algorithm was calculated. Dr. Apgar was able, in fact, to show in a formula how to predict an uncertain event effectively. Furthermore, it was easy to show inter-judge reliability and predictability. Every physician can learn the method.

It would be a truism that Apgar's algorithm, the Apgar score, saved millions of lives. That is huge in prediction!

A story as told by Daniel Kahneman [11]:

One day over breakfast, a medical resident asked how Dr. Apgar would make a systematic assessment of a newborn. "That's easy," she replied. "You would do it like this." Apgar jotted down five variables (heart rate, respiration, reflex, muscle tone, and color) and three scores (0, 1, or 2, depending on the robustness of each sign). Realizing that she might have made a breakthrough that any delivery room could implement, Apgar began rating infants by this rule one minute after they were born. A baby with a total score of 8 or above was likely to be pink, squirming, crying, grimacing, with a pulse of 100 or more – in good shape. A baby with score of 4 or below was probably bluish, flaccid, passive, with a slow or weak pulse – in need of immediate intervention. Applying Apgar's score, the staff in delivery rooms finally had consistent standards for determining which babies were in trouble, and the formula is credited for an important contribution to reducing infant mortality. The Apgar test is still used every day in every delivery room. (p. 227)

Can we do the same in postdiction in our PAs? Of course, this is the same question; as the following, can we predict suicide risk in our therapy rooms? What we already know is that Dr. Apgar went on to the next step, applicability and intervention. Because she was able to predict infant mortality accurately, Dr. Apgar went on next to prevent birth defects. She became the iconic person in the March of Dimes. Can we do the same?

The Algorithm That Postdicts

Following Meehl and Dawes' advice, I will keep it simple. Here is the equation. Like Apgar, we use a scale of 0, 1, and 2, depending on the robustness of each sign. As is obvious, the clusters are not equal in items; yet, each cluster has equal weight. A score of 2 is equal to 2/3 of the protocol sentences (PS) in the cluster and above (an overall score of 11 and above in the equation [above 10]); it suggests a *high* score on the suicide (suicidality) determination. A score of 1 is equal to 1/3 and above, to 2/3 (an overall score of above 6 [=7] to 11 in the equation); it would be a *moderate* score. A score of 6 and below would suggest *low* determination of suicide in our NASH question (it would be a score of 0). A perfect score is 16. It is assumed that we want to have a score of 11 or above to probably say "Yes." If 7 or above, but below 11, like Apgar's moderate score, we need more information, evaluations, time, etc., to answer about a definite mode of death determination. (Of course, even if one gets a low score on a note, we look elsewhere in our PA before our final NASH determination.) The scores were presented earlier and the reader can associate the numbers to the text in [Appendix 1](#). We assign equal weights; however, there is *the mind rule* as suicide occurs in the mind. Suicide is about *intentionality*. Thus, the rule: Intrapsychic beats out relational. No suicidal mind, no suicide! Here are my scores jotted down on eight variables (with name, actual protocol sentences (PS) observed, number of verified PSs out of number of PSs in cluster, and formula): (I) *Unbearable Psychological Pain*: Protocol sentences (PS) = 1, 2, 3, 4, 5, 6; 6 out of 6 PS. Formula = 2. (II) *Cognitive Constriction*: PS = 7, 8, 9; 3 out of 3. Formula = 2. (III) *Indirect Expressions and (Self)Deception*: PS = 11, 12; 2 out of 3. Formula = 2. (IV) *Inability to Adjust/Psychopathology*: PS = 13, 14, 15f; 3 out of 3. Formula = 2. (V) *Weakened Resilience*: PS = 16, 17; 2 out of 3. Formula = 2. (VI) *Interpersonal Relations*: PS = 19, 20, 21, 22, 23; 5 out of 5. Formula = 2. (VII) *Rejection/Aggression*: PS = 25, 26, 27, 28, 29, 31, 32; 7 out of 8. Formula = 2. (VIII) *Identification/Egression*: PS = 33, 34, 35; 3 out of 3. Formula = 2. Therefore, 16 out of 16, a perfect formula score. The algorithm allows us to conclude that the suicide note is genuine and Bei Bei, in my opinion, was suicidal!

Suicide occurred in her mind (the mind-rule), and she was in a suicidogenic relationship. Can one see how the formula is calculated? It will make DSI unmysterious. We can postdict suicide. Would Paul Meehl agree? I think so, so would Virginia Apgar, Abu Ja'far Muḥammad ibn Mūsā, and John Graunt.

Allow me to illustrate further, however. I will use Bei Bei's case vs. the case of Scott Dell: Scott Dell died on December 29, 1995. Since the details of this case can be found in my book, *The Psychological Autopsy* (2017), I will here only present the note found at Scott's death scene. Of course, as is obvious to any good forensic investigator, one should place the note in the context of all forensic data in the case [5, 21, 38, 48].

The cause of death was listed as "Undetermined"; yet, there were questions, was it suicide or homicide? The note, found at the scene, was called a "suicide note." The coroner and police officer, for example, had called the note a "suicide note." The note read as follows:

Dear Mr. Fantasy

Carmelita – Linda Ronstadt – Debbie Quinn

Fun – life would go on forever. Death – suicide

The truth is simple but seldom ever seen.

If Truth is Purity can it ever exist in such an impure world. If it can't what does that mean.

Are we all living in the shadows of

I feel like holding you close to me like never before I feel like making love to you I feel like all the bad stuff would go away.

You and I are stuck because of all the bad stuff that has happened to us last 3 years. We need to make it go away.

I'm trying not to think about things I want to think about. I don't know if that is what I should do or not. I can't help it. I Don't want to want you. I don't want to be rejected

If we don't get back together we maybe shouldn't see each other very much.

I thought maybe this wasn't a good night because I was too tired but I think the truth is revealed no matter what.

Sun – before

Lying on a beach with you

We forget all time that our life is a gift that has been given us to enjoy not to waste.

I doesn't last long. It is not a sin to be happy but it may be to be unhappy.

What did you think was going to happen if I drank a bottle wine listening to music we used to listen too

I'm going to think about you and me together

Maybe that's the only way you can except to thru a spiritual vision.

I seems true that is not a sin to be happy so maybe that means that it is to be unhappy

You will have to listen to your heart not your head.

I had a vision of you very briefly you were like some neophyte Angel floating in the air but you were disconnected you head from your body.

1) Mary Akroyd.

2) I was probably supposed to die

But my life was spared

I don't know why. That bothers me.

3) Let go theres nothing that you are holding onto now is going to help you

4) Let go. You are holding on tight.

5) Our lives are going by really fast

Like Bei Bei's case, this case presented a unique opportunity to postdict a communication as representing a suicide determination or not. The TGSP was used. In performing my analysis, I first looked at and scored the note before any background information was known, before a full PA was undertaken. The specific protocols scored in the TGSP are as follows: 3, 7, 10, 15g, 16, 19, 20, 21, 23, 25, 27, 28, and 35. The analysis is as follows.

The note has the following intrapsychic characteristics: (I) *Unbearable Psychological Pain*. PS = 3; 1 out of 6 protocol sentences, PS. Formula = 0. (II) *Cognitive Constriction*. PS = 7; 1 out of 3. Formula = 1. (III) *Indirect Expressions and (Self) Deception*. PS = 10; 1 out of 3. Formula = 1. (IV) *Inability to Adjust/Psychopathology*. PS = 15g; 1 out of 3. Formula = 1. (V) *Weakened Resilience (Ego)*. PS = 16; 1 out of 3. Formula = 1. Therefore, a score of 4 out of 10 in the data means *not* suicidal mind. It is a *low* algorithm score. Apgar would agree, I think; a 4 is a dangerous score on her Apgar score. Furthermore, remember the rule, mind beats relational. (Like Apgar, a score of 8 out of 10 is a "good" predictor of suicide risk.) The note has the following relational cues: (VI) *Interpersonal Relations*. PS = 19,

20, 21; 3 out of 6. Formula = 1. (VII) *Rejection-Aggression*. PS = 25, 27, 28; 3 out of 8. Formula = 0. (VIII) *Identification-Egression*. PS = 35; 1 out of 3. Formula = 1. The formula gives us a score of 6 out of 16.

Based on my training, experience, research, and that includes the use of an algorithm for decision-making, I reached the following primary opinions: there is no doubt in my mind that this is *not* a suicide note. Although low scores require a margin of error, I do not believe Scott Dell's alleged note was a suicide note. In fact, as it unfolded in court, Scott's ex-wife, Cherylle, dictated the note. She obviously did not know what a suicidal mind is. It was a fake note. Although one can read the complete text of my testimony in court [21], it may be of interest for the reader that Cherylle Dell was found guilty of murder and is now in prison. This is all very different from the case of Bei Bei Shuai. I hope that it helps to show the practical utility of a simple formula: algorithms rule. However, this should not be read as negating clinical/forensic judgment. Any good forensic investigator knows the importance of judgment, such as what open-ended questions to ask in Shneidman's PA outline or what evidence is still needed [21, 48].

Conclusion

Of course, we need more research on the work and the use of algorithms in PA postdiction. Albeit, that is a truism in all of science. We really can make important decisions *now* in postdiction of mode of death. Our formulas work; the main research need, I think, is study that focuses on admissibility of the PA in court [21, 36]. Of course, there may be other important variables, such as Maltsberger's concept of worthlessness, that may help. Yet, I wonder if it is actually needed. Like Apgar decided, I think that we have enough cross-culturally verified evidence-based variables for our algorithm. It works. Most important is to remember the rule: Simple formulas work better than complex ones.

No matter how much of a genius the expert may be, formulas work better than clinical judgment (intuition) in decision-making in multifarious equivocal NASH cases. We need to be evidence-based. We might see this or that aspect of our evidence as figural, say depression; however, that one cue does nothing in postdiction. The number of false positives would be huge. It will lead us astray. Color of a baby alone at birth did not help Apgar either in her predictions; she argued for an algorithm of five variables. Color was only helpful in the equation, not by itself. In the PA, the algorithm is best. Depression is no more important than any of the other protocol sentence in the eight clusters/characteristics. All variables are equal. Leenaars' model works because it follows the general research finding of Apgar, Meehl, and many others that formulas work better than one cue.

Despite Apgar, Meehl, Abu Ja'far Muḥammad ibn Mūsā, Graunt, and my opinion on the value of only one cue in decision-making and judgment, expert suicidologists are not only important but also necessary. Our formulas do not choose the multiple cues; Apgar chose the five variables. Leenaars chose his variables from ten leading suicidologists, followed by decades of research. It is always a person (judge, psychiatrist/psychologist, survivor) who chooses the variables [6, 21, 39]. Our

simple models “cannot replace the expert in deciding such things as ‘what to look for,’ but it is precisely this knowledge of what to look for in reaching the decision that is the expertise people have” [6, p. 573]. No computer or our simple models can do that. Apgar’s wisdom was not only in using a multidimensional formula but also in her ability to understand and choose what to look for in newborn babies. She had superb clinical judgment. Despite my obvious bias throughout this paper, we have isolated enough variables to look for to assess suicide risk. I write enough because there may be other helpful factors; yet, they may not necessarily be needed now. Maybe adding being a burden would help a little, probably not (although Niveau et al. [42] suggested it is associated to inability to adjust cluster). Depression is, of course, in the equation but as only one protocol sentence in one of eight clusters. It helps in the equation. Leenaars’ equation is sufficient. Does that mean we can stop all research? No! Science, by definition, is always a process, not an endgame.

The answer to the question posed in this chapter: *The algorithm is best!* No matter how distasteful formulas may be vs. your intuition/judgment, formulas work better. No matter how uncomfortable you are at reducing people to numbers, it works best in the PA and in court (and the therapy room). (Shneidman disagreed, largely because he did not have a mathematical mind [18, 20].) We need to do the best that we can in DSI, and that means we must use an algorithm/formula, but keep it simple. We can be as successful in our equivocal cases, as Apgar was in the delivery room. To use only one cue, say deception, we will be faulty in our NASH decisions, what the mode of death was, why the individual did it, and how the individual died, and when. Our cases deserve the best. Behavioral scientists can be as helpful as DNA scientists or fingerprint experts. Suicidologists need algorithms, but not equations that only computers can compute. It helps in nomothetic research, but not in our forensic case studies “on the ground.” *Therefore*, that important word in the OED, we must use an algorithm.

Cross-References

- ▶ [Models of Suicide and Their Implications for Suicide Prevention](#)
- ▶ [Risk and Protective factors for Suicide From a Cultural Perspective](#)
- ▶ [Suicide and Trauma](#)
- ▶ [Suicidal Behavior from a Complex System Perspective: Individual, Dynamical, and Contextual](#)
- ▶ [Suicidal Risk Across the Life Span](#)

Appendix 1 Thematic Guide for Suicide Prediction

THEMATIC GUIDE FOR SUICIDE PREDICTION*

Antoon A. Leenaars, Ph.D., C.Psych.

I PATIENT DATA

Date:

Name	Age	Sex

Date of Birth _____ Marital Status _____ Divorced _____

Education Status

(years)

(degrees)

Current Employment

II SUICIDAL EXPERIENCE

- 1) Has the patient ever seriously contemplated suicide? (If yes, note particulars)

- 2) Has the patient ever attempted suicide? (If yes, note particulars)

- 3) Does the patient know anyone who attempted suicide? (If yes, indicate family, acquaintance, etc.)

- 4) Does the patient know anyone who died by suicide? (If yes, indicate family, acquaintance, etc.)

III REFERRAL DATA

- 1) Purpose _____ Postvention _____
- 2) What is the referral question? _____ See file _____
- 3) What is the presenting problem(s)? _____ See file _____

*Note: There are different cues; the letter P refers to a specific highly predictive variable, whereas the letter D refers to a specific differentiating variable of the suicidal mind. Some factors/cues can be both in your algorithm for prediction.

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IV **INTERVIEW SITUATION**

- 1) Observations _____

- 2) Other procedures (e.g., tests, interviews) _____

V **INTERPRETATIONS**

1)	Perturbation rating:	Low	Medium	High
	scale equivalent	1 2 3	4 5 6	7 8 9
2)	Lethality rating:	Low	Medium	High
	scale equivalent	1 2 3	4 5 6	7 8 9
- 3) Guide summary:
- scores: I - 1, 2, 3, 4, 5, 6; II - 7, 8, 9; III - 10, 11, 12;
- IV - 13, 14, 15; V - 16, 17, 18; VI - 19, 20, 21, 22, 23, 24
- VII - 25, 26, 27, 28, 29, 30, 31, 32; VIII - 33, 34, 35

Conclusions (e.g., formula/algorithm): _____

VI **REMARKS**

Include on back any other relevant data.

INSTRUCTIONS

Your task will be to verify whether the statements provided below correspond or compare to the contents of the person’s protocols (e.g., interview, written reports). The statements provided below are a classification of the possible content. You are to determine whether the contents in the person’s protocols are a particular or specific instance of the classification or not. Your comparison should be observable; however, the classification may be more abstract than the specific instances. Thus, you will have to make judgments about whether particular contents of a protocol are included in a given classification or not. Your task is to conclude, yes or no.

INTRAPSYCHIC Circle One

I - Unbearable Psychological Pain

1) Suicide has adjustive value and is functional because it stops painful tension and provides relief from intolerable psychological pain. (P)	Yes	No
2) In suicide, the psychological and/or environmental traumas among many other factors may include: incurable disease, threat of senility, fear of becoming hopelessly dependent, feelings of inadequacy, humiliation. Although the solution of suicide is not caused by one thing, or motive, suicide is a flight from these specters. (P & D)	Yes	No
3) In the suicidal drama, certain emotional states are present, including, for example, pitiful forlornness, emotional deprivation, distress, and/or grief. (P & D)	Yes	No
4) The suicidal person (S) appears to have arrived at the end of an interest to endure and sees suicide as a solution for some urgent problem(s), and/or injustices of life. (P)	Yes	No
5) There is a conflict between life's demands for adaptation and the S's inability or unwillingness to meet the challenge. (P)	Yes	No
6) S is in a state of heightened disturbance (perturbation) and feels boxed in, harassed, especially hopeless and helpless. (P)	Yes	No

II - Cognitive Constriction

- 7) S reports a history of trauma (e.g., poor health, rejection by

	significant other, a competitive spouse). (P & D)	Yes	No
8)	Figuratively speaking, S appears to be "intoxicated" by overpowering emotions. Concomitantly, there is a constricted logic and perception. (D)	Yes	No
9)	There is poverty of thought, exhibited by focusing only on permutations and combinations of grief and grief-provoking topics. (D)	Yes	No
<i>III - Indirect Expressions and (Self)Deception</i>			
10)	S reports ambivalence; e.g., complications, concomitant contradictory feelings, attitudes and/or thrusts. (P & D)	Yes	No
11)	S's aggression has been turned inwards; for example, humility, submission and devotion, subordination, flagellation, masochism, are evident. (P)	Yes	No
12)	Unconscious dynamics can be concluded. There are likely more reasons to the suicide than the person is consciously aware and/or reports. (D)	Yes	No
<i>IV - Inability to Adjust/Psychopathology</i>			
13)	S considers him/herself too weak to overcome personal difficulties and, therefore, rejects everything, wanting to escape painful life events. (P)	Yes	No
14)	Although S passionately argues that there is no justification for living on, S's state of mind is incompatible with an accurate assessment/perception of what is going on. (P)	Yes	No
15)	S exhibits a serious disorder in adjustment. (P)	Yes	No
a)	S's reports are consistent with a manic-depressive disorder such as the down-phase; e.g., all-embracing negative statements, severe mood disturbances causing marked impairment.	Yes	No
b)	S's reports are consistent with schizophrenia; e.g., delusional thought, paranoid ideation.	Yes	No
c)	S's reports are consistent with anxiety disorder (such as		

	obsessive-compulsive, posttraumatic stress); e.g., feeling of losing control; recurrent and persistent thoughts, impulses or images.	Yes	No
d)	S's reports are consistent with antisocial personality (or conduct) disorder; e.g., deceitfulness, conning others.	Yes	No
e)	S's reports are consistent with borderline personality disorder; e.g., frantic efforts to avoid real or imagined abandonment, unstable relationships.	Yes	No
f)	S's reports are consistent with depression; e.g., depressed mood, diminished interest, insomnia.	Yes	No
g)	S's reports are consistent with a disorder not otherwise specified. S is so paralyzed by pain that life, future, etc. is colorless and unattractive.	Yes	No

V - Weakened Resilience (Ego)

16)	There is a relative weakness in S's capacity for developing constructive tendencies (e.g., attachment, love). (D)	Yes	No
17)	There are unresolved problems ("a complex" or weakened ego) in the individual; e.g., symptoms or ideas that are discordant, unassimilated, and/or antagonistic. (P)	Yes	No
18)	S reports that the suicide is related to a harsh conscience; i.e., a fulfillment of punishment (or self-punishment). (D)	Yes	No

RELATIONAL

VI - Interpersonal Relations

19)	S's problem(s) appears to be determined by the individual's history and the present relational/interpersonal situation. (P)	Yes	No
20)	S reports being weakened and/or defeated by unresolved problems in the interpersonal field (or some other ideal such as health, perfection). (P)	Yes	No
21)	S's suicide appears related to unsatisfied or frustrated needs; e.g., attachment, perfection, achievement, autonomy, control. (P)	Yes	No

22)	S's frustration in the relational field is exceedingly stressful and persisting to a traumatic degree. (P)	Yes	No
23)	A positive development in the disturbed relations was seen as the only possible way to go on living, but such development was seen as not forthcoming. (P)	Yes	No
24)	S's relations(hips) (attachments) were too unhealthy and/or too intimate (regressive, "primitive"), keeping him/her under constant strain of stimulation and frustration. (D)	Yes	No

VII - Rejection - Aggression

25)	S reports a traumatic event or hurt or injury (e.g., unmet love, a failing marriage, disgust with one's work). (P)	Yes	No
26)	S, whose personality (ego) is not adequately developed (weakened) appears to have suffered a narcissistic injury. (P & D)	Yes	No
27)	S is preoccupied with an event or injury, namely a person/ideal who has been lost or rejecting (i.e., abandonment). (D)	Yes	No
28)	S feels quite ambivalent, i.e., both affectionate and hostile towards the same (lost or rejecting) person/ideal. (D)	Yes	No
29)	S reports feelings and/or ideas of aggression and vengefulness toward him/herself although S appears to be actually angry at someone else (ideal/object). (D)	Yes	No
30)	S turns upon the self, murderous impulses that had previously been directed against someone else. (D)	Yes	No
31)	Although maybe not reported directly, S may have calculated the self-destructiveness to have a negative effect on someone else (e.g., a lost or rejecting person). (P)	Yes	No
32)	S's self-destructiveness appears to be an act of aggression, attack, and/or revenge towards someone else (ideal/object) who has hurt or injured him/her. (P)	Yes	No

VIII – Identification - Egression

33)	S reports in some direct or indirect fashion an identification (i.e., attachment) with a lost or rejecting person (or with any lost

	ideal [e.g., health, freedom, employment, all A's]). (D)	Yes	No
34)	An unwillingness to accept the pain of losing an ideal (e.g., abandonment, sickness, old age), allows S to choose, even seek to escape from life and accept death. (D)	Yes	No
35)	S wants to egress (i.e., to escape, to depart, to flee, to be gone), to relieve the unbearable psychological pain. (P)	Yes	No

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Suicide and Trauma

16

Risk, Identification, and Treatment

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Abstract

Recent reports published by the Centers for Disease Control and Prevention indicate that suicide rates have been consistently rising in the United States across various cultural, socioeconomic, and racial groups. It is also estimated that 70% of adults in the United States have experienced a traumatic event at least once in their lifetime. Of those affected, as many as 20% will go on to develop post-traumatic stress disorder (PTSD). Studies have shown that individuals who are diagnosed with PTSD are at increased risk for death by suicide. However, the current literature also indicates that a diagnosis of PTSD in and of itself does not inherently place a person at increased risk for suicide. Given that a majority of the population has experienced a traumatic event, it is paramount that mental health clinicians evaluate their patients for risk of suicide as well as protective factors. The association between trauma events and suicide cannot be ignored. Mental health clinicians should be trained to assess for risk of suicide and know how to

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appropriately intervene when suicidality is detected. When evaluating suicide risk, it is crucial to consider a variety of factors such as comorbid psychiatric diagnoses, level of impulsivity, gender, age, occupation, gender identity, and social support. This chapter describes risk factors for suicide in people who have experienced trauma. Additionally, assessments, interventions, and treatments for traumatized people at risk for suicide are reviewed.

Keywords

Suicide · PTSD · Trauma

Suicide and Trauma: Risk, Identification, and Treatment

In the last two decades, suicide rates in the United States have increased at an alarming rate [23]. From the dawning of the new millennium in 1999 to 2018, suicide rates increased by a staggering 35% [23]. Death by suicides rose steadily at 1% per year until 2006 when it doubled to 2% growth per year until 2018 [22]. Distressingly, suicide ranks as the second highest cause of death in the United States for people between ages 10 and 34 and fourth for those between 35 and 54. Across age groups, suicide is the tenth leading cause of death in the United States. It is evident that despite national objectives aimed at reducing suicide rates, suicide remains a public health crisis [56].

A proposed explanation for the uptick in suicide rates is an increase in psychological disorders. While this answer is speculative, the association between experienced trauma and suicide cannot be ignored. It is estimated that as much as 70% of adults in the United States have experienced a traumatic event at least once in their lifetime, and as many as 20% develop posttraumatic stress disorder (PTSD). As the majority of the population has experienced a traumatic event, it is paramount that clinicians pay special attention to the association between experienced trauma and suicide. In educating clinicians to assess for risk of suicide and to successfully intervene, much attention is paid to PTSD, as studies have shown that individuals with diagnoses of posttraumatic stress are often at increased risk for suicide. However, the current literature establishes that a diagnosis of PTSD alone does not inherently mean increased suicide risk. Various factors have been identified in increasing the risk of suicidality in patients diagnosed with PTSD. When evaluating suicide risk in patients, it is crucial to consider a variety of factors, including comorbid psychiatric diagnoses, level of impulsivity, gender, age, occupation, gender identity, and social support.

Suicide Risk

Comorbid Psychiatric Diagnoses

As noted, PTSD is associated with increased rates of suicidality [45]. However, PTSD can be comorbid with a variety of other mental health conditions and symptoms, each with its own compounding effects of suicidality and suicide risk.

For example, comorbid depression was found to strengthen the relationship between PTSD and depression in a 2012 meta-analytic study conducted by Panagioti and colleagues. There is also some evidence of anxiety disorders being associated with increased suicidal ideation, attempts, and behaviors [30].

Impulsivity

Impulsivity is generally defined as “a predisposition for rapid actions without appropriate foresight” [13]. Although a general understanding and consensus for this definition exists, studies exploring impulsivity as a construct have noted multiple facets. These facets are response inhibition, cognitive inhibition, and delayed/probabilistic discounting. The process in impulsivity, where previously planned behavior is negated, is known as response inhibition, while the negation of mental processes – intentionally or unintentionally – is known as cognitive inhibition [35]. The discounting facet of impulsivity relates to tendencies to making immediate decisions in situations, whether it be choosing immediately available small resources over delayed larger resources (delay discounting) or choosing larger resources that are less likely to be actually attained over smaller resources that are more likely (probabilistic discounting; [35]).

PTSD is recognized as having arousal-based symptoms that are impulsive in nature, such as increased engagement in self-destructive behavior and aggression [1]. Additionally, some research in the field has noted relationships between PTSD and impulsivity, with the severity of PTSD symptoms associated with impulsivity and behavioral impulsivity [59]. Impulsivity has long been associated with suicide, as well as with other behaviors that have significant relationships with suicide, such as non-suicidal self-injury [33].

A meta-analysis conducted by McHugh and colleagues in 2019 found that behavioral manifestations of impulsivity, namely, deficits in inhibitory control, prediction interval, and decision-making, had significant associations with suicidal behavior. Small to medium effect sizes were found regarding the relationship between behavioral impulsivity and suicide attempts [33].

Gender

In examining the rising rate of suicide, it is important to note contextual factors. In the most recent Centers for Disease Control and Prevention [7] report on suicide, cisgender males died by suicide at 3.7 times the rate for cisgender females, with males over the age of 75 being at the highest risk for suicide. Among females, those in the age range of 45–64 were most likely to commit suicide [7]. Of note, recent literature on cisgender females who engage in non-suicidal self-harm found that this likelihood was small based on analysis of 28 publications [57]. Comparing individuals who attempt suicide against those who only have ideation, gender does not appear to have a central role [34].

However, far greater than their cisgender counterparts, transgender individuals are recognized as having significantly higher risks for trauma, PTSD, and suicidality. Based on a study conducted in 2016, it was estimated that the prevalence of violence or victimization against this population is approximately 44% [46]. In a larger scale study conducted by James et al. [27], 40% of their transgender adult sample reported having made a suicide attempt, with 92% of these attempts being before the age of 25.

Age

When discussing the relationship between trauma and suicide, childhood trauma cannot be overlooked. In childhood, trauma and traumatic experiences can take many forms, all of which relate to suicidality. Research over the last 10 years has demonstrated how the presence of childhood trauma, specifically sexual abuse, physical abuse and neglect, and emotional abuse, have associations with suicidality and suicide attempts [60]. Recent meta-analytic investigations have identified that childhood sexual abuse, in particular, increases one risk for suicidality, specifically in an increase in risk for attempting suicide [44]. The effects of these childhood traumas can also have differential effects depending on the characteristics of the individual. For individuals with bipolar disorder, the presence of childhood maltreatment is a particularly robust risk factor, with those who had attempted suicide having significantly higher frequencies of childhood trauma and maltreatment [14]. In youth involved in the legal system, a trauma in childhood is one of the most noted correlates with suicidal ideation and behavior in several studies conducted over the last 20 years [53].

Trauma in childhood need not be committed directly against the child. Based on a study conducted in 2011 by Hamby and colleagues [20], it was estimated that one in four youths witnesses a violent act in their lifetimes. Additionally, one in ten youths reported witnessing a family member assault another family member, such as in the case of intimate partner violence (IPV). The presence of IPV has drastic effects on one's suicide risk, with youth exposed to IPV having twice the likelihood of attempting suicide than those who are not exposed [6].

Occupation

Though not often considered in the context of trauma and suicide, occupation and respective duties can play a role in suicidality. Specifically, occupations that expose an individual to potentially morally injurious events (PMIE) may impact suicidality. Occupations such as military service members, police officers, emergency medical personnel (e.g., EMTs, paramedics), and medical staff (e.g., nurses) may have to engage in tasks or work in situations where their required duties are not aligned with their moral belief systems [32, 40, 52].

Much of the research to date has focused on the experience of moral injury in military service members. Serving in the military can expose a person to a variety of PMIE, including but not limited to events experienced in combat. Litz and colleagues [32] list several such experiences, including the responsibility of taking a life, following orders to direct fire at enemy combatants, and witnessing violence and death among non-combatants [32]. In the same vein, first responders and medical personnel are also faced with morally questionable situations in the line of duty that may lead to increased suicidality. As protectors of the public, first responders can experience moral injury when they fail, subjectively or objectively, to protect others from harm. Such examples may include police investigation into crimes against children, sexual assault, or domestic violence. As research on moral injury has advanced, occupations outside the realm of military and law enforcement have

been examined. Within the medical field, the experience is so commonplace that the field of nursing has adopted the term “moral distress” [28] to describe the distress experienced when systematic constraints make it impossible to act in accordance with what one believes is right [40]. In their systematic review, Morley and colleagues [40] found that nurses all over the world reported experiencing moral distress.

In their preliminary model on moral injury, Litz and colleagues [32] posit that as a result of experiencing a potentially morally injurious event, a person’s worldview can shift dramatically [32]. A person may make increasingly negative evaluations about themselves, other people, and the world at large, leading to feelings of guilt and shame, potentially increasing suicide risk [32]. It is integral to the assessment of suicide to consider if a person may be experiencing moral injury, particularly if one’s subject has an occupation with increased risk of exposure to PMIE.

Another occupation that may be associated with an elevated risk of suicide is humanitarian workers, possibly due to vicarious trauma and morally injurious experiences. Humanitarian workers, such as staff serving in national and international organizations like the Red Cross and UN, were found to have a high prevalence of PTSD, depression, and anxiety-related symptoms [54]. With the already discussed associations between mental health conditions associated with trauma, it can be suspected that these conditions come with elevated suicide risk, though this requires further study.

Finally, another factor related to occupation and increased suicide risk is socioeconomic status. A study that analyzed the outcomes of 34 studies found that compared to the general population of employed individuals, suicide risk was highest in blue-collar workers, particularly workers in the ISCO classification group 9 (e.g., laborers, cleaners, machine operators) [37]. As the authors note, this could be explained by the social and economic disadvantages that come with blue-collar occupations, such as lower income. Socioeconomic status has been shown to be a significant predictor of suicidal behavior [37].

Social Support

Literature on social support over the last several years has shown significant protective elements and benefits in the reduction of symptoms associated with PTSD, suicide, and other conditions that are associated with suicide risk. In a meta-analysis exploring the impact of social support on mental health symptoms following a traumatic loss, clear negative relationships between social support and mental health conditions, PTSD, and depression were found [50]. Other meta-analyses have shown this protective relationship is consistent in other traumatic situations, such as situations with continuous traumatic experiences [20].

Ethnic Minority Status

Research has found that immigrants and ethnic minority groups pose a higher risk for suicidal behaviors and deaths by suicide, possibly due to acculturative stress, cultural conflicts, and socioeconomic difficulties [17]. For traumatic events and

posttraumatic stress symptoms among ethnic groups in the United States, Roberts et al. [48] examined 34,075 US residents and found that African-Americans have the highest rate of lifetime prevalence of PTSD, followed by Latinx, White, and Asian-Americans, respectively. However, White Americans have the highest endorsement of exposure to traumatic events [48]. The types of traumatic events also differ across ethnic groups: African-Americans and Latinx Americans have a higher rate of childhood maltreatment than White Americans, and Asian-Americans have a higher risk of war-related events than all other groups [48]. Notably, ethnic minority groups are less likely to seek mental health treatment for both PTSD [48] and suicidal behaviors compared to Whites [17].

The COVID-19 Pandemic

Following the start of the COVID-19 pandemic in the United States in early 2020, the US population has experienced a series of negative events, including but not limited to economic stress, fears associated with exposure to the COVID-19 virus, social distancing and quarantine, and possible mental health treatment barriers, among many others. It has been suggested that economic stress may lead to an increase in the suicide rate [36], but national mortality data remains unavailable at this time. In discussing the impact the coronavirus pandemic has had on suicide rates, it is essential to note the limitations of current studies. Due to the ongoing nature of the pandemic, definitive rates are not yet available. Nonetheless, within the United States, state-wide analyses of deaths by suicide can shed light on the question of how COVID-19 has impacted suicidality and traumatic stress. Interestingly, two state-wide studies of deaths by suicide in Connecticut and Maryland have both shown a decrease from early to mid-2020 compared with previous years [4, 38]. However, both studies also show that while the number of deaths by suicide for White people decreased, among people of color in Connecticut and African-Americans in Maryland, deaths by suicide increased [4, 38]. This phenomenon can likely be attributed to the disproportionate effects of COVID-19 on ethnic minority groups. Marginalized communities may have disproportionately high economic difficulties, exposure to higher-risk work environments, and less access to healthcare [55]. As a result, amidst the possible rise of deaths by suicide, there are also higher rates of death from COVID-19 in African-Americans, Native Americans, and Latinx Americans [55].

Identification

Identifying when a person is at increased risk for death by suicide is a crucial component of clinical training for providers. A breadth of research focused on identifying risk factors for suicide has given clinicians guidelines on how to best approach suicide risk. In such evaluations, both risk and protective factors are considered to influence overall risk. Despite having guidelines in place, identifying suicide risk is complex in that risk and protective factors can be highly individualized and may fluctuate. When identifying what factors make a person at increased

risk for death by suicide, it is important to know that the presence of trauma or PTSD is not a single indicator of suicide risk. Because trauma alone is not the only predictor of suicide risk, intersecting factors must be considered to more effectively identify and treat suicidal ideation.

Identifying risk for suicide is often a stressful and anxiety-provoking experience for clinicians. One of the strongest factors for suicidal behaviors (e.g., suicidal ideation, plan, intent, and attempt) is the presence of a mental health disorder [21]. Research suggests that more than 90% of those who die by suicide have a mental health disorder meeting clinically significant threshold [3]. Specifically, major depressive disorder and borderline personality disorder both include suicidal behaviors as specific diagnostic criteria [1]. Of note, although having experienced trauma increases suicide risk, suicidal thoughts and behaviors are not included among the diagnostic criteria for PTSD. As mentioned previously in this chapter, while the overwhelming majority of mental health diagnoses do not include suicidal behaviors as a diagnostic criterion, suicidal behaviors are not exclusive to major depressive disorder and bipolar disorder and maybe comorbid with other mental and physical health problems. For example, the presence of hopelessness has been strongly correlated with suicidal behaviors [5, 49], which is not exclusive to a mental health disorder and may be present even in the absence of a mental health diagnosis. Due to the high prevalence of mental health disorders and suicide risk, all healthcare workers play a vital role in assessing suicide risk and ensuring patient safety.

There has been a long-standing fear that talking about suicide with patients may lead to an increase in suicidal behaviors. This fear put providers into a precarious situation as they strove to assess for suicide risk without potentially increasing suicidal behaviors by inquiring about suicide. Cha et al. [8] examined the iatrogenic risk of behavioral measures of suicide, specifically the suicide or self-injury Implicit Association Test (IAT). This test involved exposing participants to rapid and repeated images and words related to suicidal behaviors. They found that based on the IAT, there was no reliable increase in suicidal behaviors across participants in the three variations of this research study [8]. Contrary to many initial beliefs about the iatrogenic effects of discussing suicide with a patient, this research supports the notion that merely talking about suicide with patients will not elevate suicide risk.

Assessing suicide risk is comprehensive and involves integrating multiple sources of information to determine the level of suicide risk as either low, moderate, or high. This assessment should also include the evaluation of both static risk factors, things that cannot be changed, and dynamic risk factors, which are factors that can be modified. One of the greatest tools to predict the risk of suicidal behaviors is simply through direct inquiry [3]. It is important to emphasize matter-of-factness without judgment or criticism when directly asking about suicidal behaviors [3]. Additional recommendations for assessing suicide risk are to conduct a diagnostic evaluation and chart review, obtain a family medical history, and determine both risk factors and protective factors for suicidal behaviors.

While there are many suicide self-report measures, researchers recommend that they be utilized as supplementary tools in a risk evaluation [3], alongside clinician-administered interviews. This is because suicide self-report measures have been

found to have poor generalizability and may not be appropriate for elder and minority populations, high false-positive rate, and low predictive validity [3]. Furthermore, many established suicide assessment measures do not take unique cultural factors into account. An important component of identifying suicide risk was to consider how marginalized groups experience continual traumatic events through various forms of distress. For example, substantial research on sexual minorities has shown that lesbian, gay, and bisexual people are at greater risk for suicidal behaviors than their heterosexual counterparts [19, 31]. The cultural theory and model of suicide integrates four factors specific to culture and suicide risk – cultural sanctions, idioms of distress, minority stress, and social discord, into a theoretical framework [10]. This framework then leads to the development of the Cultural Assessment of Risk for Suicide (CARS), a culturally informed self-report measure that is aimed at identifying suicide risk among ethnic and sexual minority groups [11]. The CARS identifies eight meaningful areas of cultural suicide risk and has been shown to provide useful information on suicide risk for the general population [11].

When working with a patient who has a PTSD diagnosis, there are some additional considerations clinicians should take into account when assessing for suicide risk. The DSM-5 categorizes symptoms of PTSD into four symptom clusters – alterations in arousal and reactivity, intrusive thoughts and memories, avoidance, and negative alterations in cognition and mood [1]. Because there have been mixed results produced by research examining the connection between specific symptom clusters and suicide risk, Chou et al. [9] studied the difference between the four-factor model of PTSD symptoms, in conjunction with the four symptom clusters, with a seven-factor model. The seven-factor model includes reexperiencing, avoidance, negative affect, anhedonia, externalizing behaviors, anxious arousal, and dysphoric arousal symptom clusters [9]. Chou and colleagues argued that the seven-factor model of PTSD has greater specificity to deepen understanding of psychiatric comorbidities, in this case, suicidal behaviors (2020). The seven-factor model showed that reexperiencing feelings, negative affect, anhedonia, and externalizing behaviors were all found to be associated with suicidal ideation, anhedonia being the strongest association [9]. While the association between symptom clusters and suicide risk is not fully understood, these symptom clusters can be utilized in clinical settings to guide providers in identifying suicide risk. Risk evaluations are not merely completed during the initial stages of treatment. Rather patients should be continually evaluated throughout treatment, especially those who have experienced trauma.

Treatment of Suicidality and Posttraumatic Symptoms

Treatment of suicidality and posttraumatic symptoms can be divided into three phases: treatment of acute suicide risk, stabilization, and trauma-focused treatment.

Treatment of Acute Suicide Risk

When encountering acute suicide risk, a clinician must determine the level of suicide risk to decide whether to admit the patients into inpatient or outpatient care [43]. The advantages of inpatient care include continuous care and observation and having a multidisciplinary team, while the disadvantages include loss of freedom and possible therapeutic rupture [58]. One way of determining the appropriate level of care for acute suicide risk is to assess whether the patients has adequate social support; if they do, then outpatient care may be a more viable option [58]. Regardless of treatment settings, the primary recommendation is for the clinician to immediately create and implement a treatment plan that targets the reduction of acute symptoms, which may include pharmacological treatment [58]. Note that the clinician or the hospital should monitor the patients closely while giving them medications in small portions to prevent overdosing [22].

Stabilization

In an inpatient setting, the clinician should start planning transitioning to outpatient care and collaborate with the site prior to discharge because the transitional period in which patients move from intensive care to a lower level of care setting is critical: the suicide death rate of patients leaving inpatient psychiatric settings is 300 times higher than the general population in the first week after discharge [12]. Knowing the increased risk during the transition from a higher to a lower level of care, strict follow-up and close monitoring of patient's post-discharge are important in maintaining patient safety. It is important for the clinician to develop a safety plan with the patient, listing out warning signs, internal coping strategies, things that can distract the patient, people to ask for help, and agencies to contact [51]. This safety plan can help provide support to the patient post-discharge by providing them with resources and a guide to seek help.

Aside from managing suicide risk consistently, the patients can also go through the stabilization phase for treating trauma, which involves developing coping skills for the subsequent trauma-focused treatment. Stabilization includes ensuring the patient's safety, providing psychoeducation on trauma and PTSD, and developing the patient's emotional and social coping skills so that they may be more resourceful in managing the intensity of trauma-focused treatment [25]. Researchers hold various views on the inclusion of the stabilization phase into treating traumatic symptoms: Jongh et al. [29] posit that adding a stabilization phase into treating complex PTSD may delay the patient's timely trauma-focused treatment.

Trauma-Focused Treatment

The American Psychological Association [2] has recommended four trauma treatment interventions with strong research support. The first, cognitive behavioral therapy (CBT), serves as the basis for all empirically based treatment recommendations. CBT emphasizes the relationship between thoughts, feelings, and behaviors and aims to change patterns within this aptly christened triangle that impacts a person's functioning [39]. CBT for PTSD aims to address unhelpful patterns of

thinking, called cognitive distortions, as well as implementing behavioral changes to create more balanced cognitions and behaviors to improve PTSD symptoms [39]. CBT for PTSD typically consists of 12–16 sessions and can be delivered via individual or group therapy [39].

Cognitive therapy (CT), derived from CBT, can also be used to treat PTSD. CT differs from CBT in that it does not address behavioral components and instead posits that PTSD develops if a person makes consistently negative cognitive evaluations about their trauma [15]. Through CT, a patient first learns to identify their maladaptive evaluations regarding the trauma and then modify these appraisals to be more effective and balanced [15].

Furthermore, there are two treatments generally accepted as the gold standard of trauma processing treatment: cognitive processing therapy (CPT) and prolonged exposure (PE). In PE, the patient is repeatedly exposed to thoughts, emotions, and situations related to their traumatic experience [16]. Through repeated exposure, the power the traumatic event holds to cause distress, and subsequent symptoms of PTSD, is significantly reduced [16]. In CPT, the focus of treatment is on cognitive restructuring or changing the content of thoughts about a person's experienced trauma [47]. Throughout the course of CPT, a patient's beliefs about "why" the trauma occurred, as well as how the trauma impacts their beliefs about the world, other people, and themselves, are addressed and processed through the use of worksheets [47]. Lastly, for individuals with comorbid PTSD and substance use disorders (SUD), the modality Seeking Safety for PTSD and SUD has strong empirical support [26, 41, 42, 61].

There are also several trauma interventions that the American Psychological Association recommends on a conditional basis. These include Eye Movement and Desensitization and Reprocessing Therapy (EMDR), the efficacy of which has been hotly debated within clinical researchers but has been growing steadily over the past several years. Other conditionally recommended therapies include brief eclectic psychotherapy and narrative exposure therapy (NET) [2].

These recommended treatments are not the only interventions used by clinicians to treat trauma and its associated symptoms. There are many emerging treatments for trauma. Clinicians should pay careful attention to both empirical evidence and support for new interventions as well as considering their patients' preferences when developing their treatment plan.

Conclusion

Suicide rates within the United States have steadily increased during the past two decades, making death by suicide a national crisis. The growing suicide rate has led to a plethora of research focused on identifying risk and protective factors to best address this crisis. While numerous risk factors have been identified, having experienced a traumatic event is a significant risk factor that cannot be ignored. When assessing suicide risk, providers must also consider a host of factors such as life circumstances and stressors, race, gender, age, social support, and how these factors overlap with trauma and suicide risk. The next step in addressing this crisis is to

provide support and treatment to reduce suicidal behaviors and help the patient cope with their past trauma. Where the patient receives treatment may vary depending on the severity of the suicide risk. Treatment can include hospitalization, stabilization, and trauma-focused treatment to promote long-term treatment gains and reduce suicidal behaviors in the future. Despite the increased suicide rates, more research alongside enhanced assessment and treatment options have helped address this growing issue.

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Suicide and Psychotic Depression

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Abstract

Major depression is a debilitating disorder characterized by low mood, anhedonia, hopelessness, sleep disturbances, weight loss/gain, and potentially self-harming behavior. An individual that suffers from psychotic depression will meet the criteria for major depressive disorder while simultaneously experiencing elements of psychosis, which typically elevate severity levels and the risk of

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suicidal behavior [3]. According to the *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* (DSM-V), psychotic depression is categorized as major depressive disorder with a specifier of psychotic features; these psychotic features may be coded as either mood-congruent or mood-incongruent [1]. The presentation of major depressive disorder without delusions or hallucinations will be coded without psychotic features and is often referred to as non-psychotic depression throughout the literature.

Major depression is a debilitating disorder characterized by low mood, anhedonia, hopelessness, sleep disturbances, weight loss/gain, and potentially self-harming behavior. An individual that suffers from psychotic depression will meet the criteria for major depressive disorder while simultaneously experiencing elements of psychosis, which typically elevate severity levels and the risk of suicidal behavior [3]. According to the *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* (DSM-V), psychotic depression is categorized as major depressive disorder with a specifier of psychotic features; these psychotic features may be coded as either mood-congruent or mood-incongruent [1]. The presentation of major depressive disorder without delusions or hallucinations will be coded without psychotic features and is often referred to as non-psychotic depression throughout the literature.

Symptomatology

An individual presenting with mood-congruent psychotic features will experience delusions and/or hallucinations that align with the themes of their depression, such as personal inadequacy, guilt, death, or deserved punishment [1]. For example, an individual may report experiencing an auditory hallucination in which a voice tells him or her that he or she is worthless. Alternatively, the mood-incongruent specifier applies to individuals that experience delusions and/or hallucinations that do not align with depressive themes, or perhaps a mixture of both types of psychotic features [1]. In addition to the positive symptoms of delusions and hallucinations, individuals with psychotic depression can exhibit negative symptoms and cognitive difficulties. Negative symptoms of psychosis can include catatonia, flat affect, disorganized or derailed speech, incoherent speech, and disorganized behavior [1].

Numerous biopsychosocial risk factors of psychotic depression have been identified, and these risk factors tend to overlap with those of schizophrenia. For instance, an individual may be vulnerable to developing this disorder because they have a history of mental illness and/or psychosis in the family [17]. Additional risk factors associated with a diagnosis of psychotic depression include living alone, experiencing childhood adversity or trauma, having little social support and confidants, being unemployed, and having more neurological soft signs as evidenced by assessments such as the Neurological Evaluation Scale [17]. Further, a prominent biological risk factor for depression is the hyperactivity of the hypothalamic-adrenal-pituitary axis function in the brain, causing elevated stress hormone levels of

cortisol. This association is especially strong for individuals who present with psychotic features [29]. Higher cortisol levels are typical within this population of patients, which is associated with more severe neurocognitive functioning, especially in the domains of working memory and verbal memory [12].

Biological Symptoms

The presence of psychotic features also plays a significant role in the course of one's illness, with psychotic episodes lasting longer than non-psychotic episodes, heightened severity, more significant psychosocial impairment, and fewer periods of minimal symptoms [7]. Using recent data collected by The Mental Health in the General Population Survey, Benard et al. [3] also determined that a history of a depressive episode with psychotic symptoms is more frequently linked to a suicide attempt when compared to depression without psychotic symptoms. Comorbid psychiatric disorders are also more common in participants who report psychotic features, meaning that the risk for mania, substance use disorders, and anxiety may also be elevated for individuals with psychotic depression [3]. Therefore, severity levels of depression are highly variable between individuals who experience psychotic features and those who do not.

Severity of symptoms appear to be greater in patients with psychotic depression, primarily because of reported severe psychomotor difficulties ([20]; Thakur et al. 1998). Psychomotor retardation is a long-established component of depression and is one of the core symptoms identified to diagnose major depressive disorder (MDD [6]). Psychomotor agitation is assessed through behavior observations of posture, facial expression, degree of movements, and speech, which has been extensively studied in the context of depression [6].

Functional Impairments and Cognition

Research has found that patients with major depressive disorder with psychotic features compared to healthy controls and patients with non-psychotic major depressive disorder have more significant deficits in various cognition tests [20]. Functional impairment in major depression is attributed to many factors, including mood disturbances, cognitive dysfunction, and psychomotor retardation, among others [33]. Deficits in cognition were observed to be more severe in working memory, language, and executive functioning [12, 33]. This suggests that even though patients with psychotic depression are able to attend to information, they have increased difficulty in processing, manipulating, and encoding new information [12]. Further, Gomez et al. [12] found correlations between executive functioning and cortisol, specifically in working memory.

Rothschild et al. [24] found higher cortisol levels in the afternoon in patients with psychotic depression than schizophrenia, thus concluding that the increase of cortisol levels was likely due to the presence of psychosis in the context of an affective

disorder than just psychosis on its own [24]. Individuals with psychotic depression, when compared to those with schizophrenia, also fare worse in symptom severity related to psychomotor speed, motor skills, and displayed cognitive deficits [18]. A study by Stetler and Miller [29] found cortisol levels in patients with psychotic depression to be nearly half of a standard deviation greater than patients with non-psychotic depression.

Though more research is needed, the implications of distinguishing between psychotic and non-psychotic depression are important as complaints of concentration and memory problems can be indicative of increased impairment in working memory and other executive functioning in patients with psychotic depression [12]. Therefore, a brief neuropsychological assessment may help clarify cognitive issues and alert clinicians to underlying reasons for cognitive deficits [12]. With a lifetime prevalence of 5–20%, it is common that individuals with major depressive disorder will spend a large portion of their lives battling symptoms and dealing with functional impairment both at home and at the workplace [33].

Psychotic Depression vs. Non-psychotic Depression

Psychotic depression is estimated to be present in approximately 25% of hospital admissions; however, it often goes overlooked because patients tend to underreport symptoms of psychosis and clinicians fail to properly assess [11]. Compared with non-psychotic depression patients, psychotic depression patients experience symptoms characterized by greater severity, psychomotor disturbances, cognitive impairments, interpersonal problems, and suicidality [11]. Though there has been significant progress made in the last two decades in understanding psychotic depression, research suggests that psychotic depression and non-psychotic depression are different syndromes, with various biological features, treatment response, and clinical course [20]. A study reported that almost all forms of severe depression were associated with higher rates of psychosis at 33%. However, those with mild to moderate severity also demonstrated high rates at 15% and higher [22].

A study showed psychotic depression patients performed significantly worse than the non-psychotic depression patients on most neuropsychological assessments (e.g., WAIS-R, California Verbal Learning Test, Trail Making, grooved pegboard story learning, and figure learning) despite having comparable age, education, and severity of depression [18]. In the cognitive ability areas, significant differences were seen in psychomotor speed, motor skills, and attention. The authors suggested that these differences were independent of the disorder's severity and, instead, trait-related [18].

Though severe depression alone does not count for the presence of psychotic symptoms, those with psychotic symptoms do appear to have more severe cases of depression [20]. As evidence has supported the use of “psychosis” as a specifier, Keller et al. [20] recommend that the specifier be separate from the “severity” specifier as it is possible to experience psychotic depression at less severe forms. Furthermore, they also recommended more precise guidelines to distinguish between psychotic and non-psychotic elements of depression, such as guilt derived from hallucinations from illusion or non-delusional guilt [20].

Psychotic depression is also characterized by longer episodes and higher rates of relapse and recurrence and observable reduction in social and occupational functioning once symptoms have improved [31]. Differences seen between psychotic and non-psychotic depression patients have led researchers to tout the idea of classifying it as a distinct disorder due to the number of biological and behavioral symptoms and support for psychotic depression being biologically different from non-psychotic depression [11, 18, 28].

Treatment

Due to the severity of psychotic depression and the high incidents of suicide behavior attached to it, psychotic depression is usually treated within a medical setting to be able to monitor symptoms and suicide risk [8]. Overall, biological treatments in the form of antidepressants and antipsychotics are recommended to treat mood and psychotic symptoms. Farahani and Correll [8] conducted a study that suggests antipsychotic-antidepressant co-treatment is more effective than only antidepressant medication. However, numerous individual factors affect medications' efficacy, such as age and comorbid mental and medical conditions [4]. Most studies have also found that patients with psychotic depression tend to respond more poorly to antidepressant monotherapy than those with non-psychotic depression [31].

Antidepressants

Antidepressants are usually introduced as the first line of treatment for moderate to severe depression and psychotic depression [16]. In addition to helping people regain emotional stability, antidepressants help reduce additional symptoms such as sleep irregularities, restlessness, and lack of motivation and reduce suicidal thoughts [16]. By taking into consideration that depression is caused by chemical brain imbalances such as serotonin, antidepressants work by increasing and modulating the availability of such chemicals [16]. Different antidepressants target different chemical imbalances in different ways. Tricyclic monoamine oxidase inhibitors can have side effects such as dizziness and loss of coordination [16]. The selective serotonin reuptake inhibitors (SSRI's) such as fluoxetine have been reported to be effective in the disorder when combined with "Atypical antipsychotics" (Rothschild A. et al 2004; Meyers B. et al 2009).

Antipsychotics

Antipsychotic medications are often introduced to reduce symptoms of psychosis. Antipsychotics are medications that help regulate information in the brain derived from abnormal dopamine and other neurotransmitter transmissions [19]. By doing so, antipsychotics help the brain to organize information better and gain a clearer sense of reality. Also, it is essential to recognize when considering antipsychotics as a form of

intervention that antipsychotics are often classified into two classes, first-generation antipsychotics (FGAs), also known as “typical antipsychotics,” and second-generation antipsychotics (SGAs), also known as “atypical antipsychotics.” FGAs were developed initially in 1950 to treat psychotic symptoms of schizo-phrenia (Solmi et al. 2017).

Large scale trials have reported that SGA’s plus SSRI’s are significantly more effective than placebo or SGA alone in psychotic depression (Rothschild A. et al 2004; Meyers B. et al 2009). In contrast, in addition to treating psychotic symptoms, SGAs also help treat negative symptoms, which are the lack of ordinary positive mental activities such as social engagement, positive emotions, and motivation (Solmi et al. 2017). The caveat of antipsychotics is the side effects such as nausea, tardive dyskinesia (i.e., uncontrollable movements), weight gain, and even seizures (NIH 2020). However, individual differences and symptom severity would indicate if FGAs or SGAs are more appropriate [15]. It is crucial to maintain continuous appointments with the medication provider to assess the effectiveness and side effects of antipsychotics.

According to Schatzberg [27], the best course of treatment for psychotic depression is sometimes to use antipsychotics to stabilize the patient and then introduce antidepressants when the patient has stabilized and is more willing to accept treatment. A meta-analysis by Farahani and Correll [8] also found importance in treating psychotic depression with antipsychotics; however, they found the superior treatment was the combination of antipsychotic-antidepressant rather than the monotherapy of either medication.

Ketamine

A newer form of treatment that could be considered a potential treatment for psychotic depression is ketamine. Ketamine was originally developed as an anesthetic during the era of the Vietnam War (Torricelli 2020). However, it has also been an effective antidepressant among those that haven’t responded to other antidepressants and has a fast-acting mechanism of action that reduces symptoms of psychosis within hours (Ribeiro et al. 2016). However, the effects of ketamine are suggested to be less effective among individuals with a history of psychosis, and they may in fact experience a short-term increase in dissociative or psychotic symptoms [23].

Electroconvulsive Therapy

Another form of treatment for psychotic depression is electroconvulsive therapy (ECT). ECT can be defined as the use of brief electrical stimulation while the patient is under anesthesia, often administered by a team of medical professionals [21]. ECT is usually implemented on patients with therapy-resistant depression as well as psychotic depression (Fink, 2018). Although it is highly effective with remission rates of 95% for psychotic depression, due to the invasive nature of ECT, it is often used as a last resort option (Fink 2018). Wilcox et al. (2000) suggested that

individuals with a psychotic disorder are more likely to relapse than individuals with severe non-psychotic depression. However, people with psychotic depression can have good treatment outcomes and may be able to recover within months of starting treatment [4].

Prudic et al reported psychotics in major depression predicts positive acute response to ECT but also higher relapse rates in the month post completion of treatment concise (Biol Psych 2004). Follow-up treatment is usually indicated to prevent relapse [4]. Due to the increased risk of suicide and the potential use and changes of medications to decrease side effects, clear and ongoing communication with providers is highly encouraged [4]. Despite the efficacy of ECT treatment, its use has been limited by several considerations, including accessibility, cost, adverse cognitive reactions, and as noted above high rates of early relapse [31]. Therefore, psychopharmacological treatment should remain the first line of approach in treating psychotic depression [31].

Suicide

There is some suggestion that major depressive disorder with psychotic features has a higher morbidity and higher suicide rate [14, 20, 34]. The presence of delusions in an episode of major depression was associated with higher morbidity, as compared to non-psychotic depression, with longer duration of episodes with greater recurrence [20]. Higher mortality does not always indicate suicide, though it does increase risk factors associated with suicidality. Higher mortality rates in this population were also due to medical illnesses and other physical hazardous situations [32]. Additionally, higher levels of cortisol may have medical consequences in this population and put them at risk for conditions such as Type II diabetes, osteoporosis, or dementia [29]. Individuals with psychotic depression are also vulnerable to other diseases are associate with elevated of mortality rates, as well as situational dangers that can also contribute.

Studies in clinical and general populations have found depression to be the strongest predictor of suicide, and with the addition of psychosis and other features discussed earlier in the chapter, patients with psychotic depression present at very high risk for suicide behavior [9]. Schatzberg and Rothschild [28] discussed finding association between the presence of psychosis in patients with depression with more severe depressive symptoms, more frequent hospitalizations, worse short- and long-term course of the disorder, and greater number of suicide attempts compared to patients with non-psychotic depression.

In a study conducted to assess suicidality in patients with psychotic depression, that 59.6% of the sample reported current suicidal ideation or suicide attempt during their current depressive episode [26]. These findings are consistent with a previous study that identified suicidal ideation in 57% of patients with psychotic depression compared to 42% of non-psychotic depression patients [30]. Higher rates of lifetime suicide attempts were also seen in patients with psychotic depression, as 35.5% reported having made a lifetime suicide attempt [26]. Males were also found to be

more positively associated with suicidality in comparison to female's report of suicidal ideation [26].

A systematic review and meta-analysis of suicidality in individuals with psychotic depression found patients with psychotic depression to have significantly higher likelihood of a suicide attempt in their lifetime as well as during a major depressive episode than those with non-psychotic depression [14]. The review also found that individuals during the acute phase were 21-fold more likely to report a suicide attempt than in full remission phase [14].

Analyses revealed that younger age, psychomotor retardation, guilt, feelings of worthlessness, history of delusions in the past, and increased suicidal ideation and intent were found more commonly in psychotic as compared to non-psychotic depression [30]. Patients with psychotic depression have been found to have five times greater risk of dying by suicide than those with non-psychotic depression, though most recently a meta-analysis found the risk to be 1.21-fold in lifetime risk, as well as more likely to engage in violent methods of suicide attempt [14, 30]. Despite a shift in numbers, suicide risk continues to be significantly higher in individuals with psychotic depression than non-psychotic depression.

According to the meta-analysis done by Gournellis et al. [14], suicidal behavior and tendencies in patients with psychotic depression related to mood congruence, there are no differences compared to those with non-psychotic depression. However, patients with psychotic depression reported significantly higher levels of violent suicidal attempts and more severe outcomes, while those with non-psychotic depression had attempts that were less likely to be medically serious [14]. In another meta-analysis, the authors found on inpatient psychiatric units, suicide attempts for patients with psychotic depression were more frequent at 27.6% vs. 22.7% than for those with non-psychotic depression [34]. In the same study, the authors found the same trends in outpatient as 17.8% of patients with psychotic depression attempted suicide compared to 6.8% of patients with non-psychotic depression [34]. They also found this rate to be significantly lower than those in inpatient units [34]. The likelihood of completed suicide is also higher for patients with psychotic depression, and one study found those patients to be 5.3 times more likely to complete suicide than those with non-psychotic depression [14].

Overall, the findings indicated that during the acute phase or episode of psychotic depression, especially when a patient is hospitalized in an inpatient unit, the likelihood of a suicide attempt increases. It was also found that patients with psychotic depression have higher rates of suicide ideation, suicide attempts, and suicide completion than those with non-psychotic depression [34].

Role of Delusions and Hallucinations

A Research conducted to examine the relationship between psychotic symptom and suicide ideation and behavior found four themes derived from the patient's psychotic experiences related to suicidal behavior: (1) being "directed" to perform the suicidal behavior, (2) feeling "hounded" to death, (3) becoming "trapped" in "unescapable

darkness,” and (4) being left “bereft” of any mental control [9]. Participants in this study found it difficult to control impulsivity that was directed by delusions or hallucinations and felt they had minimal time between impulse and action [9]. Participants who reported command hallucinations stated they heard messages from gods or demons as well as visual and auditory hallucinations that instructed them to do self-harm [9]. Most reported overwhelming anxiety that caused them to want to escape those feelings [9]. A meta-analysis found late-onset psychotic depression compared to early-onset presents with more prevalent delusional beliefs of “somatic and impending disaster type” and that suicide risk might be differently associated with the type of delusion an individual experiences [14].

Conclusion

Psychotic depression is characterized by longer episodes and higher rates of relapse and recurrence, as well as observable reduction in social and occupational functioning once symptoms have improved. It is also relatively common as approximately 20% of patients with depression have psychotic depression. Numerous biopsychosocial risk factors of psychotic depression have been identified, for instance, an individual may be vulnerable to developing psychotic depression if they have a history of mental illness and/or psychosis in the family [17]. Additional risk factors associated with a diagnosis of psychotic depression include experiencing childhood adversity or trauma, having little social support and confidants, and having more neurological soft signs [17]. Further, a prominent biological risk factor for developing depression is the hyperactivity of the hypothalamic-adrenal-pituitary axis activity in the brain. This association is especially strong for individuals who present with psychotic features, higher levels of cortisol are also typical for this population [12, 29]. Higher levels of cortisol are associated with more severe neurocognitive functioning, especially in the domains of working memory and verbal memory [12].

Functional impairment in major depression is attributed to many factors including mood disturbances, cognitive dysfunction, and psychomotor retardation among others [33]. Deficits in cognition were observed to be more severe in working memory, language, and executive functioning [12, 33]. This suggests that even though patients with psychotic depression are able to attend to information, they have increased difficulty in processing, manipulating, and encoding new information [12].

Several studies discussed how difficult it may be to correctly diagnose and treat unipolar major psychotic depression, as it is often misdiagnosed as non-psychotic depression, schizophrenia, or bipolar disorder with the understanding that a manic episode has not occurred yet. This leads to prolonging symptoms for the patients, as well as not providing adequate treatment for the patients in a timely manner, which may increase the risk for suicide. Individuals with psychotic depression may feel the need to keep their psychotic symptoms to themselves during a first episode or in the beginning of the manifestation of psychosis, and unless it is appropriately assessed, they remain at high risk for suicide, as experiencing delusions and hallucinations may cause them to act on these thoughts. Despite several treatments for psychotic

depression, several studies have discussed the importance in treating psychotic depression with antipsychotics as one of the most important first line of treatment. Studies also found ECT can have a good treatment outcome and patients who receive this treatment may be able to recover within months of starting. Further, one study found the best course of treatment was the combination of antipsychotics and antidepressants rather than the monotherapy of either medication.

A longitudinal study that followed hospital admissions for 15 years found that patients with psychotic depression were twice as likely to die as their counterparts with non-psychotic depression (41% vs. 20%), though not all deaths accounted for were due to suicide; nonetheless the mortality rate is higher, and death by suicide was found to be of a more violent nature in those with psychotic compared to non-psychotic depression [32]. The risk of suicide is elevated in individuals with psychotic depression in both the acute phase of the disorder and over the lifetime; therefore, an early and accurate assessment and diagnosis are recommended not only for psychotic depression but for suicide ideation [14].

Important clinical implications continue to be derived from studies and meta-analyses linking patients with psychotic depression to higher likelihood of suicide. As such, there is strong evidence to show that impulsivity, strong feelings of guilt, shame, intense anxiety, and a chaotic mental state are risk factors for suicidal behavior in patients with psychotic depression [14]. To prevent impulsive suicidal behavior, findings highlight the need for a treatment approach focusing on modifying psychotic experiences and intense anxiety for patients [10].

Overall, findings have indicated that during the acute phase or episode of psychotic depression, especially when a patient is hospitalized in an inpatient unit, the likelihood of a suicide attempt increases. Patients with psychotic depression have higher rates of suicide ideation, suicide attempts, and suicide completion than those with non-psychotic depression. In summary, studies support categorizing psychotic depression as its own distinct disorder due to the number of biological and behavioral symptoms as well as psychotic depression being biologically different than non-psychotic depression.

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Indirect Self-Destructive Behaviors

18

Kyle Rosales, Erik Wendel Rice, and Lisa M. Brown

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Abstract

Historically, research has emphasized the importance of understanding various facets of suicidality. Researchers have prioritized studying overt suicidal behaviors (e.g., use of firearms) over covert acts (e.g., excessive substance use) largely in part due to the high lethality and urgency associated with overt suicidal behaviors. The often more indirect ways of accelerating death are less apparent but equally as detrimental. This chapter aims to illuminate the importance that indirect self-destructive behaviors have on an individual's overall well-being. It will underscore risk factors associated with indirect self-destructive behaviors and discuss clinical applications of treatment.

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Keywords

Indirect self-destructive behaviors · ISDB's · Eating disorders · Substance use · Recklessness · Impulsive behaviors · Self-reflect

Introduction

Aspects of suicidality are foremost thought of as explicit acts to take one's life. This often includes violent acts of self-harm and those that directly expose oneself to lethal injury. Behaviors that are self-destructive in nature or inadvertently expedite death are often unnoticed, overlooked, or disregarded in terms of suicidality research. This is due in part to their subtle, covert nature, and indirect influence on expediting death. These behaviors are less apparent than explicit forms of suicide but can be just as detrimental.

Suicidal behavior is considered, within the literature, to be a dimensional construct that lies on a spectrum [1]. Suicidal ideation, non-suicidal self-injury, and indirect self-destructive behaviors, which do not immediately result in death but may lead to it due to continuous damaging effects, are found within this spectrum of suicidal behaviors [1]. The ends of this spectrum include failed suicides, death by suicide, and intentions to die on the one hand, and feelings of hopelessness, worthlessness, and depression on the other [1]. Unfortunately, research has prioritized the more severe ends of the suicidal behavior spectrum. This is likely in part due to the lethality and time-limited components associated with suicidal behaviors that immediately lead to death. Consequently, few publications have focused on the most common forms of indirect self-destructive behaviors despite their association with an increased risk of overt suicidal behavior [2, 3].

This chapter aims to resolve this by illuminating how indirect self-destructive behaviors impact an individual's overall well-being and hasten death. This chapter will discuss the complexities of common indirect self-destructive behaviors and highlight their unique characteristics. Mental health, societal, and medical risk factors associated with various indirect self-destructive behaviors will be discussed as well as treatment options or assessment considerations.

Overview and Background of Indirect Self-Destructive Behaviors

Indirect self-destructive behavior (ISDB) is defined as any long-term behavior engaged in knowingly or unknowingly with a disregard of expedited death that is not considered an act of suicide by the individual [4]. Indirect self-destructive behaviors can take many forms including, alcohol or drug use, cigarette smoking, behaviors of self-neglect, disordered eating behaviors related to bulimia or anorexia nervosa, various reckless and impulsive behaviors, excessive stress, and many others [5, 6]. The exact underlying mechanism that leads to the formation or engagement of

ISDBs is not concretely known in the literature, but some theories related to their development and engagement are available.

Research suggests that disturbances occurring during the formative years of adolescence related to traumatic experiences may result in the development of various ISDBs later in life [7–9]. Adults who experienced trauma in adolescence have also been shown to report more depression, anxiety, and various other psychological symptoms than those without a history of trauma, with some research indicating that emotion regulation difficulties mediated these effects [10, 11]. Emotion dysregulation may also play a role in the development of ISDBs as some of these behaviors have been found to be associated with maladaptive coping with psychological distress and a variety of negative emotions [12–14]. Lifetime experiences of trauma have been shown to be associated with some ISDBs, such as reckless and impulsive behaviors [15].

The engagement in some ISDBs may be related to various characteristics of personality [1]. Some personality characteristics that may be associated to ISDBs include risk-taking, excitement seeking, low self-esteem, a greater tendency for denial of problematic behaviors, poor social adjustment, a present-oriented perspective, and a predisposition for impulsivity [1]. Maclaren and Best [16] found that sexual promiscuity, substance use, and eating disorders were related to characteristics of impulsivity and the need for gratification. Differences between these behaviors were also found in that substance use was related to characteristics of denial while sexual promiscuity was related to characteristics of maladaptive cognitions. Eating disorders, however, were related to characteristics of low self-esteem. Despite these findings, there is not sufficient evidence to conclude that ISDBs are directly related to personality characteristic and further research should be conducted.

Gambling, sexual promiscuity, motor vehicle accidents, binge eating, alcohol or substance use, and reckless or impulsive behaviors are all acts that are indirect, self-destructive, and frequently engaged in in society [5, 6]. Some of these behaviors are thought to be an extension of those formed in adolescence wherein the learned behavior become ingrained or automatic by adulthood. However, this is not true for all ISDBs as other behaviors are expected to develop later in life [1]. The point in life at which an ISDB was developed can be a source of difficulty for providers when they attempt to parse out normative behaviors from chronic indirect self-destructive ones [1]. Coupling this with the broadness, vagueness, and seemingly commonplace practice of some ISDBs, conceptualizing how severely and frequently an individual engages in a specific ISDB can be challenging.

To identify a behavior as an ISDB the acceleration of death and the overall negative effect on well-being must be considered. ISDBs differ regarding the specific ways in which this occurs. This chapter will take a closer look at eating disorders, alcohol and drug use, reckless or impulsive behaviors, and self-neglect focusing on exactly how death is hastened, associated risk factors, effects on well-being, and treatment considerations are to be analyzed in order to provide a more nuanced look at common ISDBs on the spectrum of suicide.

Eating Disorders

An eating disorder is characterized by a consistent disturbance of eating or related acts that result in the modified absorption or consumption of food that considerably impairs physical or mental health [17]. There are various patterns of behaviors that fall within the definition of an eating disorder, the most common including bulimia nervosa, anorexia nervosa, binge eating disorder, and subthreshold eating disorders. Keski-Rahkonen and Mustelin [18] reviewed literature on the prevalence of these disorders in Europe and found a range of frequency in the conditions. Bulimia nervosa was reported by 1–2% of women, anorexia nervosa by 1–4%, binge eating disorder by 1–4%, and subthreshold eating disorders by 2–3%. About 0.3% of men reported any of these eating disorders and 0.7% reported subthreshold ones. The prevalence of eating disorders consistently appears to vary significantly by sex, with bulimia nervosa and anorexia nervosa being reported to occur at about a 10:1 female-male ratio. These sex differences are far less significant in those with binge eating disorder. Additionally, binge eating disorder differs from the other common eating disorders in that they are seen more readily in individuals seeking to lose weight [17].

The engagement in modified absorption or consumption of food that is seen in those with eating disorders can lead to a plethora of medical complications, and can be considered consequences of purging behaviors, starvation, or binge eating [19]. Purging behaviors can lead to cardiac arrhythmia, starvation can lead to cardiac muscle wasting, and binge eating can lead to esophageal or gastric ruptures. These complications are just a few of those that are possible as the result of engaging in these behaviors, and along with various other complications, may lead to or hasten death [19, 20]. Mortality rates for individuals with bulimia nervosa or an eating disorder not otherwise specified diagnosis are elevated in comparison to those without these diagnoses. Anorexia nervosa displays the greatest rate of mortality with an annual mortality rate of 5/1000 person-years [21]. Medical complications are not the only adverse effects seen in those who engage in this type of ISDB.

Those with a history of eating disorders have been found to be significantly more likely to report emotional and psychological problems [22]. Psychological and mental health issues are notable and various diagnoses are highly comorbid in those who engage in this ISDB. Individuals with anorexia nervosa have shown lifetime rates of comorbidity of 47.9% with any anxiety disorder, 42.1% with any mood disorder, and 27.0% with any substance use disorder. Bulimia nervosa has been shown to have similar results with lifetime rates of comorbidity of 80.6% with any anxiety disorder, 70.7% with any mood disorder, and 36.8% with any substance use disorder. Binge eating disorder follows a similar pattern with results of lifetime rates of comorbidity of 65.1% with any anxiety disorder, 46.4% with any mood disorder, and 23.3% with any substance use disorder [23]. While these psychological stressors are seen in congruence with common eating disorders and the associated negative consequences are apparent, the presence of these issues do not account for why this ISDB is developed. Other factors, however, have been associated with increased risk of eating disorders developing or being present.

As outlined earlier, females significantly outnumber males when it comes to the lifetime presence of an eating disorder, specifically for anorexia nervosa and bulimia nervosa. Various research has been conducted to attempt to explain why there is such a substantial difference in prevalence between the sexes; one explanation for these differences is societal influence. Epidemiological and cross-cultural research supports this explanation as findings emphasize the internalization of the thin ideal as a social risk factor that substantially contributes to severe weight controlling behaviors, which are the basis of eating disorders, in women [24]. Participation in activities that value thinness such as ballet, modeling, or gymnastics are also notable risk factors for anorexia nervosa. Additionally, socioeconomic status is associated with increased risk wherein middle- to upper-class females have a higher likelihood of being diagnosed with anorexia nervosa [25]. Adolescence has also consistently been found to be a risk factor in the development of eating disorders, specifically bulimia nervosa and anorexia nervosa. These disorders tend to occur during adolescence with a reduced likelihood of its onset later in life [23]. Lastly, genetics has been shown to be associated with the potential development of eating disorders. Familial and twin studies have demonstrated that genetic factors may influence the risk associated with the development or lifetime prevalence of anorexia and bulimia nervosa [26, 27]. Future research on genes and environmental influence is needed to isolate specific associated risks.

Lower life satisfaction and impaired emotional well-being has been found in college students with eating disorders, and showcases the need for intervention [22]. There are a variety of treatment methods to combat common eating disorders, but the most empirically validated forms of psychological treatment for bulimia nervosa, anorexia nervosa, and binge eating disorder are family-based treatments and cognitive behavioral therapy [28–31]. Treatments for disordered eating ISDBs are more focused on the associated disorders rather than underlying issues that may have facilitated their development. Family-based treatments are primarily designed for adolescents as they incorporate the parental figure and entire family unit as a source of support for the patient. The process is collaborative, but parental authority is needed due to the health crisis these disorders pose [32, 33].

The cognitive behavioral therapy (CBT) treatment for anorexia nervosa with the strongest efficacy focuses on relapse prevention following weight gain inpatient treatments, post-hospitalization. This treatment focuses on behavioral and cognitive features associated with maintaining problematic eating pathology [29]. CBT for bulimia nervosa directly targets binge eating, excessive concern with body weight and shape, and inappropriate compensatory behaviors. This treatment specifically focuses on addressing factors that promote the binge-purge cycle and the subsequent negative consequences [34]. CBT for binge eating disorder focuses on reducing dietary restraint through behavioral strategies as well as modifying distorted thoughts or beliefs about one's body weight or shape [35]. All these treatments prioritize immediate behaviors and cognitions that maintain problematic food intake patterns rather than potential emotion regulation difficulties that are associated with this ISDB [13]. This is done to immediately address the health concerns that arise from the continuous engagement of eating disorder related ISDBs which ultimately

lead to or hasten death. It is imperative for clinicians to remember that treatment of these disorders is paramount not only due to the negative aspects related to mental health, but also due to how death is hastened as a result from their engagement.

Substance Use

Various populations and cultures across the globe engage in the use of substances. The World Health Organization identified alcohol to be the most used psychoactive substance with the highest demand for treatment across the globe in 2010. Global trends indicated that alcohol and drug use was more common among males than females, and that the use of alcohol and drugs result in adverse global consequences [36]. A distinction in research exists between the use of a substance resulting in impairments and usage without such consequences [37]. Within the literature, the addictive and abusive use of substances is regarded as an ISDB due to the death hastening effects seen with continuous use [38]. Prevalence for substance use disorders (SUDs) vary by substance and region. Within the United States, 14.8 million people or 5.4% of the population 12 years or older met criteria for alcohol use disorder (AUD) in 2018. About 8.1 million people aged 12 years or older met criteria for illicit drug use disorder, which includes various substances such as heroin, cocaine, marijuana, methamphetamine, and prescription drugs [37]. Diagnostic criteria for the prevalence of the disorders listed utilized the DSM-IV. These prevalence rates highlight the commonality of the problematic use of these substances and underscore the need for these behaviors and their destructive consequences to be better understood. The prolonged use of substances is highly self-destructive and results in an extensive number of adverse effects related to physical health, mental health, and mortality.

Several notable problems arise that lead to or hasten death when substance use is engaged in as an ISDB. A multitude of medical complications and increased rates of mortality related to both unintentional overdose and motor vehicle accidents can occur as a result of this ISDB [39–43]. As alcohol is more commonly used than other forms of substances the destructive consequences that stem from its abuse are well-researched. The most notable medical complication with a clear association to the abuse of alcohol is alcoholic liver disease and cirrhosis [42, 44]. About 20% of heavy drinkers develop fatty liver which leads to hepatitis. With continued alcohol use about 40% of cases can develop into cirrhosis and the mortality rate at this time is approximately 50% [42]. Anywhere from 10% to 15% of people with AUD develop cirrhosis and survival depends on if consumption ceases upon diagnosis [42].

The negative medical effects that hasten death via the use of other substances is also documented. Drugs that can be administered via injection, such as heroin and cocaine, have been shown to result in death related to tetanus and hepatitis. Additionally, various infectious diseases are easily transmittable with the use of needles including tuberculosis, malaria, and HIV which all come with their own medical complications [45]. Cocaine ingested via other means comes with medical complications related to cardiac and neurological issues that are attributed to the substance

itself. This can result in strokes and cardiac arrhythmias which can cause sudden death [45]. Cardiac related issues have also been shown to arise with the use of methamphetamines and prescription stimulants that can result in death [45]. There are several other medical complications that are caused by using substances which accelerate death, the ones listed here are just a few examples. Medical complications that result in or hasten death is only one way in which death can be accelerated by this ISDB.

Several studies have shown that unintentional overdose and deaths resulting from motor vehicle accidents are prevalent ways this ISDB can be fatal. Currently, poisoning resulting from drugs is the leading cause of unintentional death in adult Americans. Prescription opioid use is especially likely to result in poisoning and has been shown to be responsible for almost half of drug overdose deaths [43]. Heroin, cocaine, and methamphetamines have also been shown to result in fatal overdose and contribute alongside opioid use to overdose being the leading cause of unintentional death in the United States [46]. Alongside unintentional overdose, many substances including alcohol, cannabis, methamphetamines, cocaine, and opioids have all been shown to be associated with fatal motor vehicle accidents [39]. Research also indicates that the combined use of substances may result in an additional risk of injurious motor vehicle accidents. The discussed mechanisms associated with various substance use that hasten or lead to death align with the established literature that prolonged and abusive use of substances is associated with heightened mortality rates [40, 41]. The adverse effects from the ISDB of substance use are clear, but these consequences do not account for their development.

There are several notable risk factors commonly associated with the use of substances as an ISDB. The presence of a comorbid mood or anxiety disorder has been found in multiple studies to occur at increased rates with substance use disorders [47, 48]. Research conducted using DSM-IV criteria found that the strongest associations and frequencies of comorbidity were between illicit drug use disorder and major depression. This was followed by illicit drug use disorder and any anxiety disorder, AUD and major depression, and AUD and any anxiety disorder [48]. Depression has been extensively researched in relation to SUDs and has been found to be a notable risk factor for their future development [49]. Adolescents have been found to be a population that is particularly at risk for the development of an SUD. Within this group there are several risk factors that have been identified that may further increase risk of SUDs developing such as psychological dysregulation, a PTSD diagnosis, and parental history of substance abuse as well as various trauma related experiences such as sexual assault, physical assault, or bearing witness to violence [50, 51]. In adolescence, factors specifically related to environment or upbringing are also noted to influence the development of SUDs, such as overall family functioning, peer influence, and parenting practices [51]. Theoretical understandings related to the risks associated with the development of SUDs and the adverse effects associated with this ISDB have informed treatment practices that have found to be beneficial in reducing or ceasing usage.

Life satisfaction and overall well-being have been shown to be negatively associated with the chronic or abusive use of various substances in adolescents

and college aged individuals. While there are many theories that attempt to explain these findings, one prominent explanation is that substances are being used to maladaptively cope with psychological pain and distress [52]. This is informed by theory related to substances being used as means to cope with negative effects of mood disorders which is further supported by the frequency of comorbidity found between mood disorders and SUDs [49]. There are several options available for the treatment of various substance use disorders that are thoroughly researched and efficacious including motivational interviewing, CBT, and couples' treatments [53–55]. CBT protocols can be highly varied but tend to include a few key components of treatment, including a focus on cognitions, behaviors, motivation, and skills training [54]. Skills training includes the building of emotion regulation skills such as distress tolerance and coping skills, which is an aspect of treatment that is particularly beneficial for those who may be engaging in substance use as a means of maladaptively coping with negative emotions [54]. In conjunction with the other major components of CBT, engagement in the ISDB of substance use can be effectively reduced or abstained from.

Recklessness and Impulsive Behaviors

Reckless and impulsive behaviors (RIBs) are unique among ISDBs in that they can be a contributing factor to other ISDBs or can be defined separately as their own category. One reason for this is that the act of engaging in risky/reckless or impulsive behaviors is part of diagnostic conceptualizations involving trauma, personality, and addictive disorders which can contribute to self-destructive behaviors [17]. Some ISDBs, however, such as substance abuse and eating disorders, both carry a specific risk of harm to the individual, as well as documented difficulty with impulse control [56]. So, while RIBs can be a contributing factor to some ISDBs, there are also several more overt forms that may directly result in permanent harm and hasten death. It should be noted that while there is overlap between risk, recklessness, and impulsivity, they are seen as distinct in the literature, even if they are addressed under a single umbrella term in regard to ISDBs. Arnett [57] differentiates risky behavior as socially acceptable thrill-seeking or other behaviors with limited consequences, in comparison to recklessness which he described as acting without precautions to obvious and avoidable danger. It is acknowledged by Arnett however that there is a lot of overlap between the two, and in the literature it is often interchangeable [17, 58–60].

Similarly, according to Moeller et al. [61] impulsivity has not been clearly defined in the literature, despite being present in a variety of DSM diagnoses. Hamilton et al. [62] described impulsivity as a “predisposition toward rapid, unplanned reactions to internal or external stimuli with diminished regard to the negative consequences of these reactions to the impulsive individual or to others.” With the scope and variability in these terms, identifying and defining exact prevalence rates for these behaviors can be a challenge. RIBs can vary widely in presentation, prevalence, and can contribute to many potential risks for harm, and as such not every form of this

ISDB can be discussed. A few key examples however, such as engaging in dangerous driving, as well as behavioral addictions such as gambling, all carry the danger of causing permanent harm to self or others.

Vehicular injury is currently the leading cause of death for young adults aged 15–24, the second-most leading cause of death for adults aged 25–44, and is also one of the most likely causes of non-fatal serious injury to adults across age ranges [63]. Reckless driving for young adults has been estimated to contribute significantly to these vehicular mortality rates [64]. In 2018 the National Highway Traffic Safety Administration found that more than 30% of fatal accidents were caused by speeding, driving under the influence, or driving carelessly [65]. The risk of death and the risk of lifelong complications due to serious injury are clear consequences of these behaviors. Long-term physical injury, medical complications, loss of functioning, psychological trauma, and harm to others are all potential adverse outcomes for those who may engage in this form of ISDB. Impulse-control disorders as well as behavioral addictions such as gambling disorder are another facet of this ISDB, having been shown to cause major economic and psychological harm and have a direct link to impulse control difficulties [66]. Research has shown that a condition like problematic gambling can harm financial stability, emotional or psychological well-being, physical health, career success, and can even lead to increased substance use, criminal activity, or more widespread community harm [66–68].

Several different risk factors have been found that might contribute to reckless behaviors, with age and gender having been found to be highly associated with reckless driving [69]. While the risk of reckless driving was highest with young men, several other psychosocial factors were found to influence recklessness while driving [70–72]. McNally and Bradley [71] used exploratory factor analysis to find that among young drivers there were four distinct categories of reckless driving: distracted driving, driving under the influence, driving a vehicle beyond its design expectations, and dangerous positioning in relation to other vehicles. Sarma et al. [72] found that social and environmental factors such as attitudes toward speeding, perceived control, and positive social reinforcement all played a role in reckless behavior. While other literature has also found strong correlations with sensation seeking behaviors, under-developed threat assessment, aggressive behavior, and personality characteristics as associated risks for developing the ISDB of reckless driving behavior [57–59]. Luk et al. [70] also found that impulsivity had a significant interactive effect on many forms of reckless driving and that it may consistently influence risky driving with high-risk young adults.

Risk factors for gambling disorder had similar age and gender risk factors to those found in reckless driving, with men ages 18–24 being at the highest risk for gambling disorders [73, 74]. In addition to age and gender risk factors, substance use, low socioeconomic status, identifying as a minority, and access to a variety of options for gambling were all significant risk factors in developing problematic gambling. The literature emphasized how impulsivity needs to be assessed through a multidimensional framework due to the variety of associated risks [73, 75]. Although substance use has been suggested as a cause for developing impulsivity issues seen in problematic gambling, research has found impulsivity

is a risk factor found in both substance use and gambling independent of one another [76]. Other psychological disorders that have central elements of impulse-control issues were also highly co-morbid with gambling [77].

The danger of serious physical harm due to risky driving, substance use, or sexual practices, and the risk of serious economic, social, legal, and psychological harm caused by impulse control disorders and behavioral addictions show how impulsivity and recklessness as an ISDB can cause serious personal harm [56]. Treatment for reckless and impulsive behaviors, however, tends to address specific conditions that include these behaviors rather than addressing them individually. There are well-established therapies for disorders such as ADHD, PTSD, impulse-control, and addictive disorders that all incorporate strategies for managing the reckless and/or impulsive aspects of these conditions. Moeller et al. [61] found that there was strong evidence for deficits in problem-solving and emotion coping strategies in populations with impulse issues. Therapies such as CBT and DBT were both found to be efficacious in developing problem-solving, emotion regulation, and distress tolerance skills, as well as reducing overall levels of impulsivity [61]. CBT or related therapies such as DBT and CPT were found to be efficacious in treating a number of other conditions that have RIBs including gambling disorders, ADHD, and substance use disorders [61, 78]. In addition, because reckless behaviors are more common in younger age groups, family-focused therapies were tested and shown to be as effective or even more effective in treating adolescent substance use and risk-taking behavior [79].

Self-Neglect

While older adults still engage in other previously discussed ISDBs, acts of self-neglect are especially salient for this community. Elder self-neglect is a global health issue that may result in more deaths than direct methods of ending one's life [80]. Self-neglect is a broad term in which there is little consensus on an exact definition. Some definitions of the term include behaviors such as failure or refusal to provide oneself adequate shelter, food, water, medications, personal hygiene, and compliance with needed medical treatments [80, 81]. Exact rates of prevalence can be difficult to identify due to methodological inconsistencies related to varying operational definitions, but within a community population sample of Chinese older adults in Chicago, the rate of self-neglect was found to be 29.11% [82]. Similarly, 22.8% of South Korean older adults who lived alone were found to have been engaging in some form of self-neglect [83]. As self-neglect is relatively common, wide in scope, and severely destructive to one's life to the point of ultimately hastening and indirectly resulting in death, specific acts within this ISDB will be reviewed.

A common form of self-neglect in older adults is medication nonadherence, which is a term that describes medication-taking behaviors that do not align with the prescribed regimen [84]. Older adults take more medications than individuals from other age groups on average, and about 50% of them are

nonadherent [85]. Nonadherence to medications has been associated with worse patient outcomes, reduced functioning, increased mortality, and an exacerbation of disease severity [86, 87]. Additionally, medication nonadherence has been shown to explain one-fourth of admissions to nursing homes, one-fifth of preventable negative drug effects in a community sample, and one-tenth of medical emergency admissions in older adults [88]. As medication nonadherence directly influences the illness the medication was prescribed to treat, failure to properly adhere to medication regimens primarily results in medical complications which can lead to death.

Medication nonadherence is one common way self-neglect arises as an ISDB, but other detrimental acts such as refusal to provide oneself with food, water, or shelter are also frequently seen. These acts are under-researched as an ISDB in comparison to nonadherence to medications or treatment recommendations but come with a plethora of medical repercussions that can lead to death. Nelson and Farberow [89] reported that in a sample of older men who were engaging in various ISDBs, 43.7% displayed injurious eating behaviors. These findings are supported as self-starvation has been found to be the most frequent ISDB method used among institutionalized older adults [90]. Starvation leads to several medical complications that result in and hastens death including cardiac wasting and arrhythmias [19]. The ISDB of self-neglect is devastatingly harmful, but exactly how engagement in self-neglect is developed is not clear. Despite this, some associations have been identified that increase the likelihood of self-neglect being engaged in.

A notable risk factor for self-neglect in older adults is psychological distress and depressive symptoms [91]. Associations between depressive symptoms and self-neglect reports made to Adult Protective Services were found in a study on older adults [92]. In South Korea older adults who were engaging in ISDBs of self-neglect were also found to have higher levels of depression symptoms [83]. Researchers also found social support to be an important factor regarding risk of engaging in an ISDB of self-neglect. In South Korea older adults lack of familial support was identified as a risk factor for self-neglectful behaviors [83]. Similarly, older adults who had fewer social engagements or who had smaller social networks were found to be more likely to self-neglect [93]. Additionally, socioeconomic status is a potential risk factor for self-neglect, but research varies as to its level of significance. Some researchers have found that higher SES is associated with a lower frequency of self-neglect, while others have not found this factor to be significant [83, 94]. The greater the number of medications within an older adult's regimen was also found to be associated with the risk of medication nonadherence as an ISDB of self-neglect. In addition, level of physical functioning was identified as risk factor for medication nonadherence [95]. This may suggest that factors outside of self-neglect related behaviors are of specific interest when it comes to medication nonadherence. Future research is needed on the specific associated risks of engaging in the ISDB of self-neglect as answers may illuminate additional ways of prevention.

As with other ISDBs, engagement in self-neglect, including medication nonadherence and refusal of food, were found to be associated with lower quality of life scores. This held true across four domains, including psychological health, physical health, social relationships, and the individual's environment [96]. Treatment to

combat this for the ISDB of self-neglect takes many forms, but in general is focused more on assessing that self-neglect is occurring rather than specific psychological interventions. Given the elusive nature of self-neglect and the covertness of the many behaviors that fall within this concept, assessing whether an older adult is engaging in some of these behaviors is critical. A network of caretakers, doctors, nurses, therapists, communities of faith, and other individuals or systems with which the older adult regularly interacts should be observant to potential signs of self-neglect. This allows for a multidisciplinary and multi-perspective way to assess for issues related to shelter, food, water, medication adherence, hygiene, and treatment adherence in older adults [91]. Assessments can then help various providers take the steps needed to prioritize the older adults' immediate needs and seek out useful resources [97].

Additionally, as depressive symptoms are a risk factor for engaging in self-neglectful behaviors, and symptoms may be present as behaviors are being engaged in, treatment centered on alleviating these symptoms is advisable [92]. CBT and reminiscence therapy have been found to be well-established treatment options for combating depression in older adults [98]. Complex medication regimens that are associated with medication nonadherence, and have been identified as a notable risk factor, should be addressed if applicable. Physicians may need to focus on medication reconciliation to alleviate the complexity of taking multiple medications [99]. Generally, self-neglect is a particularly difficult to assess ISDB, but as it is extremely detrimental to older adults who engage in the many behaviors encompassed within the term it is important that it is better understood by those who can take steps to mitigate or prevent its negative effects that can ultimately lead to death.

Conclusions

In sum, an indirect self-destructive behavior is a term used to describe a wide range of actions that a person might take that could lead to death when continuously engaged in, but that are not overt or direct acts that lead to loss of life. These behaviors are difficult to quantify because they may present outside of what is typically considered within a clinician's assessment of suicide risk, may be behaviors that often co-occur with other disorders, or the characteristic problems of a diagnosis may overshadow the death hastening features of the engaged in behavior. Understanding in greater detail the common forms these behaviors arise as, their prevalence, how death is hastened, risk, and treatment is important to fully conceptualize the client's needs. While these behaviors may not always be seen regarding their risk of death to self, they are crucial because they represent an under-researched area of long-term, lasting harm. This aspect of these behaviors not only represents an unaddressed need of the patient but can lead to more detrimental outcomes if not treated. It is because the death hastening aspect of these behaviors are ordinarily overlooked that a greater attention to associations of risk, assessment, and treatment is necessary. Clinicians often forget that ISDBs are along the suicide spectrum and pose a real risk of death to their clients. This is especially true considering how the engagement in ISDBs may increase risk of overt suicidal behavior.

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Promoting Healthy Development and Preventing Suicide Across the Life Span: Individuation and Attachment in Matched Biblical and Graeco-Roman Narratives

19

Kalman J. Kaplan

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Abstract

This chapter proposes a two-axis approach of human development to the problem of preventing suicide across the life span (i.e., individuation-deindividuation and attachment-detachment). We apply this thinking to the Eriksonian model of consecutive life stages. Typical interpretations of Erikson suggest healthy development is achieved by resolving the crisis at each of his life stages *horizontally* in favor of the *syntonic* as opposed to the *dystonic* ego quality of that stage (e.g., trust instead of mistrust). Our two-axis view, in contrast, suggests that each stage is entered at the *dystonic* position (e.g., mistrust) and must be worked through *vertically* to achieve *syntonicity* (e.g., trust) necessary to move ahead successfully to the next advanced life stage. Successful development involves forward regression to the next life stage (temporarily moving backward in position to move forward in stage). In contrast to this successful congruent developmental advance is potential suicidal crisis engendered by an incongruent resolution of the individuation-attachment challenge at each life stage. This is accentuated by premature pressures to force an individual ahead to a more advanced life stage that he/she may not yet be able to cope with.

Keywords

Erikson · Development · Stagnation · Suicide

Introduction

This chapter proposes a two-axis approach of human development to the problem of preventing suicide across the life span (i.e., individuation-deindividuation and attachment-detachment). We apply this thinking to the Eriksonian model of consecutive life stages. Typical interpretations of Erikson suggest healthy development is achieved by resolving the crisis at each of his life stages *horizontally* in favor of the *syntonic* as opposed to the *dystonic* ego quality of that stage (e.g., trust instead of mistrust). Our two-axis view, in contrast, suggests that each stage is entered at the *dystonic* position (e.g., mistrust) and must be worked through *vertically* to achieve *syntonicity* (e.g., trust) necessary to move ahead successfully to the next advanced life stage. Successful development involves forward regression to the next life stage

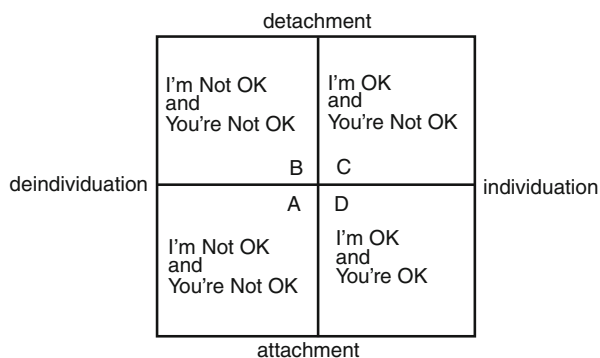
(temporarily moving backward in position to move forward in stage). In contrast to this successful congruent developmental advance is potential suicidal crisis engendered by an incongruent resolution of the individuation-attachment challenge at each life stage. This is accentuated by premature pressures to force an individual ahead to a more advanced life stage that he/she may not yet be able to cope with.

The paradigmatic life-promoting biblical stories of Elijah, Job, David, Moses, Jonah Rebecca, and Ruth are contrasted in this regard to the matching suicidal Greek and Roman stories of Ajax, Zeno, Coriolanus, Oedipus, Narcissus, Phaedra, and Antigone.

Even an experienced clinician may become apprehensive when faced with a potentially suicidal patient. Some of this apprehension is undoubtedly functional in evoking appropriately increased caution in the treatment approach. However, such nervousness may also lead the clinician to shy away from and indeed stigmatize the patient, seeing him as somehow removed from normal developmental issues of life. To be sure, the clinician working with a suicidal patient must be cognizant of the life and death issues unique to that patient. However, it is important that this be done in a way that places the suicidal crisis within the context of human development. Developmental stage theories have suggested that there is a general tendency for people to face certain issues at specific life stages. What may represent a suicidal risk for an adolescent may be a quite normal life challenge for an older adult and vice-versa. "Failure to survive" may manifest itself differentially across the life span. It may be quite instructive to compare matching biblical and Graeco-Roman narratives in this regard. Why are there so many suicides in the Greek and Roman narratives and so few in corresponding biblical narratives facing the same life stressors?

Perhaps the best known of developmental stage theories has been developed by Erik Erikson. Erikson describes eight different stages of life, each presenting its own psychosocial crisis. Later in this chapter we will present a taxonomy of these stage-specific crises. If the crisis is satisfactorily resolved, a positive quality is added to the ego. If it is unsatisfactorily resolved, a negative factor is added. For example, the crisis at infancy between the infant's physiological needs (hunger, contact, etc.) and caregivers' response leads to the acquisition of the positive ego quality of *basic trust*,

Fig. 1 Bidimensional distancing and Transactional analysis (Kaplan et al. 1984, p. 118). Note: The letters and wording in the quadrants have been changed in Fig. 1, and they thus differ from the presentation in the 1984 Kaplan, Capace, & Clyde article in the 1971 Ernst OK Corral



or to the negative quality of *basic mistrust*. The toddler facing fecal embarrassment develops shame or autonomy; the play age child develops guilt or initiative. Later stages are discussed in depth below [1–4].

A Two-Axis Model of Healthy Development Versus Pathological Fixation

It is the thesis of this chapter that pushing an individual to move to a more advanced stage before he/she has satisfactorily resolved the earlier stage can lead to a developmental crisis, sometimes suicidal in nature [5]. In contrast, the present chapter builds on a two-axis stage approach to human development that has been proposed by Kaplan and his colleagues. The essence of this approach is to divide interpersonal distance into two axes: *individuation-deindividuation* and *attachment-detachment*. Figure 1 presents this in a quadrant using the terms of transactional analysis of what has been labelled the OK Corral [6–10].

Individuationdeindividuation is designated by internal circle icons or *boundaries* and differentiated as the full capacity to differentiate (represented by a dark-line circle), semi-capacity to differentiate (represented by a light-line circle), or no capacity to differentiate (represented by a broken-line circle) from these same external objects. *Attachment-detachment* is designated by external square icons or *walls* and defined as the full capacity to bond with others (represented by a broken-line square), semi-capacity to bond (represented by a light-line square), or no capacity to bond to others (represented by a dark-line square). This is illustrated in Table 1.

Figures 2 and 3 differentiate healthy development from clinical fixation and self-destructive attempts to break out of it.

Bidimensionalizing Erikson

Healthy development is achieved by resolving each stage crisis *horizontally* in favor of the positive or syntonetic as opposed the dystonic ego quality. My two-axis view of Eriksonian stages proposes that an individual is propelled by a life event (e.g., weaning) into the negative or dystonic position (e.g., mistrust) and must move

Table 1 Icons representing capacity regarding external objects

Attachment/Detachment	Individuation/Deindividuation
 Full Capacity to Bond	 Full Capacity to Differentiate
 Semi-Capacity to Bond	 Semi-Capacity to Differentiate
 No Capacity to Bond	 No Capacity to Differentiate

Fig. 2 Healthy development

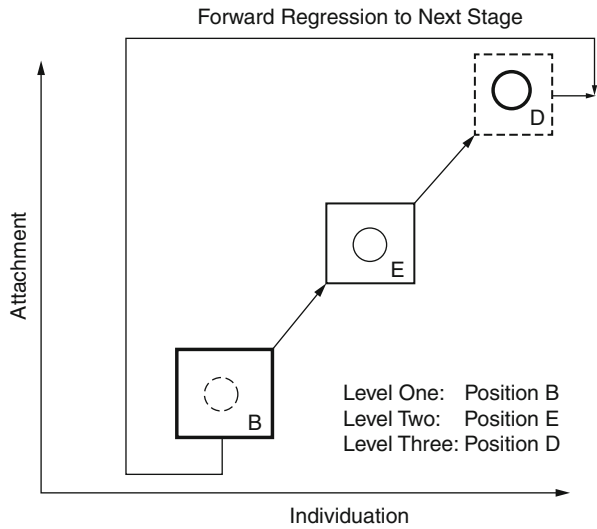
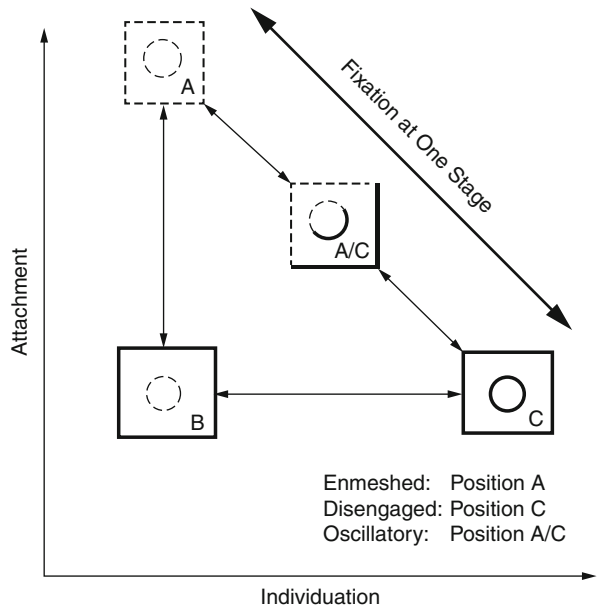


Fig. 3 Clinical fixation



ahead *vertically* to achieve the positive syntonc quality (e.g., trust) and to attain a stage-specific syntonc equilibrium. In turn, a subsequent life event or stressor (e.g., toilet training) *forwardly regresses* the individual into a new dystonicity (e.g., shame) with regard to the now-broader social radius, parental persons. *In other*

words, what I am suggesting is that successful development involves not the avoidance of the negative or dystonic ego qualities at each stage but the very plunging into each of them as the natural sequela of the preceding life event. Successful development involves working through a stage vertically to attain the respective stage-specific positive or syntonic ego position, followed by *forward regression* to the next advanced stage.

The term *forward regression* is applied to this simultaneous regression in level (e.g., trust to shame,) in an advance to the next stage, where the within-stage process from dystonic to syntonic ego quality must be once more worked through. Thus a toddler who has mastered his home environment will likely forwardly regress to a more tentative coping style when he first enters preschool.

The purpose of this approach is to provide the working clinician with a set of guidelines to distinguish at each life stage an individual undergoing healthy stage-appropriate development from one clinically fixated. A life event introducing a more advanced stage life should impact on these two individuals in very different ways. The life event may be a quite normal stressor and even represent an invigorating challenge for the healthily developing individual, but a potential suicidal trigger for the clinically fixated individual. The working clinician may support, encourage, and even facilitate the event for the first type of individual but attempt to delay or even prevent the event for the second type of individual.

Within-Stage Dynamics

We have differentiated developmental and clinical axes above: a developmental B- > E- > D axis (Fig. 2) and a clinical A<->C axis (Fig. 3). Let us consider the developmental B- > E- > D axis first.

Cell B represents an individual confronted with a stressor who becomes temporarily disoriented. He can be described as deindividuated and detached. He by definition is immature and needs to defend himself. So he constructs a wall around himself. *Deindividuation* (represented by a broken-line circle) represents a low state of individual organization and definition, and *detachment* (represented by a dark-line square) can be thought of as defensive in structure. An impermeable wall is necessary to shield the inarticulately defined individual from external engulfment.

In Cell E, the individual is slowly maturing out of his disorientation and can be described as semi-individuated and semi-attached. A modicum of self-definition has been achieved, a semi-articulated boundary (light-line circle), but some defensive structure is still necessary, a semi-permeable wall.

In Cell D, the individual has fully adjusted to the stressor and can be described as fully individuated (dark-line circle) and attached. Here the defensive structure can be quite minimal, a permeable wall (broken-line square) as there is little danger of external engulfment.

The logic of this developmental axis is simply that the loosening of one's defenses (i.e., greater permeability of walls) should occur in conjunction with the strengthening of one's ego (i.e., greater definition of boundaries). The specific manifestations

of each of these positions should vary with the stage; however, their general form should remain invariant. Healthy development at each stage requires an ongoing *congruency* between individuation and attachment. Pathological development, in contrast, manifests as fixation on or continuous oscillation between individuation and attachment. (Kegan, in contrast, seems to outline the spiraling, alternating, or oscillating view of expression of these two forces as indicative of normal development [11, p. 108].) Specifically, we see it as reflecting *incongruent* resolution of the individuation-attachment dilemma, i.e., imbalanced movement from B to either A or C. What makes this A-C axis clinical (Fig. 1b) is the bad fit and lack of coordination between walls and boundaries.

The A individual attempts to become attached to the external world before achieving individuation, resulting in what we call *enmeshment*-loosening defenses (permeable walls, represented by broken-line square) while the ego is still ill-defined (unarticulated boundaries, represented by broken-line circle). The C individual, in contrast, is *disengaged*-remaining detached even after becoming sufficiently individuated-holding onto defenses (impermeable walls, dark-line square) even after the ego has become sharply defined (articulated boundaries, dark-line circle). The A/C individual is split between these contradictory tendencies, oscillating unstably between these two styles.

To help the individual escape the A-C clinical axis and begin to develop integrated individuation and attachment, the therapist must facilitate backward regression to the B-level in the same stage. From this position, the B->E->D journey may be traversed, preparing the individual for healthy forward regression to the next stage.

Between-Stage Dynamics

It is this point of transition between stages that challenges the individual to achieve healthy integration or suffer suicidal disintegration. These two alternatives are portrayed respectively in Fig. 3a and b. In each figure, the life event is portrayed as a “tube” leading from the D level at Stage (i) to the B level at Stage (i + 1). Non-suicidal integrations (Fig. 2a) are indicated by healthy developmental progression from Level (B) to Level (E) to Level (D) within a specific stage. Each successive stage must be entered at Level (B). In other words, “progression in stage” is achieved through “regression in level” and is precipitated by the specific *life event* initiating the next stage. Here the stance of the therapist should be to facilitate or encourage the life event that precipitates the next stage- Level $B_{(i+1)}$ that *forwardly regresses* the individual from D_i to $B_{(i+1)}$. Although the individual may experience a temporary adjustment reaction (B) upon entering a new stage, he will recover his/her equilibrium (E) and ultimately will flourish (D).

On the other hand, suicidal disintegrations are indicated by clinical fixation on the A-C axis. Such enmeshed-disengaged behaviors indicate that the individual may be unready for Level $B_{(i+1)}$. Although an individual might have stabilized in the A (enmeshed) or C (disengaged) positions within a stage, the demands of $LE(i + t)$

may actually prompt an A-C individual at Stage (i) to attempt an A/C_i (borderline or even psychotic) resolution. This may present as a pseudo-D (pseudo-mature) position, which may serve to mask pathology both to self and to others. However, it does not represent any true integration between individuation and attachment, and may even deepen the disintegrative process as it disguises it. Extreme distress can result from the attempt to *simultaneously* apply A and C styles, creating a potentially explosive level of stress as the individual tries to resolve the apparently irreconcilable opposites to cope with the unaccustomed challenges of the new life stage. The outcome of this crisis might be that the pressure of this inadequate coping style would propel the individual through the life event into the next stage on the A-C axis, if not into a suicidal disintegration. Here, the therapist must attempt to delay the life event, or to protect the individual from its effects as much as possible, while facilitating backward regression to the same-stage B level. From this position, healthy development of integrated individuation and attachment may be achieved, allowing normal forward regression to the next stage. The difference between these two axes is portrayed in Fig. 4.

Table 2 summarizes this process at each stage, listing the premature life events as triggering events and the resultant A/C reactions as suicidal behaviors. In such a situation, the stance of the therapist should be to delay life event ($i+1$) or protect the individual from its effects until the individual indicates readiness for it in terms of showing healthy resolution on the $B \rightarrow E \rightarrow D$ developmental axis.

While the pattern of development described above applies to infants, toddlers, and play age children, suicide is a rare occurrence in young children. These stages are therefore omitted from Table 1 and are not discussed in this chapter which begins at Stage 4: School Age. It should be noted, however, that failure to achieve healthy integration of attachment and individuation at the earliest stages may set a pattern of

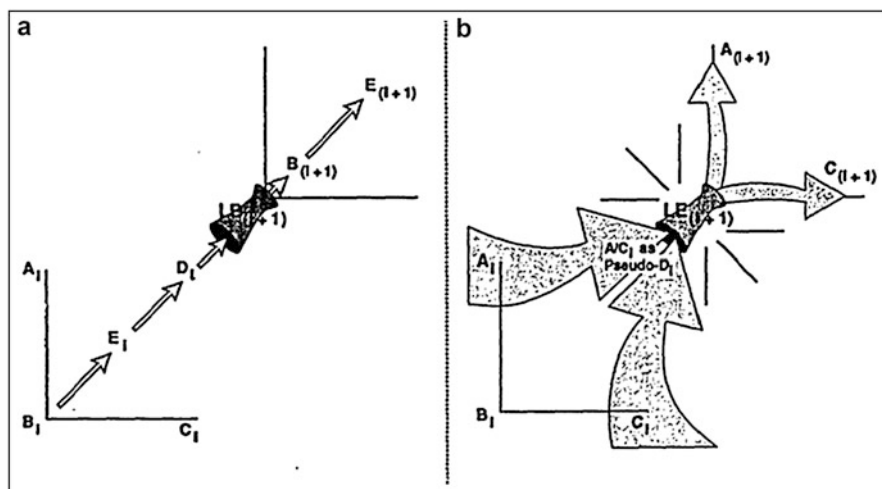


Fig. 4 Healthy development versus clinical disintegration

Table 2 Non-suicidal integration versus suicidal disintegration at each life stage

Non-Suicidal Integration					
Stage/Age (Social Radius)	Psychological Risk Factors	Integrative Non-Suicidal Resolution	Core Strength	Normal Life Event	Forward Regression to Next Stage
(i)	B_i	D_i	CS_i	$LE_{(i+1)}$	$B_{(i+1)}$
Stage 4/School Age 6-12 years (School/Neighborhood Peers)	Normal Inferiority	Industry	Competence	Appropriate Social Identity Demands	Normal Identity Confusion
Stage 5/Adolescence 12-22 years (peer Group/Outgroups)	Normal Identity Confusion	Identity	Fidelity	Appropriate Personal Identity Demands	Normal Isolation
Stage 6/Young Adulthood 22-34 years (Intimate Partners)	Normal Isolation	Intimacy	Love	Appropriate Marriage and Family Demands	Normal Stagnation
Stage 7/Middle Adulthood 34-65 years (Household and Children)	Normal Stagnation	Generativity	Care	Appropriate Unfulfilled and Fulfilled Goal Evaluation	Normal Despair
Stage 8/Older Adulthood 65-80 years (Mankind/My Kind)	Normal Despair	Integrity	Wisdom	Appropriate Mortality Awareness and Physical Decline	Normal Incapacitation
Stage 9/Oldest Old 80+ years (Present/Future)	Normal Incapacitation	Trans-generational Continuity	Faith	Death	-
Suicidal disintegration					
Warning signs		Core pathology	Triggering event	Disintegrative suicidal crisis	
A_i	C_i	CP_i	$LE_{(i+1)}$	(A/C) $_i$	
Conformity	Peer Rejection	Inertia	Premature Social Identity Demands	Mixed Conformity-Peer Rejection (Pseudo-Industry)	

(continued)

Table 2 (continued)

Stage/Age (Social Radius)	Non-Suicidal Integration				Forward Regression to Next Stage
	Psychological Risk Factors	Integrative Non-Suicidal Resolution	Core Strength	Normal Life Event	
Affective Disorder	Conduct Disorder	Repudiation	Premature Personal Identity Demands	Mixed Affective-Conduct Disorder (Pseudo-Identity)	
Foreclosure	Diffusion	Exclusivity	Premature Marriage and Family Demands	Mixed Foreclosure-Diffusion (Pseudo-Intimacy)	
Dependency-Depression	Counter-Dependency-Separation	Rejectivity	Premature Unfulfilled and Fulfilled Goal Evaluation	Mixed Depression-Separation (Pseudo-Generativity)	
Less of Independence	Social Isolation	Disdain	Overwhelming Mortality Shock and Incapacitation	Mixed Loss of Independence-Social Isolation (Pseudo-Integrity)	
Overactivity	Disengagement	Doubt	Death	–	

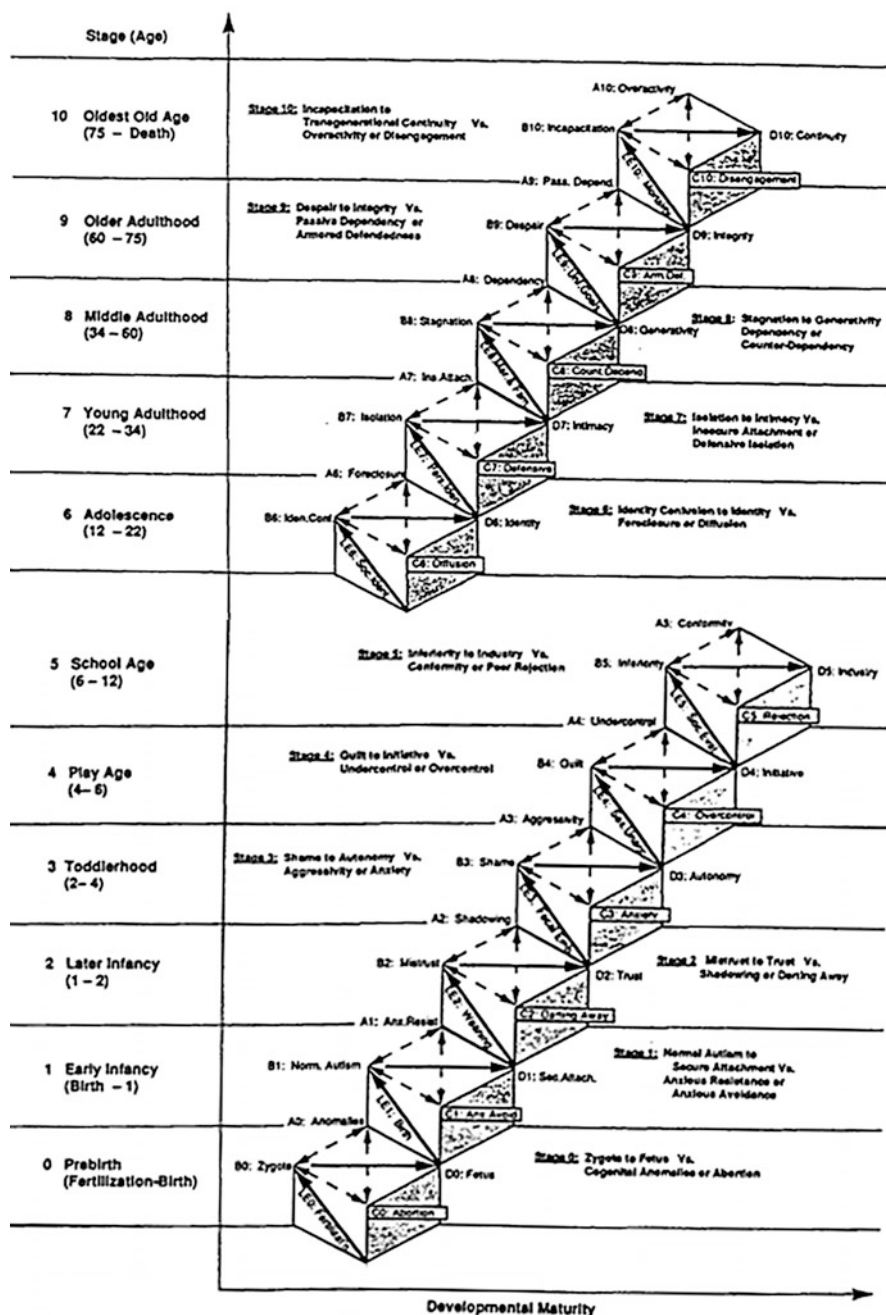


Fig. 5 Through a stage vertically

A-C behavior that can set the stage for a suicidal crisis later in life. The contrast between healthy development and clinical pathology is illustrated in Fig. 5.

Stage 4 – School Age: From Inferiority to Industry

Stage 4 denotes Erikson's school age (approximately ages 6–12). It is precipitated by the life event of *social evaluation*. The social radius has broadened for the child from *nuclear family* to *school and neighborhood peers* (SR₄). According to Barker and Wright, about 50% of the school-age child's interactions are with other children as opposed to only 10% in this regard for 2-year-olds [12]. The demands of social evaluation forwardly regress the previously syntonic *initiating* (D₃) play-age child into an initially dystonic stage of *inferiority* (B₄). Criticism from peers and negative social comparison can lead to a pessimistic self-definition with regard to future success and even a sense of "learned helplessness" and depression [13]. Withdrawal from social interaction (detachment) accompanies the self-doubt (deindividuation) for the B₄ child and may well provide a protective shield until the child begins to feel better about exposing (permeable wall) his abilities (articulated boundary).

Healthy Developmental Integration

The core strength behind healthy advance along the B->E->D developmental axis is Erikson's *competence*, and the major process is education. The child is exposed to a range of disciplines and to the language of concepts that allow him or her both to organize his or her experiences and acquire new skills. Children must be helped to set realistic goals for themselves to enable them to experience at least some success. Each child is unique in response to critical evaluation. It may be traumatizing for some, yet for others it may be quite helpful in his developmental journey. With difficult tasks, a child's concentration and indeed persistence may be hampered by external evaluation. Under more relaxed conditions, however, outside evaluation can be helpful in helping the child remain on target and improve his performance. Individuation and attachment are inextricably linked in healthy development. The more secure a child feels, the more he can let down his guard and relate to his peers.

Pellegrini, for example, has shown that children who display maturity in their social reasoning (individuation) are likely to be more positively evaluated by their peers (attachment) [14]. The strength of a healthy child's (D₄) need for success is well established by the end of the school-age stage. These are also the years when children can have "best friends," a process Sullivan argues is crucial for later heterosexual relations.

A child showing D₄ industry behaviors is ready to face the life event of adolescence (LE₅) of *appropriate social identity demands*. Should such a child appear in the clinic, the therapist can safely facilitate this process. The child will *forwardly regress* through meeting these demands to the B₅ state of normal *identity confusion* characteristics of the early part of adolescence.

Potentially Suicidal Disintegration

There are many pitfalls along this developmental journey, however. Calhoun and Morse, for example, have shown that failure in school and the experience of public ridicule can interact with an initially negative self-concept to cause long-lasting damage to a child's self-esteem [15]. The core pathology for Erikson at this stage is *inertia* which can be expressed either in A or C pathologies.

One type of A₄ pathology is *hyperactivity*; the hyperactive child is unable to control his/her impulses (insufficiently articulated boundaries), and Stewart estimated that hyperactive children represented some 4% of the grade school population in the United States [16] in 1967. Another form of the A₄ (deindividuated attachment) structure can be labelled *conformity*. Children learn to dress and talk in ways that gain peer approval, in extreme cases showing willingness to go along with antisocial peer behavior. This has manifested itself over the years in tragic incidents at our schools.

Costanzo, for example, has shown that late childhood/early adolescence represents a peak period of conformity [17]. The A₄ child is quite simply afraid to be different lest he or she receive negative social evaluation. Thus he blends in (deindividuates) to avoid the evaluation process. The child may accomplish the same goal through going to the opposite polarity, a C₄ (detachment individuation) structure. This can be labelled *peer rejection* with associated feelings of loneliness. The direction of this process is not always clear. Sometimes the C₄ child may reject (detach) to avoid being rejected. However, the result for the child can be similar – loneliness.

A significant proportion of children in this study felt left out, had trouble making friends, and felt that they were alone. Furthermore, children who are rejected tend to be disruptive and aggressive with peers and often require psychiatric treatment in adolescence or adulthood. Though Robins cautions us that “most antisocial children do not become antisocial adults,” there is no question that the clinical conformity-peer rejection axis is problematic for the school-age child [18, p. 611]. Significantly, these A and C polarities are reflected in suicidal behavior as well. At least two studies have shown depression is more prevalent among suicidal than non-suicidal children [19]. Depression among children may be manifested by both A and C behaviors. A₄ manifestations include increased anxiety while C₄ manifestations include antisocial behavior and aggression. One study finds that school-age children who contemplate suicide are likely to be depressed and to dislike themselves (A₄). Another study points to suicidal children of a second type; they are angry, assaultive, and tend to approach problems in an assaultive C₄ manner [19].

A child exhibiting these A-C behaviors is not ready for the precipitating life event of adolescence and the therapist must attempt to delay this event or protect the child from it as much as possible. If she or he fails, the *premature demands of social identity* may well trigger an A/C suicidal crisis. Here the A/C₄ child may show signs of *both depression and aggression* in an attempt to simulate *pseudo-industry* and may even be at greater risk for suicide than before.

Stage 5 – Adolescence: From Identity Confusion to Identity

Stage 5 in our model describes Erikson's very important adolescent stage (approximately ages 12–22). It is initiated by the life event of *social identity demands* (LE₅) that forwardly regresses the syntonically *industrious* D₄ school age child into an initial dystonic position of *normal identity confusion* (B₅). A child may well present clinically with an adjustment reaction. The social radius at this stage is *peer groups and outgroups* (SR₅). The life task is to find what groups to join and what groups to avoid. The adolescent may experience a sense of narcissistic grandiosity with the resultant lack of ability to commit to any particular group. This stage has been studied at length by Marcia [20] and by Bourne [21] among others and describes the process by which an adolescent matures to the point of being able to achieve a social identity allowing him to make a realistic social commitment.

Healthy Developmental Integration

The core strength for Erikson at Stage 5 is *fidelity*, which is realized through the integrated achievement of both individuation (Marcia's exploration) and attachment (Marcia's commitment). A successful integrated progression along the developmental B->E->D axis with regard to both of these life issues leads to a syntonik position of *identity achievement* (D₅) which, for Marcia, involves an individual who has undergone exploration and made commitments. A number of studies have shown that such individuals do well on a number of achievement and interpersonal indicators.

A child showing D₅ identity behaviors is ready to face the life event of young adulthood (LE₆)-*appropriate personal identity demands*. The therapist should try to facilitate this process. The adolescent will forwardly regress as a function of meeting these demands to the B₆ stage of normal *isolation* characteristic of the early part of adolescence.

Potentially Suicidal Disintegration

The core pathology at this stage has been described by Erikson as *repudiation*, which can lead to fixation and oscillation on the clinical AC axis expressed either in what Stierlin has called "expelling" (adolescents pushed by their families into premature autonomy) or "binding" (adolescents infantilized by their families) [22]. Such adolescents may present with a DSM5 classification of either as a Separation Anxiety Disorder (309.21) or a Cs Avoidant Disorder of Childhood or Adolescence (313.21). Depression represents the clearest example of A₅ behavior and is the most common pathological symptom of suicidal individuals of all ages. The depressed adolescent who has suicidal thoughts is greatly at risk for suicide [23]. The work of Shaffer [24] highlights the prevalence of depressive symptoms among adolescent suicide attempters and adolescent suicide completers. Garfinkel et al. [25] report a

positive correlation between level of depression and lethality of suicide attempts among 505 adolescents admitted to a hospital emergency room for suicide attempts.

The importance of depression in adolescent suicide attempts has also emerged in many studies [26], including those of Robbins and Alessi, Pfeffer et al., and Borst, Noam, and Bartok. The C_5 polarity may also be a factor in suicidal behavior, whether expressed in pathological social isolation or antisocial behaviors.

Other studies have pointed to the role of social isolation in adolescent suicide. Contributing to this sense of social isolation is the pervasiveness of high degree of family mobility. In the past, the highest degree of suicide occurs in the Western region of the United States which also represented the highest degree of family relocation. The lowest incidence of suicide occurred in the Northwest which has the lowest degree of family relocation. Topol and Resnikoff have pointed to the role of social isolation in youth suicide [27]. They observe that many adolescent suicides have had a history of difficulty in relating to peers. They rarely have close friends and are “nonjoiners” who are often invisible to peers and teachers. A significant number of suicidal adolescents who are not depressed present with either a *conduct disorder* (312.89) or *antisocial personality disorder* (301.7), both representative of a C_5 position.

A child exhibiting these A-C depressive-aggressive behaviors is not ready for the precipitating life event (LE_6) of young adulthood-appropriate personal identity demands, and the therapist should consider attempting to delay this event to protect the child from it as much as possible. If he fails, the *premature demands of social identity* may well trigger an A/C suicidal crisis. Here the (A/C) $_5$ borderline child may show signs of both depression and aggression in an attempt to simulate a *pseudo-identity* and may even be at greater risk for suicide than before. Indeed, this is exactly the finding emerging from the previously discussed work of Borst, Noam, and Bartok, who report that the majority of suicidal adolescents in their study were diagnosed with a mixed (A/C) $_5$ *conduct-affective disorder*.

The conduct disorders in their sample have a much lower incidence of suicide than do the affective disorders, leading Borst, Noam, and Bartok to warn against the suicidal risk inherent in premature development. They suggest that “the self-protective and externalizing qualities of the earlier developmental positions put a person at greater risk for impulsivity, acting-out, or delinquency but may shield the adolescent from directing the aggression against the self, as the problem is viewed as mainly externally located.” This squares with findings of Brent et al., indicating that completed adolescent suicides were more likely to evidence a bipolar disorder or a major affective disorder with comorbidity than adolescents hospitalized with suicidal behavior [28].

Stage 6 – Early Adulthood: From Isolation to Intimacy

Stage 6 in our model describes Erikson’s early adulthood (approximately ages 22–34) with a social radius of *partners in friendship and sex* (SR_6). It is initiated by Life Event 6 – *personal identity demands* – which forwardly regresses a

previously syntonic *identity-achieving* adolescent (D₅) into a dystonic state of *normal isolation* (B₆). The hard-won social identity emerging from group commitment and membership is no longer enough and the individual may present with a normal sense of isolation.

The young adult requires a more developed personal identity but must first free himself from the intense peer pressures emerging from his preceding social radius. This confusion in his or her personal identity (deindividuation) may result in a sense of loneliness and isolation (detachment). According to Marcia, this journey involves the process of both exploration (what we mean by individuation) and commitment (what we mean by attachment). This dystonic first level (B₆) represents a deficiency in both individuation and attachment, and seems to correspond to what Marcia has labelled *moratorium*. Individuals in this moratorium or identity-confusion state have not proceeded very far into exploration (deindividuation) nor have they made any real commitments (detachment).

Healthy Developmental Integration

Erikson has labelled the core strength at this stage *love*, which in Buber's sense allows the formation of one's own identity and respect for that of the other (in other words, an I-thou relationship) essential to any genuine syntonic *intimacy* (D₆). Central to this journey is the establishment of a self separate from one's parents on which one can base one's own life. Peers have served the adolescent well in facilitating this separation process. But now the young adult must turn to more intimate dyadic encounters *to* further develop this separation. This process has been studied by a number of researchers, some focusing on the movement from high school to college, others looking at the development from childhood to adulthood. Regarding healthy development on the B->E->D axis, Katz et al. discovered that healthy young adults learned to make decisions without seeking permission from their parents and moved toward closer relationships and assumption of the marital role [28]. Vaillant found that the "best outcome" younger adults tended to be well-integrated and practical in late adolescence and early adulthood, and the "worst outcome" young adults asocial [29]. Vaillant argues that the "best outcome" individuals shifted to more mature defenses and adaptation modes (in our terms, more permeable walls with more articulated boundaries). In a cross-sectional study of young adult clinic outpatients, Gould found two distinct periods: 18–22 (in our model, late adolescence) and 22–28 [30]. In the former period, the individuals were in the process of taking steps *to* implement separation from parents. In the latter, the individuals felt established and secure in this separation. They were engaged in the work of being adults.

A child showing D₆ intimacy behaviors is ready to face the life event of middle adulthood (LE₇)-*appropriate marriage and family demands*. The therapist can safely facilitate this process. The young adult will forwardly regress as a function of meeting these demands to the B₇ state of normal *stagnation* characteristic of the early part of middle adulthood.

Potentially Suicidal Disintegration

The core pathology in Stage 6 is for Erikson *exclusivity*, which blocks this healthy developmental journey. It can be expressed either in what Minuchin calls enmeshment (A_6) or disengagement (C_6) [31]. Enmeshment refers to a diffuse set of self-other boundaries (in our sense, a premature removal of walls); disengagement refers to rigid self-other boundaries (a delayed removal of walls). Marcia has labelled the A_6 polarity *foreclosure* (a young adult who prematurely commits to another without sufficient exploration) and the C_6 polarity *diffusion* (an adolescent who engages in pseudo-exploration without personal commitment). The foreclosed individual is often depressed and dependent, while the diffuse individual is often withdrawn or socially isolated and out of place.

Both of these polarities are implicated in suicidal behaviors as well. Goldney found that depression (A_6) and the absence of a significant personal relationship (C_6) were associated with suicide attempts by 110 women aged 18–30 [32]. Also involved was hopelessness, as measured by the Beck Hopelessness Scale, and a history of parental conflict. Maris described the prototypic young adult female suicide as married, having children, suffering from depression, and enmeshed in a marriage that has a history of conflict. This is clearly an A_6 pattern. Lillfeld reports that job-related problems may represent a more important stressor for men than do family problems [33]. Rygnestad found an increased incidence of separation, divorce, and unemployment in both men and women suicide attempters between the ages of 13 and 88 [34]. Other studies have pointed to the role of unemployment and downward occupational mobility in adult suicide. These all represent a C_6 pattern.

A young adult exhibiting these A-C depressive-isolative behaviors is not ready for the precipitating life event (LE_7) of middle adulthood—premature *marriage and family demands*, and the therapist must attempt to delay this event or protect the individuals from it as much as possible. If he or she fails, the premature demands of social identity may well trigger an A/C suicidal crisis. Here the (A/C) $_6$ young adult would show borderline signs of both *foreclosure and diffusion* in an attempt to show *pseudo-intimacy*. This individual would be isolated within an enmeshed relationship and may even be at greater risk for suicide than before.

Stage 7 – Middle Adulthood: From Stagnation to Generativity

Stage 7 in the present model corresponds to Erikson's middle adulthood (approximately ages 34–60) with a social radius of *household and children* (SRs). It is initiated by Life Event 7 – *marital and family demands* – which forwardly regresses a syntonic *intimacy-achieving* younger adult (D_6) into the dystonic stage of *stagnation* (B_7). The middle adult often presents therapeutically as a person who has lost his or her path and has been swallowed up in the life goals of others. Here a middle adult feels overwhelmed by the demands of marriage and family (deindividuated) and finds him or herself in a state of confused withdrawal. Indeed, the very intimacy he or

she has achieved with a particular partner in Stage 6 must make room for the expanded social radius of household and children in Stage 7.

Neugarten has focused on the middle adult's increased preoccupation with his or her inner life, his or her "interiority" which enables one to look backward for the first time rather than forward. The dynamic of withdrawal to inner space is necessitated by the overwhelming demands of marriage and family life, and may be associated with a sense of "burnout," of just going through the motions. This has been associated empirically with personal feelings of worthlessness [35].

Healthy Developmental Integration

Erikson defines the core strength at this stage as *care*, which propels the stagnating middle adult forward along the developmental B->E->D axis into a syntonic state of *generativity* (D₇). Withdrawal to his or her own resources has freed the generative middle adult to get in touch with his individual sense of creativity (individuation), enabling him to enter the role of a mentor for the next generation (attachment) whether in a home or work environment in a way which integrates care for self and care for others. Shanan has labelled this midlife personality structure the "active integrated copier" investment at work is not at the expense of family relationships [36]. A number of studies have explored the difficulties women have had with this transition with regard to role strain, overload, and generally lowered morale, problems that increase with the births of subsequent children. Levinson and colleagues have conducted similar research on men [37]. They suggest that the demands of the career mentor role raise the same basic generativity issues as those associated with family parenting.

A middle-aged adult showing D₇ *generativity* behaviors is ready to face the life event of older adulthood (LE₈)-appropriate *mortality awareness*. The therapist can help to facilitate this process. The individual will forwardly regress as a function of meeting these demands to the B₈ state of normal despair, characteristic of the early part of older adulthood.

Potentially Suicidal Disintegration

The core pathology for Erikson at this stage is *rejection*, which can be expressed either in what Gutmann et al. have called *dependency* (an A₇ *constellation*) or *counter-dependency* (a C₇ structure) [38]. Stewart and Salt have reported that single "agentic" (C₇) working women became ill in response to stress [39]. In contrast, homemakers with a traditional "communal" (A₇) orientation responded to stress with depression. However, working wives integrating agentic and communal (D₇) orientations experienced no negative effects in response to stress. Similar benefits of combining agency and communion have been reported by Stewart and Malley [40] and Malley [41] with regard to both the physical and emotional health of divorcing mothers. Much of the research on this AC clinical axis emerges from the work of

Gutmann and colleagues on the “parental imperative.” Gutmann’s basic idea that the demands of parenting itself produce traditional sex-role differentiation has found considerable empirical support, even among nontraditional couples.

Gutmann goes even further to suggest associated personality structures, both men and women repressing contra-sexual tendencies in the service of parenting. Thus fathers adapt an “active mastery style” (in exaggerated form, a C_7 detached individuation structure) and mothers a “passive-nurturant style” (an A_7 deindividuated attachment structure). When the nest is emptied, the psychologically repressed returns with a vengeance [42, 43] women often shifting from passive to active styles and men in the opposite direction, i.e., the famous “midlife crossover” effect. This journey, sadly, often represents oscillation along the AC clinical axis (an exchange of symptoms if you will) rather than any true $B \rightarrow E \rightarrow D$ development. Such confusion represents one of the great dangers of this particular life stage, producing what Shanan has labelled “dependent passive copers” (an A_7 structure) or “failing overcopers” (a C_7 structure). Neither of these groups is as happy with his life as is Shanan’s D_7 “active integrated copers” group described previously.

Slater and Depue found that exit events (e.g., separation, divorce, and death) differentiate suicidal depressed individuals from non-suicidal depressed individuals more than any other kind of loss [44]. The suicidal middle-aged adult is likely to have been recently divorced or separated, to have lost a parent, or to have had a child leave home. These all represent C_7 behaviors. The A_7 polarity is manifested in depression. Depression has been shown repeatedly to be the most common psychiatric diagnosis associated with suicide among adults. Numerous studies have reported a diagnosis of affective disorder among suicidal individuals, with rates running from as low as 35% to as high as 80%. Pfeffer concludes that suicide is 30 times more prevalent among adults with affective disorder than among those not so diagnosed [45].

A middle adult exhibiting these A-C depressive-isolation behaviors is not ready for the precipitating life event (LE_8) of older adulthood – *premature goal evaluation* – and the therapist must attempt to delay this event or protect the middle adult from it as much as possible. If he or she fails, the premature demands of mortality shock may well trigger an A/C suicidal crisis. Here the (A/C) $_7$ middle adult may attempt to achieve a *pseudo-generativity* through alcoholism. Specifically, alcoholism may blur nagging feelings of unfulfillment but at the expense of increasing both *depression* (A_7) and *aggression and/or isolation* (C_7).

Male alcoholics who drink in bars may be more likely to experience alcohol-related interpersonal problems than women who are inclined to drink along at home. Further, males are more vulnerable to alcohol-related job stress and to the stress of losing their jobs. Roy and Linnoila reported the results of a group of studies that show the risk of suicide among alcoholics to be 58–85 times higher than that for non-alcoholics [46]. The suicide rate for alcoholics in the past has been estimated to be as high as 270 per 100,000 population. Several studies have shown that comorbidity of depression and alcoholism represents a greater risk for suicide than either alone. Premature exposure of the A-C middle adult to the goal evaluation demands of older adulthood (LE_8) may exacerbate a suicidal crisis.

Stage 8 – Older Adulthood: From Despair to Integrity

Stage 8 in our model refers to Erikson's older adulthood (approximately ages 60–75). The social radius (SR₈) for the older adult has become *mankind/my kind* – a differentiation of universalistic and particularistic affiliations. It is initiated by the life event (LE₈) of *unfulfilled goals* (or perhaps now meaningless fulfilled goals), a stressor that forwardly regresses the previously syntonic generative (D₇) middle adult into a profound dystonic state of *despair* (B₈). An older adult coming into treatment may report that many previous achievements have proved meaningless and many of his or her dreams are now out of grasp. The B₈ individual has lost meaning in life (deindividuation) and as such withdraws from social involvements (detachment). Life has lost its taste. The classic work by Neugarten et al. has labelled adults in this position as *unintegrated* [47]. Such people have defects in psychological functioning (deindividuation) as well as low levels of role activity and life satisfaction (detachment).

Healthy Developmental Integration

Erikson defines the core strength at this stage as *wisdom*, which guides the older adult forward along the developmental B- > E- > D axis to a position where he or she is both individuated and attached. Such a syntonic Ds individual achieves a *self-integrity* (articulated self-other boundary) based on something more profound than simple fulfilled personal goals and is thus able to reintegrate into mankind (permeable interpersonal walls) with a particularistic affirmation of his or her own kind. Neugarten et al. refer to this position as *integrated*, which is characterized by a well-functioning ego and a flexible openness with regard to environmental stimuli.

An older adult showing Ds integrity behaviors is ready to face the life event of the oldest-old (LE₉)-*appropriate mortality awareness*. The therapist can safely facilitate this process. The individual will forwardly regress as a function of meeting these demands to the B₉ state of normal incapacitation characteristic of the early part of oldest-old age.

Potentially Suicidal Disintegration

Erikson describes the core pathology at this stage as *disdain*, which can lead to fixation and oscillation on the clinical AC axis. This can be expressed either in *social isolation* (Cs personalities) or in *passive-dependence* (As individuals who have strong dependency needs and who seek responsiveness from others).

Darbonne found that suicide notes of elderly individuals included more references to loneliness and isolation than those of any other age group [48]. Miller found that older men who committed suicide were three times less likely to have a confidante than those who died of natural causes [49]. Widowhood

has been shown *to* increase the risk of suicide, especially among elderly males during the first 6 months of bereavement. Bock and Webber found that suicidal and widowed elderly people were more socially isolated than those who were non-suicidal [50].

The As polarity, in contrast, represents passive dependence often accompanying chronic illness. One study found that 85% of a group of suicide completers over age 60 were physically ill at the time they killed themselves [51]. Further evidence of the role of physical deterioration can be gleaned from studies indicating that over 70% of elderly suicides have visited a physician within the past month and that as many as 10% have consulted a physician on the actual day of the suicide. Losses are a natural part of old age, often occurring in a relatively short period of time. Depression in such a situation may become chronic and indeed is the most common of all illnesses among the aged [52]. Many researchers have estimated that a large majority of elderly suicides, perhaps as many as 80% involve significant depression (also an As structure) and cumulative loss.

An older adult exhibiting these (A/C)₈ *dependent-isolated* behaviors is not prepared for the precipitating life event (LE₉) of oldest-old *adulthood-overwhelming mortality shock*, and the therapist must attempt to delay this event or protect the older adult from it as much as possible. If he or she fails, the (A/C)₈ adult is likely to become alcoholic or dependent on drugs in an attempt *to* elevate his or her spirits and ease his or her aches, pains, and fears of death. Such an attempt at *pseudo-integrity* is unfortunately extremely disintegrative. The interactive effects of alcohol abuse with over-the-counter and prescription drugs may result in a clouding of consciousness and increase the likelihood of depression and suicidal behavior; Miller found that approximately 25% of a group of elderly male suicides were alcoholic or had significant drinking problems and that 35% of this group were addicted to or heavily dependent on drugs [53].

Stage 9 – The Oldest-Old: From Incapacitation to Generational Continuity

Stage 9 in our model, the oldest-old, has not been covered specifically by Erikson nor has it been studied as extensively as some of the earlier adult stages. Peck represents a classic attempt to extend Erikson's thinking to the oldest-old, offering finer distinctions in the second half of life than he felt were made by Erikson [54]. Issues of old age, as distinct from those of middle age that have been offered by Peck, are ego-differentiation versus work-role preoccupation, body transcendence versus body preoccupation, and ego transcendence versus ego preoccupation. As we have mentioned before, Newman and Newman have tried more recently to extend Erikson's thinking to the oldest-old, suggesting the life issue here is "immortality versus extinction." Many studies in geriatric psychology and psychiatry have emphasized depression among aged individuals; Berger and Zarit [55] have studied later life paranoid states, and Cath [56] has differentiated depression and depletion among individuals at this age.

Healthy Developmental Integration

Our model sees the oldest-old stage as initiated by the staggering life event or stressor of *physical decline and awareness of mortality and life-finiteness* (LE₉). Gutmann et al. [38] have labelled it “life cycle shock” or “existential stress” that upsets the syntonetic equilibrium (D₈) achieved by the *integrity-achieving* older adult and forwardly regresses the now oldest-old into the helpless dystonic position of *incapacitation* (B₉). A previously healthy older adult may now need a cane or a walker – or even a wheelchair. Memory may fail, as may kidneys. Previously reliable social supports may themselves have died and the individual may become aware of his own limited time. In short, the now oldest-old individual may find himself both enfeebled (deindividuated) and isolated (detached).

What is critical here is how the individual manages to transcend the present-centered integrity of mankind/my kind to deal with his or her once again expanded social radius (SR₉) of *present versus future generations*. Does the incapacitated or terminal oldest-old behave like dying King Berenger The First in Ionesco’s [56] brilliant satire “Exit the King” losing all interest in the present and future world? “I am only present in the past,” says the king (p. 50) in response to his second wife Marie’s attempts to console him. When she later (p. 67) points to the expanding future, “the younger generation’s expanding the universe, ... conquering new constellations, ... boldly battering at the gates of Heaven,” Berenger again cuts himself off, “I’m dying, .. I’m dying, ... they can knock them flat for all I care.” Or does the incapacitated oldest-old adult utilize his core strength at this stage, *faith*, to carve out a historical self (individuation) that allows the individual to connect in a genuine way (attachment) with future generations (D₉)?

Lifton [57] has called this a “sense of immortality,” which overcomes a preoccupation with one’s own ego, body, and generation through a faith, a vested interest if you will, in future generations. Indeed, Augustine and Kalish propose that older people and dying people of all ages need to establish some kind of attachment that will be ongoing after the death of the body, whether it be through a divine being, being remembered by others, through accomplishments, through progeny, or through association with a cause or ideology [58]. This sense of a *transgenerational continuity* is deepened by the oldest-old taking on the role of transmitter of history to the next generation and helps to prepare the individual for his own death – the final life event (LE₁₀).

An oldest-old adult showing transgenerational continuity behaviors is ready to face the final life event (LE₁₀)-appropriate personal death. The therapist can safely facilitate this process calling on the individual’s sense of him or self as a link between the generations.

Potentially Suicidal Disintegration

The core pathology at his or her stage is what Newman and Newman have labelled *doubt*, a profound uncertainty that there is anything beyond the present ego, body,

and life-finiteness. It tends to truncate the individual's sense of time in the present and may be expressed in one of two forms.

One expression is what Cumming and Henry have labelled *disengagement* (a C_9 structure), which is indicated by increased preoccupation with the self and decreasing emotional investments in persons and objects in the environment [59]. When such social withdrawal is voluntary and mutual, it may represent a normal reconsolidation of older adulthood. However, when it is not so mutual or voluntary, it may represent a more pathological structure. This structure may also have a *paranoiac* aspect to it that may involve suspicions and accusations of others.

The second expression is paraphrased from the work of Havighurst et al. and may be labelled *overactivity* (an A_9 structure) where the individual trivializes him or herself through mindless activities designed to numb him or her to his or her terminal position in the life cycle [60].

While Lawton [61] has reported that residents of institutions for the aged seek out areas of high activity, Lemon et al. [62] find that activity per se was not found to be significantly related to life satisfaction among new residents of a retirement community. In extreme form, an obsession with overactivity may block the private time necessary to achieve the syntonic state of transgenerational continuity and reflect aspects of the *depressed* state discussed by Levin [53] and by Cath [63] with an attendant loss of self-esteem. One recent study points to the greater preponderance of these pathological A and C structures among clinical (depression, personality disorders, paranoia, and anxiety disorders) as opposed to normal older adults. Two other studies suggest that a major developmental component of normal older adults (including the oldest-old) is the dissipation for both men and women of the rigid gender differentiation evoked at earlier life stages. Here, finally, similar life experiences enable the oldest-old to integrate individuation and attachment (the developmental B->E->D axis) in a way not totally determined by rigid gender stereotypes.

An oldest-old adult exhibiting these A-C *overactivity-disengagement* behavior is not ready to face death openly and may disintegrate (A/C)₉ if the realization is imposed on him or her. In this case, the therapist must attempt to protect the individual from death awareness as much as possible. If he fails, the individual may fall apart, attempting to simulate a sense of transgenerational continuity through a fusing of the irreconcilable polarities of disengagement and overactivity (A/C)₉.

Up to this point, this chapter has attempted to provide the working clinician with a developmental guide to recognize suicide risk across the life span. For an individual developing normally on the B->E->D axis, a new life event at the appropriate time offers the potential for integrated development and forward regression from one stage to the next. Here, the therapist should encourage or facilitate the new life event. For an individual on the A<->C clinical axis, a new life event may be overwhelming, pushing the individual into an A/C attempt to simulate D-level integration. The pseudo-D position is highly disintegrative, and here, the life event may become a triggering event for suicide. The chapter offers the clinician a guide for differentiating B->E->D versus A<->C behaviors across successive life stages.

An Application to Ancient Narratives: Preventing Suicide and Valorizing Life in Biblical Versus Graeco-Roman Narratives

Now we focus on how well our two-axis model can explain the differences in reaction to life stressors experienced by matched biblical versus Graeco-Roman narratives. This builds on a call over 60 years ago by Erich Wellisch [64], medical director of Grayford Child Guidance Clinic in England for a “biblical psychology, arguing that:

The very word “psyche” is Greek. The central psychoanalytic concept of the formation of character and neurosis is shaped after the Greek Oedipus myth. It is undoubtedly true that the Greek thinkers possessed an understanding of the human mind which, in some respects, is unsurpassed to the present day, and that the trilogy of Sophocles still presents us with the most challenging problems. But stirring as these problems are, they were not solved in the tragedy of Oedipus. In ancient Greek philosophy, only a heroic fight for the solution but no real solution is possible. Ancient Greek philosophy has not the vision of salvation. . . There is need for a Biblical psychology (p. 115).

Faber [65] identifies some 16 suicides and self-mutilations among the 223 characters depicted in the 26 surviving tragedies of Sophocles and Euripides yielding a suicide rate of 7.2% (see Table 1). Applying Durkheim’s typology, most of Sophocles’ depicted suicides are egoistic, while most of the suicides depicted by Euripides’ are altruistic. Several of each are anomic. Table 3 applies Durkheim’s typology to suicides in Greek tragedy.

Table 4 applies Durkheim’s terminology to the much smaller number of biblical suicides: only six suicides can be found in the Hebrew Scriptures. Three can be classified as egoistic (Ahitophel, Zimri, and Abimelech) and three are altruistic (Saul, Saul’s armor bearer, and Samson). The important point here is the far fewer number of suicides in Hebrew Scriptures.

Some 2855 different people (2730 men and 1125 women) are mentioned in the 39 books of the Hebrew Scriptures spanning a period of 3,330 years, [66]. Only six are identified as completed suicides (see Table 3), yielding an overall suicide rate of 6/2855 or 0.02%, including none by women. A huge chi-square statistic emerges when we compare this biblical rate of 0.02 to the 9.02% suicide rates in the 26 plays of Sophocles and Euripides (chi-square = 141.39 $p < 0.001$).

In addition, the Hebrew Scriptures present six suicide-prevention narratives absent in Greek writing (see Table 5).

This chapter concludes the basic thinking of our bidimensional approach to Erikson by comparing biblical and Graeco-Roman narratives confronted with regard to seven evidence-based respective suicide risk factors or stressors [67]: (1) Feeling isolated and ignored; (2) Feeling one’s life is without meaning; (3) Feeling exiled from one’s home or homeland (feeling as a refugee or an outcast); (4) Feeling unable to be oneself with others; (5) Feeling one is alone in one’s life mission; (6) Feeling abandoned by one’s child leaving the family nest and building his/her own life; and (7) Feeling doomed by a dysfunctional (and even incestuous) family of origin. While the Greek characters remain fixated on the AC clinical axis and self-destruct in one

Table 3 Suicides in Greek tragedies of Sophocles and Euripides

Character	Gender	Source	Method	Type
Ajax	M	Ajax (Sophocles 1938)	Sword	Egoistic
Oedipus	M	Oedipus Rex (Sophocles 1938)	Self-blinding	Egoistic
Jocasta	F	Oedipus Rex (Sophocles 1938)	Self-hanging	Egoistic
Haemon	M	Antigone (Sophocles 1938)	Sword	Egoistic
Eurydice	F	Antigone (Sophocles 1938)	Knife	Egoistic
Deianera	F	The Trachinae (Sophocles 1938)	Sword	Egoistic
Heracles	M	The Trachinae (Sophocles 1938)	Self-burning	Anomic
Antigone	F	Antigone (Sophocles 1938)	Self-hanging	Anomic
Hermione	F	Andromache (Euripides 1938)	Suicidal threats	Anomic
Phaedra	F	Hippolytus (Euripides 1938)	Self-hanging	Anomic
Evadne	F	The Suppliants (Euripides 1938)	Self-burning	Altruistic
Iphigenia	F	Iphigenia in Aulis (Euripides 1938)	Allows herself to be killed by axe	Altruistic
Menoeceus	M	The Phoenissae (Euripides 1938)	Jumps into fire	Altruistic
Macaria	F	The Heracleidae (Euripides 1938)	Allows herself to have throat cut	Altruistic
Polixena	F	Hecuba (Euripides 1938)	Allows herself to be killed by sword	Altruistic
Alcestis	F	Alcestis (Euripides 1938)	Poisons herself	Altruistic

M = Male, F=Female

Table 4 Suicides in the Hebrew Bible

Character	Gender	Source	Method	Type
Saul	M	1 Sam. 31:4 1 Sam 1:6 1 Chron. 10:4	Self-stabbing (falls on sword)	Covenantal
Saul's Armor Bearer	M	1 Sam. 31:5 1 Chron. 10:5	Self-stabbing (falls on sword)	Altruistic
Ahitophel	M	2 Sam 17:23	Self-strangling	Egoistic
Zimri	M	1 Kings 16:18	Self-burning	Egoistic
Abimelech	M	Judg. 9:54	Self-stabbing	Egoistic
Samson	M	Judg 6:30	Self-crushing	Covenantal

M = Male, F=Female

Table 5 Suicide preventions in the Hebrew Bible

Character	Gender	Source	Method
Rebecca	F	Genesis 27–28	Appropriate matchmaking
Moses	M	Numbers 11	Support and practical advice
Elijah	M	1 Kings 18–19	Protected withdrawal and nurturance
Jonah	M	Jonah	Protected withdrawal and guidance
David	M	Psalms 22	Renewal of faith in God
Job	M	Job	Renewal of relationship

M = Male, F = Female

form or another, the biblical figures recover and move ahead on the B->E->D developmental axis.

The life-promoting biblical stories of Elijah, Job, David, Moses, Jonah Rebecca and Ruth are contrasted to the matching suicidal Graeco-Roman stories of Ajax, Zeno, Coriolanus, Oedipus, Narcissus, Phaedra, and Antigone.

Feeling Isolated and Ignored: Treating the Ajax Syndrome with the Elijah Intervention

First, we compare the Greek suicide story of Ajax [68] with the biblical suicide-prevention story of Elijah [69] with regard to the suicidal implications of being isolated.

The Ajax Syndrome

After the death of Achilles in the Trojan War, the Greek leaders choose Odysseus over Ajax to inherit his arms, leaving the latter feel his honor is stained. Ajax sets out at night to murder Agamemnon, the leader of the Greek forces, and his brother Menelaus. The goddess Athena becomes angry and makes Ajax mad. Ajax slaughters sheep in the army's flocks, and leads others to his tent, thinking that he is killing/torturing the Greek leaders themselves. As his madness passes, Ajax retreats humiliated and despondent into his tent, not disguising his suicidal thoughts.

Ajax cries, something he had always refused to do as it "befitted cowards only" (Sophocles, *Ajax*, l. 320). "Ah me, the mockery," he cries and continues "To what shame am I brought low" (l. 365). Ajax is overwhelmed by what has happened to him and sees no way out other than suicide. He has not received positive support from others, including his brother. Teucer only belatedly sends a message to the Greek chieftains ordering that Ajax not leave his tent alone – Ajax has already done so and has fallen on his sword (Sophocles, *Ajax*, ll.748-755, 848-849, 865).

The Elijah Intervention

The Biblical prophet Elijah represents a contrasting example of how to treat a depressed and suicidal person. As the result of an ongoing conflict with Jezebel who wants to kill him (*1 Kings* 19: 1-2), Elijah is at the end of his rope and says he

Table 6 Elijah against Ajax

Stage	Ajax	Elijah
1. Precipitating stressor	Ajax is humiliated by both Agamemnon and Athena (Position A)	Elijah is overwhelmed and exhausted from his harassment by Queen Jezebel (Position A)
2. Reaction	Ajax says he wants to die (Position A)	Elijah says he wants to die (Position C)
3. Response of others	Ajax is allowed to leave his tent alone (Position C)	Elijah is sent an angel who brings him food, drink, and companionship, and lets him rest. (Regression to Position B)
4. Effect	Ajax kills himself by falling on his sword (Position A/C)	Elijah recovers his strength and continues his mission in Horeb and is given the younger Elisha to help him. (Advance to Position D)

cannot go on and expresses a wish to die (*I Kings* 19: 3-4). God listens to him and takes his statement to heart. He sends an angel to Elijah providing him with food and drink and allowing him to rest (*I Kings* 19: 5-8). Elijah recovers his strength and goes on to Mt. Horeb with the help of young Elisha (*I Kings* 19: 15-18).

A contrast of these two narratives is presented in Table 6.

Feeling One's Life Is Without Meaning: Treating the Zeno Syndrome with the Job Intervention

Here we compare the Greek suicide story of Zeno [70] and the biblical suicide-prevention story of Job [71] with regard to response to a misfortune and the importance of having an intrinsic life purpose rather than destructively searching for meaning.

The Zeno Syndrome

The inability to create meaning in one's life often leads to feelings of utter despair. It can drive a person to very extreme, often destructive attitudes to try to artificially manufacture meaning. Zeno, founder of the Stoic school of philosophy, wrenched his toe on the way home from lecturing at the *Stoa* (porch). He catastrophizes this objectively minor mishap as a "sign from the gods that he should depart" and voluntarily holds his breath until he dies (Diogenes Laertius, *Lives of Eminent Philosophers*, 7.28). Zeno's overinterpretation may represent his attempt to find meaning and purpose in an otherwise hopeless and meaningless world.

The medically impossible depiction of Zeno holding his breath until death negates the involuntary aspect of breathing and the Biblical conception that God breathes life into man and takes it away (Gen. 2:7). Zeno, like other Greek and Roman stoics, needs to control the conditions around his death, equating this control with a tragically tinged sense of freedom [72].

The Job Intervention

Job, in contrast, does not commit suicide despite being assailed by far more serious misfortunes – the loss of his wealth, his family, and his health. His wife tells him to curse God and die (Job 2: 9) and his friends tell him to admit he deserves his punishment, but he refuses because he knows it is not true (Job 4-32). Job certainly complains bitterly deeply grieved and indeed wrestles with suicide, indeed stressing the same method of death, *strangling*, as did Zeno. “So that my soul chooseth strangling, and death, rather than these bones.” (Job 7: 15). However, Job does not act on this feeling, reaffirming his relationship with his Creator: “Though He slay me, yet will I trust in Him” (Job 13: 15). Exline et al. [73] point to the importance of arguing within a relationship without leaving it. Job is anchored in a sense of a personal Creator who is with him from the moment of his birth and will be with him into his death and beyond. Thus, he can withstand far greater misfortune than can Zeno without the need to attribute cosmic meaning to it.

In contradistinction to Zeno who is improbably described as “holding his breath until he dies,” the book of Job stresses that it is God himself that has given Job the breath of life. “The spirit of God hath made me, and the breath of the Almighty giveth me life.” (Job 33: 4). If He withdraws that breath, man returns to the dust from which he sprung (cf. Psalms 104:29). And when God restores the breath, man rises again and renews the face of the earth. “Thou sendest forth Thy spirit, they are created; and Thou renews the face of the earth.” (Psalms 104:30).

Life for Job has inherent meaning and purpose, and this represents the best alternative and antidote to the obsession with dignity and rational suicide so endemic to Zeno the Stoic and contemporary culture.

A contrast of these two narratives is presented in Table 7.

Table 7 Job against Zeno

Stage	Zeno	Job
1. Precipitating stressor	Zeno the Stoic trips and stubs/ breaks a toe on the way back from giving a lecture at the Stoa (Position A)	Job suddenly and unexpectedly loses his property, his children, and his health (Position B)
2. Reaction	Zeno interprets this as a sign from the gods he should depart (Position C)	Though Job complains, he maintains his innocence faith in God despite his misfortunes (Position E)
3. Response of others	No mention made of reaction of others	Job’s friends tell him that he must be guilty, and his wife tells him to curse God and die (Position E)
4. Effect	Zeno immediately holds his breath until he dies (Position A/C)	Job steadfastly maintains his faith in God while proclaiming his innocence and he is restored (Position D)

Feeling Exiled from One's Home or Homeland (as a Refugee or Outcast): Treating the Coriolanus Syndrome with the David Intervention

Let us compare the Roman story of Coriolanus [74–76] and the biblical story of David [77] with regard to constructively dealing with the experience of exile and/or being a refugee from one's homeland.

The Coriolanus Syndrome

Roman historians Plutarch [74] and Livy (Titus Livius) [75], and Shakespeare [76] all tell of the legendary Roman commander Gnaeus Marcius whose military valor at Corioli against the Volsci, the enemies of Rome in the fifth century B.C.E., won him the honorary name of Coriolanus. Plutarch describes Marcius as a man of great energy and strength of purpose but combined with so violent a temper and self-assertion that he could not cooperate with people. After his heroism and brilliance in defeating the Volsci, Marcius becomes embroiled in angry arguments between the upper and lower classes of Rome, and his outspoken insults to the plebeian's leads to his banishment and almost his execution, despite his glorious military services.

Obsessed with wreaking revenge on Rome, Marcius (Coriolanus) goes over to the Volsci, enemies of Rome, and persuades them to attack Rome. As Marcius' Volsci army sits camped before Rome, two delegations came from the city but could not persuade him to desist. Roman women then came forth spontaneously to the camp, accompanied by Marcius's mother (Volumnia), his wife, and children. Marcius relents and withdraws the Volsci army. Plutarch says that he was murdered by the Volsci shortly after this withdrawal. Livy in his history of Rome tells of another report that Marcius lived on for many years and endured the miseries of exile. Though not a suicide story *per se*, there is no question that the rigidity of Coriolanus helped provoke his death.

The David Intervention

David was also a war hero, but of a vastly different sort, described as playing the lyre for King Saul, and is loved by the people. He slays the Philistine giant Goliath not by brute strength but through agility and the use of a simple slingshot. Later, his life threatened because of the jealousy of King Saul, David flees his native Israel with a band of men to live under the Philistines, longtime foes of Israel (1 Samuel, 27). Yet here the similarity to Marcius ends. David leaves not because he hates his countrymen but to save his life from King Saul's anger against him. David is no rigid perfectionist but remains deeply human. Even in exile, David does not turn from his love of Israel, despite Saul's anger at him. In the period that David and his troop live among the Philistines, he leads his troops in war against common enemies of Israel and the Philistines, he is spared the conflict of having to fight for the Philistines in a decisive battle against Israel (1 Samuel 29: 6-11). David becomes King of Israel after Saul's death in this battle. As king, David (2 Samuel 6: 12-23) does not show contempt towards the common people as Coriolanus did to the plebeians in Rome.

Table 8 David against Coriolanus

Stage	Coriolanus	David
1. Precipitating stressor	Coriolanus, a Roman military hero, antagonizes his countrymen and is exiled from Rome (Position C)	David, a military hero in Israel, flees from Israel to escape Saul’s murderous jealousy and wrath (Position B)
2. Reaction	Coriolanus joins the Volsci, the enemy of Rome, in order to wreak vengeance against Rome	David joins the Philistines, the enemy of Israel, but maintains his love of Israel (Position E)
3. Response of others	The Romans fear Coriolanus will lead the Volsci in battle against Rome, yet he is still not trusted by the Volsci and ultimately does not attack Rome (Position A)	David avoids fighting against his beloved Israelites, attacking instead common enemies of Israel and the Philistines. (Position E)
4. Effect	Coriolanus withdraws the Volsci from attacking Rome but remains condescending and insulting to the Volsci who murder him. (Position A/C)	David is spared fighting against the Israelites and is thus able to be loyal both to King Achish of the Philistines and to Israel. David subsequently becomes King of Israel (Position D)

Rather, David dances with the people when the ark is brought into Jerusalem, even though this earns him the contempt of his wife Michal.

A contrast of these two narratives is presented in Table 8.

Feeling One Is Unable to Be Oneself with Others: Treating the Narcissus Syndrome with the Jonah Intervention

Let us compare the Greek suicide story of Narcissus [78, 79] with the biblical suicide-prevention story of Jonah [80] with regard to the importance of being able to integrate self and other.

The Narcissus Syndrome

Greek thought sees self and other as fundamentally opposed. One wins at the expense of another losing. The Apollonian side of Greek culture represents a walled-off and disengaged intellect. The Dionysiac side portrays an enmeshment which destroys individual boundaries. The terms “narcissism” and “narcissistic” have become almost bromides in modern society to describe people who are extremely selfish and self-involved. The actual story of Narcissus provides a much richer picture ending in his suicide. Strangely, the suicidal end of the story is largely ignored in modern psychology and psychiatry. Narcissus cannot successfully integrate self and other.

The earliest sources of the myth of Narcissus have long since been lost. Our most complete account from antiquity is in Ovid’s *Metamorphoses* dated from 43 BCE to

17 CE. Narcissus is born out of a rape of his mother Lirope by a river god. When Lirope enquires from the Greek seer Tiresias about whether her son will live to a ripe old age, she receives a strange answer: He [Narcissus] will live a long life as long as he does not come to know himself (ibid, 3: 343-350).

Narcissus grows to be a vain young man, so physically beautiful that many fall in love with him by simply looking at him. (ibid, 3: 359-378). Narcissus seems to be self-absorbed, treating his lovers of both sexes as mere mirrors of himself. Echo, the nymph who loves Narcissus in vain, is transformed, left merely repeating the words he says – as an echo (ibid, 3: 379-352). One would-be lover who feels scorned prays to the god of fate, Nemesis, and asks that Narcissus too fall hopelessly in love and be unable to achieve his desire (ibid, 3: 405-6). Soon, Narcissus sees a beautiful youth in a pond, not realizing it is his own reflection. Narcissus is obsessed with the image in the brook and looks at it night and day (ibid, 3: 414-454).

Ultimately, however, Narcissus recognizes the face in the brook is his (ibid, 3: 463-473). The reflection becomes simultaneously an ideal and a mirror. He is not self-invested, but self-empty, driven to grasp his self, which has now been projected onto the outside world. Such a psychotic juxtaposition rips Narcissus apart. As Ovid expressed it, “How I wish I could separate myself from my body.” Narcissus finally becomes aware of the unobtainability of the figure he sees in the pond – it is his own reflection. He pines away until he dies, mourning the youth he loves in vain.

The suicidogenic element in the myth of Narcissus is the inability of Narcissus to successfully integrate his individuation and attachment behaviors. First he is individuated at the expense of attachment (egoistic); then he is attached at the expense of individuation (i.e., altruistic). Finally, he is overwhelmed by the irreconcilable confusion between his individuation and attachment issues (i.e., anomic) and resolves the conflict through self-murder, portrayed in Ovid (ibid, 3, 497-50) as pining away, and in Conon as actively stabbing himself in his chest (Conon, 1798, *Narrationes*, 24).

The Jonah Intervention

The story of Jonah begins with Jonah placed in an essentially similar individuation-attachment dilemma. God calls on Jonah to go to warn the people of Nineveh of their wickedness. Jonah does not want to go, but he is too God-fearing to defy the command and too strong-willed to submit. In desperation, he flees to Tarshish and tells his shipmates to throw him overboard when a terrible storm threatens the ship (Jonah 1: 1-12). The story could thus end in Jonah's suicide, but it does not – God intervenes as a protective parent, swallowing Jonah in the protective stomach of a great fish until he overcomes his confusion. Jonah prays to God from the belly of the fish until he becomes stronger. Then the fish vomits him out on dry land (Jonah 2).

This pattern repeats itself. God again commands Jonah to go to Nineveh. This time Jonah goes and gives the people God's message. They repent and are saved (Jonah 3: 1-10). Jonah becomes angry and again expresses the wish to die and sits on the outskirts of the city (Jonah 4: 1-3). Again, God intervenes, sheltering Jonah with

a leafy bush from the burning sun (Jonah 4: 6). After a worm destroys the protective bush, Jonah again expresses suicidal thoughts (Jonah 4: 7-8). God intervenes, this time engaging Jonah in a dialogue to teach him the message of *teshuvah* (repentance) and divine mercy and that he can reach out to another without losing himself (Jonah 4: 9-11). Biblical thinking sees self and other in harmony. Jonah avoids the polarities of disengagement and enmeshment. In the words of the biblical sage, Hillel, “If I am not for myself, who will be for me? If I am only for myself, what am I? If not now, when?” (*Pirke Aboth* 1: 14).

A contrast of these two narratives is presented in Table 9.

Table 9 Jonah against Narcissus

Stage	Narcissus	Jonah
1. Precipitating stressor	Narcissus born of a rape of his mother. Prophesied to have a long life if “He does not come to know himself.” (Position A)	God asks Jonah to go and warn the wicked people of Nineveh to repent lest they avoid great punishment. Jonah does not want to go and runs away to Tarshish to avoid the conflict. (Position A/C)
2. Reaction	The beautiful Narcissus heartlessly exhibits <i>hubris</i> by rejecting would-be lovers of both genders. (Position C)	God sends a great storm when Jonah is on a ship. When his identity as a Hebrew is discovered, he tells his shipmates that he is the reason for the storm and asks his shipmates to throw him overboard. However, rather than let Jonah drown, God sends a big fish to swallow him, thus allowing him to recover his strength. (Position B)
3. Response of others	Narcissus is brought down by <i>Nemesis</i> and becomes completely infatuated with a face he encounters in a brook. (Position A/C)	After the fish vomits out the restored Jonah unto dry land, God again asks him to go to Nineveh to warn its inhabitants to repent and change their ways. (Position E)
4. Effect	Narcissus realizes the face in the brook is his and thus unobtainable. He commits suicide, either in a passive (pining away) or active (stabbing himself) manner, depending on the source. (Position A/C)	Jonah warns the people of Nineveh but becomes suicidal again and sits outside the city walls under a hot sun. God again protects Jonah through shielding him from the sun with a large gourd. Ultimately God removes the gourd, and in addressing Jonah’s complaint, teaches him the lesson of mercy and compassion – that he need not lose himself in reaching out to others. (Position D)

Feeling One Is Alone and Unsupported in One's Life Mission: Treating the Oedipus Syndrome (171) with the Moses Intervention (172)

Let us compare the Greek suicide/self-mutilation story of Oedipus [81] with the biblical suicide-prevention story of Moses [82] regarding addressing the suicidal implications of feeling one is alone in one's life mission.

The Oedipus Syndrome

Laius, King of Thebes, hears from an oracle that his newborn son Oedipus will murder him and marry his wife when/if he grows up. He unsuccessfully attempts to have him killed but Oedipus is saved and raised by the King and Queen of Corinth. As a young man, he hears his identity questioned at a dinner party. He goes to the Oracle of Delphi to inquire about his identity. The Oracle does not answer him but instead prophesies that he is destined to kill his father and marry his mother, whom he mistakenly thinks are the King and Queen of Corinth. Trying to avoid doing this, Oedipus flees to Thebes and kills an older man after an altercation on the road (not realizing the man is Laius) and is given his widowed mother (also unknown) as a wife as a reward after he solves the riddle of the Sphinx who has been terrorizing Thebes. He begets four children with her. Oedipus does not seem able to solicit or accept help from anyone, being done in by riddles from the Oracle of Delphi, convoluted responses from the prophet Teiresias, and mistrust of his brother-in-law Creon. Nowhere does Oedipus receive any real help he can fully trust (Sophocles, *Oedipus Rex*; Aeschylus, *the Seven against Thebes*).

The Moses Intervention

For Moses also, birth brought danger of death. His life is threatened by Pharaoh's decree to throw all males born among the Israelites into the Nile. Moses is sent away by his natural family when he is 3 months old to save his life and is rescued by Pharaoh's daughter who sees him floating in the river in an ark with bulrushes and brings him into the house of Pharaoh himself to raise him. Significantly Moses' sister Miriam watched from a distance to remain aware of what would happen to him.

Moses does not consciously attempt to seek clues about his destiny but the account of Moses going among his Hebrew "brethren" one can see his latent identification: he kills an Egyptian attacking a Hebrew (Exodus 2: 11-12). Moses subsequently chances upon the burning bush and encounters the Hebrew God, who informs him of his mission to save the Children of Israel from Pharaoh. Yet Moses has a speech impediment – he stutters – and is genuinely helped in his mission by his older brother Aaron who does the public speaking for him (Exodus 7). Despite Moses's misgivings as to his own abilities, he does ultimately agree to God's call and leads the Children of Israel out of slavery.

Yet he subsequently does feel overwhelmed by his task and unable to go on, crying to God in his despair: (Numbers 11: 12). The demands are too great, and Moses feels inadequate to the task. He doubts all the people can be provided for (Numbers 11: 13, 21-23) and blames himself (Numbers 11: 14), challenging God to

Table 10 Moses against Oedipus

Stage	Oedipus	Moses
1. Precipitating stressor	Oedipus’s mother sends the infant Oedipus away to be exposed on mountain top and die. (Position C)	Moses’s mother sends the infant Moses away to save him from being killed by Pharaoh. (Position B)
2. Reaction	Oedipus is rescued and raised by the king of a neighboring state, Corinth (Position A)	Moses is rescued and raised by the daughter of Pharaoh (Position E ₁)
3. Response of others	Oedipus’s identity is questioned, and he has no one to talk to. He attempts unsuccessfully to gain usable information from the Oracle of Delphi, who speaks in riddles and entraps Oedipus into patricide and incest. (Position A/C)	Moses sees an Egyptian mistreating an Israelite and kills him with a rock. He flees Egypt, but God appears to Moses and chooses him to lead the Israelites against Egypt and give him necessary help (Aaron, a Sanhedrin). (Position E ₂)
4. Effect	Oedipus attempts to save Thebes from a plague but is undone by misinformation and riddles from others, resulting in Oedipus’s self-blinding as well as many killings and suicides. (Position A/C)	Moses is able to carry out his mission in leading the Israelites to freedom. (Position D)

kill him (Numbers 11: 15). God responds and provides Moses with the help of 70 people, a Sanhedrin (Numbers 11: 16-7).
A contrast of these two narratives is presented in Table 10.

Feeling Abandoned by One’s Child Leaving the Family Nest and Building His/Her Own Life: Treating the Phaedra Syndrome with the Rebecca Intervention

Here we compare the Greek suicide story of Phaedra [83] with the biblical suicide-prevention story of Rebecca [84] regarding addressing the suicidal implications of feeling one’s child is going on to live his/her own life.

The Phaedra Syndrome

In Euripides’ *Hippolytus*, Phaedra, the wife of King Theseus, is caught in a miserable family situation, and at the same time, she has unrealistic expectations of herself. By the goddess Aphrodite’s design, she falls madly in love with her stepson, Hippolytus. Though she resists her passion, her servant betrays her secret to Hippolytus. Phaedra then hangs herself (Il. 776-779), leaving behind a note that falsely accuses Hippolytus of raping her (Il. 882-898). Theseus believes the note and pronounces a curse of death on his son. The curse is soon fulfilled, and the truth of Hippolytus’s innocence is revealed too late. According to this play, the gods are selfish and cruel, utterly

without compassion toward humans. Aphrodite plots to destroy Hippolytus for living in chastity and for his hatred of women (ll.665-67) by filling his stepmother, Phaedra, with passion for him, and turns the heart of his father against him.

Phaedra mixes an exaggerated sense of honor and guilt with a tendency toward self-punishment: (l. 317). She must hide her passion to save her honor: (l. 327) – even if it means suicide (l.331). There is no stopper in Phaedra’s rush toward suicide. She is too overwrought to remain silent, Aphrodite works against her, and her nurse betrays her by spilling the secret of her passion. Death seems to be the only cure: (l. 397). As she expresses it with finality, “I know only one way, one cure for these my woes, and that is instant death” (l. 599).

The Rebecca Intervention

The story of the biblical matriarch Rebecca is very different. After participating in the deception by which they have obtained Isaac’s blessing, Rebecca tells Jacob to go away to her brother Laban, so that he won’t be killed by his brother Esau who feels that Jacob has stolen his father’s blessing that rightly belongs to him (Gen. 27: 42-45). Immediately afterward, Rebecca tells Isaac that her life has been made miserable by Esau’s Hittite wives, and she worries that Jacob may similarly marry a daughter of Heth, the Canaanite:

And Rebecca said to Isaac, “I am weary of my life because of the daughters of Heth. If Jacob takes a wife of the daughters of Heth, like these who are the daughters of the land, what good shall my life be to me?” (Gen. 27:46).

Although this has been read as a “suicidal ideation” narrative, such an interpretation may be somewhat overdrawn. Rebecca’s words seem more like a message to her husband: “Please fix this situation because I can’t stand it!”. In any case, the tactic works, and Isaac commands Jacob to not marry one of the daughters of Canaan, who are so offensive to Rebecca and instead tells him to go to Laban and marry one of his daughters. Rebecca is relieved, and there is no more mention of her “suicidal” musings (Gen. 28:1-4). Rebecca is not being seductive towards her son, nor is she trying to block him from living his own life. What she wants is that Jacob marry a suitable partner. When Isaac listens to her, Rebecca’s suicidal impulse is resolved.

A contrast of these two narratives is presented in Table 11.

Feeling Doomed by a Dysfunctional Family of Origin: Treating the Antigone Syndrome with the Ruth Intervention

Let us compare the Greek suicide story of Antigone [85] with the biblical life-affirming story of Ruth [86] with regard to addressing the suicidal implications of coming from a dysfunctional (e.g., incestuous) family of origin.

The Antigone Syndrome

Greek thought posits that one is doomed when being born of a dysfunctional family. Oedipus expresses this succinctly “For now. I am forsaken of the gods, son of a

Table 11 Rebecca against Phaedra

Stage	Phaedra	Rebecca
1. Precipitating stressor	Phaedra falls passionately in love with her stepson Hippolytus, wanting him for herself (Position C)	Rebecca is concerned that her son Jacob will marry a totally unsuitable Hittite woman (Position B)
2. Reaction	Phaedra attempts to resist her passion but becomes very depressed (Position A)	Rebecca tells her husband Isaac that “her life will not be worth living” if Jacob marries a Hittite woman, like his brother Esau did. (Position E ₁)
3. Response of others	Phaedra’s servant betrays the secret of her infatuation to Hippolytus (Position A/C)	Isaac sends Jacob away to marry a daughter of Rebecca’s brother Laban (Position E ₂)
4. Effect	Phaedra hangs herself and leaves a note to her husband Theseus falsely accusing Hippolytus of raping her, leading to his death (Position A/C)	Rebecca is satisfied and does not speak of suicide again (Position D)

defiled mother, and successor to his bed who gave me my own wretched being.” (Sophocles, *Oedipus the King*, ll. 1359-1361). This is played out in the story of Antigone, daughter (and half-sister) of Oedipus. She is the product of the incestuous union of Oedipus and his mother Jocasta.

Antigone is unable to separate herself from the incestuous nature of her birth. “From what manner of parents did I take my miserable being? And to them I go thus, accursed, unwed, to share their home” (Sophocles, *Antigone*, l. 869). Antigone (which in ancient Greek literally translates to “opposed to motherhood or anti-generative”) ultimately hangs herself after being buried alive for trying to bury her dead brother Polyneices, a rebel against Thebes, against the order of her uncle Creon, the ruler of Thebes. Strikingly, Antigone says she values her brother more than a husband or a child because the latter can be replaced while the former cannot (Sophocles, *Antigone*, 907-913).

The Ruth Intervention

Biblical thought offers a hopeful alternative. One can overcome the effects of a dysfunctional or even an abandoning family. “Cast me not off, neither forsake me, O god of my salvation. For though my father and mother have forsaken me, the Lord will take me up.” (Psalm 27: 9-10). When the sinful people of Sodom are destroyed, Lot and his two daughters escape thinking their father is the last living man, they get him drunk and have sexual relations with him, so that humanity will not perish (Genesis 19: 31). Out of the union of Lot and his older daughter come the people from Moab (literally, “from the father” in Biblical Hebrew). Thus, Ruth also is a product of incest, several generations removed. Nevertheless, Ruth the Moabitess does not remain a victim but progresses to becoming a survivor and an important figure in the history of Israel. This despite the fact that Ruth, her mother-in-law

Table 12 Ruth against Antigone

Stage	Antigone	Ruth
1. Precipitating stressor	Antigone is direct product of an unintentional incestuous relationship between Oedipus and his mother Jocasta (Position A)	Ruth is a descendant of an intentional incestuous relationship on the part of Lot's eldest daughter with her father, albeit conducted for a positive reason. (Position B)
2. Reaction	Though raised in a seemingly secure home, Antigone does not seem to be able to separate from her family of origin. She cannot relate to her would-be lover. (Position C)	Though Ruth is widowed at an early age and away from her native land, she does not seem to be enmeshed and indeed is able to bond to her also widowed mother-in-law Naomi (Position E)
3. Response of others	Antigone overidentifies with her family of origin and winds up being buried alive because she will not leave her brother fighting against Thebes to remain unburied. (Position A/C) ₁	Naomi accepts Ruth as her daughter and brings Ruth back with her to Judah and facilitates Ruth's marriage to Boaz, the kinsman of Naomi. (Position D ₁)
4. Effect	Antigone hangs herself, rejecting her would-be lover. Antigone means in Greek against generativity (semen). (Position A/C) ₂	Ruth thrives and becomes a mother of Obed, and ancestress of King David and the Davidic line. Integrates Naomi into her family in a beautiful way. (Position D ₂)

Naomi, and her sister-in-law Orpah are all widowed while “strangers in a strange land,” without male relatives to protect them and thus vulnerable. Indeed, Orpah abandons Naomi and returns home. However, Ruth does not and in one of the most moving speeches in the Hebrew Bible she pledges her loyalty to her mother-in-law: “Whither thou goest, I will go....” (Ruth 1: 16-17).

Naomi accepts Ruth as her daughter and brings Ruth back with her to Judah and facilitates Ruth's marriage to her kinsman Boaz. Yet despite her losses and despite her dysfunctional family history several generations earlier, Ruth, unlike Antigone, is not suicidal, thrives and becomes a mother of Obed, and ancestress of King David and the Davidic line, integrating Naomi into her family in a beautiful way (Ruth 4).

A contrast of these two narratives is presented in Table 12.

Conclusion

Wellisch's previously mentioned clarion call for a biblical psychology resonates with the contrasting representations of hope versus hopelessness in Greek and biblical writings. In the Greek account, Zeus sends Pandora, the first woman, to man (Epimetheus) as punishment for his half-brother Prometheus stealing fire and thus gaining some autonomy. One day, Pandora decides to open the box that Zeus had

sent along with her. The box contained all the evils in the world, which fly out. Pandora closes the lid as quickly as she could, but too late; only hope remains locked in the box, and unavailable to people [87, 88]. Hebrew Scriptures portray hope in a very different way. After the great flood ceases, all living creatures, male and female come out from the ark built by Noah and repopulate the earth through their sexual union. God places a rainbow in the heavens as a sign of His covenant with man that he will not send another flood [89]. The bow becomes the very symbol of hope.

This difference fits very closely our bidimensional approach to Erikson's life stages. The Greek narratives reflect oscillation between enmeshment (A) and disengagement (C). This precludes any healthy development and increase suicidal risk (as reflected in enmeshed, disengaged, and anomic suicides). The biblical narratives, in contrast, promote forward regression on the B- > E- > D axis to the next advanced stage and are truly hopeful and life promoting. Hope is the key to living with purpose and vice-versa. Living with purpose is the key to hope, and our lives are on the line!

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The Impact of Stigma on the Risk of Suicide 20

Elena Rogante, Salvatore Sarubbi, and David Lester

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Abstract

The term stigma refers to a complex multifaceted social process based on the power that someone exercises over other individuals to devalue, exclude, and marginalize them. It is important to understand the link between stigma and health in order to develop effective public health strategies and to improve mental health in different segments of the populations.

Several studies have shown that the individual perception of public stigma is a major barrier to mental health treatment-seeking.

The insidious nature of stigma influences mental functioning, undermining personal aims. Systemic and widespread negative attitudes and stereotypes toward people with mental disorders are summarized by the term “psychiatric stigma.”

It is important to distinguish the stigma associated with suicidality from the stigma associated with mental disorders. For example, stereotypes and prejudices regarding individuals with suicidal ideation or behavior and individuals with psychiatric conditions have different features. Moreover, recent theories on

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suicidality highlighted the role of stigma as an important risk factor for suicide. For this reason, health professionals must be aware of suicide-specific prejudices in order to deal with them appropriately.

Keywords

Suicide · Psychiatric disorders · Stigma · Discrimination

Introduction

The term *stigma* originates from the Greek language where it refers to signs on the body that expose the moral flaws of the individual. These marks made the person recognizable and allowed the population to avoid him, particularly in public places [1]. The modern conception of stigma is very similar to this, although nowadays it is more related to behaviors and intrinsic conditions than to actual bodily signs. Stigma typically induces emotional responses of dislike and disgust, and even fear, which contributes to perpetuating the stigma and maintaining its social functions [2].

Stigma, prejudice, and discrimination are important factors that lead to health disparities [3]. Therefore, it is important to understand the link between stigma, prejudice, discrimination, and health in order to develop effective public health strategies and to improve mental health in different segments of the populations.

The impact of stigma on suicide risk and mental disorders has recently been acknowledged [4]. However, the term stigma refers to a complex multifaceted social process based on the power that someone exercises over other individuals to devalue, exclude, and marginalize them [5].

The concept of Stigma

Goffman [6] conceptualized stigma as “an attribute that is deeply discrediting, but it should be seen that a language of relationships, not attributes, is really needed; it is considered as a social process and not anymore as an individual attribute.” Goffman noted that stigma manifests itself according to three conditions: “abomination” of the body (e.g., malformations), “tribal identities” (e.g., ethnicity, religion), and “blemishes of individual character” (e.g., mental illnesses). This conceptualization has evolved to refer to a relational construct dependent on attributes that may change in different times and different cultures [7]. Consequently, stigma develops in a framework of social interactions and social exchanges arranged in three dimensions [8]:

- Perspective: how the stigma is perceived by the individual that stigmatizes or by the individual that is being stigmatized.
- Identity: is the stigma related to personal features or it is a consequence of belonging to a specific group?

- Reaction: how do the stigmatizer and the stigmatized react to prejudices and to their consequences, responses that can be emotional, behavioral, or cognitive?

In addition, the mark that causes the stigma has three fundamental characteristics that determine the level of discrimination: visibility, controllability by the bearer, and the impact on people.

Although Goffman [6], in his work, delineated different forms of stigma, he pointed out that the stigma related to psychiatric conditions is one of the most prominent and discrediting types of stigma. Link and Phelan [5] revised Goffman's conceptualization of stigma, specifying that "stigma exists when elements of labeling, stereotyping, separating, status loss, and discrimination co-occur in a power situation that allows these processes to unfold." In addition, Thornicroft [9] shaped the previous definitions by characterizing the stigma as a body of prejudice that represents the emotional response to stereotypes and attitudes that lead to avoidance behaviors. In particular, Thornicroft identified stigma as a process characterized by three domains: the problem of knowledge (ignorance), the problem of negative attitudes (prejudice), and the problem of rejecting and avoiding behavior (discrimination).

In an attempt to categorize the phenomenon of stigma, Reupert and Maybery [10] identified four forms of stigma in the mental health field:

- *Public stigma*, which is inherent in the surrounding population, validates stereotypes and develops discriminative ideas toward individuals with psychiatric disorders. This condition may lead to social isolation, unemployment, and poor social support, and can have an impact on daily activities.
- *Self-stigma*, derives from the internalization of a stereotype, refers to oneself and may cause shame, demoralization, or withdrawal, damaging self-efficacy and self-esteem. This construct has three stages. First of all, psychiatric patients are aware of the stereotypes toward themselves; then they consent to this discriminatory view of themselves; and, finally, they apply the stereotype to themselves.
- *Associative stigma* arises from associating with another individual, for example, the perception of stigma in survivors who have experienced the loss of a loved one from suicide.
- *Structural stigma* includes the government's restrictions on the opportunities possible for people with mental illnesses and the limited options resulting from institutional policies, for example, the lower financial assets allocated by governments to mental health resources that worsen the quality of care of psychiatric patients and the shortage of health professionals willing to work with psychiatric patients.

The behavioral aftermaths of stigma worsen the impairment associated with the presence of psychiatric disorders in many aspects of life (e.g., personal relationships, education, work), limiting opportunities and causing loss of income, unemployment, reduced chances for finding housing, and having access to medical care [11]. Systemic discrimination leads to less investment dedicated

to mental health care compared to physical health care [12]. In addition, psychiatric patients often experience unequal treatment for their physical health conditions that can increase morbidity and result in premature mortality [13]. The barriers that impede access to care result in further consequences for the psychiatric patient, such as delay or refusal of help-seeking and prematurely dropping out of the treatment [14].

Prejudice toward mental illness can also spread to family members and caregivers who may experience feelings of shame, self-blame, guilt, and anger [15]. In societies based on family cohesion, stigma can affect income, work, and marital perspectives [16].

Several studies have shown that the perception by the individual of public stigma is a major barrier to mental health treatment-seeking, especially among young adults [17]. For example, data from National Surveys find that one-third of individuals report that the cause of their decision to not seek treatment, despite perceiving a need, is concern about stigma [18]. In addition, Mojtabai et al. [19] found that one-fifth of individuals in mental health care dropped out of treatment as a result of perceived public stigma. Furthermore, perceived stigma not only represents a barrier to treatment-seeking but can also exacerbate anxiety and depressive symptoms, as well as substance abuse and social isolation [20].

Self-stigma can have behavioral consequences, labelled by Corrigan et al. [21] as the "why try" model, in which internalizing stereotypes about mental illness provoke loss of self-esteem and decrease of self-efficacy, accompanied by behavioral failures. Therefore, stigma may cause disengagement from daily activities otherwise easily achievable or desirable, including personal aspirations. Moreover, this model provides a theoretical framework for understanding how reluctance to obtain appropriate mental health care represents a barrier to accomplishing life goals.

The stigma associated with mental illnesses is often perceived as similar to the stigma connected with racial and sexual discrimination, although the practical consequences may be affected by different factors (e.g., age, self-stigmatization) [22]. In addition, the fear people experience when meeting with individuals suffering from mental illnesses is not only related to the patients' abnormal behaviors linked to their psychiatric conditions (e.g., violence, functional impairment), but also with the labeling process itself. In a study conducted by Thompson et al. [23], respondents reported "loss of mind" as the most disabling condition, but greater knowledge was associated with less-discriminatory attitudes.

Corrigan [24] suggested analyzing "felt stigma" among individuals with psychiatric disorders to ascertain the frequency and degree of stigma that they experience. Corrigan also the examination of three topics:

1. "Signaling events" (e.g., labeling, physical appearance, and behaviors)
2. "Knowledge structures" (e.g., public attitudes about perceived danger and self-care)
3. Pathways that lead from knowledge structures to emotional reactions and behavioral responses

The repercussions of stigmatization are critical for mental health and can also play a role in suicidality [25]. The insidious nature of stigma influences mental functioning, undermining personal aims, obstructing access to higher education, occupation and relationships, and ultimately, jeopardizing general well-being and the empowerment of individuals.

Systemic and widespread negative attitudes and stereotypes toward people with mental disorders are summarized by the term “psychiatric stigma” [26]. Such attitudes are strictly related to discriminatory acts that harm individuals who have psychiatric conditions, directly or indirectly. Some examples, typical of today’s society, include beliefs that mental illness is a sign of inadequacy, deviant behaviors, weakness, poor intelligence, unreliability, and violence [27]. Such beliefs can be found at any level of society, even among individuals with psychiatric disorders [28], and in different sociocultural environments around the world [29]. Corrigan and Watson [30] provided a model that explained the paradox of self-stigma, focusing on the consequences of the internalization of negative attitudes. However, while stigma can affect self-esteem and self-efficacy in some individuals, in others, it can provide energies and cause righteous anger, while some may seem unaffected by it.

A recent review of the literature [31] showed that internalized stigma is strongly and negatively associated with a number of psychosocial variables, such as hope, empowerment, and self-esteem. With regard to psychiatric variables, internalized stigma was negatively associated with treatment adherence and positively associated with symptom severity.

Stigma and Psychiatric Disorders

To better understand the role of stigma in mental disorders, and given the strong link between mental health and suicidality, we will briefly review the effects of stigma on the principal psychiatric diagnoses.

A study investigating suicide and depression showed that American adults believed that recovery for a person with a history of suicide attempts was lower than for a person with mental illness [32]. Moreover, individuals who have directly experienced depression reported feelings of self-stigma, while those who had attempted suicide felt embarrassed and ashamed and wanted to hide their suicidal behavior [33]. In Canada, Mackenzie et al. [34] found that men were more likely to experience public stigma about their depressive conditions than were women. In addition, stigma was greater in younger adults than in older adults. Yokoya et al. [35] analyzed beliefs and discrimination toward suicide and it found that 30% of the participants believed that depression is caused by a weak personality. Only half of the participants believed in the effectiveness of pharmacotherapy for managing depression. These results show that the level of accurate knowledge may influence beliefs and prejudices about suicide and depression.

In patients with bipolar disorders, stigma affects their domestic, social, work, and school environments. These patients experience loss of support, fewer successes, and lower levels of quality of life [36]. In a recent review of the

literature, Ellison et al. [36] found that bipolar disorder is considered more positively than schizophrenia but less positively than depression. Individuals with bipolar disorder reported moderate to high levels of internalized stigma. Regarding overall functioning, several studies have noted that stigma (particularly stigma derived from the internalization of stereotypes) was associated with functional impairment in various domains. Vazquez et al. [37] found that one of the predictors of discrimination in patients with bipolar disorder was their level of functioning; Cerit and colleagues [38] identified an association between stigmatizing experiences and general functioning. Thomè et al. [39] found that interpersonal, cognitive, and leisure functioning were the areas of behavior most strongly associated with stigma, although all the assessed domains showed significant associations.

Individuals with anxiety disorders frequently report the *weak not sick perception*, which refers to the belief that anxiety symptoms reflect personal weaknesses of the patient, and not real medical problems that require treatment and management [40]. Batterham et al. [41] found that perceived stigma was higher in rural areas, and greater exposure to patients with anxiety disorder was significantly associated with increased stigma. Curcio and Corboy [42] reported that rural origins were associated with public stigma, while higher exposure and awareness toward anxiety had a negative correlation with personal stigma. Higher self-stigma was associated with worse treatment outcomes (e.g., low medical adherence, more dropouts, and poor responsiveness). This research shows that stigma has an impact on the management of anxiety disorders, facilitating or obstructing help-seeking and receiving adequate treatment.

Stigma related to schizophrenia is particularly noteworthy. Stigma leads to major negative consequences for self-esteem, social isolation, adherence to treatment, and opportunities to find housing and work or achieving an appropriate level of education [43]. Moreover, stigma increases disability and the burden on the patients and their families [44]. Several studies have shown that schizophrenia is one of the most stigmatized psychiatric conditions [45]. The majority of individuals in the society believes that people with schizophrenia, especially males, are violent and capable of committing dangerous acts against others, especially if untreated. Moreover, those who believe that schizophrenia is due to biological causes have more negative attitudes, while those who have direct experiences with mental illnesses have weaker stereotypes [46].

Several programs have been implemented to address stigma in mental illnesses [47], sometimes considering them as a whole or targeting a single diagnosis (if it is believed that stereotyped beliefs and attitudes are specific for each disorder). The National Alliance on Mental Illness, for example, has implemented anti-stigma interventions in the United States to increase positive knowledge and attitudes toward psychiatric disorders [48], combining psychoeducation and personal contact to boost the efficacy of the program. The promising results have shown the success of contact-based projects in reducing stigma, educating the community, and demystifying the psychiatric conditions through the construction of empathy and intergroup contacts with affected patients [49].

Stigma and Suicidal Behavior

It is important to distinguish the stigma associated with suicidality from the stigma associated with mental disorders [32]. First, stereotypes and prejudices regarding individuals with suicidal ideation or behavior and individuals with psychiatric conditions have different features. For example, individuals who have attempted suicide are thought to be attention-seeking or without a moral sense.¹ For this reason, health professionals must be aware of suicide-specific prejudices in order to deal with them appropriately [50]. Second, in some cases, individuals who have attempted suicide do not have a psychiatric diagnosis [51]. Third, a past suicide attempt may become a crucial and long-lasting part of a person's life, while symptoms of psychiatric diseases may be attenuated, helping the individual to overcome stigmatization. Lastly, different individuals might experience the stigma differently and with different levels of distress and importance [34].

In Australia, Batterham et al. [43] found that about 40% of the sample viewed suicide as an offensive, selfish, or reckless act that should be punished. About 30% of the respondents considered suicide to be indication of weakness, irresponsibility, cowardice, or attention-seeking. In general, Pompili [52] found that suicidal people were labeled negatively as weak and unable to cope with their problems or as selfish. Frey and colleagues [35] found that the highest levels of discrimination toward suicidal individuals were from family members (57.1%) and emergency department professionals (56.6%). Farrelly and colleagues [53] investigated the association between prejudice and suicidality among individuals with mood disorders or schizophrenia spectrum disorders. The results showed that 65% of the sample reported feelings of hopelessness linked to stigma, 38% reported suicidal feelings caused by discrimination, and 20% reported that the experience of stigma had led them to make a suicide attempt. Feelings of discrimination were considered by the patients as stressors that went beyond their coping resources, leading to a negative self-image and a lower perception of support from the social environment. In turn, these perceptions led to feelings of social isolation, hopelessness, entrapment, and ultimately, suicidal behavior.

The interpersonal theory of suicide [54, 55] proposes that suicidal behavior is the result of thwarted belongingness and perceived burdensomeness, that is the belief that one is a burden on others. Therefore, this theory would view stigma as one of the risk factors for suicide since public stigma can cause social isolation, while self-stigma may influence perceived burdensomeness [56]. The stress-diathesis model of suicidality [57] states that biological or psychological vulnerabilities, alongside psychosocial stressors, can exacerbate suicidality. In this model, stigma represents a negative stressor with enduring effects [58]. Furthermore, stigma has a close link with hopelessness, one of the most critical risk factors for suicide [59].

¹ A common myth about suicide is that those who admit to suicidal ideation will not actually engage in suicide behavior. In fact, suicidal ideation and attempted suicide are both risk factor for dying by suicide.

Several research studies have focused on the relationship between stigma and suicidality. Population studies have shown that stigma is less present in regions with lower rates of suicide [60]. In a study of patients with schizophrenia, Sharaf and colleagues [61] found a significant association between suicidality and self-stigma. In a qualitative study, Eagles et al. [62] found that most participants reported that stigma contributed to worsening their emotional state.

Stigma and discrimination are present also in suicide survivors. Suicide bereavement, in fact, is quite different from bereavement after natural deaths and has a strong impact on the suicide's family and friends, with profound consequences that go beyond the immediate loss [63]. In a study of people who had suffered a sudden bereavement, Pitman and colleagues [64] found that relatives and friends of people who died by suicide reported higher levels of stigma, shame, and guilt than those bereaved by other causes of sudden death (natural or unnatural). Moreover, stigma and shame influenced social functioning, help-seeking attitudes, and support offered.

Knowledge of the link between stigma and suicide risk is important for the implementation of effective intervention tactics and strategies. Thornicroft and colleagues [65] have suggested that interventions directed to groups liable to stigmatize suicidal behavior and mental illness (such as employers), together with interventions to manage internalized stigma, may address this issue. Longitudinal studies should address the hypothesis that stigma may be an essential risk factor for suicide, for example, by examining the involvement of the interpersonal theory or the stress-diathesis models of suicidality. Researchers should target the discrimination experienced by individuals at risk for suicide and those with mental disorders, as well as the self-stigma and feelings of shame and, in addition, the consequences of structural stigma on the quality of life and access to mental health services [56]. The mediating effect of depressive symptoms and social rejection and the situational components of stigma should be studied as well as the possible influence of impulsivity [66]. This research could identify the most relevant outcomes of stigma and discrimination that represent risk factors for suicide, informing interventions to reduce the frequency of suicidal ideation and behaviors [67].

Some interventions have already been implemented. For instance, Rogers and colleagues [68] tested the efficacy of two brief, web-based interventions to reduce suicide-related stigma in a sample of students. The first consisted of psychoeducation regarding suicide statistics, risk factors, red flags, and suicide prevention strategies. Participants in the second intervention were assigned to an interpersonal condition in which they were exposed to case studies of suicide attempters with specific details of the attempts, as well as personal stories and interviews about the attempter's life and existential crisis. The two interventions were both effective in reducing suicide-related stigma, and the effect was stronger for those who had previous experiences of suicide. Web-based interventions address stigma issues with cost- and time-effectiveness and can reach a broad range of individuals.

In conclusion, it is important to identify the most common stereotypes about suicide and mental health and assess the impact of interventions to reduce stigma and increase stress coping resources, with the final goal of reducing suicide rates.

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The Role of Resilience in Suicide Prevention and for Recovery After Suicide Attempt: Learning from 80 Years of Resilience Research 21

Anita M. Chauvin

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Abstract

For some years, suicide rates have been increasing, not decreasing, despite concerted efforts by global agencies and countries' national strategies and innovations in the clinical care of those most vulnerable. In Australia, suicide rates had fluctuated around a slow decline for some years and then began to rise again, reaching the same rate of 12.5 per 100,000 in 2017 as Australia saw 50 years ago (Suicide prevention Australia. Turning points: imagine a world without suicide. 2019, September. www.suicidepreventionaust.org).

Many studies have explored the factors that placed individuals at risk of suicide and global prevention strategies have been based on reducing these risks and building protective factors or addressing specific risks, such as depression, mental illnesses, and other mental health disorders. Research on resilience,

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however, has only been emerging in the suicidology literature over the last decade, yet there is much that can be learnt from those who have been resilient in the face of adversity, whose lives were often characterized by risk and vulnerability but who navigated a path to eventual well-being, even flourishing.

There has, however, been extensive research into those who have been resilient in the face of trauma, which has been building since World War II. This chapter provides an abridged review of this 80 years of research into resilience for the contribution it could make to innovation in suicide prevention and better support recovery and prevention of relapse after suicidality or suicide attempt.

Keywords

Resilience · Lived experience · Suicide and resilience · Resilient survivors, Suicide prevention

Introduction

Research and interventions for suicide prevention, have usually been based on what we know about the risk factors leading individuals to attempt or complete a suicide based on retrospective studies of attempted and fatal suicides. This continues to be a key focus in suicide prevention research, and significant investment continues to be made in the establishment of suicide registers across the globe [57]. Although this line of questioning has been useful, it has overlooked the valuable information that can be gained from the lived experience of those who have suffered extraordinary trauma and/or deprivation to understand how they survived, did not succumb to suicidality, and instead navigated a path to eventual well-being and even greater resilience to future adversity.

This chapter explores the evolution of research into resilience, through its growing links with the contemporary contributions of related disciplines such as positive psychology and innovations in working with neuroplasticity. What did vulnerable individuals do to stabilize and recover, and what resources did they draw on that could inform our population-based suicide prevention strategies and clinical treatment practice?

Learning from Resilient Survivors and the Contribution This Can Make to Suicide Prevention

Exploring resilience to understand how some or all of its elements might be applied to suicide prevention has only begun to emerge in the suicidology literature over the last decade and is now beginning to gather momentum, with studies exploring the role of positive thinking [42]; connection with others as a buffer [55] and the role of self-efficacy and spiritual well-being in recovery from abuse and subsequent suicidality [33]. There have also been population-specific studies appearing, such

as an exploration of the increased resilience of Alaskan and American First Nations elders compared to their youth [47].

One of the most significant recent efforts to systematically understand the elements of resilience and find ways to apply this knowledge to programs to build resilience has been undertaken by the US military in collaboration with the National Institute of Mental Health to reduce the risk of suicide [43, 48]. Referred to as the Army Study to Assess Risk and Resilience in Service members (Army STARRS [www.armystarrs.org]) it comprised an initial multicomponent epidemiological and neurobiological study of risk and resilience factors for suicidal thoughts and behaviors from 2009 to 2014 and a longitudinal follow-up STARRS – LS from 2015 to 2020.

Using a combination of administrative records of over a million personnel; representative surveys of over 41,000 soldiers; pre- and post-combat surveys of more than 10,000 combatants; case-controlled studies of 186 hospitalized suicide attempters and 375 controls; computerized neurocognitive tests; and blood samples, the study captured the complex interaction of environmental and genetic risk and protective factors and varying settings and contexts. It also highlighted the importance of the person's life and career history in relation to suicidal thoughts and behaviors.

Systematic analysis of this data to understand the modifiable psychosocial, epidemiological, and neurobiological risk and resilience factors for suicidal thoughts and behaviors is ongoing and to date has had a focus on risk identification and screening for vulnerability, e.g., experience of violence in childhood, traumatic brain injury, failure to feel connected to one's unit, and perceived burdensomeness [10].

There has also been an effort to understand the characteristics of personnel who have been through years of imprisonment, solitary confinement, and torture to understand how they remained (and remain) resilient (Southwick and Charney [56], and over time other helpful concepts are emerging from these studies, such as the mindset, which contributes to post-traumatic growth, which can mitigate the risk posed by post-traumatic stress disorder (PTSD) [38].

As interest in resilience builds in the suicidology research community, most recently, there has been a concerted call by a global consortium of suicide prevention researchers, for a shift from the heavy focus on risk analysis to research on how to build resilience for the value it might provide in the prevention of suicide [30]. Their literature review of 695 peer-reviewed articles suggested that very little research on resilience exists specifically in relation to suicide prevention, although they did identify research on individual factors that confer resilience and could contribute to suicide prevention. Ivbijaro et al. [30] asserted their findings indicate the merit, which biopsychosocial interventions might have for building resilience as a mitigator of suicidality and recommended the further investigation of such.

While the concept of resilience has been gaining a foothold in suicidology research over the last decade, there has already been a large body of research on resilience, which has been growing since World War II. While the focus of this research has not been specifically on its value in suicide prevention, there is a wealth of material that could inform suicide prevention strategies and clinical practice, which has yet to be fully drawn upon. This chapter scans the resilience research of

the last 80 years for its value in prevention, early intervention, stabilization during acute suicidality, and to inform recovery after suicide attempts and prevention of relapse into suicidality.

The Evolution of Research on Resilience

One of the earliest and most seminal works on resilience was Viktor Frankl's study of fellow inmates in Auschwitz [21]. On arrival at the death camp, this eminent psychiatrist decided that if he was going to survive he would need to understand the attitudes and behaviors that were characteristic of those who did survive and of those who more rapidly deteriorated and died.

For Frankl, a critical factor that seemed to be at work was the meaning a person gave the traumatic experience. For example, negative religiosity (e.g., "I am being punished") or anguishing (e.g., "why me?") appeared to prompt a downward spiral. On the other hand, positive religiosity (e.g., "I am being tested") or a determination to live (e.g., "I will not let them win – I will survive and I will find my wife and children") appeared to support people to survive. He observed that it was those who comforted others and gave away their last piece of bread who survived longest. He concluded that everything can be taken from someone but the last freedom – they can always retain the freedom to choose how to respond to the situation they find themselves in.

Viktor Frankl chose to take the stance of objective observer, fueling his determination to survive by focusing on his desire to teach others what he learnt from his experiences in Auschwitz. During his darkest days, he describes how he imagined himself giving lectures to large audiences about his findings, and after the war he did, indeed, go on to do just that.

Frankl's approach was a major departure from the dominant notion that resilience was a trait that some people had and others did not. Frankl had made a decision to learn how to think and behave resiliently. On his release, Frankl returned to Vienna, where he completed development of Logotherapy, an existential approach to psychotherapy, which underpinned what is referred to as the third Viennese School of Psychotherapy. In 1946, Frankl published his now-famous book, *Trotzdem Ja Zum Leben Sagen: Ein Psychologe Erlebt das Konzentrationslager* (*Saying Yes to Life in Spite of Everything: A Psychologist Experiences the Concentration Camp*; now referred to as *Man's Search for Meaning*).

The meaning we give life and events in our lives has remained one of the elements that are consistently cited in research on resilience – having a framework of meaning through which to filter adversity and/or a perceived purpose in life, a reason to persevere and survive through hardship or duress [56]. Meaning certainly played a pivotal role with the individuals who shared their lived experience of recovery and building resilience, as described in the next chapter [9]. An important variant for these people though, perhaps similarly to Viktor Frankl, was the capacity to be resilient when all meaning has collapsed and to find comfort in stripping back the beliefs that had supported them to date and searching for or constructing new meaning on which to build a way forward [7, 8].

Longitudinal Studies of Resilience: What Determines Someone's Trajectory in Life?

Research on resilience as a concept in its own right began in earnest in the 1950s when Garmezy and Rodnick [24] sought to understand the heterogeneity of individuals who developed schizophrenia and found that taking premorbid adjustment into account reduced the variability between patients. This stimulated them to begin exploring their premorbid good or poor adjustment. As studies to date had depended on the adequacy of, or inferences made from, case history records, they commenced prospective studies, initially focusing on the traits of children growing up at high risk of schizophrenia or with parents with schizophrenia to understand positive adaptation from a developmental perspective for its contribution to clinical considerations.

These studies expanded over the following two decades, beyond study of the characteristics of the children themselves to also include consideration of external risk and protective factors, such as family and broader social environments. This included examination of the biopsychosocial and environmental factors that may have led to good or poor premorbid adjustment, with an examination of the trajectory of children growing up in poverty, to identify the factors that promoted greater resilience and reduced risk of pathological or other negative outcomes [23].

This burgeoning interest led to wide-ranging studies of normative and high-risk young people to understand what underpins the competence and positive adaptation that might mitigate potential psychopathological outcomes [40].

The interest in the factors that contributed to resilience in children growing up with high-risk parents and/or environments led to a proliferation of studies, but the field suffered criticism that the capacity to generalize was reduced by a lack of consistent definitions and rigor in the studies [35].

Systematization of research in resilience was brought to bear in perhaps the most famous longitudinal study undertaken by Werner and Smith [59, 62], examining a cohort of 698 children from birth in 1955 and tracking them as they grew up in poverty on the island of Kauai, Hawaii, through to their third decade of life. One-third of the cohort were designated as being at high risk of a negative life trajectory because of the poverty and dysfunction of the families into which they were born and, indeed, two in three of these high-risk children did develop serious learning or behavioral problems by the age of 10, and by the age of 18 years, delinquency, mental health problems, and/or teenage pregnancy were common. One in three of these children, however, grew into competent caring adults.

This study found that these "invulnerable" children had experienced less separation from their mothers in the first year of life, were perceived by others as being easy company and good-natured, received a great deal of attention from others, and knew how to get attention when they needed it. By 18 years of age, they had developed a positive self-concept and internal locus of control, in contrast to the other children, whose trajectory was toward high-risk behaviors and mental health problems [59, 62].

Some of the lessons learned from this group of children may still infer inherent characteristics, such as an easy temperament, which may naturally attract positive

attention. Other elements of resilience could have been attributed to good luck, e.g., with fortunate circumstances, such as less separation from their mothers and where the increased presence of the mother inferred a level of attentiveness, which consistently appeared as a mitigating factor, providing consistent support over time. There were also, however, other factors that enabled resilience to grow and that could potentially be learnt.

The internal locus of control, which resilient young people developed, knowing how to get positive attention when needed and a positive self-concept could have been the result of the preceding factors interacting to build positive self-regard. Adoption of an internal locus of control, however, may also reflect a resilience factor, which can be learnt.

Importantly, the individuals Werner studied were able to develop resilience even when they had not appeared to be on a positive trajectory. By their 30s, the majority of those who had experienced adverse outcomes in adolescence had returned to their education, ceased self-destructive behaviors and found employment. Only 18% were described as troubled adults, with serious coping problems. Werner described how a “chain of protective factors linked across time, afforded vulnerable children and teenagers an escape from adversity and contributed to positive outcomes in their adult lives” ([59], p. 508).

In the 1970s, Garmezy and Rodnick commenced a 20-year longitudinal study of children growing up in highly stressful environments, referred to as the “Project Competence Longitudinal Study” (cited in [23], p. 265). They sought to understand why some children were still able to progress through normal development [23] and identified the influence of both internal and external factors, such as “average or above average socioeconomic resources, cognitive skills, openness to experience, drive for mastery, conscientiousness, close relationships with parents, adult support outside the family and feelings of self-worth” ([41]; Masten and Tellegen, 2012, cited in [23], p. 265).

The findings of these longitudinal studies generated inquiry into the range of risk and protective factors, which might predict the trajectory of a young person and which could perhaps be manipulated positively. His analysis identified pivotal risk/protective factors, “internal factors included personality, advanced motor and language skills and self help skills. External factors included family and community” (Werner and Smith [61], cited in [23], p. 265).

Werner and Smith had found that it was important for the child to establish a close bond with a competent emotionally stable person in the family from an early age, someone who was sensitive to their needs, such as grandparents, older siblings, or others. However, if their family was dysfunctional, it could be just as effective and important for someone from the community to fulfill that role. This person could be a neighbor or some reputable figure such as a church member, school teacher, head of sports or other association, or other elder mentors (Werner and Smith [61], cited in [23]).

Werner [59], in reflecting on the Kuai longitudinal study, identified clusters of protective factors, which contribute to resilience, including (i) a temperament that elicited positive responses from a number of caring people; (ii) skills and values that motivated them to make good use of what strengths or opportunities they had; (iii)

parenting that fostered self-esteem in these people; and (iv) supportive adults who acted as “gatekeepers of the future,” e.g., grandparents, older siblings, or the “surrogate parents” from the community, referred to above, who could act as mentors.

Werner and Smith’s longitudinal study provided the earliest systematic analyses of risk and protective factors, and these factors can be seen in the variations of Risk and Protective Factors Frameworks, which have been adopted by many of the countries, which have responded to the UN and WHO’s call in 1993 to mobilize national suicide prevention strategies [11–13, 63].

It has not been possible, however, to evaluate the effectiveness of the application of the risk and protective frameworks and the national suicide prevention strategies that they underpin as it is impossible to know how well these national strategies have been implemented [63]. Suffice to say, suicide rates not only remain high but are increasing in many parts of the world [57, 64].

Another key contribution of Werner and Smith’s study was recognizing “*the opening of opportunities at major life transitions, from high school to the work place, civilian life to military life, from single to married, the arrival of parenthood*” ([59], p. 508). This finding highlighted the windows of opportunity that exist where people are demonstrably more open to self-reflection and learning when interventions, which teach new life skills, might find receptive ground. In line with this finding, many national suicide prevention strategies have targeted people in life transitions, such as early adolescence and school-leavers, seeking to capitalize on the curiosity that accompanies new chapters in life [12, 13].

Perhaps the period post-suicide attempt is one such window of opportunity where the person may be open to self-reflection on their strengths and on the areas of vulnerability that led to their suicidality and learning how to address these risks to prevent any future decline/relapse?

Resilience as Dynamic and Always Evolving

For many years, there had been an ongoing debate about whether resilience reflects stable, measurable traits or is a dynamic process in which resilience can develop at any point in time in life [4, 30]. It has taken some time to arrive at a definition of resilience, which allows for the possibility that resilience could be developed. While resilience was initially regarded as a singular character trait, however, it has now come to be seen as a collection of character traits, ways of thinking and life skills, and a recognition that these can be developed at any time in life and may be able to be taught [1, 46, 54].

Ahern [1] described how there had been a shift toward a systems theory definition of resilience, which considers both the elements of resilience, which may reflect inherent characteristics or capacities, that could be described as a trait and the resilient behaviors and ways of thinking that can be learnt. The findings in Werner and Smith’s longitudinal study, that those on a negative trajectory could by their 30s build skills and make choices, which resulted in them ceasing destructive behaviors,

becoming employed and going on to thrive, support the systems theory of resilience, that resilience is dynamic and always evolving [20, 59].

Systems theory also adds to this, though, that the elements of resilience in a person's repertoire can impact upon or be impacted upon, positively or negatively, by biological, social, and environmental factors. For example, the neurochemistry of depression, anxiety, post-traumatic stress disorder (PTSD), or the fatigue of a chronic illness could undermine the level of resilience derived from traits and from ways of thinking. Conversely, learned skills and the development of the behaviors of a resilient person can positively affect biology and neurophysiology, such as the positive neurophysiological, functional, and neurochemical changes that fMRI and other studies have demonstrated are generated by activities, such as meditation [16].

This speaks to the need to work with people holistically to consider physical health and psychological health, optimize positive social connections, and address the health of their environment.

Most recently, studies in resilience have shifted to explore how resilient thinking and/or behaviors might actually work with neuroplasticity to embed new automatic responses to adversity at the deepest level in the person, e.g., stabilizing the hyper-reactive amygdala of people with post-traumatic stress disorder (PTSD), thus mitigating the psychological and neurophysiological impact of trauma [14, 49, 54, 56].

The capacity to work with neuroplasticity has added weight to the possibility that people could learn simple techniques to use as tools in self-managing recovery from depression and suicidality and that could contribute to building resilience. There is now a large body of hard evidence that as elements such as insight and life skills develop, these contribute not only to improved life choices but also lead to changes in brain functioning and the consequent neurochemistry, which mitigates depression, anxiety, and suicidality [14, 16, 28, 54].

What this means for suicide prevention interventions has yet to be explored. While systems theory has identified the types of factors, which might interact when a person responds to adversity, there does not appear to be much research on how resilient people manage and/or apply the resilience factors they possess for better or worse effect. Despite the research recognizing that resilience factors accumulate and build on one another or can act as springboards to greater insight, motivation, and further development, there is still a need to investigate the underlying process by which protective factors are brought together by a person and used when they face adversity.

Galatzer-Levy, Huang and Bonanno [22] emphasize the importance of moving away from a binary definition of resilience to considering trajectory models when considering responses to stress and trauma as a greater understanding of these can inform identification of state and trait risk factors and potential interventions. Galatzer-Levi et al. describe how trajectory models consider the resilience of those minimally impacted by trauma, those who take longer to recover but do not develop chronic PTSD, those with delayed onset stress disorders and chronic stress/PTSD, and then teases out the heterogeneity within trajectories to understand the implications of the biopsychosocial factors of the individual, their developmental stage and coping ability, the context and nature of the trauma, and whether the trauma is a

single event or repeated. Their review showed a proliferation of studies seeking to understand the complexities of resilience and recovery but highlighted that this field is in its early stages of development. It is likely that this is where participative research with those who have lived experience of recovery, prevention of relapse, and building resilience becomes important.

Post-Traumatic Growth

A recent study of military veterans explored post-traumatic growth for its capacity to mitigate the impact of trauma and reduce suicide risk [38]. It found that individuals experiencing post-traumatic growth did not just return to their pre-trauma baseline of resilience, but instead developed beyond pre-trauma levels in one or more domains of their life. The growth that emerged from their struggle to cope with their distress and reassess their worldview was found to have changed self-perception, improved relationships with others, increased emotional expressiveness, and generated a heightened sense of spirituality and sense of meaning to life. While this did not necessarily reduce their PTSD, their greater appreciation and enjoyment of life meant their distress now coexisted with increased quality of life. As Seligman [54] explains, a state of well-being can form the foundation from which a person moves from survival to flourishing.

These findings support the argument that slower recovery may still reflect resilience as the person does eventually overcome the psychological impairment, reflecting great, or perhaps even greater, strength than those who bounced back quickly [38, 65]. Some say this post-traumatic growth reflects even greater resilience as their existential struggle to cope, recover, and move forward develops strengths greater than those with which they began.

This is important in consideration of suicidality. It could be inferred that a suicidal person is not resilient; however, it may be that the suicidal person has suffered multiple challenges, which have temporarily left them overwhelmed and psychologically impacted upon but that they are able to refocus and recover and become resilient once more or even more resilient than before [38, 65].

Having survived trauma and gone on to live well builds the confidence to approach future adverse events as a problem to be solved with the knowledge that one has had the capacity to do so before [4]. How one views adversity makes a critical difference – is it seen as trauma that can crush you or a challenge to learn and grow?

Can those Who Are Not Resilient at the Time of Greatest Vulnerability Build Resilience?

Masters and Naryan [39] described children who were liberated from concentration camps, who had initially suffered the greatest traumatic impact because of being separated from their parents. They go on, however, to describe that on longitudinal

follow-up even these orphaned children were able to make a strong recovery and go on to thrive. This harks back to Werner and Smith's finding that slower recovery because of initial psychological impairment does not reflect a lack of resilience. Rather, the person did ultimately demonstrate great resilience in finding the resources to rebound from that initial longer impact, their struggle resulting in the post-traumatic growth supportive of recovery and going on to thrive [38, 65].

Masters and Naryan [39] point out that these orphans showed great resilience even though they retain psychological scars. *"This mixed picture of resilience and lingering vulnerability or harm from extreme and prolonged trauma has continued to characterise the findings on children who survive the horrors of war, including cases of rescued child soldiers"* ([39], p. 229). As Seligman [54] similarly explains, developing the factors that contribute to resilience and an improved feeling of well-being does not infer never feeling sad. It infers developing a pervasive sense of well-being and realistic optimism, which provides the capacity to sit comfortably with, and reflect upon, sadness, loss, and adversity and have resilience in the face of these. This echoes the state of coexistent resilience and vulnerability, which was found in survivors of war, and has been seen in children and young people, who are survivors of abuse [39].

The examples of the war orphans and the experience of military personnel who experienced great harm but were ultimately able to recover and go on to thrive are important to note, both for service providers working with vulnerable populations and for the hope it can give those populations who are suicidal as a result of great trauma. Knowing recovery and flourishing are possible in those who are similarly survivors of prolonged violence and abuse, natural disasters, refugees fleeing armed conflict, military personnel, and other frontline professionals awakens hope. Being made aware of examples of the strong recovery of others who have been through trauma can remind individuals of how they, similarly, have recovered from trauma in the past, reassuring those who are still vulnerable and may have lost confidence in their own resilience.

Vulnerability, scars, do not equate to weakness or to lack of resilience. Even for individuals who have survived extremely prolonged trauma and loss, there is the demonstrable possibility to recover and thrive [21, 39], to experience a quality of life, which mitigates ongoing mental health distress and may reduce suicidality [38].

Building Resilience in Individuals to Better Prepare Them for Life's Adversities

The most extensive studies of the roles of risk and resilience in preventing suicide to date have been those undertaken by the US military, aiming to understand biopsychosocial determinants of risk and resilience. This has been in order to build an approach to training military personnel to be more resilient in the face of trauma and reduce the incidence of suicide in the armed forces [43, 48].

Systematic analysis of this data to understand the modifiable psychosocial, epidemiological, and neurobiological risk and resilience factors for suicidal thoughts

and behaviors is ongoing but to date appears to have had a focus on risk identification and screening for vulnerability, e.g., experience of violence in childhood, traumatic brain injury, failure to feel connected to one's unit, and perceived burdensomeness [10]. However, findings, such as Southwick and Charney's [56] identification of the elements of resilience found in veterans who survived years of solitary confinement and torture after capture and Martz et al.'s findings, outlined above, on the mindset, which can support post-traumatic growth in veterans [38] suggest the STARRS and STARRS – LS studies may yet reveal insights that can helpfully inform broad population health promotion strategies and targeted interventions to build resilience in individuals at risk of depression and suicidality, especially where trauma is one of the potential triggers.

Southwick and Charney [56], in their work on the characteristics of veterans and others who were resilient survivors of great trauma, reviewed the resilience research from a range of perspectives, including biological, social, psychological, and spiritual. They interviewed resilient survivors, such as veterans of the Vietnam War, who had been tortured and imprisoned in solitary confinement for many years and civilians who had survived trauma, such as kidnappings, rape, and attempted homicide to understand why *"some people not only survived enormous stress and trauma, but had somehow endured or even thrived"* ([56], p. 7). They found that the following resilience factors consistently emerged:

- Realistic optimism (the person reminding themselves of evidence of their survival of past trauma).
- Facing their fear with an adaptive response.
- A moral compass, an ethical framework for making decisions when under duress – *"What is right."*
- Religion and spirituality – drawing on some kind of faith, beliefs, and/or practices.
- Social support – finding ways to proactively connect.
- Role models – having had or identifying role models, who provide a road map.
- Training – physical fitness and building strength.
- Brain fitness – challenging the mind and heart.
- Cognitive and emotional flexibility.
- Meaning, purpose, and growth.

Globally, in programs for recovery from natural disasters and in the rebuilding of communities after armed conflict, researchers have for some time sought to explore whether constructive skills such as these can be built during childhood and adolescence to support the young people to develop greater resilience in the preparation for traumatic events of this scale.

Programs such as these have used successful exposure to moderately stressful experiences to develop coping mechanisms as moderators of traumatic impact in situations of mass trauma, such as natural disasters and war [17]. These programs aim to build what they describe as *toughness*, as well as other resilience factors. The assumption is that developing toughness can act as a buffer to trauma and aid

recovery, thus reducing the risk of fatigue and anomie, which increase the risk of suicide [5, 38, 50, 52]. Southwick and Charney [56] found that stoicism played an important role for the military personnel they interviewed who were resilient despite years of solitary confinement and torture.

Martin Seligman [54] has described *grit*, perhaps similar to toughness, as one of the strengths, which contributes to well-being. He describes it as reflecting another form of intelligence, perhaps similarly to the differentiation between academic, emotional, and social intelligence, concepts that Daniel Goleman [25] introduced and that provided an entirely new language for reflecting on personal strengths and refining the foci for personal development. Seligman [54] has piloted the reconfiguration of curricula in schools, such as the Geelong Grammar School Project, to integrate development of the strengths that underpin resilience into lessons and through design of school activities that foster the development of grit. He explains that the capacity to learn is not only based on intellect but on a character that is willing to push on when feeling daunted or fearing inadequacy and potential failure.

It is possible this grit and determination would be even more important when the stakes are highest, when fear of failure or perceiving previous failures as a sign of a personal flaw leads to a collapse of confidence rather than being seen as just another opportunity to learn. Camus [6], in his essay on suicide, *The Myth of Sisyphus*, said, “The instant when the mind opts for death infers ‘*confessing that life is too much for you and you do not understand it*’ . . . (or) *merely confessing that ‘it is not worth the trouble’*” ([6], translation by Justin O’Brien, p. 4).

There is a wave of recent literature that is challenging the notion that depression is solely a problem of chemistry, which can be effectively treated pharmacologically [5, 28]. Bastian questions whether we have begun to be so protective of children that we are creating “soft” generations, so protected from the risks children used to encounter, e.g., in adventurous outdoor play after school, and so sensitized by society’s efforts not to offend them, “*cottonwooled*,” that they have not developed and practiced toughness.

It is important to understand that the toughness Bastian suggests is not just about internal fortitude but is also tied to having a capacity to reach out for support and exercise reflection, problem-solving, and self-care practices while navigating a path through life’s challenges. Toughness does not infer or suggest people hide their distress and act tough.

Studies on whether someone perceives adversity as a threat or a challenge suggest that people can become skilled at weighing up the threat at hand against their personal and external resources [50, 51, 53]. People can perceive adversity as a challenge if they believe they have the resources to proactively meet that challenge or conversely they can perceive adversity as a threat if too many factors are out of their control or perceived to be out of their control [50, 51]. This finding supports the notion that when adverse events occur a positive self-appraisal is a buffer to hopelessness, depression, and suicidality [45].

This personal assessment process generates a reevaluation of the magnitude of the threat, in the light of the personal resources the person has at their disposal and

therefore how trapped within the situation the person feels they are [31]. Perhaps programs to build toughness, such as those described above, can also contribute to improved positive self-appraisal and the buffer this may provide to suicidality [45].

Indeed, if one looks at the breadth of the resilience literature, evidence clearly suggests that people can build on their dispositions, such as temperament, health, and intelligence, and make best use of their context, e.g., familial, community, moment in time, social and cultural setting, and can develop the ways of thinking, behaving, and ability to identify and tap into resources, which build their resilience. Protective factors can be built to increase the chances of creating a resilient response to adversity, creating a positive trajectory in the face of adversity or after experiences of great trauma [52, 53, 56, 59]. This would in turn reduce the risk of a decline in suicidality.

Considering the likelihood that most people even in peacetime will encounter traumatic events, such as domestic violence, gender-based violence, violent crime, bullying, accidents, and, as we have seen with COVID-19 – illness, loss of loved ones, and/or loss of home and dislocation, it makes sense to prepare children from an early age with the attitudes and skills, such as compassion, connectedness, curiosity, and a solution focus, and opportunities to practice these. Evidence suggests that the opportunity to succeed against challenges could build the confidence in their ability to deal with adversities that foster evidence-based optimism and an internal locus of control [54].

Choosing How We Respond to Distress, Trauma, and Depression

Southwick and Charney [56] described how the resilient survivors of great trauma, whom they had interviewed, had accepted responsibility for their own emotional well-being, even while the traumatic experience was occurring, and chose to use their experience as an opportunity for personal growth.

This reframing of distress as an opportunity to grow takes us back to Viktor Frankl's experience and his observations in Auschwitz, *"Everything can be taken from a man but one thing: the last of the human freedoms—to choose one's attitude in any given set of circumstances, to choose one's own way"* [21].

Johan Hari [28] has also more recently reminded us that depression may have an evolutionary purpose: that depression can be a trigger for reflection on what is working and what needs to change in life. Hari describes the need to address what he describes as *lost connections*, e.g., with meaningful work, relationships, and values. He explores the impact of trauma – the loss of hope in a secure future and how depression can mobilize an individual to choose growth, to make a proactive change to a more positive life trajectory, especially if they are supported to do so.

For example, depression in response to oppression, bullying, and family violence may be a normal response to distressing circumstances and function as the catalyst for the person to seek help and/or seek a path away from the destructive circumstances and/or environment [27]. In these instances, depression may be pointing to a need for referral to interventions and support to address the cause of distress while

also providing support to address the mental health impact of the distress with which they have been living. Suicidality is complex and needs a multidisciplinary response, not simply the medication of distress without addressing the source of the distress.

This suggests a different kind of engagement with individuals in distress, suffering from depression, to that which has been pursued to date, that is, the suicide prevention strategies that have focused on encouraging individuals to seek help through primary health-care providers. The original intent of these strategies was to provide easy access to help through a general practitioner who could then be able to refer the person to mental health professionals for assessment and therapeutic interventions.

This strategy has been problematic though as there has been and still is a significant worldwide shortage of mental health professionals and mental health services to whom people at risk can be referred by a general practitioner [3, 29, 44, 60, 63]. Waiting lists are long, and often only acute cases, those who have just attempted suicide, can be prioritized for intervention [8]. Perhaps the shortage of mental health professionals to whom people at risk can be referred is a contributing factor to the continually rising suicide rates?

This problem had already begun to emerge more than a decade ago, and, with no immediate resolution to the mental health workforce shortage in sight, suicide prevention specialists had called for research that can contribute to the development of methods to enable greater self-management of and recovery from depression, including identification or development of tools and supports that can be provided for those who are vulnerable, to reduce their risk and begin their recovery from suicidality [29]. It may be, however, that research that would enable self-management of depression and prevention of the slide into suicidality has been going on in fields parallel to suicidology, building a body of evidence-based techniques that stabilize the individual in acute distress, support reconnection with strengths, enable safe reflection on vulnerabilities, and analysis of how these may be addressed.

Working with Neuroplasticity: Great Cause for Optimism

It is perhaps studies on neuroplasticity that offer the greatest cause for optimism in suicide prevention. There is now a significant body of evidence through fMRI and other indicators, which demonstrates how we can work with neuroplasticity to reshape the brain, its neural wiring, functioning, and the cascade of related neurochemistry, to address a range of distressing conditions, including depression, post-traumatic stress disorder (PTSD), and other risks for suicidality [2, 14, 18, 19, 26].

As early as the 1970s, Daniel Goleman, Richard Davidson, and Jon Kabat-zin were hypothesizing that meditation might work with the brain to generate positive mental states, which might in turn have possible therapeutic applications. The problem was that the only measures they had available were the relatively blunt instruments of self-report, electrocardiograph (ECG), and blood and urine tests looking for changes in markers like cortisol [15, 16, 26].

Nevertheless, the possibilities for the application of meditation in psychotherapeutic contexts captured the imagination of researchers and evidence began to build. Kabbat-Zinn [32] developed mindfulness-based stress reduction (MBSR) therapy at the University of Massachusetts Medical Centre, a program with demonstrable success in pain management for palliative care and treatment of chronic illnesses. Based on the success of this approach, the Centre for Mindfulness in Medicine, Health Care and Society was established in 1995. In his text, *Full Catastrophe Living*, Kabbat-Zinn [32] reflects on records of having treated over 18,000 people using the MBSR program, not only promoting well-being for people, but relief from distress associated with chronic and other illnesses, which had previously been without relief.

Also in 1995, Teasdale, Segal, and Williams, at Oxford University, developed mindfulness-based cognitive therapy (MBCT), with a particular focus on the use of mindfulness meditation to prevent relapse in depression. The findings were remarkable, with relapse to depression cut by 50% for individuals who had previously been resistant to a range of treatments, including drugs and electroshock therapy (ECT). These studies suggested great promise but had not included a control group and so rigorous trials using an active control were undertaken, this time led by Williams, who engaged 300 participants suffering from severe depression, all of whom were prone to relapse despite medication. They were assigned randomly to MBCT or two other control groups: either learning basic CBT or a session with a psychiatrist as usual. The study again demonstrated the efficacy of mindfulness in reducing relapse into depression and was found to be particularly useful for patients with a history of childhood trauma. Further, a year later MBCT was still proving effective in preventing relapse [26, 66].

Goleman and Richardson [26] describe how a European research group then replicated the study with randomized control groups and again found that MBCT was an effective way to reduce relapse in depression in individuals for whom medication had not worked. They describe Segal going on to use fMRI to explore the reason for MBCT's effectiveness and that he found the patients with 35% reduced relapse had a greater increase of activity in the insula after mindfulness practice.

In the context of the MindScience dialogues, convened by Harvard University (His Holiness the Dalai Lama, Benson, Thurman, [34]), His Holiness the Dalai Lama had committed to encouraging highly skilled practitioners, monks with thousands of meditation hours, to make themselves available for a series of studies to understand the range of potential changes possible through different meditations. The capacity to use fMRI to actually see the different types and areas of impact, which different meditations made, was groundbreaking. By 2003, Richard Davidson and colleagues were undertaking studies at the Waisman Laboratory for Brain Imaging and Behavior at the University of Wisconsin-Madison, working with the first one and then a number of Buddhist monks in the Tibetan tradition, using fMRI to understand the impact of different meditations on the brain [26].

In these early studies, they explored a range of meditations, including mindfulness and meditations to generate compassion, such as loving kindness meditation.

Researchers observed that different meditations work with different parts of the brain. Mindfulness works well to stabilize and improve affect regulation and was found effective in reducing depression. Loving kindness was also very effective in reducing depression and found to be particularly effective for individuals with post-traumatic stress disorder, its activation of areas for the frontal brain also impacting on the activity of the amygdala, reducing the hyperreactivity that can contribute to frequent fight, flight, freeze submit responses, and the potential consequent cascade of neurochemistry, characteristic of depression and anxiety.

Over ensuing years, Davidson and colleagues were able to work with 21 monks to understand what the impact of long-term meditation is on the brain, with findings from these studies suggesting that practicing meditation for thousands of hours actually altered the structure and function of their brains, transforming the states generated in meditation into enduring traits [26, 36].

Davidson was curious whether this effect could only be achieved by an experienced meditator, like these monks, or whether there may be benefits for others and explored whether the changes they had observed were only possible with years of practice or could be achieved with naive meditators and whether the changed states created by meditation would over time change the structure and function of the brain and become traits, embedding new ways of functioning and responding to adversity and/or could be used to address problems such as depression, anxiety, and PTSD [26].

Years earlier they had found that meditation practice can have a positive effect within weeks, e.g., with meditations based on compassion seeming to settle the hypervigilant amygdala [36]. Studies since that time have shown that compassion-based meditation is particularly useful for trauma and individuals who suffered trauma in childhood [26].

As the number of fMRI studies on meditation grew, it became apparent that different meditations act on the brain in different ways and so studies need to be specific about which meditation practice is under investigation [36]. A number of systematic reviews, however, have also noted that many studies continue to be exploratory in nature and that there needs to be more use of rigorous designs using active control groups to confirm the veracity of the promising results to date [26, 37]. Having said that, significant ground has been made applying promising meditation techniques in clinical practice, with consistent positive results also contributing to the building of evidence-based practice.

Neuropsychiatrist Jeffrey Schwartz, of the University of California, had worked extensively with people suffering from obsessive-compulsive disorder (OCD). It seemed that people with OCD suffer from hyperactivity in the orbital frontal cortex (which generates the feeling “Something is wrong here,” flagging a risk that must be addressed); and the striatum (hypothesized to link actions with rewards, which normally would recognize when remedial action has been undertaken, e.g., hands washed to address the threat of germs) ([49], p. 67) and close of the threat warning.

Schwartz decided to take a neuroplasticity-informed approach to understanding and treating OCD. He hypothesized that OCD was the result of the frequency with which attention is given to the alert – danger signal as this would result in

myelination of the pathways involved. He hypothesized that this would result in new warning signals arriving so fast – e.g., Germs! Wash your hands! – before the striatum could reward the last hand wash and reassure the person that the germs had been dealt with. The speed with which warnings were arriving was preventing the message that the threat had been averted from arriving, before the next threat message did. He described this repeated, seemingly unbreakable circuit as brain lock [49] and suggested that traditional therapies, such as exposure and response prevention (ERP), might even exacerbate the problem by continuing to give attention to the threat message.

Doidge [18] describes how neural wiring is laid down when we learn a new skill and how repetitive effort stimulates myelination of the neural pathways, which speeds transmission of nerve impulses. If we do something repetitively, the brain assumes it is important and myelinates the neural pathways for that particular activity. Myelination speeds the movement of messages along a neural pathway by providing the mechanism for nerve impulses to leap along the neural pathway rather than simply travel along. Doidge [18] describes how in the same way that a tennis player who practices for hours a day develops lightning fast neural pathways, which create speed and finesse in their responsiveness and movement, a person who ruminates, e.g., on a fear of germs, will build a highly sped-up response to a concern that their hands need washing.

Schwarz took this understanding, that what you focus on grows, i.e., builds myelination, and decided to test a new approach. He taught the detached observer stance of mindfulness meditation, asking his patient to notice the impulse to wash, but instead of acting on it, to reinterpret the distress and remind themselves that their brain circuit is playing up again and then simply shift their attention to something completely different, preferably a pleasant activity, which might trigger dopamine release, an ingredient that supports building new neural pathways. Basically, Schwarz was working to diminish the speed and activity on the orbital frontal cortex – striatum circuit – so that, in the same way as a language that is not practiced is lost through diminished activity on the neural pathways, the activity of obsessive behavior gradually diminishes through the diminished attention it is given.

The example of the neural processes involved in OCD begs the question – Could some of our therapies for depression or trauma, by focusing attention on the source of distress, actually be increasing the distress? Could a similar exercise to that used by Schwarz help a depressed person trapped in negative rumination benefit from noticing the thought and, without further engaging, turning attention away to something engaging and pleasant? They could instead, for example, build new positive connections through, e.g., compassion or self-compassion meditations and/or pursuit of pleasurable activities, e.g., gardening, music, turning attention outward to benefitting others?

Richard Davies' very early experiments with compassion meditation highlighted a practice that fMRI demonstrates, works to change brain function, calming the amygdala and the consequent cascade of chemistry that can lead to depression and instead building the brain activity that increases feelings of well-being [26]. Schwarz used mindfulness meditation to break a hardwired cycle of neural messaging to end

compulsive behavior and enable the building of new automatic reactions, again changing neurophysiology and neurochemistry (Doidge). These are just two evidence-based examples of the types of activities that can work with neuroplasticity. There are many others using not only meditation but a range of activities, which might better suit one or another person's disposition. Suicidology has yet to trial the application of neuroplasticity for its therapeutic benefit in stabilizing depression and suicidality and mitigating the impact of PTSD, e.g., calming the amygdala.

Positive Psychology

Through the partnership between researchers of positive psychology and neuroplasticity, we have also been shown that there is a repertoire of activities people can learn that, if practiced regularly, can change the brain – its structure, functioning, and neurochemistry, to manage and continue to diminish depression, anxiety, and PTSD.

Seligman [54] explains that positive psychology has evolved since its original goal was authentic happiness [53] to having the goal of understanding and enabling *well-being*. Where happiness was inevitably subjective in its measure and could be absent, well-being is a platform from which the vicissitudes of life can be met resiliently, where suffering is not compounded by anguish but approached with greater equanimity and a search for the most constructive response. Positive psychology encourages an internal locus of control, the development of concrete techniques to stabilize and manage navigation through distress or difficulties.

The core features of well-being include positive emotions; engagement, interest; meaning; and purpose. Additional features include self-esteem, optimism, resilience, vitality, self-determination, and positive relationships. Positive psychology has been growing for two decades and provides empirically tested tools for individuals to reflect on and assess their *signature strengths* [53] and has validated a range of techniques to develop the skills and ways of thinking that generate well-being [54]. These tools for reflection and to build strengths enable choices, including building strength in areas where the person is vulnerable and developing grit and/or a number of other resources, which have been shown through controlled trials, including with fMRI, to work with neuroplasticity to decrease distress, depression, anxiety, and address PTSD.

There are 24 signature strengths [identified through the values in action (VIA) test] that fall into six categories:

- Wisdom and knowledge – curiosity, love of learning judgment, ingenuity, social intelligence perspective.
- Courage – valor, perseverance, integrity.
- Humanity and love – kindness, loving.
- Justice – citizenship, fairness, leadership.
- Temperance – self-control, prudence, humility.

- Transcendence – appreciation of beauty, gratitude, hope, spirituality, forgiveness, humor, zest.

Simple techniques have been shown to make a measurable difference to mood, sustained over time. For example, the gratitude visit, where the person reflects on someone still alive in their past who did or said something that changed their life for the better, someone they could meet face to face next week.

The gratitude visit works to build a mentality of gratitude, for the person to eventually begin to notice automatically the positives in their life, rather than focusing on the gaps and on what may or does go wrong.

The aim is to write a 300-word letter of gratitude to this individual and deliver it in person. The letter should be specific about what the person did and how it affected the writer's life. The writer should share what they are doing in their own life now, how they often think of this individual – be generous. Then call the individual and tell them you would like to visit, but do not give away the surprise you have in store for them. During the meeting, the writer should take their time reading out the letter and pay attention to the reactions of the recipient as well as their own reactions.

After reading the pair, discuss the content of the letter and share how they feel toward each other. People who have undertaken this exercise report feeling happier and less depressed and similarly so a month later. These exercises may seem like the sort of thing you might find in a popular magazine. The difference is that all the positive psychology exercises have been empirically tested with large sample sizes and random assignment to treatment and placebo control groups.

Another simple exercise, What Went Well (3 Blessings), is undertaken for 10 min before sleep at night. The aim is to gradually develop a focus on what goes well and to savor it, rather than only be aware of what went wrong in the day or is sad in the world. Initially the person is asked to write three things that went well that day every night for 1 week. It is suggested that sleep quality is also improved by the person having shifted focus to positives before sleep, rather than going to bed ruminating on problems. People have tended to continue this exercise well beyond the trial time, and it becomes a tool they can resume using when they are experiencing adversity for the anchor into warmth and hope it provides. Again, its effect has been measurable and demonstrably transformative.

The exercises developed by positive psychology practitioners have been trialed with a range of populations, including depressed populations, with measurable significant outcomes. For example, moderately depressed young people received a package of six exercises over 6 weeks, resulting in a significant reduction in depression into the nondepressed range compared to the control group, with benefits sustained over a year [54].

This collection of exercises and meditation techniques may provide a range of approaches, from which individuals can choose to best suit their disposition or capacity. The confidence built through successfully self-managing diminishment of depression, having a range of tools to draw upon and the repertoire of skills thus developed and proven effective, provides evidence to support optimism when the person must deal with the impact of future adversity.

Conclusion

The research literature on resilience built over the last 80 years, along with the more recent contributions of positive psychology and studies in neuroplasticity, is much greater than could be fully captured in this one chapter. Rather, this overview has been intended to provide a simple introduction to a rich cache of resources. Much of the literature on resilience is based on robust research undertaken through well-designed studies and, more recently, with the hard evidence of observable changes in brain function through fMRI and changes in neurochemistry, demonstrating the efficacy of a range of techniques and the sustainability of their positive effect. I believe the bodies of research described herein are worthy of further investigation for the contribution they can make to suicide prevention, treatment, and providing the tools enabling self-management of recovery and building resilience.

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Learning from the Lived Experience of Resilient Survivors of Suicidality and Suicide Attempt: The Role of Self-Managing Recovery in Building Resilience to Future Adversity

22

Anita M. Chauvin

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Abstract

Many studies have explored the factors that placed individuals at risk of suicide. Yet, there is much that can be learnt from the lived experience of those who have been resilient in the face of trauma and those who attempted or planned suicide, who then chose to live and describe their life now as characterized by resilience and well-being. How did they navigate their recovery and prevent relapse? Could their insights and experience suggest transferable skills to benefit those still vulnerable to suicidality?

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This chapter explores the lived experience of 17 individuals, who shared the path they navigated through recovery to resilience after planned and/or attempted suicide to explore how their experience might benefit those still at risk of suicide.

The elements of resilience, which emerged as pivotal for these people, largely reflected the elements identified in the research literature on resilience, which has been growing since World War II. It was, however, the stages of recovery the 17 participants described and their self-management of recovery and building resilience that offer new insights for suicide prevention, support of recovery and building the resilience, which prevents relapse. Perhaps most importantly, participants echoed to one another in saying that having self-managed recovery and weathered setbacks to successfully reestablish well-being was in itself a great part of what built resilience, *“Having come through this I now know I can get through anything.”*

Introduction

Research and interventions for suicide prevention, have usually been based on what we know about the risk factors leading individuals to attempt or complete a suicide based on retrospective studies of attempted and fatal suicides and significant investment continues to be made in the establishment of suicide registers across the globe [3]. Although this line of questioning has been useful, it has overlooked the valuable information that can be shared by those who have reached the brink of suicide and/or attempted suicide, but have then decided to live and have self-managed their recovery and prevention of relapse.

There is much we can learn from how these people managed their recovery that could inform interventions and support for those still at risk. How did these resilient survivors navigate through one of the darkest and most terrifying moments in life, identify the steps for their recovery, and then construct a path to well-being and resilience?

To begin to understand whether any consistent themes emerge from lived experience, which may indicate transferable skills or strategies for those still vulnerable, a grounded theory research study was undertaken with 17 individuals who came forward after an invitation to participate was circulated through social and professional networks on the Internet.

Grounded theory is predicated on the understanding that, where no research has previously been undertaken, on which to build, it is necessary to use an approach to engagement with the affected population, which allows the space for the consistent themes to emerge, which reflect what interviewees hold most important. This begins to provide the concepts and hypotheses that drive the next layers of enquiry, which could include further interviews, broadening the range of key informants or might indicate research disciplines that need to be investigated. Thus, grounded theory allows the emerging data to drive investigation and development of theory, when no previous research and therefore no theories have existed ([1], 2008 edition).

Grounded theory research begins with open-ended interviews and proceeds through iterative cycles of interrogating indicated research literature for theoretical and technical data gathering, then explores veracity of analyses and interpretations with the original participants and with experts in the field, and then tests the goodness of fit and applicability of findings with the affected populations, clinicians, and other mental health practitioners.

The affected individual, the person with lived experience, is positioned as an expert with knowledge and insights to offer, a collaborator in enquiry and who can contribute to co-design of the application of findings in development or improvement of services and programs.

The lived experience of participants in this study reflected themes that have previously emerged in the large body of research on resilience, which has been growing since World War II, and many of the strategies participants implemented align with the burgeoning body of positive psychology literature (► [Chap. 21, “The Role of Resilience in Suicide Prevention and for Recovery After Suicide Attempt: Learning from 80 Years of Resilience Research”](#)).

Participants also, seemingly intuitively, adopted behaviors and practices that have now been demonstrated to work with neuroplasticity to achieve reductions in depression and the hypervigilance of complex PTSD, and these changes in brain activity, e.g., calming areas associated the fight, flight, and freeze submit response, in turn reduce subsequent cascade of neurochemical and neurophysiological changes, which can underpin depression, anxiety, and other sequelae of trauma [2]. Some of the practices participants had adopted now have strong fMRI and neurochemistry evidence demonstrating an equivalent impact to antidepressants, with a significantly reduced relapse rate [2, 4].

The Decision to Live

To understand the process of resilience, this exploratory study engaged 17 people who had planned and/or attempted suicide, sometimes attempting many times before, to begin to tease out whether resilient survivors of suicidality had commonalities in their recovery and the resilience they built to prevent relapse in the face of future adversity. This chapter does not delve into the detail of how these people came to choose to live, other than where it provides context to explain the process by which they drew on resilience factors for their recovery.

Certainly, these individuals described drawing on similar elements of resilience to those described in many of the studies of resilient individuals over the last eight decades (► [Chap. 21, “The Role of Resilience in Suicide Prevention and for Recovery After Suicide Attempt: Learning from 80 Years of Resilience Research”](#)). One important difference, though, was that where meaning in life is a resilience factor cited in these studies, suicidality often reflected a complete collapse of meaning. Recovery depended on the person becoming comfortable with an absence of meaning and their purpose being the reconstruction of a framework of meaning and ethics to underpin decisions about the way forward. It should be noted, though,

that they did not necessarily begin their recovery with this repertoire of strengths and life skills but consciously set out to understand the areas in which they felt they were ill-equipped and vulnerable and then developed strategies to build these strengths.

All participants described that making the conscious decision, that “*suicide is not an option*,” was a turning point. It was distinct from an absence of action. The clear decision, versus passive inaction, provided an impetus, and they described proactively seeking to learn how to “*make life work*.” Having chosen to live, they explained, they had made a critical decision, from which they were not prepared to withdraw.

This does not mean they stopped feeling suicidal, having suicidal imagery, suffering distress, confusion, and depression. All interviewees reported still feeling vulnerable at the time they had first chosen to live. Many said they felt raw, and some said they continued to feel hopeless at first. Eight people described choosing to live to avoid hurting others and explained that they still had not wanted to live initially, but had chosen to do so to avoid harm to loved ones. Some of these participants described believing they would never experience happiness, but that, having decided to live, they would have to learn how to make their anguish tolerable. Others described reflecting on surviving previous trauma and using this to cultivate optimism that they had the strength to survive the current distress and that in time it would pass too.

The decision to live and find strategies to deal constructively with suffering reflected taking control of the healing process and this internalized locus of control appears to have been key to recovery and building the confidence and self-efficacy, which underpins resilience. All participants described eventually becoming curious about what they could do to heal themselves and to learn to cope with hardship better in the future, rather than hoping to be rescued or have adversities removed.

As participants went on to describe their recovery process, they explained there were a number of decisions they made after having made the decision to live. As elaborated on later in this chapter, some of these decisions marked the ends and/or beginnings of different phases in their recovery, e.g., cocooning to stabilize; completion of grieving a loss; recognized that they have survived trauma before and that they could again; recognition of existing strengths and of the skills and strengths they still needed to learn; and/or reaching a readiness to re-engage with others and the ways in which they felt safe to do so.

Other decisions reflected recognition of boundaries they needed to assert, social circles they wished to enter or reject, and every participant at some point made a decision to shift their focus to what they could contribute to others, with every one of them taking up or recommencing volunteering in some sphere.

In summary, these decisions can be paraphrased as follows:

Initially:

- Suicide is not an option.
- I will learn how to heal myself and make life workable.
- I will learn to live well and to do no harm to myself or others.
- I will never allow myself to be pushed or slide to that edge (suicidality) again.

Eventually, sometime later, when life had recognized and they were confident in their ability to deal with adversities in life, they describe that they decided

- I can go beyond surviving and make decisions that help me flourish.
- I will make choices based on what gives me happiness.

What Resilience Factors Did These Resilient Survivors Draw On?

There were a number of common resilience factors that emerged for participants, which echo what has been described in the resilience research literature (► [Chap. 21, “The Role of Resilience in Suicide Prevention and for Recovery After Suicide Attempt: Learning from 80 Years of Resilience Research”](#)). These resilience factors were adapted and applied differently by them in different contexts and at different times. These resilience factors were

Meaning, which was important for three reasons:

- Suicidality had reflected a collapse of meaning and participants described having to live for a time with no meaning, no anchors, and no reassurances.
- Participants recognized the meaning they attributed to life experiences, especially adversity, could be positive or negative in its impact on them and learnt to reframe trauma as an opportunity for growth.
- As they progressed through recovery, new frameworks of meaning evolved and, with this, so did their identity, perspective on life adversities, and response to adversity.

They were proactive – Participants often used the word “*consciously*” in their sentences and described taking control of recovery and rebuilding – consciously seeking out or constructing strategies to heal, build protective factors, and remove risks from their lives.

Reached out: built connections – They described consciously reaching out and building connections with positive, constructive, supportive people, and often eventually withdrew from those who they felt had a negative impact or increased their risk or vulnerability. Sometimes, they simply sought connection through more anonymous engagement with social, sporting, music-focused, spiritual, or other groups.

Described exercising various domains of intelligence to navigate recovery

- Analytical intelligence – reflection, analysis, problem-solving.
- Emotional intelligence, insight, mindfulness, stress management, empathy, conflict resolution.
- Spiritual intelligence – spiritual and religious frameworks for reflection; creating and using rituals to grieve loss or cleanse after violent abuse; developing boundaries, while remaining compassionate.

Dealing with setbacks and new adversities

- Practiced reality-checking and learnt not to self-punish.
- Became indomitable – “*Just put one foot in front of the other*” and it will get a little bit better each day.

“Decided to become a better person,” consciously reassessed and/or built an ethical framework and committed to align their choices and actions to it.

Choosing happiness – Decided that “*happiness doesn’t just happen – you have to build it*”, “*Find what you love doing . . . and do it*”, “*What passion would make you jump out of bed in the morning?*”

The Process of Recovery

Many participants explained that it was the process itself of self-managing recovery and rebuilding that was the primary factor in their growing confidence in their ability to cope. The process by which they determined each new strategy during each stage and as they moved from one stage to the next reflected the development of a habit of pausing to observe and reflect, then analyze and problem-solve; to decide on what next step they needed and felt ready to take; and to consider the resources, life skills, or support they might need to implement that next step.



All participants described their capacity to reflect and problem-solve as one of their strengths, describing it variously as mindfulness, observation, and curiosity, and they were proactive in reflecting, searching, and researching in response to new questions or challenges arising in the recovery process or new adversities arising in their life, drawing on support, skills building, and other resources as needed.

They set small achievable goals, and with each success, they explain that they grew more confident in their ability to deal with “*whatever life might throw at them.*” This process enabled them to consciously draw on the range of resilience factors, when and as they needed them.

This growing body of evidenced successes in the face of adversity built their confidence and optimism, which in turn laid the foundation of resilience to future adversity.

The process of moving forward through recovery from suicidality was not always linear, with setbacks and new adversities causing them to pause and stabilize once more, while they considered what they could learn from their latest challenge, to build strengths and reduce risk in the future.

Whether the distress arose from experiencing a setback when a strategy failed or because a new adversity had arisen – with each setback or new adversity, the same

pattern was retraced – pausing and stabilizing; seeking connection, comfort, sound-ing boards; then proactively considering the next steps to resume or continue recovering and rebuilding. As time passed and their confidence, skills, and support systems consolidated, participants explained they began to focus on moving beyond survival, toward flourishing.

Cultivating a skill of observing themselves also helped them recognize early warning signs that they needed to take stock or to take time out to stabilize themselves in the face of a setback. In each instance, the cycle of reflection, analysis, and choosing actions continued to form the process for developing strategies to heal wounds and build a constructive approach to daily life.

Participants became more reflective and proactive in their choices, more consciously working to prevent avoidable trauma and provide reliably constructive responses in times of distress. *“I now react with curiosity – what is it that is going on here? What can I learn? What can I do differently next time?”* (interviewee 10).

By observing the consequences of their choices, both in their effect intrapersonally and in their interpersonal and broader life context, their insight grew, *“I realised my rage at the abuse I had suffered was consuming me and so I decided to find a strategy to see things differently –to understand the cause of my husband’s behaviour – to be able to forgive. I had to look at my role in it – I didn’t go to the police”* (interviewee 6).

Their growing skill and insight enabled them to either build on the most recent positive step they had taken or to rethink and try something else. Interviewee 6 realized she needed to use a multilayered approach to be able to let go, *“to stop flooding in anger/rage”* and move on with life, so she took up yoga, meditation, and Reiki. She reflected on what helped soothe her and so spent time at the ocean. She describes that when she had experienced stability for some time, she got on with building a new life, getting a job, coming out as gay, and building a profession in the social welfare and advocacy sector.

Participants describe that over time adopting an approach of pausing to reflect, analyze, and problem-solve appears to have resulted in them developing a new automatic reaction to adversity, that is, to respond with curiosity, seek to understand the new challenge, and reflect on how it might best be addressed. Pausing and reflecting on the emergence of each new challenge before taking action, rather than acting impulsively, angrily or otherwise in emotional, verbal, or behavioral reactions that might exacerbate the situation, became an essential element of their growing repertoire of constructive responses to adversity.

Participants explained that it was the process itself, of self-managing recovery and rebuilding, which was a primary factor in their growing confidence in their ability to cope with the present and future challenges.

Phases of Recovery

During their self-managed recovery, all participants described traversing three clear stages, including (1) stabilization; (2) recovery and rebuilding; and (3) flourishing –

building happiness. In some ways, these stages formed a continuum along which they moved, with gradual transitions from one to the next.

The first phase was stabilization, which was characterized by withdrawal, finding anchors, and then, eventually, reconnecting safely with daily life. Following stabilization, participants worked actively at recovery and rebuilding. Recovery and rebuilding often fed into each other – resilience was dynamic and always evolving. Recovery sometimes included consciously designing a healing process, which could range from an exercise regime through to esoteric practices.

Rebuilding their life was most often pursued by proactively learning the life skills they felt they lacked, strategies for self-care, and ways of opening up new opportunities. The final phase was building happiness and strategies to enable flourishing. In this phase, participants deliberately chose positive pathways forward, making choices based on a belief that they were responsible for their own happiness and that happiness can be built. They filtered these decisions through the moral compass and the capacity to live consciously, which they had been developing during the recovery and rebuilding phase. Sometimes, they moved back and forth between the phases of recovery, especially if they suffered setbacks or new challenges. Elements of resilience were always drawn on as needed at different times through the reflective process that they had learned.

We examine these phases a little more closely.

Stabilization

Many of the participants in this study described experiencing a complete collapse or loss of meaning at the time of their planned and/or attempted suicide and for a period thereafter. They described feeling raw, unable to think, and feeling acute distress. They described seeking strategies to calm down and stabilize. Some needed solitude, others company. Where they sought company, however, 10 participants described that they did not want to discuss their trauma. Instead, they just needed warmth, comfort, or simple distraction through shared activity.

Cocooning

A number of participants described that immediately after deciding to live they could not think clearly and that they intuitively or instinctively recognized a need to withdraw and cocoon themselves for a period, to stabilize before they could commence their recovery. Initially, their withdrawal often reflected mental exhaustion and simply wanting to be in a safe space to calm down. Interviewee 3 referred to his initial withdrawal, during acute distress, exhaustion, when terrified and unable to think, as “*Doona Therapy, you know when you climb under the doona (duvet) and stay there for two weeks*” (I 3). He chose to do this as a self-admitted patient in a psychiatric clinic, where he explains he was grateful the psychiatrist in charge allowed him his complete withdrawal and let him choose when and how to re-engage.

Keeping it Simple and Having Some Structure

Many participants described how it could take months of just pacing through each day, perhaps attending a gym or spending calming time around strangers in a public place or with friends, before they felt their strengths had consolidated and they had enough confidence in their stability to try new settings or activities. Participants also described how important structured daily activities and/or routines were, “*Structure was what got me through the day*” (I 2), particularly on days when they were distressed, when their mind was foggy or unable to think clearly, and they needed a way to pace through their time of stabilization. Structure and engagement in activities, “*Do something, anything*” (I 3), provided a safe arena as participants identified and began to apply their strengths in the course of navigating simple daily activities.

Knowing When to Re-Engage

Sometimes, it took much longer before the person was ready to come out of their safe cocoon, e.g., when grieving a loss, recovering from extreme, and prolonged abuse. Sometimes, participants set a time frame for themselves, such as interviewee 2, designing and undertaking a 1-year Wiccan healing ritual. Other participants described simply waking up one morning and finding they were feeling ready to get on with moving forward, e.g., when the turf was laid next to the newly completed stone wall, which they had built with their own hands (P 2). Some described simply waking up with an idea to start something new, like joining a musical group (I 10), taking up volunteering, or feeling ready to call friends or family for the first time after a long disconnection (five participants).

Participants described how, as the years went by, they would sometimes repeat such periods of withdrawal when setbacks occurred or when they found themselves in acute distress, until, each time, they felt ready to begin engaging and moving forward once more.

Beginning the Proactive Steps of Recovery

Finding Anchors to Strength

During times of withdrawal, and as participants began to be able to think more clearly, they describe how they began reflecting on the strategies that had worked for them in the past when faced with trauma and distress. They described how they chose to recommence doing some of those things, such as ensuring they had adequate sleep, eating well, choosing positive social connections, going to the gym, and using art and music to process or express emerging feelings.

Participants described how they reminded themselves of their strengths and the approach or activities they had used previously to successfully overcome adversities (six participants). Identifying what had previously worked also reminded participants that they had survived hardship before and generated the realization that they were not a weak person but in fact someone strong, who had survived before and could again; and that bad times had passed before and would again. This realization

provided a reassuring anchor at times when they found themselves buffeted by strong emotions or difficult situations, and it helped them to begin generating some hope and optimism about the future (six participants).

The realization that they had survived past trauma, tragedy, or hardship in the past and experiencing success when responding to challenges in the present were both pivotal to believing they could also recover from the trauma of suicidality. *"A history of competence and successful effort . . . builds confidence – to try different things, not just do as you are told"* (I 13).

As they described their progress through stabilization, it became evident that with each successful implementation of a recovery strategy their confidence grew and they were more inclined to stretch further next time. For example, interviewee 1 began by volunteering in a thrift shop and then eventually moved on to volunteering to tutor a refugee family in English language; interviewee 10 progressed from a long period of finding anonymous company in public spaces to meeting with other musicians to play music together.

Reaching Out: Building Connection

Eleven participants described that during stabilization, when they did not need solitude, they just wanted to feel comforted, warmly affirmed, share in distracting activities, share positive experiences, do pleasant things with another person, or be amongst kindred spirits, and kind people. For some participants, the need to feel connected to humanity returned while they still felt unprepared to expose themselves emotionally, describing themselves as feeling too raw (I 9).

Interviewee 10 had found that at his most fragile he could not bear the company of "negative" individuals and was finding his social circle to be so. However, he found being alone left him too much time to ruminate – *"thoughts are your own worst enemy"* (I 10). He describes how he first tried to solve the need for company, to feel connection, by going to the local hotel and sitting at the gaming machines, but, despite being surrounded by people, this setting exacerbated his depression.

He describes that he then solved the problem by going to sit at a local seawall each day, pretending to read a book, so he could be around people. He gradually began to recognize other regulars, who, like him, did not wish to engage in conversation but were happy to nod in greeting, and he described enjoying a sense of community. Eventually he felt ready for closer relationships but explained that he was still not ready to talk, for fear of being asked about issues that, he said, were still too raw. Instead, he used his musicianship as a vehicle to connect and joined a group of other musicians to play together each week. This shared experience provided the level of intimacy he needed, without risk of overexposure. Interviewee 10 had been very clear about the connection he needed and had developed ways to meet that need at the various levels of comfort he was capable of at different times as he recovered.

Other participants variously went to the gym, bushwalking club, belly dancing, yoga, enrolled in classes, volunteered in youth services, joined cycling groups, and when they were wanting company but did not want to have to engage in exposing conversations.

Reaching Out for Support

Participants did reach out for help from time to time, but, in reviewing the interview records, it became clear that these individuals were preferring to self-manage their recovery from the trauma of suicidality, and when they reached out to a health professional, pastor, or some other support, it was as a sounding board or resource to help them in their reflection, analysis, and development of strategies and decisions for moving forward. *“It’s important to learn what options are available, ‘I didn’t know options – I should have sought help – there are now so many choices’”* (I 3). They were clear, however, especially when in their acute distress immediately after choosing to live and while stabilizing that they did not wish to *“be forced”* to discuss the traumas that had led them to be suicidal.

The experts to whom they turned at different times included

- Themselves – looking back on how they survived trauma in the past, what worked, what did not work, affirming their own strengths.
- Role models – consciously looking at people they respected, who appeared to be good at surviving and studying those people’s qualities and behaviors. This could be a distant figure – a Nelson Mandela-type of person, or someone in their own sphere of existence, a friend or relative who they admired and respected.
- Spiritual guides – drawn from the range of religions, from traditional Judeo-Christian, Islamic, Buddhist, through to Wicca and to humanist philosophers.
- Health professionals and counselors of varying disciplines, skills, and qualifications.

When participants described seeking out health professionals in the early stages of their recovery, it was sometimes for crisis intervention, e.g., calling Lifeline, a crisis telephone service. All participants confirmed they had reached out at some points during recovery from suicidality. Who they considered to be helpful varied and may have depended on the skill of the person to whom they turned.

Some sought out psychiatrists (three participants); psychologists (three participants); Lifeline (one participant); the family doctor (two participants); marriage counselor (one participant); religious leaders/pastoral care (one participant); yoga (two participants); other spiritual groups (including Christian, Buddhist, Theosophy, Wicca, Spiritualist, Reiki) (five participants); returning to indigenous culture (one participant); Internet chat room (one participant); and lawyer (one participant).

Of the three participants who sought out the family doctor, two described the experience as disappointing as the doctor reverted immediately to medicating with antidepressants, when what they had sought was a sounding board with whom to discuss their experience. Their doctors offered no opportunity to talk through issues and no referral. Of the three psychiatrists, one also focused solely on medication; one provided psychotherapy; the other was described as very receptive and respectful, allowing the participant to withdraw and come forward as they needed (I 3). When interviewee 3 was ready to talk, his psychiatrist provided both one-to-one and group engagement, resulting in 6 weeks of therapy and then a weaning onto

self-management through an outpatient relationship, at which point he decided to move interstate to “start over.”

If the relationship with a health professional was perceived as respectful and the participant gained the support and insight they required to build some new skill or navigate a difficult situation, they returned to that person at other times when necessary. Where the health professional imposed control and was not responsive and particularly when the health professional simply medicated and did not support reflection and problem-solving, the participants not only ceased to engage with that person, but sometimes developed great resistance to seeking out a new health professional in the future. Exposure to what was perceived as poor practice became a barrier to any further help-seeking.

Moving from Stabilization into Rebuilding

The Awakening of Curiosity and Determination: Becoming Proactive

Not all participants were resilient people at the outset or, if they normally had been able to rebound from adversity in the past, for a number of multiple traumatic circumstances had arrived in a sequence, which left them feeling battered, exhausted, and having lost confidence and hope, resulting in them planning to suicide and/or their attempted suicide.

As they stabilized, all participants gradually became curious about how they could have fallen into such hopelessness that they had planned or attempted suicide and they determined they needed to understand how to prevent “*ever going back there.*” They reflected on their acute distress and what insights, skills, or qualities they might need to develop to prevent any such future decline. When they felt ready, participants actively pursued growth in the areas they had identified, first to simply recover and rebuild and then, eventually, to flourish. These, as outlined previously, might include stress management (yoga, meditation, being by the ocean, music); conflict resolution; self-care, e.g., early recognition of warning signs of decline/“burnout”; and techniques to stabilize and reconfigure commitments; improved boundaries; and other life skills.

Participants had identified life changes or new skills, which they needed. As they gained these and they became more firmly established, they then made decisions to pursue strategies that would improve their future life options. Also, 15 of the 17 participants pursued professional or other qualifications or starting a new trade/business. These strategies were based on reflection on their circumstances, analysis of their personal and other resources, and then structuring a path forward to achieve their goals.

Participants considered their next course of action a step at a time, i.e., gradually, building skills, positive connections, and opening up options that took them further from the risks that had led to their suicidality, all the while building their confidence in their ability to solve problems and overcome future adversity. For example, I 3 moving from private enterprise into volunteering for community-based services and then becoming qualified in an allied health profession; I 12 ceasing drug use and sex work, then becoming a hostel volunteer, then undertaking a social work degree

and now successful as a welfare professional. Interviewee 7, finding her first employment after escaping abuse, worked in aged respite care, and then, feeling more confident, enrolled in a course to regain her nursing qualifications, then again, having regained confidence in her academic capacity undertook a degree in nursing and eventually, over time, became a specialist in stem cell treatment.

If the strategy they initiated proved useful, they took time consolidating that strategy until they were ready for a next step or until a new hurdle arose. If a new strategy proved unhelpful, participants returned to reflecting and thinking of improved or alternate courses of action.

All participants described how they moved through the regular cycles of observation, reflection, analysis, and problem-solving, making a decision on an action, and then taking that action, to design a response to whatever new challenge or question had arisen.

This did not mean they were immune to despair or to self-flagellation at setbacks but they were developing an ability to move through these negative emotions more swiftly by developing a habit of reverting to the self-care, stabilization, and reflective problem-solving more quickly each time. This served to focus them constructively and cut short self-destructive patterns of thinking.

Their first cycles of reflection, problem-solving, and trying out strategies had been focused on stabilization, finding anchors, and building confidence. Embarking on cycles of reflection as they began to rebuild their life had sometimes been undertaken in a state of great anxiety, fearful that they would discover there was no hope, that they were flawed and would never learn to manage life or that life's challenges. They described saying to themselves at these times, "*One step after another*" (I 15), and determinedly reframing setbacks or failed strategies as opportunities to learn.

They Exercised Some Domain/s of Intelligence

Participants came from a range of backgrounds and education levels varied; nevertheless, their reflection, analysis, and problem-solving reflected the application of analytical intelligence and life skills. Their decisions over time about how to handle interpersonal problems, which friendships to cultivate, and the decisions they made to move away from destructive social circles, all demonstrated increasing emotional and social intelligence. They considered spiritual practices that might help with recovery from loss or abuse. Where they did not find a fit with existing groups and/or belief systems, some conceived helpful rituals, which they carried out. These might include cleansing meditations and rituals after abuse, memorial and farewell rituals after loss, self-care/compassion rituals, etc. Some actually referred to this as spiritual intelligence.

Analytical Intelligence

The cycles of reflection and action, which participants used, demonstrated their application of analytical intelligence. Their analysis did not necessarily require

sophisticated intellectual skills. It was more often simple, pragmatic reflection, information-gathering, and problem-solving, such as when interviewee 10 had solved the dilemma of needing human connection but not wanting to share his distressing thoughts and had sought out social settings, which would provide him with the company he needed, without risk of intrusive and unsettling conversation. Interviewee 5 had used a time of convalescence from a workplace injury to come to grips with seroconversion to HIV and to commence study to open up future employment options.

Interviewee 12, similarly, opened up new options by methodically constructing a path away from sex work and substance use, building skills and confidence through volunteering, and then studying for a degree in social work. Interviewee 6 reviewed the options open to her and created a business, which would give her financial independence and freedom to choose to leave her abusive husband. Interviewee 7 sought legal advice and began systematically secreting away some housekeeping money each week until she could afford to leave her abusive husband and rent a house. She then had undertaken the respite work, which built her confidence, leading her to then undertake refresher training as a nurse and re-entering the workforce, eventually becoming a well-regarded specialist in her field. Each person had eventually methodically undertaken strategies to build a secure future away from the risks, which had undermined them in the past.

Participants used the word “*consciously*” frequently when describing the steps they negotiated, and they described how each step gave them a renewed sense of being in control of their future, i.e., they were consciously, systematically constructing a course to a positive outcome, not waiting to see what the abuser or “fate” would hand out. *“Think about what good things you want and ‘set those as a goal; break it into tiny steps; take tiny steps each day – with measurable outcomes’”* (I 4).

Emotional Intelligence

Participants demonstrated emotional intelligence in their recognition of needs for self-care, kindness to others, and constructive approaches to difficult interpersonal situations.

Building Positive Connections

All participants had reached a point where they were ready to reach out and engage with the world again and to eventually, “*consciously*,” build positive, supportive connections. The level of connection they sought varied as they progressed through stabilization, to being more actively engaged in the world again. The reflection on their capacity and pacing themselves through nonchallenging warm or even anonymous company, through to more intimate or exposing engagement, reflected growing insight.

Some described finding positive company by joining church groups (I15); attending Salvation Army services “*found the Salvation Army listed in the phone book of*

the hotel . . . felt love and caring . . . they gave me the stamina to return to the Community Health Service where I was working" (I 9); joining Wiccan groups (I 2 and I 8); attending belly dance classes (I 6); going to the gym (I 1); taking up cycling (I 14); running (I 12); and bushwalking (I 2; I 13).

Self-Care

In becoming curious about how they fell into such hopelessness and determining that they would learn to recognize risk and develop a repertoire of strategies for survival, they exercised kindness toward themselves and described "*case managing myself*" (I 12) and becoming "*my own therapist*" (I 1; I 12; I 13). The act of trial and error and sometimes achieving even small goals was described as what gradually built their confidence in their ability to face future adversity and find solutions to problems.

Participants described how it could take months before they felt their strengths had consolidated and they had enough confidence in their stability to try new settings or activities. Sometimes, it took much longer if the trauma or loss was significant or if recovering from extreme, prolonged abuse. What stood out was how well participants had learnt to recognize when they were in a vulnerable state and their limitations.

Perhaps even more important, though, was the positive impact of learning to deal with a setback when a strategy did fail. Four participants described responding to a seeming failure or new adversity with "curiosity" and compassion rather than a self-punishing approach to reflection and analysis. Their reflection and problem-solving were solution-focused (I 11) rather than self-flagellating or a descent into hopelessness or self-hate (P 1; I 1; I 2). It was particularly in relation to setbacks that participants described "*being their own parent or best friend*," using self-soothing and self-talking to resist the slide into depression, fear, or hopelessness (P 1; I 1; I 12).

Participants demonstrated self-discipline, although it was not always conscious, in continuing to "*get back up and have another try*"; describing how they attempted to learn from failure and to construct a new strategy to keep consolidating strength and improving life, "*the thing with life is not to move through gracefully but to slog on regardless*" (I 1).

The self-care intrinsic to charting a course of recovery was in itself a protective factor as participants explained their increased mindfulness built their capacity to recognize warning signs of vulnerability early (P 1; I 10) and how to pace themselves at these times. Four participants described learning to recognize signs of duress or decline and recalibrate their lifestyle to reduce risks, stabilize again, and determine their next steps. These participants described eventually learning to take an approach of kindness and curiosity in their cycles of reflection and problem-solving and in their decisions on each next strategy.

Eight participants evidenced this same kindness and curiosity in the language they used when describing how they dealt with setbacks, how they "*reality-checked*," how they have all learnt to see the failure of a strategy, as an opportunity to learn, rather than falling into self-recrimination and hopelessness.

Insight Applied to Developing Resilience

Participants described gaining insight into their triggers for depression and beginning to understand the negative or positive impacts of their social connections. Many described realizing that they would need to leave behind the friendships, which impacted negatively on them and would need to build new social networks. Interviewee 5 described realizing that he had grown up in a social context that normalized drunkenness and violence and in which there had been no role models for how to engage constructively with others for fruitful and intimate relating. He responded to this insight about his past by choosing to engage in a remaking of himself, *"I am having a makeover."*

He reflected on his chronic illness and decided he could try to be a role model, public speaker, and support to others with the same condition, and he drew on support organizations and services available to him to learn the skills he would need to do so.

Interviewee 3 described how his identity had been bound up with his image as *"the man who has it all,"* who was successful in business, wealthy, in a beautiful home, happily married. When his life unraveled financially and his wife abandoned him, and after his aborted attempt at homicide/suicide, he decided to take stock and commence a new life in a new place, based on newly identified values. He became a volunteer caring for people with terminal illness and then eventually found employment in health and welfare services, rather than resuming private enterprise. He described how he now takes pleasure in quality relationships and is *"happy with my lot . . ."* He has not regained the financial wealth he lost, nor his previous status and image in the community, but he now values quality relationships and being a contributing citizen above these. He is choosing to make the best of a very different socioeconomic status and finding he prefers his new social milieu.

All participants described reflection and problem-solving as critical to their recovery, and when asked what their emotional strengths in response to adversity are, they explained, *"Being able to pause and reflect, rather than react impulsively, . . . problem solving."* Some decided to take on the formal practice of reflection and development of insight through mindfulness (originally a Buddhist practice, now adopted by secular society and used by a growing number of clinicians) and other meditation practices to begin to live with greater emotional intelligence and respond to others constructively; notice when the warning signs of depression or burnout arose and recalibrate their lifestyle to remedy their mental state early; and prevent themselves from ever declining to suicidality again.

They all described recognizing they had various life skill deficits and all had, in one way or another, consciously explored avenues to develop the skills they believed were needed to improve their response to life's daily challenges, such as stress management and conflict resolution.

Spiritual Intelligence

Participants sometimes turned to spiritual beliefs and practices, particularly to manage loss and grief but also to move on from abuse, e.g., cultivating empathy

and compassion to reach forgiveness; at other times, creating rituals for grieving, cleansing, or other points of change or closure.

Interviewee 2 explained how she used spiritual practices of Wicca to construct a healing ritual to cleanse herself of the impact of abuse. Pilot 2 described using her withdrawal from the world after her sister's death as a time of solitude to construct memorials, such as a rock wall, to honor her sister. She explained how engaging in physical labor helped her to constructively manage her grief. Interviewee 1 used music to self-soothe and, when he felt ready to see reminders of his mother, such as photos, her possessions, he used these as symbols to work through his grief until he felt he had honored her adequately to feel freed to re-engage with the world and move on.

Interviewee 8 had experienced great suffering from early childhood, with congenital illness causing many hospitalizations, which left him with a pervasive sense of difference, leading to isolation and poor academic performance in school. He describes how he felt highly sensitized to his environment, and he interpreted this as indicative of having psychic ability, which then made his otherness feel like a strength. He described how despite his early efforts as a child to locate and anchor into some spiritual sanctuary he fell into deep clinical depression, which lasted from Grade 4, throughout his school years until 19 years of age. During this time, he also began self-harming, through Grades 6 and 7, *"using cutting as a release."* His academic performance fell, and he began to seek solace in black magic at the age of 14, hoping to learn to manage the forces that he felt plagued him. His thoughts did turn to suicide, and he engaged in repetitive self-harming until he was 18 but he *"had a sense I would not be allowed to do it – that there was some purpose I had to fulfil."*

Interviewee 8 also described how one night he had a numinous experience. He was lying in his bed with an injury and was weeping at the pain, when a column of brilliant light appeared in the center of the room. *"It felt like a positive intervention, God-force"* and from that night *"the lights started to turn back on"* and his depression diminished. He abandoned black magic practices and moved across to the Wiccan tradition of benevolent pagan practices. Although the depression continued to plague him for 8–9 months of the year, the rest of the time he *"felt lighter, fresher – felt the presence of a white light."* He felt it was a spiritual intervention, that he was not alone, and that he was being watched over and needed to live for some, as yet unknown, purpose.

All participants described cultivating new ways of thinking, becoming more insightful and cultivating behaviors and practices, which they found to be a source of spiritual strength. They described working to learn to trust themselves again and described an almost ineffable *"connection with my own spirit"* – gaining an appreciation of their own good qualities, ethics, recognition, and acceptance of their limitations – self-acceptance.

In summary, the participants described a range of spiritual techniques they developed to manage distress, including

- Intuition – when analysis failed, trusting gut feeling (seemingly a mélange of experience, insight, perception of the unspoken exchanges with others).

- Ethical parameters to filter choices, include/exclude possibilities.
- Conscious construction and use of rituals.
- Usefulness of symbols as positive memory cues, e.g., songs, pictures, jewelry, rituals.
- Participation in spiritual practices alone or as part of a group or church congregation.
- Nearly all participants engaged in some form of formal or self-designed meditation and/or visualizations.

Moving Through Rebuilding and Consolidating Strength

The decision to seek to understand what had led to suicidality, to understand their strengths and vulnerabilities and the decision to proactively, one step at a time, devise strategies to build strength and reduce risk were the processes of a resilient person. As participants became more confident in their insight and life skills, they describe they more automatically responded to identifying life skill deficits by determinedly setting out to learn how to develop strengths in these areas.

Participants described that in times of self-doubt they again reminded themselves of their existing strengths using these both as an anchor and as a reassurance to which to return if a foray into building some new strength or life skill did not succeed. During setbacks or if a strategy failed, they explained they might also sometimes return to cocooning themselves, pacing their way through each day, reflecting all the while on what had not worked and they therefore still needed to learn or what activity might be beneficial. As their life skills and confidence consolidated, they described that they also began to visualize or imagine possible positive futures that went beyond just survival to opening up new life options.

As participants became more and more confident and took more risks, trying out new skills, and venturing into new environments, they paced themselves through the anxiety, which accompanied trying new life strategies. The self-talk came more easily: “*I have survived before, I will do it again*” (I 1; I 15); “*I am resourceful, ... always find solutions*” (I 9).

When they could not see through a new adversity or felt they could not think clearly, they had learnt to be patient and simply put one foot in front of the other, resting on structure and routine and reverting to self-care – eat well, sleep, go to the gym, seek distracting positive company. They developed a repertoire of techniques and resources, e.g., putting post-a-note reminders of previous insights on the walls; using books, photos, and resources they had collected to refocus on the beauty in the world, nurturing themselves until they were ready to emerge and develop and embark on their next strategy, something that was happening much more rapidly each time.

It was clear from the participants’ stories that they did not wait for people to come and rescue them, although they did reach out for comfort or a sounding board if they needed it.

They all described that they learnt to reject self-hate and self-punishment when a strategy failed, saying they began to recognize these as tiring and counterproductive. When they were too raw to think, if some new loss seemed too great, they withdrew into self-care and into constructive or distracting activity, such as exercise, gardening, walking the dog, art, music, movies, or whatever they found comforting.

Participants were proactive in their search for ways to heal themselves and became more resilient as they dealt with setbacks and each new hardship. If the attempt had failed, they described trying to not get stuck in disappointment or fall into hopelessness, often using “self-talk” to remind themselves, “*Setbacks happen don’t beat yourself up – just learn from it*” (I 10). They reflected on what went wrong, what they could learn from the situation, and tried a new strategy. While they sometimes slipped into despair, feeling overwhelmed or disheartened, participants described that they had learnt to reach out for comfort and sometimes reached out for professional support.

Becoming Engaged: Developing Altruism Through Volunteerism

Moving through rebuilding and consolidating strength was also a time where many participants turned their focus outward to altruism, e.g., learning skills to become volunteers. For some, it began with a decision to turn their focus outward, to begin to notice others and not be paralyzed in cycles of rumination, self-flagellation, and despair.

By the time I interviewed the participants in this study, they had all, without exception, been engaged in volunteering and at least a third had moved into careers in health, welfare, social support, “*to give something back . . . to help others who might be feeling as vulnerable as I did*” (I 3). “*Random acts of kindness*” (I 6); *being kind “in their own backyard”* (I 4). “*I have always volunteered and found it gives me great pleasure*” (I 6). Whilst some of the participants provided respite care in a range of health and welfare sectors, others became involved in youth programs through community-based organizations. Others took Lifeline Counselling Courses and became a telephone counselor, and some took up volunteering with Red Cross and/or church-associated caring activities.

The sentiment of interviewees 3 and 5 was echoed in some way by almost all participants, “*Take opportunities to smile, make others feel warm*” (I 3). Some, who began volunteering early in their recovery described deciding that if there was no hope for happiness in their own life, then they wanted to try and make a difference to others who might be suffering, e.g., through volunteering – “*Life is hard – I want to do something to ease the suffering of others*” (I 1; I 11; I 13). They describe discovering that they felt more positive themselves when they shifted their focus to others and that the positive effect they felt also provided motivation to keep going.

Interviewee 13 had experienced ongoing major challenges in her life. She had been sexually abused by her step-father, and when her mother did not believe her, she, over time, engaged in multiple suicide attempts. As an adult, her challenges continued, with development of a chronic disease and with her children on the

autistic/Asperger's spectrum. Interviewee 13 decided that she would use what she had learnt through her experiences to help others going through similar traumas, "*I turned adversity into something helpful to others*" (I 13). She became a volunteer advocate and public speaker for mental health issues; worked with a general practitioners' group as a mental health representative; became involved in an organization for young people at risk; and pursued innovative strategies for working with children with autism and Asperger's syndrome.

Without exception, every person interviewed for this study had taken up volunteering and many eventually moved across or retrained to some kind of social service, caring or welfare occupation or profession.

Decided to Become a Better Person

For a range of reasons, participants reflected on the values and ethics by which they had lived, and in all cases, in the course of reflecting on their past and what had led them to suicidality, participants decided that there were some things about themselves that they did not like. For some, there was deep embarrassment when reflecting on their negative or aggressive behaviors, and in response, for some, there was a tendency to self-hating rumination, even though they recognized the latter was not only unhelpful but risked placing a burden on those whom they felt they had wronged, to not only forgive their bad behavior but to cheer them up and reassure them, when the person they had harmed may have needed to be comforted themselves.

A number of participants decided to adopt practices to make themselves a stronger, more authentic, kinder, and trustworthy person, i.e., to do no harm. This was sometimes the motivation for those who had adopted practices, such as mindfulness, meditation, and yoga. Some learnt techniques to calm impulsivity and so felt less of a burden on others and had fewer opportunities to slip into self-hating. Some decided to completely reinvent themselves, such as when interviewee 5 decided he was "*having a complete makeover*," using the opportunity of his crisis to reflect on how he wanted to live differently from his family, who had normalized alcohol and violence in social interactions. He had decided to find other examples, role models, for how to socialize, and how to problem-solve and resolve conflict. In becoming a public speaker about the chronic illness he suffered, he described that he sought to create an identity and lifestyle he could feel proud of.

Interviewee 15 described that he decided to take the complete demolition and rebuilding of himself as an opportunity to find his "*true calling*." He had been arrested by police because they had assumed it was he that was the violent aggressor in a domestic violence alert, not recognizing that it was, in fact, his wife who was the aggressor. He explained he had felt so ashamed that this had prompted his suicide attempt. His suicide attempt had resulted in multiple organ damage, which resulted in 6 months of grueling rehabilitation. His children had responded with anger, making it very clear to him that he "had no right" to tear their lives apart with suicide, and as a result he determinedly worked through a difficult recovery.

Rebuilding his relationship with his children and dealing with their anger and loss of confidence in him led him to decide to identify the ethics against which he could measure himself, so he would always have an honest view of his good qualities and the personal limitations with which he needed to work and be less vulnerable to being eroded by others. He described seeking out a range of spiritual groups, including 12 step-type groups, Christian groups, Jungian groups, and also sought out therapists as resources at different stages, e.g., *"Its important to have a guide to be leading the rebuilding process."* He identified strongly with Joseph Campbell's *Heroes Journey*, the Jungian text on facing and overcoming one's shadow – finding strength in *"choosing a life of spirit and heart."*

Opening Up New Options: Moving Toward Flourishing

As people moved through months and years of recovery and rebuilding, using reflection and problem-solving to assess their needs and resources and choose their next steps, they learnt to scan for options and described that it became clearer to them that they had always had a choice of how to respond to a situation and develop constructive strategies to move forward.

At first, the recognition of the freedom to choose was applied to making more considered and less reactive decisions for survival (I 10). Then, the freedom to choose was applied to considering and choosing ways to reduce risk of decline or relapse, such as moving away from destructive social circles (I 10; I 12). Then, reflection on just what range of choices is possible led to identifying options that would optimize the possibility of positive outcomes in life, *"Be curious about what tomorrow might bring"* (I 5).

Interviewee 13 described a moment where she thought it would be easier to just let go and *"have a breakdown and get admitted and be cared for."* Then, she said that she could not but help reflect on the impact this would have on her children and the thought of her children being left with their father was intolerable, *"Then I realised the choice! . . . and I chose to reframe, relook and begin problem-solving."*

Interviewee 12 began her journey from suicidality after a near-death experience at the hands of a violent partner. She took out a domestic violence order, found community housing, and ceased to work in the sex industry. She took up yoga and explored a range of other self-care techniques and *"worked on building self-awareness."* She began volunteering at a hostel. She described that she liked people, *"I love communication . . . and creating a safe and secure environment for other people."* She discovered she was a gifted case worker, and she described using what she was learning to systematically build her capacity to care for herself. When she felt she had stabilized and was ready to move forward, she enrolled in university and studied social work. She described how commencing studies took her *"beyond survival."*

Participants had many similar stories about methodically reviewing their life, values, and choices. They became clear on the values by which they believed they could make the best decisions for themselves and for their impact on others. Application of the resilience factors to recover had allowed them to see choices

and to apply their moral compass and other criteria to make good choices instead of simply reacting. The optimism generated by experiencing positive outcomes encouraged some participants to decide on complete changes to life trajectory.

All participants actively pursued a range of courses, including self-development, education to pursue “their passions,” took time to be creative, philosophical, and to simply learn new things. Of the 17 people interviewed, 6 described enrolling in or returning to university to develop or consolidate careers.

Managing Setbacks: Reality-Checking

Perhaps the insight to check expectations of life and of others in one’s life is another element of emotional intelligence; however, for all of the interviewees, the capacity to reality-check and acknowledge “*set backs happen – don’t self punish, just solve*” proved to be a critical insight and a skill to prevent relapse into hopelessness. When strategies failed or new adversities arose, some participants slid back toward hopelessness but all described how they then eventually took stock and chose to reflect on what they could learn about the triggers for the setback to reduce risk in the future. They also reminded themselves of what had been working well and what had brought joy in the past and, once again, set about to create those activities, to seek out positive connections.

That is, the same cycle was repeated, i.e., taking time to observe, reflect, analyze, and problem-solve, decide on an action, and then take that action. All participants described ways in which they were “*learning to be gentle with myself, self-caring,*” while still moving forward. When participants suggested practicing greater kindness to themselves, this did not equate to wallowing. Rather, it reflected them responding constructively, seeking to learn instead of sliding to self-recrimination, seeing themselves as a failure. It also reflected them recognizing warning signs of stress or duress earlier and adopting techniques to reduce workload, manage stress, care for their health, and find the positive company they may need while they recalibrate, rather than burn out.

Became Indomitable

Both at the outset of moving from suicidality, when some felt raw and unable to think clearly and at times when the motivation to be proactive flagged, during setbacks, times of adversity or distress, participants described saying to themselves “*I am not willing to give in*” (I 9), “*I will make this work*” (14), and “*Just put one foot in front of the other*” (I 15). This was an important strategy when all meaning had collapsed, when they no longer had their previous anchors, and had no comforting aphorisms or faith in a higher force. At this point, participants describe returning to a holding pattern, stabilizing through simplifying life and structuring the day.

Participants developed “mantras” or a litany to say to themselves at moments of hardship when they could not see through disappointment, despair, and exhaustion,

"I have survived before and I will again" (I 1); *"The bad times passed before and life was good again – this bad moment will pass and it will be OK again"* (I 11); *"I always find solutions"* (I 2; I 7; I 12); *"My children are watching and I will role model how to deal with hard times for their sake"* (I 6); *"Fake it until the feeling catches up"* (I 3; I 14); *"Pick some easy success and start rebuilding again"* (I 1; I 14); *"Its time for back to basics for a while – go to the gym, eat well, sleep"* (I 1); *"Don't give up until you have done one good thing"* (I 1); *"No point in tossing in the towel – you just have to pick it up again sometime"* (P 1; I 13); and *"Think of your impact on others . . ."* (11 participants).

They described self-talking, reminding themselves they could withdraw from stressors until they felt ready to face them, *"I am not obliged to be with this person just now, its OK to choose who, when, where . . ."* (I 2). They reminded themselves, *"I have got through hard times before – what tools did I use then?"* (I 1) When thinking further into the future just brought up feelings of terror, they allowed themselves to just deal with the next half hour, next five minutes – they used gentle distractions (I 14) – parented and comforted themselves (I 6). A number of participants reflected on what had made them feel good in the past. For some, it was being in nature, by the sea or in the sea (I 6); for others it was exercise (I 1; I 14); for two, it was a time of no thinking, just immersing their hands in the soil (I 4), and carting rocks, gardening (P 2). Several spent time with a pet and found comfort in the wordless company of their dog (I 4; I 10) – one bought a dog specifically to have simple company and a motivator to get out of bed in the morning and walk (I 4).

It was during acute distress, when needing to be indomitable, when structure to the day was important (I 2) and participants describe using a range of behavioral strategies, e.g., setting little achievable goals and tasks to build experiences of success and therefore optimism; setting up safety nets – calling support services, networks, friends, even stockpiling resources, e.g., a library of books/posters for when they cannot remember what steps help. One person described covering their home in post-it notes as reminders of comforting insights they had previously had. In the spirit of being their own therapist, best friend, or life coach – they celebrated little successes and progressively set new goals to stretch a little more each time – thus building confidence (I 4; I 12; I 13).

As the moment of acute distress stabilized, participants fostered dreams and reflected on how to achieve them. They once again began the cycle of reflection, problem-solving, and initiating actions for recovery and to resume rebuilding.

Choosing Happiness

Many participants, who survived trauma and abuse at the hands of others, believed that it was important to rediscover what was important to them, what they valued, and what choices they could make (I 6; I 7; I 9; I 12), and that this had been important in consolidating their recovery and reducing the risk of relapse to depression and suicidality.

Participants described how the opening of options did not, however, stop at resetting their career paths. Many participants referred to “*eliminating shoulds*” (I 6; I 9) and instead began to reconsider what they believed was important, based on their growing confidence in the moral compass they had developed for themselves. All participants spoke about the need for and the importance of “*your passion*” (I 5; I 14; I 15) – “*Find the things you are naturally gifted at – what passion would make you jump out of bed in the morning?*” (I 5); “*Making choices that will give happiness*” (P 2; I 1; I 5; I 9; I 10; I 11; I 14); and “*Get back in touch with what gives you life*” (I 15).

Making critical decisions to consolidate recovery and to go beyond survival to flourishing was not always easy. As all participants’ efforts to “*live more consciously*” increased their insight into the positive and negative drivers in their life, they described how they had needed to make difficult decisions to eliminate friendships that were destructive in their nature or that kept them linked to destructive or high-risk lifestyles. For some, it was necessary to distance themselves from some family members. At the same time, nine participants had eventually felt the need to reconnect with alienated family and shore up good friendships. Almost all participants spoke about being very selective about who they now allow into their intimate friendship circle, taking time to observe and decide on the trustworthiness of the person and/or their positive or negative impact.

Making a decision to change life/career trajectory was also challenging. Interviewee 14 described how he recovered from suicidality and in doing so found himself reflecting on “*what statement was I making?*” and then deciding instead to “*get successful, get even, get better.*” He ceased to try and fit into what he felt he should do, i.e., university and then teaching, and instead made the decision to pursue his creative passions becoming a performing artist, with mime, circus, theater, as a professional discipline and with great commitment. He is now an internationally renowned performer and runs master classes for other performers.

Choosing happiness was not always easy nor did it result in immediate reward, but some of the participants, like interviewee 14, explained that stepping outside their comfort zone and pursuing their passion brought with it a feeling of “*pressure having been removed*” and an excitement and satisfaction that were their own reward. Interviewee’s tips included – to “*access other parts of yourself*”; to “*give it all you have got*”; to be able to face uncertainty and feeling ill-equipped, “*but swim through it.*” Participants also described the self-care and supportive connections, which were important in this move beyond survival, knowing when to ask for help. It seems the skills they learnt to recover and rebuild armed them to go even further and take risks that could lead to them flourishing.

Participants had all spoken about having reevaluated the values, which underpinned their life decisions and becoming more focused and clear on their personal ethics. It seems that becoming clearer on their ethics was then a major contributor to enabling them to make decisions on life directions, which may not have been immediately popular with those around them. Participants described filtering decisions on what would give them happiness, through values that included

“do no harm,” and so they had confidence these courses of action were worthy of pursuit, even if they sometimes received early negative reactions from others.

Sustaining Resilience

Interviewees still had crises of confidence when new strategies did not work or other adversities arose, and they did from time to time succumb to self-flagellation and recrimination but described recognizing quickly each time that these were counter-productive and exhausting. They described that at these times they would once again make the choice to put in place the stabilizing behaviors and support in order to regain clarity and consider what next.

At the time of interviewing, some participants were facing major challenges in their health or were financially under a lot of strain; however, they still believed in their capacity to find solutions or to adjust constructively and were both pacing their way through these problems and ensuring they had opportunities for positive experiences and warm connections to keep some balance in their life experience. Interviewee 10 described using music and good company, going fishing to provide positive experiences and regain “*perspective*.”

On occasions, some participants would still begin to slide toward depression and/or suicidal ideation, but, as interviewee 10 described, “*I now recognise these as warning signs*” of exhaustion or of vulnerability through some other cause, and pull back into stabilizing patterns – exercise, good company or solitude, and then choosing activities at which they could succeed and regain confidence.

A lifestyle characterized by resilience and well-being did not mean a life free of suffering for participants – it meant confidence in their ability to get through any problem, to make choices that create positive experience and then optimize their options; knowing what gave them pleasure, comfort, delight, and ensuring those activities are part of their lifestyle; knowing when to retreat into self-care; and taking pleasure in volunteering or being engaged with their community. The cycles of reflection and action, which had become their default response, were helping them to continue generating a balance of protective factors and joy, in lives that are contemporarily as challenged as anyone, by everyday adversities.

Summary

How participants gave meaning to their experiences and rebuilt their framework of meaning and ethics for their next chapter in life was pivotal to driving the process of recovery. This was for two reasons. One was the capacity that participants demonstrated to live with a period of no meaning, when things they had believed in or on which they had previously based life’s major decisions collapsed and proved hollow. They demonstrated the importance of being able to survive day-to-day living, while consciously constructing a new framework of meaning on which to predicate reflection, decision-making, and action. As suggested in the review of resilience

literature earlier in this chapter, perhaps the search for meaning is as great an anchor as meaning itself.

The other way in which meaning was important to their recovery was that participants adopted an approach of reframing adversity into an opportunity to learn, taking an objective observer, problem-solving orientation.

It was notable that the decision to take control of the healing process appeared to be a turning point, which began the process of recovery for interviewees. It reflected a shift from believing they were at the mercy of external forces to an internal locus of control, where their shock at realizing how vulnerable they had become, to have become suicidal, became a motivator to recover and proactively rebuild their life and build life skills to prevent such decline ever again.

The 17 participants successfully managed to stabilize, either seeking someone with whom they felt safe and who comforted and/or supported them, or by seeking solitude and more anonymous connection. It seems that there were a number of decisions they made that galvanized their resolve that suicide was not an option and that if they were to avoid ever facing this level of trauma again, they would need to build on their existing strengths and learn the skills and ways of thinking that could move them through difficult times constructively.

This led participants to embark on a process of observation, reflection, analysis, and problem-solving to decide on what next step they needed and then designing a strategy to achieve that, including the resources, life skills, or support they might need to implement that next step. If the strategy worked, they consolidated for a time until they felt ready to take some new step or some adversity arose, which required their attention. If it did not, they framed it as an opportunity to learn.

Participants went through similar stages of recovery, during which they drew on all the range of resilience factors as and when needed to support their self-managed healing process. They all sought to first stabilize, then rebuild and eventually go beyond survival to making choices that enabled them to flourish. The resilience factors that participants drew on or actively sought to develop were all drawn on in different ways at different times, sometimes in combination, sometimes leveraging off one to strengthen another. Their movement through these was navigated by the habit they developed, pausing to avoid reactivity and then embarking on another cycle of reflection and action.

Participants described that depression and suicidal ideation could reemerge from time to time, but that they now saw it as a warning of exhaustion or vulnerability and a need to stabilize and implement self-care strategies. Participants described their lives as having gone beyond surviving through to thriving and characterized their life as one of well-being and resilience.

They demonstrated that it is possible to self-manage recovery from suicidality, and it is the process of self-managing recovery, itself, that builds the person's confidence in their capacity to always find solutions when faced with adversity.

I now know that I was able to deal with unbelievable (emotional) pain and therefore I can deal with anything. (I 15)

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Part II

Suicide Prevention Across the Life Span

Treatment Approaches with Suicidal Adolescents

23

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Abstract

Suicide is the third leading cause of death for 15- to 19-year-olds worldwide. Over one-third of adolescents who experience suicidal ideation (SI) eventually attempt suicide, typically within 1 to 2 years of the onset SI, and a prior suicide attempt is one of the best predictive risk factors for eventual death by suicide as well as future suicide attempts among adolescents. Thus, effective treatment of suicidal adolescents, especially those who have attempted suicide, is an important component of addressing the public health problem of youth suicide. In this chapter, we summarize recent reviews and meta-analyses of the literature on the treatment of suicidal adolescents. We then discuss the major treatment approaches, primarily dialectical behavior therapy, different variations of cognitive-behavioral therapy, and different family therapy models. A few other approaches with less support are also discussed including developmental group therapy, multisystemic therapy, and mentalization therapy. Although safety planning does not have stand-alone empirical data to date with adolescents, we also describe a typical safety planning session. We conclude with a discussion of ketamine as a psychopharmacologic treatment just beginning to be studied with adolescents as well as the use of digital technology to enhance the treatment of suicidal adolescents.

Keywords

Adolescents · Suicide attempts · Suicidal ideation · Treatments · Therapy

Treatment Approaches with Suicidal Adolescents

Introduction

Although data on international adolescent suicide rates is incomplete, the World Health Organization reports suicide as the third leading cause of death for 15- to 19-year-olds worldwide [1]. However, inconsistencies in suicide reporting and a dearth of information from underdeveloped countries have resulted in global estimates largely representing western, developed countries. An analysis of the World Health Organization (WHO) Mortality Database found a rising trend in deaths by suicide among youth aged 15–19 from 1965 to 1999 [2]. A later analysis of the database from 1990 to 2009 found rates among 15- to 19-year-olds were declining in western countries (including the United States), with South America showing the only significant regional rise, globally [3]. The most recent assessment from 2010 to 2016 expanded age criteria to 10- to 19 year-olds and found that, when controlled for age, adolescent suicide rates were slightly lower but overall consistent with those rates observed from 1990 to 2009 [4].

Suicide is the second leading cause of death among adolescents in the United States (US), with the CDC reporting in 2017 that 17.3% of deaths in youths ages 10–24 were due to suicide [5]. Girls have experienced a threefold increase in suicide deaths since

1999 [6]. Within the last decade, death by suicide among adolescents ages 15 to 19 has increased by one-third among males and doubled among females [7]. There has also been an increase in the suicide attempt rate among US adolescents, from 6.3% in 2009 to 8.6% in 2015 [8].

Over one-third of adolescents who experience suicidal ideation (SI) eventually attempt suicide, typically within 1–2 years of the onset of SI [9]. A prior suicide attempt is one of the best predictive risk factors for a future suicide attempts among adolescents as well as eventual death by suicide [10]. Approximately one-third of adolescents and young adults, ages 15–24, who died by suicide were found to have previously attempted suicide in a large psychological autopsy study [11]. Almost two-thirds of adolescents hospitalized for a suicide attempt reported a subsequent suicide attempt within 2 years of discharge [12]. Thus, effective treatment of suicidal adolescents, especially those who have attempted suicide, is an important component of addressing the public health problem of youth suicide.

In this chapter, we first summarize recent reviews and meta-analyses of the literature on the treatment of suicidal adolescents. We then discuss the major treatment approaches, primarily psychotherapy, to adolescent suicidal ideation and suicide attempts by highlighting recent, as well as representative, empirical studies of various therapies. We limit the literature review and our description of studies to those in which suicidal ideation and suicide attempts were a specific focus of treatment and one of the main outcomes.

Review of Recent Meta-Analyses

There have been several reviews of the literature on the treatment of suicidal adolescents in the past decade or so. These reviews consist primarily of psychotherapy studies because medications that specifically target suicidal ideation, with the exception of recent studies with ketamine (see below), have not been developed. Medications are instead typically prescribed to address an underlying psychiatric disorder, typically depression, presumed to underlie suicidal ideation and attempts.

The oldest meta-analysis reviewed here was published in 2008 and focused specifically on cognitive-behavioral therapy (CBT), or interventions that integrated CBT as a component of treatment, to reduce suicidal behavior, defined as death by suicide, suicide attempts, suicide intent, suicide plans, and/or suicidal ideation by the authors [13]. This review identified 6 adolescent and 18 adult studies. There was variability in the CBT techniques used, method of delivery, treatment setting, type of control group employed, and types of professionals who delivered the interventions. It is notable that the age ranges are loosely and inconsistently defined across studies. For example, one of the adolescent studies describes their sample as *older adolescent* with an age range of 18–24 years old, while another describes an adult sample of 15–18 years old. The authors of the meta-analysis chose to categorize studies based on the description of the sample rather than the age of participants in the original articles; thus, some adult studies were included in the adolescent category and vice versa. Overall, the meta-analysis concluded that CBT was effective in treating

suicidal behavior in adults but not adolescents, although the authors noted that further research would be needed to truly understand the utility of CBT among this younger age group given the dearth of research available at the time of their review.

Another meta-analysis for the US Preventive Services Task Force published 5 years later [14] focused primarily on the efficacy of screening for suicide risk in primary care. They also reviewed 11 RCTs conducted with adolescents that examined the effects of treatment on suicidal ideation and behavior. Treatments included CBT, developmental group therapy, attachment-based family therapy, and brief interventions. Similar to the Tarrier et al. [13] review, the O'Connor et al. (2013) review found that psychotherapy, broadly construed, reduced suicide attempts in high-risk adults, but not adolescents, and that there was a paucity of research assessing effective treatments for adolescents. Some limited findings suggested that interventions that targeted parents and youth together were more effective than those targeting youth alone.

A 2015 meta-analysis focused on youth suicide treatment evaluated treatment efficacy across 29 studies, including 18 randomized control trials [15]. The analysis used the Society of Clinical Child and Adolescent Psychology evaluation criteria for evidence-based treatments that categorize treatment approaches into levels of efficacy ranging from *Level 5: questionable efficacy* to *Level 1: well-established treatment*. The review found no treatment approaches met the criteria for *Level 1: well-established treatments*. The following treatments were found to be *Level 2: probably efficacious*: (1) CBT-individual + CBT-family + parent training for suicide attempts, (2) family-based therapy (FBT) – parent training, for self-injurious thoughts and behaviors (composite of non-suicidal and suicidal), (3) attachment-based family therapy for suicidal ideation, (4) interpersonal psychotherapy – individual for suicidal ideation; and (5) mentalization-based treatment for deliberate self-harm (composite of non-suicidal and suicidal self-injury). Multi-systemic therapy was classified as *Level 3: possibly efficacious* for suicide attempts. Due to an absence of completed randomized controlled trials (RCTs) evaluating dialectical behavioral therapy (DBT) at the time of publication, DBT was classified as *Level 4: experimental* for deliberate self-harm, non-suicidal self-injury, and suicidal ideation.

An update to the 2015 review was published in 2019 and compared the efficacy of 26 randomized control trials in youth [16]. Nine of these studies were new to the set evaluated in the previously discussed 2015 review. The primary new conclusion was the advancement of DBT from *Level 4: experimental* to *Level 1: well-established* for treatment of deliberate self-harm (composite of non-suicidal and suicidal self-injury) and suicidal ideation in youth. DBT was also deemed *Level 2: probably efficacious* for the treatment of non-suicidal self-injury and suicide attempts in youth. Additional updates included the addition of integrated family therapy as a *Level 2: probably efficacious* treatment for suicide attempts.

The latest review of evidence-based interventions for youth suicide reviewed in this chapter [17] also aimed to update the 2015 review by Glenn et al. This review similarly found DBT should be added to the classification of *well-established treatment*, as a result of two large randomized controlled trials completed within

the past 5 years [18, 19]. The authors also discussed the burgeoning importance of technology in adolescent treatment, reviewed studies that have attempted to deliver therapy to youth online (these studies are elaborated upon below), and suggested avenues for further research including wearable devices and crisis intervention through mobile applications.

Since the publication of the latest meta-analysis [17], there has been one additional published RCT testing CBT [20]. Although suicidal ideation and behavior decreased over the follow-up period, the treatment was not found to be superior to the treatment-as-usual (TAU) comparison group. This study is discussed in detail below.

Psychotherapy Treatment Approaches

In this section, we discuss the findings from selected empirical studies of the major psychotherapy approaches for suicidal adolescents. The treatment approaches that have the most studies and support are DBT, different variations and combinations of CBT, and different family therapy models. A few other approaches with less support are also discussed. We also present some details about safety planning. Although safety planning does not have stand-alone empirical data to date with adolescents, it has become standard in the United States for a safety planning session to be conducted with suicidal adolescents, regardless of the specific therapy approaches.

Individual CBT Approaches

Individual adolescent CBT approaches have been tested with the adolescent alone, with minimal parent involvement, but more commonly in protocols that have tested individual CBT with significant parent/family involvement and often pharmacotherapy. With respect to individual CBT for the adolescent, one of the first studies, conducted in the United States, compared CBT to supportive relational therapy (SRT) in a small clinical trial ($n = 35$) for adolescents who made a suicide attempt [21]. Both treatment protocols included ten treatment sessions delivered by one therapist, two treatment phases (3-month active, 3-month maintenance) and one conjoint family session. Sessions were attended weekly during active treatment and monthly during maintenance treatment. To control for therapist effects, seven different therapists provided both treatments. Both treatments resulted in equivalent reductions in suicidal ideation at the 3- and 6-month follow-up points. Two adolescents in SRT reattempted suicide over the course of 6 months while four adolescents did so in the CBT condition, but this difference was not statistically significant. A subsample (9 in each condition) was recontacted at 12 months, and no repeat attempts were reported in either condition. What sets this study apart from almost all other studies in the literature is that the same therapists conducted both treatment protocols. Therefore, the lack of differences across conditions can be attributed, at least in part, to therapist effects.

Recently, an Internet delivery of individual CBT, called Reframe-IT, was tested in Australia with high-school students (ages 14 to 18), recruited through their schools, who reported suicidal ideation. In pilot trials, Reframe-IT was determined to be safe and acceptable [22] and significantly reduced suicidal ideation in youth [23]. The pilot study was followed by a small RCT ($n = 50$) that tested the effectiveness of Reframe-IT plus TAU compared to TAU alone [24]. The intervention consisted of eight modules of CBT delivered online over 10 weeks with assessments conducted at baseline, 10 weeks and 22 weeks. Although there were reductions in suicidal ideation in both conditions, there were no statistically significant differences between groups at posttreatment or at 22-week follow-up. Two adolescents in the TAU condition, and none in the experimental condition, attempted suicide at the 22-week follow-up.

A small study in Sweden tested mood regulation-focused CBT (MR-CBT) ($n = 15$) compared to TAU ($n = 12$) in a group of depressed adolescents [25]. MR-CBT uses counter conditioning with memory reconsolidation in order to improve mood regulation. The adolescents practice reviewing emotionally positive memories to diminish the emotional impact of negative memories. Depression and well-being improved significantly in both treatment groups. There were no suicidal events at the end of treatment in the MR-CBT group, but three adolescents reported suicidal events in the TAU group.

Individual CBT + Parent/Family Involvement

CBT trials for suicidal adolescents are more commonly conducted with accompanying parent and/or family sessions than with an adolescent alone. One study in the United States [26] tested whether CBT for depressed adolescents with concurrent CBT treatment of a depressed parent (called parent-adolescent CBT; PA-CBT; $n = 16$) was more effective than CBT for adolescents only (AO-CBT; $n = 8$). In order to qualify for the study, adolescents had to meet criteria for a current major depressive episode, and the parent had to meet criteria for current or past major depressive episode. PA-CBT was more effective in reducing adolescent depressed mood than AO-CBT at the end of the active treatment period (24 weeks) but not at the 48-week follow-up. The effect at 24 weeks was stronger for parental depressed mood than adolescent depressed mood. A reduction in adolescent and parent suicidal ideation was found at both follow-up points but did not differ across conditions.

A more intensive treatment protocol, integrating CBT and motivational interviewing (MI) techniques for the adolescent, as well as parent and family sessions, entitled integrated-CBT (I-CBT), was conducted in the United States to address suicidal ideation and attempts in adolescents with co-occurring substance use and psychiatric disorders [27]. Adolescents ($n = 40$) were recruited at discharge from a psychiatric inpatient unit and randomized to outpatient I-CBT or enhanced-TAU (E-TAU). Two therapists (one who worked with the adolescent and one with the parents) were assigned to each family. Adolescent sessions were offered weekly during the first 6 months, biweekly during a 3-month continuation phase, and

monthly for another 3 months. Parent sessions were somewhat less frequent and varied according to the needs of the parents. The I-CBT protocol offered a menu of individual adolescent cognitive-behavioral (e.g., problem-solving, emotion regulation, behavioral activation), family (e.g., communication), and parent training (e.g., monitoring, behavioral contracting) sessions. Adolescents in both conditions were also offered medication management. At 6-month follow-up, suicide attempts were significantly lower in I-CBT compared to E-TAU (5% vs. 35%). In addition, there were fewer psychiatric hospitalizations in the I-CBT condition compared to E-TAU at the 6-month follow-up (18 months post-baseline). Comparable reductions were evident across conditions in SI, but these reductions did not differ across conditions.

In an extension of I-CBT (described above), 147 adolescents and their families, recruited from inpatient and partial hospital psychiatric programs, were randomly assigned to a modified I-CBT protocol call family-CBT (F-CBT) or enhanced-TAU [20]. Changes to I-CBT included modifications to sessions to better address emotion regulation (distress tolerance), physical health (healthy lifestyle), trauma (trauma narrative), and anxiety (exposure). Parental “self-care” sessions and a parental emotion coaching session to improve parent-child interactions were also added. Both conditions resulted in reductions in suicide attempts, suicidal ideation, and non-suicidal self-injury, but there was no difference between conditions. In the sample as a whole, rates of attempts decreased from 20% at 6 months to 9% at 12 months to 7% at 18 months.

CBT + Pharmacotherapy

Only a few studies have specifically examined the effects of pharmacotherapy on suicidal ideation and attempts in adolescents. Only one was specifically designed to address adolescents with suicidal behavior. The multisite Treatment of Adolescent Suicide Attempters (TASA; [28]) assigned 124 depressed American adolescents who made a suicide attempt in the prior 90 days into antidepressant medication only ($n = 15$), cognitive-behavior therapy for suicide prevention (CBT-SP) ($n = 18$), or medication plus CBT-SP ($n = 93$). Treatment assignment was random at the beginning of the study, but due to difficulties in recruitment, participants were given their choice of treatment assignment for the majority of the study, resulting in the imbalanced sample size across conditions. The goal of CBT-SP was harm reduction and relapse prevention. CBT-SP focused on developing cognitive, behavioral, and interpersonal skills to more effectively cope with stressors that might trigger suicidal crises and reduce the likelihood of further suicidal behavior. Parents also had family sessions focused on suicide risk reduction strategies. Individual adolescent and conjoint parent-adolescent sessions were available for up to 22 sessions over a 6-month period. All adolescents showed a significant decline in suicidal ideation at the end of treatment. With respect to suicide attempts, approximately 12% of the adolescents reattempted suicide, and 19% experienced a suicidal event (suicide attempt, suicide completion, preparatory acts toward suicidal behavior) at follow-up. There were no differences in suicide attempts or events across the three conditions [28].

Two other large multisite studies of depressed adolescents, both conducted in the United States, have examined suicidal ideation and behavior as primary outcomes. In the Treatment for Adolescents with Depression Study (TADS; [29]), depressed adolescents (30% of whom had clinically significant suicidal ideation at baseline) were randomly assigned to one of three active treatment conditions: fluoxetine therapy ($n = 109$), CBT ($n = 111$), or combination therapy ($n = 107$). Families could attend 15 sessions during the first 12 weeks, weekly to biweekly sessions during the next 6 weeks, and booster sessions every 6 weeks thereafter. The CBT intervention included both individual adolescent and conjoint parent-adolescent sessions. Reductions in suicidal ideation were greater for youth randomized to CBT or combination therapy than fluoxetine therapy alone. Adolescents in the fluoxetine-only condition were twice as likely to experience a suicidal event during treatment (14.7%) than those who received CBT (6.3%) or combination therapy (8.4%).

In the Treatment of SSRI-Resistant Depression in Adolescents study (TORDIA; [30]), depressed adolescents who failed to respond to a previous trial of a selective serotonin reuptake inhibitor (SSRI) antidepressant were randomized to one of four conditions: change to a different SSRI ($n = 85$), change to a different SSRI plus CBT ($n = 83$), change to venlafaxine ($n = 83$), or change to venlafaxine plus CBT ($n = 83$). Many of these adolescents had clinically significant suicidal ideation (58.5%) and prior suicide attempts at baseline (28.7%). The CBT protocol included 12 sessions conducted over the course of 3 months; the majority of sessions were with the adolescent alone but 3–6 of the sessions could be used as family sessions, depending on the needs of each family. Maintenance sessions were conducted during months 3–6. Suicidal ideation decreased across all conditions by the final follow-up point at 12 months. Approximately 20% reported a self-harm-related event (suicidal ideation requiring an emergency evaluation, suicide attempt, self-injurious behavior) during treatment, but there were no differences across conditions.

Dialectical Behavior Therapy

DBT is a multicomponent treatment that emphasizes treatment engagement and the reduction of non-suicidal self-harm and suicide attempts by teaching skills for enhancing emotion regulation, distress tolerance, and interpersonal effectiveness [31]. There have been several studies with adolescents that have produced promising results.

Rathus and Miller [31] used a quasi-experimental design to compare the efficacy of DBT-Adolescent (DBT-A) compared to TAU for suicidal adolescents; approximately one-third of this US sample reported a prior suicide attempt. Adolescents in both DBT and TAU attended approximately 24 therapy sessions over 3 months. The full DBT-A treatment package included weekly individual therapy, weekly multi-family group skills training (i.e., mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness skills), telephone coaching with the therapist when needed, and weekly consultation among the treatment team. The DBT group had

fewer psychiatric hospitalizations during the treatment period and higher rates of treatment completion than the TAU group. About 40% of adolescents reattempted over the course of treatment. No differences in repeat suicide attempts were found.

Mehlum and colleagues [18] published the results of the first RCT comparing DBT-A with an enhanced form of usual care treatment (eUC), consisting of 19 weeks of standard, non-manualized treatment. Of the 77 British adolescents recruited, about one-quarter had attempted suicide in the 4 months prior to enrollment, and all of the suicidal adolescents had at least two occasions of self-harm, either suicidal or non-suicidal. The DBT condition demonstrated statistically significant decreases in suicidal ideation and self-harm behavior compared to the eUC condition at the completion of treatment [18]. In addition, adolescents in the DBT, compared to eUC, had a greater decrease in the frequency of self-harm 1 year following treatment completion [18] as well as at the 3-year follow-up [32].

McCauley and colleagues [19] extended the findings of the British group in a US study. Suicidal adolescents ($n = 173$) with one lifetime suicide attempt, elevated suicidal ideation, and repeated self-injurious behavior were randomized into DBT or a comparison condition. The comparison condition consisted of a manualized client-centered treatment that had the same structure as DBT, in terms of modes of treatment (both group and individual) and number of sessions but used supportive therapy. From baseline to the end of treatment at 6 months, 9.7% of adolescents in the DBT condition attempted suicide compared to 21.5% of the adolescents in the supportive therapy condition. However, there were no significant between-group differences at the 1-year follow-up; adolescents in both groups improved following completion of treatment. DBT did have significantly higher rates of adolescents who did not have any self-harm at both the 6- and 12-month follow-up points.

Family Therapy

Elements of family life are important as both risk and protective factors for adolescents who self-harm. It has been found that, more so than any inherited risk, family interactional factors are strongly associated with self-harming behaviors in adolescents [33]. In family therapy, treatment is directed at maximizing family cohesion, developing supportive and warm parent-child relationships, and minimizing negative factors (e.g., maltreatment, ineffective parental control). Variations of family-focused therapy have been proven to be effective in reducing self-injurious thoughts and behaviors in adolescents.

Basic Family Therapy

Two trials have assessed stand-alone family interventions specifically targeting self-harm behaviors. Harrington et al. [34] conducted the first randomized trial evaluating a family-focused treatment program with suicidal adolescents in the United Kingdom. A total of 162 adolescents (10–16 years old) with a prior suicide attempt by

overdose were randomized to receive either routine care ($n = 77$) or routine care plus a four-session home-based family intervention ($n = 85$). The intervention focused on discussion of the suicide attempt, developing stronger communication and problem-solving skills and psychoeducation. The trial revealed some positive effects of the intervention with participating youth who were not also diagnosed with major depression: at 6-month posttreatment, there were greater reductions in suicidal ideation in this group compared to routine care alone. However, there were no overall differences between treatment groups on subsequent suicide attempts. Approximately 15% of the sample had made one or more attempts during the 6-month follow-up period.

The second and more recent trial, conducted by Cottrell et al. [35], was a large, multi-site study conducted in the United Kingdom leveraging the SHIFT intervention (Self-Harm Intervention: Family Therapy; [36]). Participants were 832 adolescents who had been referred to mental health services for repetitive self-harm (suicidal and/or non-suicidal self-injury) and their families. Families were randomized to either the SHIFT treatment condition or community TAU. SHIFT consisted of approximately eight 75-minute sessions spanning 6 months. Sessions focused on enhancing family's strengths and resources [36]. SHIFT was not significantly more effective than community TAU in reducing deliberate self-harm in youth at the 18-month follow-up appointment. There were significantly larger reductions in suicidal ideation for the SHIFT group at the 12-month follow-up, but the effects of treatment did not persist at 18 months.

Attachment-Based Family Therapy (ABFT)

Attachment-based family therapy (ABFT), a family-oriented psychodynamic therapy, focuses on the need and desire for a secure parent-adolescent relationship. Treatment is aimed at cultivating trust between the parent and adolescent so that the adolescent develops greater self-confidence. Two RCTs have assessed the efficacy of ABFT in treating suicidal thoughts and behaviors. Although the first RCT [37] presented promising results, these findings were not replicated in the second [38].

The initial randomized trial conducted by Diamond et al. in 2010 [37] evaluated the effectiveness of ABFT for American adolescents with clinically significant suicidal thoughts and depressive symptoms. A total of 66 adolescents and their families were randomly assigned to receive either ABFT ($n = 35$) or enhanced-TAU ($n = 31$). The study is notable because unlike virtually every study in the literature, the sample in this study was largely African American (70%). Sixty-two percent of participating youth reported a prior suicide attempt. Youth suicidal ideation and behavior were assessed both during the treatment phase of the study and in the 3-month posttreatment. Treatment engagement was found to be higher for those assigned to ABFT ($M = 9.7$ sessions, $SD = 5.23$; *v.* *e*-TAU $M = 2.9$ sessions, $SD = 3.3$). Youth in the ABFT condition exhibited a relatively faster reduction in suicidal ideation during the treatment phase of the study, though this trend did not persist at the 3-month posttreatment follow-up. However, a greater proportion of youth

in the ABFT condition exhibited suicidal ideation scores in the normative range at both the end of the treatment phase and at the 3-month posttreatment follow-up.

In 2019, Diamond et al. [38] published a replication of the first RCT, finding that ABFT did not perform better than enhanced-TAU in reducing suicidal ideation and depressive symptoms. In this larger trial ($n = 129$) conducted in the United States, youth received treatment for 16 weeks. About half of the families in the sample were African American. Youth in the ABFT ($n = 66$) condition showed equivalent decreases in suicidal ideation as youth in the control condition ($n = 63$) during the treatment phase of the study. Outcomes of the 9-month posttreatment phase have not been reported as of yet.

Integrated Family Therapy

Based on social-ecological cognitive-behavioral theory, integrated family therapy (IFT) combines techniques from CBT and DBT to strengthen the protective elements of the family context and other immediate social systems while also teaching new skills to cope with and manage behavioral issues and stress within the family.

An RCT conducted by Asarnow et al. [39] in the United States assessed the utility of an IFT program – the SAFETY (Safe Alternatives for Teens and Youth) treatment program – relative to enhanced-TAU. Over the course of 12 weeks, treatment was administered by two therapists – one each for the youth and parent. The program was tailored to each family using techniques such as a functional, or chain, analysis (which identifies the antecedents of the initial suicide attempt or self-harming behaviors). Therapists worked with the youth and parent to develop skills and techniques to improve emotion regulation and to foster a supportive environment. There was a strong emphasis placed on identifying barriers to treatment and creating a plan to reduce those barriers. Participants in this trial were 42 self-harming youth (11–18 years old) and their families who were recruited through either the emergency department, inpatient/partial psychiatric hospitalization, or outpatient services. Youth were deemed self-harming based on either a suicide attempt or non-suicidal self-injury within the past 3 months *and* repetitive (≥ 3) episodes of self-harm in their lifetime. A total of 20 youth were randomized to receive SAFETY, and 22 received enhanced TAU. Youth in the SAFETY condition were found significantly more likely than the youth in the TAU condition to not have an additional suicide attempt at the 3-month follow-up; of the six suicide attempts reported, all were from youth in the enhanced TAU condition.

Brief Family-Based Therapy

Brief family-based therapy (previously known as family-based therapy – emergency interventions) is a family-focused intervention delivered in moments of acute need in the emergency department. Two RCTs, both conducted in 2011, have assessed the efficacy of this intervention [40, 41].

The larger of the two trials was conducted in the United States and randomized 181 youth presenting to the emergency department with a suicide attempt or suicidal ideation to either receive a Family Intervention for Suicide Prevention (FISP) or emergency department TAU [40]. FISP included a family-based cognitive-behavioral therapy session and 1 month of follow-up contact over the phone to enhance the likelihood participants would follow through on recommended treatment. The intervention was successful at increasing treatment follow-through but was not significantly more effective at reducing future suicide attempts or suicidal ideation than emergency department TAU.

The second trial, conducted in the United Kingdom, assessed the efficacy of a family-based intervention in the emergency department among youth with recent deliberate self-harm behaviors ($n = 70$) relative to emergency department TAU [41]. The intervention included motivational enhancement and a cognitive analytic therapy assessment of the youth's self-harming behaviors. As in the larger trial by Asarnow, the intervention improved treatment adherence but had no incremental effect on reducing youth suicide attempts or suicidal ideation in the 2 years following the intervention.

Parent Training

Parent training is a brief intervention with the parents of youth exhibiting suicidal behavior. It is important to note that youth involvement in this intervention is extremely minimal and therefore it is not, *per se*, a family therapy. However, because of its focus on family functioning when working with the parent, we are including it in this section.

There has been one RCT [42] examining the efficacy of a parent training intervention. The Resourceful Adolescent Parent Program (RAP-P) was assessed with 48 suicidal adolescents and their parents in the United States. Families were randomized to either RAP-P or routine care. Routine care consisted of crisis management and safety planning. The RAP-P intervention was composed of four sessions which included family psychoeducation about self-injurious thoughts and behaviors, parent training, and strategies about addressing family conflict. Compared to youth in the routine care condition, youth in the families receiving RAP-P reported fewer self-injurious thoughts and behaviors over the course of treatment as well as the 6-month follow-up period. The significant intervention effects were fully mediated by improved family functioning.

Safety Planning

Safety planning is a brief suicide intervention originally developed for use with patients in acute care settings [43] and adapted for use with suicidal adolescents [44]. Safety planning was cited as a best practice by the Suicide Prevention Resource Center/American Foundation for Suicide Prevention Best Practices Registry for Suicide Prevention (www.sprc.org). Although it has not been tested as a standalone

intervention, it is discussed here because it is so frequently used in a broad range of treatments for suicidal adolescents and is considered part of standard care in the United States.

Safety planning as an element of treatment has been assessed with adolescents in several RCTs, including the TASA, FISP, and SAFETY interventions previously discussed in this chapter [40, 28, 39]. A pilot study conducted in 2018 evaluated the feasibility and acceptability of a motivational interview enhanced safety planning intervention (MI-SafeCope; [45]) among teens hospitalized due to suicide risk. A total of 36 hospitalized adolescents (30.6% attempted suicide in the past month) were randomized to MI-SafeCope or TAU. MI-SafeCope was shown to be both feasible and acceptable. Additionally, the intervention was found to increase youth self-efficacy in safety plan use and refraining from future attempts. Unfortunately, the TAU condition also included safety planning, so it is not possible to assess the efficacy of safety planning specifically.

A recent pilot open trial [46] assessing safety planning among youth in the juvenile-justice system found promising preliminary effects of the safety planning intervention. A group of 15 justice-involved youth and a parent-guardian were assessed. Youth were eligible for the study if they endorsed suicidal ideation or scored above clinically significant levels on the subscales of the Massachusetts Youth Screening Inventory-Version 2 (MAYSI-2; [47]). Slightly more than half of the youth endorsed suicidal ideation (53.3%). Suicidal ideation decreased from pre-intervention baseline to 3-month follow-up.

The safety planning intervention is based on the principles of cognitive-behavioral therapy. It is designed to help youth identify warning signs of their own emotional dysregulation and to create a personalized list of coping mechanisms and social supports for use prior to or during moments of crisis. The intervention is completed between the youth and a therapist. The youth's parent or guardian is typically brought into the discussion after the plan has been created to review and discuss how to best facilitate the plan. A key element of parental involvement is making the environment safe. Safety planning places a large emphasis on restricting access to means because accessibility to means has been shown to be a distinguishing factor between youth who are hospitalized for suicide risk and youth who are successful in completing suicide [48, 49]. Engaging parents in conversation about their role in facilitating their youth's safety has been shown to increase the likelihood that they follow through on restricting access to means [49].

The safety planning process, as practiced by the authors of this chapter, starts with the therapist asking the youth to identify warning signs or triggers to their suicidal crises. These could take the form of thoughts (e.g., "I hate myself"), behaviors (e.g., self-isolating), emotions, (e.g., hopelessness), or somatic symptoms (e.g., adrenaline rush, shakiness). If possible, it is recommended that therapists prompt youth to identify a warning sign that others, like a parent or guardian, may be able to observe about them in addition to internal warning signs.

In the next step of developing the safety plan, the youth and therapist come up with possible behavioral and cognitive strategies that the youth can utilize on their own once they begin to experience warning signs. These coping skills involve things

like reading, listening to music, going for a walk, deep breathing, etc. Importantly, these strategies are something the youth is able to do on their own. Given the diverse contexts a youth experiences throughout the day – school, home, work, etc. – it is helpful for at least one of these coping mechanisms to require no additional materials. For example, watching TV is not something that would be accessible if a crisis were to occur at school; however, going for a walk or deep breathing would be more feasible in this context.

Next, the youth and therapist identify strategies that leverage the youth's support network. Three groups of people are identified: (1) those who could be helpful in distracting the youth without having to necessarily discuss their situation, e.g., friends; (2) those who the youth could turn to for explicit help in managing their feelings, e.g., a parent or guardian; and (3) emergency contact numbers, e.g., crisis hotlines, their therapist's number, etc. In the event a youth does not feel comfortable including a parent or guardian in the second category, the therapist will work with the youth to identify at least one responsible adult they can include.

Once completed, a hard copy of the plan is kept by the youth and the therapist. A picture of the plan is also taken on both the adolescent's and the parent/guardian's phone. The safety plan is intended to be fluid and adaptable. Therapists will follow up with the youth in regular sessions to ensure the plan continues to be useful and effective for them.

Other Psychotherapies

There have been several other approaches to the treatment of suicidal adolescents with less testing and empirical support in the literature. Three programs are reviewed here.

Multisystemic Therapy (MST)

Multisystemic therapy (MST) is an intensive home-based, family-focused intervention targeting problem behaviors of adolescents at multiple levels, including peers, family, school, and community [50]. A variety of behavioral interventions are typically delivered in MST based on a set of nine treatment principles. MST leverages a home-based service model and therapists with low caseloads to deliver intensive treatment over a 3- to 5-month period (in some cases, contact with the therapist is daily). High levels of family engagement and success in modifying risk factors have been demonstrated [51, 52]. MST has been found effective with high-risk and complex need populations, such as juvenile justice-involved youth.

Only one trial has assessed the utility of MST in treating self-harm behaviors. Huey et al. [53] randomized 156 youth in the United States who had been approved for emergency psychiatric hospitalization due to a threat of harm to themselves or others (i.e., suicidal ideations/planning, suicide attempt, homicidal ideation, or

behavior, psychosis). Approximately half of the participants were classified as suicidal (51%; $n = 80$). Families were recruited at the hospital's emergency department and randomized to receive either MST or the hospitalization condition. Adolescents who received MST reported fewer suicide attempts over the course of treatment compared to those who received hospitalization. Suicidal ideation improved for both groups over the 1-year follow-up, but there were no differences between the two groups.

Developmental Group Therapy

Developmental group therapy as an adjunctive treatment has been tested with adolescents who self-harm in three British clinical trials. In the first trial, 63 adolescents, who had deliberately harmed themselves on at least two occasions within a year, were randomized to group therapy plus routine care or routine care alone [54]. The group therapy approach utilized techniques from a variety of theoretical orientations, including cognitive-behavioral and DBT techniques. The group intervention consisted of six structured "acute" group sessions, followed by weekly process-oriented long-term group therapy. Adolescents who received group therapy plus routine care compared to routine care alone were less likely to make more than one repeat suicide attempt (2/32 versus 10/31; odds ratio 6.3) at 6- to 7-month follow-up. However, two replication trials of developmental group therapy as an adjunct to TAU did not result in greater improvement in self-harm or suicide attempts [55, 56].

Mentalization Therapy

Rossouw and Fonagy [57] randomized 80 adolescents (80% with a lifetime history of suicide attempts) to mentalization-based treatment (MBT-A) or TAU. MBT-A is a year-long individual psychotherapy based on psychodynamic theory. Participants in the MBT-A condition had larger reductions in self-harm, with 56% reporting a suicide attempt in the MBT-A condition compared to 83% in TAU at the 12-month follow-up. However, only 37 participants (46%) completed treatment across both conditions.

Brief Integrated Interventions Used in Inpatient Settings

There have been a few attempts to develop interventions specifically targeted to suicidal adolescents prior to their discharge from an inpatient psychiatric admission. This group has been targeted because one-third to one-half of psychiatrically hospitalized youth in the United States are readmitted for a psychiatric emergency, with the highest readmission risk within a month of discharge from the hospital and more than 80% of readmissions occurring within 3 months [58, 59]. Kennard et al. [60]

conducted a brief intervention during hospitalization and then used a phone app to support this work after discharge with 66 adolescents hospitalized for suicidal ideation or a recent suicide attempt. The adolescents were randomly assigned to the experimental intervention (As Safe as Possible – ASAP) plus TAU or TAU alone. ASAP consisted of four modules delivered during hospitalization using a motivational interviewing style. The module content included psychoeducation, behavioral activation, distress tolerance, increasing positive affect, safety planning, and skill review/skill consolidation. The safety planning intervention took place during hospitalization and after discharge using a phone app. The app “pushed” daily text messages asking adolescents to rate their level of emotional distress. Based on their level of distress, adolescents could receive a range of distress tolerance and emotion regulation skills, tailored to individuals. At the highest distress levels, the app presented the safety plan, included reminders to seek interpersonal support, and prompted the adolescent with clinical contact information. ASAP was found to have a greater decrease in suicide attempts over a 6-month follow-up period compared to TAU (16% versus 31%), but this difference was not statistically significant. There were no between-group differences on suicidal ideation. The majority of youth reported using the phone app after discharge.

Another study [61] collected data on 463 adolescents who had received a brief adjunctive intervention, the Coping, Problem solving, Enhancing life, and Safety planning (COPEs) treatment protocol, during a psychiatric hospitalization. Adolescents received psychoeducation and skills training from a multidisciplinary team that focused on enhancing safety and improving coping skills and problem solving around the factors that led to hospitalization. The coping plan module provided a list of regulatory strategies, including things they could say to themselves and things they could do to feel better. The problem-solving module helped teens identify the triggers that led to the hospitalization and ways to address these issues if they were to arise again. The third module focused on enhancing life by taking medication, healthy eating, engaging in pleasant activities, and improving sleep. The protocol concluded with a safety plan. Completion of the four modules in COPEs, particularly modules on developing a safety plan and enhancing life, predicted lower rates of rehospitalization and emergency department visits in the 12-month post-discharge.

Technology as an Aid in Treatment

Utilizing technology to broaden the scope and efficacy of suicide prevention has been a topic of interest for at least the last decade [62, 63, 64]. Given the extent to which adolescents engage with technology on a daily basis – 95% of US adolescents either own or have access to a smartphone and 45% report a constant online presence [65, 66] – leveraging these mediums to reach youth is a natural advance. In light of the global coronavirus pandemic, the need for such an advancement has become immediate.

After the pandemic onset, several articles were published on the importance of telemedicine and the clear need for further research to understand its costs and benefits [67, 68, 69]. There are no studies yet assessing youth suicide outcomes posttreatment by telemedicine. One study in the United States assessed the feasibility of telemedicine as an alternative to in-person crisis evaluations of youth who presented with mental health concerns to the emergency department [70]. The aim of the study was to consider telemedicine as a potential solution for provider shortages in rural areas. Almost half (47%) of the youth in the study presented with suicidal ideation or self-harming behaviors. The psychiatrist who conducted the telemedicine crisis evaluation was assisted by a nurse in the ED who prepared the discharge note as well as a safety plan for the adolescents and their families upon discharge. The authors concluded that telemedicine crisis evaluations of youth are feasible but that significant resources are still needed to successfully implement telemedicine in the emergency department.

In general, research on technology-based suicide prevention and therapy with youth is extremely limited. A review conducted in 2016 [64] found that there was only one RCT assessing online suicide prevention with youth (Reframe-IT – elaborated upon in an earlier section of this chapter; [24]). A more recent review of RCTs, pilot RCTs, and open trials examining suicide interventions delivered through mobile devices was conducted in 2020 by Melia and colleagues [71]. Of the seven studies assessed, only one was focused on adolescents. The open trial was conducted in the United Kingdom by Stallard et al. [72] and assessed the efficacy of a smartphone app, BlueIce, in helping youth to manage stress and reduce the urge to self-harm. The study found that 73% of youth who had disclosed recent self-harm at the beginning of the study reported reductions in self-harm behavior after 12 weeks of using the BlueIce application. Significant reductions in antecedents to suicide (e.g., depression, anxiety) were also reported. The app used in this British study is similar to the one used by Kennard et al. [60], described above, after discharge from inpatient care in her multicomponent intervention.

Rapid Acting Treatments for Severe Suicidal Ideation: Ketamine

Ketamine infusions and intranasal esketamine have been shown to result in significant reductions in suicidal ideation within 1 day and lasting for 1 week in adults [73]. Although ketamine has been safely used for anesthesia in youth for many years, studies with suicidal youth have just recently appeared. One open trial with adolescents has been reported in the literature. Thirteen adolescents with treatment-resistant depression received 6 ketamine infusions (0.5 mg/kg) over 2 weeks. Improvements in depression were noted in 6 adolescents and 3 of the responders remained in remission at the 6-week follow-up [74]. The responders also reported a reduction in suicidal ideation. Single case studies of adolescents with treatment-resistant depression ([75] and psychotic depression [76]) have reported positive results on suicidal ideation. Thus, ketamine may have a role in treating suicidal adolescents, but its use in clinical care will need to await testing in RCTs.

Conclusions

Over the past decade, there has been some progress in the treatment of suicidal adolescents. The psychotherapy approach with the best findings to date with respect to reducing continued suicidal ideation and behavior is DBT. However, DBT is the most intensive and expensive treatment that could be delivered and thus is not an option for many families. In addition, due to its expense, DBT is not typically considered a first-line treatment for suicidal adolescents. Therefore, the core treatment techniques that have been used across the various treatment approaches in the literature should be considered by therapists in working with suicidal adolescents. The typical safety plan includes two core components for successful treatment of suicidal adolescents, emotion regulation skills, and seeking effective interpersonal support. These skills should be part of any psychotherapeutic approach with suicidal adolescents. In addition, addressing dysfunctional cognition is important for many suicidal youth and is a standard skill taught in CBT protocols. Working with parents/guardians is also an essential part of any psychotherapy protocol.

The burgeoning use of technology in mental health care promises to change the way we treat suicidal adolescents in the next decade. Whether it be providing easy access to therapeutic techniques via a phone app when a teen is in crisis or reminding adolescents of emotion regulation skills and cognitive techniques to reduce suicidal thinking before they reach crisis levels, technology is here to stay. These technological interventions need to be empirically tested to determine whether their promise will meet our expectations. In particular, it will be important to conduct studies on how to increase the use of these apps by adolescents, especially during crisis periods. Finally, ketamine is the first advance in the psychopharmacologic literature in decades. Ketamine has shown promise in the treatment of adults, particularly those with treatment-resistant depression and suicidality. Whether it will prove effective with adolescents will be determined by future RCTs. Regardless, it will not replace psychotherapy but rather, at best, should be considered a component of a combination therapy to treat our highest at-risk suicidal adolescents.

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*“Old men ought to be explorers
here or there does not matter
we must be still moving
and still moving
into another intensity
for a further union,
a deeper communion
through the dark cold
and the empty desolation,
the wave cry, the wind cry,
the vast waters
of the petrel and the porpoise.
In my end is my beginning.”
—Thomas S. Eliot, The Waste Land*

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Abstract

Late-life suicide constitutes a serious public health problem. Globally, older adults experience very high suicide rates nearly everywhere. The aging process influences suicidal behavior by posing to individuals several different types of challenges, such as physical frailty, dependence, losses, etc., making of suicide in old age a phenomenon with peculiar characteristics. This chapter proposes an overview of epidemiological data with risk and protective factors, and specifically analyzes universal, selective, and indicated prevention interventions for this population group.

Keywords

Old age · Epidemiology · Suicide · Risk factors · Prevention

Introduction

The World Health Organization (WHO) defines the threshold to becoming an “old” person the age of 65 [176], using life expectancy at birth as the main parameter. Globally, the significant disparity in life expectancy rates between high-income (80 years) and low-middle-income (57 years) countries and the higher population density of the latter group [179] would tend to a downward remodeling of that threshold. However, the WHO indication considers the progressive improvement in quality of life [177] and demographic projections, which anticipate a rapid increase in the older adults’ population worldwide [178].

From a psychological point of view, older persons reach a stage in their life path that places them in front of a fundamental evolutionary task: to complete and consolidate the sense of ego integrity or to succumb to a meaningless and unworthy conception of life being lived to the point of despair [55]. In this particular age group, this “psychosocial dilemma” influences the profound difference between sadness and depression, and healthy aging and ageist perspectives, which associate old age with an inevitable deterioration of physical and mental abilities [135].

Furthermore, the concept of old age takes on very different connotations based on the individual lifestyle [10], the representation and social role attributed to it by the community [35, 174], and the cultural meanings of the different contexts of reference [115].

In this sense, old age is to be understood as a social construct [87], underlying numerous evolutionary and biological [32], social and psychological [131], and historical, cultural, and demographic factors [10, 87].

These considerations about the aging process help to understand the peculiarities of suicidal behavior in later life. In general, when suicidal, older adults seem to be guided by a rational decision [35], given the fact that suicide attempts are less frequent than in younger age groups [42, 93] and the choice of means falls within the most lethal ones [77].

However, although suicidality is placed on a continuum with different risk levels [136] determined by distal and proximal factors [96], suicide in old age is a heterogeneous phenomenon [93] that fluctuates over time [39]. Proof of this is the numerous studies that have analyzed, in this population segment, the characteristics of the age subgroups [93], gender differences [35, 96], prevalence of some risk factors over others and their modification over time [77], need to identify protective resources [80], and specific preventive programs [96].

Epidemiological Data

In recent decades, medical advances in rehabilitation and the expansion of health care have made it possible to limit functional impairment and disability in the old-age population [23, 105]. Furthermore, investment in socioeconomic policies aimed at protecting old age and improving social security [43] has significantly contributed to the globally increased life expectancy [177].

Consistent with these observations, suicidal mortality rates have decreased by about a third in the general population [65], particularly in old age [11]. However, the data reported by the studies of the Global Burden Disease [65, 66] show that suicide in older adults still registers age-standardized rates among the highest in the world: 11.1 per 100,000 for the general population, against 27.45 per 100,000 in the over 70s, and 16.17 per 100,000 in the 50–69 years of age range. Furthermore, suicide mortality appears to worsen with age, with the highest prevalence among people aged 85–89 years [147].

In addition to epidemiological data, there are concerns about the rapid increase in the old-age population globally, which by 2050 is expected to double: from 12% to 22% [178], reaching 2.1 billion individuals [159]. These data are alarming when considering geographical areas such as Europe and the United States, where there are the highest suicide rates among high-income countries [21, 59, 73].

In particular, Eurostat predicts that by 2080 older people in Europe will represent about one-third of the population, reaching almost 149 million individuals [58]; while in the United States, a fifth of the population in the next decade will be 65 years of age or older, with a current average of 18 old adults' suicides every day [122].

In addition, the imminent entry of baby boomers into old age, accompanied by their particular propensity for suicidal behavior [27], further leads to consider suicide in late life as a major public health concern [147].

Finally, it is necessary to keep in mind that the data from official statistics, in addition to being susceptible to numerous registration biases [123, 173], most probably represent only partially the real epidemiological dimension of the suicide phenomenon, especially for older adults [35]. For example, in the United States, it has been estimated that over 40% of late-life suicide may go undetected due to “silent” suicides, such as deaths from overdoses, self-starvation or dehydration, and “accidents” [6].

Risk Factors

While demographics provide the main information on nonmodifiable risk factors for suicide, such as age, sex, race, and ethnicity [22], retrospective research is the most frequently used method for analyzing potentially modifiable risk factors [52]. In old age, exposure to suicidal behavior is mediated by a higher prevalence of medical conditions, mental illness, difficulties in adapting to life transition events, lack of social support, and bereavement.

Physical Illness and Cognitive Impairment

Fässberg and collaborators, through a systematic review of the literature [60], analyzed the role of physical illness and functional disability concerning suicidal behavior in individuals aged 65 and over. From their analysis of 65 articles, the most consistent results showed that suicidal vulnerability has a significant association with different levels of functional impairment and certain physical conditions such as oncological diseases, neurological disorders, male genital disorders, arthritis/osteoarthritis, chronic and progressive lung disease (COPD), and liver disease.

Although somatic diseases and functional impairments increase the risk of suicide at every stage of life [29], the results’ strong heterogeneity makes the specific role of physical disease in this area uncertain.

In particular, differences in severity levels of the medical condition, history/number of hospital admissions, and medical visits are not clear [9], nor the presence of independent associations between severe physical illnesses and suicide [41, 168]. The diagnosis of dementia is an example of this debate: for some authors, it seems to contribute to the risk of suicide [51, 143], while for others it is not possible to find any evident association (e.g., [144]).

A recent study by Wang and collaborators [170] showed that, among a sample of older adults living in rural China, the severity and number of physical illnesses were related to death by suicide. Considering the high rates of suicide among older people in rural China [66], these authors suggest that the association between physical illness and suicide may depend on the relevance of specific cultural factors, such as dishonor – for the sick – in failing to fulfill its social role. This could be supported by the almost gender equality in suicide rates among older Chinese people, as if in some contexts risk factors such as physical illness may jeopardize the public role of individuals (due to the strong reference culture in terms of duties, expectations, beliefs) and be more influential than any individual vulnerability. In addition, older

Chinese people living in rural areas tend to have low incomes and poor access to care. In this case, physical illness could act as an additional stressor and accelerate the role of precipitating factors such as depressive symptoms, despair, or other mental illness.

In a study by Koo and associates [93], based on data from the Queensland Suicide Register, physical illness as a suicide risk factor becomes of primary importance in the most advanced age groups (from 85 years upward). Furthermore, in parallel decreases the role of psychiatric diseases, prevalent in the younger old [93].

Psychiatric Illness, Suicidal Ideation, and Personality Factors

Numerous studies, conducted in different countries such as Canada [86, 134], Sweden [167], Finland [154], the United States [30], New Zealand [9], the United Kingdom [70], and Hong Kong [24], have shown that mental illness is present, depending on the geographic area, between 77% and 97% of late-life suicide cases.

Affective disorders, with a prevalence of 54–87% of cases [31, 148], represent an almost 60 times greater risk of suicide in some areas of the planet [24]. Within this category, depression constitutes the strongest risk factor in old age [30, 138, 168], followed by minor depressive disorder and dysthymia [167].

Although depression occurs in only 8–16% of cases in the adult population, the presence of a depressive episode is sufficient to trigger the chain reaction that brings to a suicidal outcome [13]. The concept of “loss,” central to depression, seems to catalyze with great ease the feelings of fragility typical of old people, exacerbating feelings of despair, loss of interest and loneliness, somatic disorders, and cognitive deficits. This emotional experience leads the person to a “tunnel vision” such that suicide seems to be the only alternative. Especially in old age, recurrent thoughts of death and suicidal behavior can derive from the belief that life has lost its meaning and is no longer worth living. However, while suicide attempts tend to decrease significantly in frequency throughout life [42, 93], suicidal ideation appears to play a pivotal role in bringing ahead the suicide act in old age [24, 142, 165].

Suicidal ideation can occur in an active [162] or passive [14] form (death wishes) even in the absence of a depressive disorder, especially in the context of primary care [137]. In particular, suicidal ideation appears to be associated with several mental health conditions, such as anxiety disorders [14], somatoform disorders [172], disability [103], low family income [25], and socioeconomic inequalities [64].

In the context of primary care, screening for depression and assessment of suicidal ideation play a crucial role in saving an older person from suicide.

The greatest difficulty lies in discerning pathological thoughts and behaviors from normal reflections about death [145]. However, it must be considered that older people with mental disorders hardly turn to specialist services, finding instead in the family doctor a more intimate and accessible reference figure with whom to discuss their health [151]. The crucial role of primary care services is demonstrated by numerous studies reporting that about half of suicide decedents, in the month before death, came into contact with their primary care provider [3, 101] or had a previous hospitalization [109, 120].

The presence of schizophrenia [24], personality disorders, and mental retardation [70, 83] can also influence suicidal behavior. The study of personality traits and suicide is still poorly explored in old-age groups and that the association is more evident among young people [50, 119]. It is possible to hypothesize that individuals with anancastic or anxious traits, once exposed to stressful factors, may tend to exhaust their coping strategies quite easily, exposing themselves to the risk of suicide [28].

Substance abuse [149], even in the absence of other clinical disorders [167], appears to interact rapidly with other risk factors such as medical disease, and poor perception of control and depressed mood, amplifying the risk of suicide. This association of factors has been frequently reported among older people living in countries such as Russia, Ukraine, Belarus, the Baltic regions, and the old republics of the Soviet Union [91].

Psychosocial Factors: Adverse Life Events and Transitions

From a psychosocial perspective, older adults who face the loss of a spouse, the bereavement of a loved person, or living in a nursing home are at greater risk of wanting to end their life [40, 56, 92]. It is known that isolation and loneliness are among the most important predictors of late-life suicide [15, 19, 49, 104].

Poor social integration often implies distance from relatives, rare visits from friends, lack of confidence, and participation in religious services. These elements can become precipitants, especially if associated with low resilience, inadequate coping strategies [53, 157], or a natural tendency toward introversion, a condition that contributes to the loss of interest in new activities and refusal to ask for help [54, 156].

The lack of effective skills to deal with adverse life events also has repercussions on tolerability in managing transition processes, which characterize the aging phase. Low income and financial difficulties, relocations or transfers to nursing homes, and a job change to a minor role can increase the risk of suicide [75, 98, 142].

A recent Australian study, based on over 250,000 individuals over 45, has shown that the transition from employment to retirement, especially if pressured, is an important risk factor for suicide and negatively affects mental health [129]. Indeed, these changes can generate feelings of worthlessness and low self-esteem, supported by social representations of aging, which, too often, tend to regard this stage of life with contempt [115].

Protective Factors

Not much research has been dedicated to protective factors in old age [35]. Undoubtedly, the study of resilience in older people and related gender differences could bring out numerous insights into how to cope with losses, the propensity to ask for help and cultivate good interpersonal relationships, as well as flexibility and adaptability [18, 113].

To date, research has identified family and social support as the main protective factor: being married [69, 90, 129], having children [142, 166], being engaged in religious and spiritual activities [34, 62] or pursuing a hobby within an organization [142, 166], dating friends and relatives [31], all seem able to strengthen the sense of solidarity, satisfaction, and meaning toward one's life, increasing psychological well-being. To these elements are to be added adaptive coping strategies and healthy lifestyles [141], together with a good level of education and an advantageous economic situation [62].

Prevention of Late-Life Suicide

Suicide prevention in old age is a particularly challenging task. The main obstacle lies in the scarcity of studies in this specifically targeted group [5, 102], to which should probably be added reasons such as little attention to demographic differences, lack of a standard nomenclature, exclusion of at-risk individuals from clinical trials, and the generally modest professional training in suicidology among physicians [77]. For all these reasons, knowing in depth the characteristics of suicidal behavior in this particular segment of the population becomes crucial for planning and implementing effective prevention interventions.

First, the planning of interventions must analyze the social and cultural environment of reference to balance the relevance of risk and protection factors depending on the context [33, 175]. In countries like China [132] and India [130], the association between suicide and mental disorders is less evident than in countries like the United States, where depression is reported with a much stronger correlation [171].

The identification of risk and protective factors through epidemiological research has made it possible to enrich knowledge in this area, particularly about the psychological and cognitive mechanisms involved in suicidal behavior. However, it must be taken into account that the data on each risk factor comes from aggregate information, which is insufficient to determine with reliability the seriousness of a specific case [76]. To this awareness is to be added the multifactorial nature of the phenomenon, for which only the synergistic action of several factors contributes to the fatal outcome [175].

Although methodological shortcomings call for caution in interpreting study results, suicidology has developed in many countries worldwide, with a wide variety of promising, effective, and sustainable preventive approaches [175]. The main preventive interventions of suicide in old age are presented according to the nomenclature endorsed by the World Health Organization [175].

Universal Prevention Interventions

Universal prevention is aimed at entire populations and aims to reduce the incidence of suicidal behavior within nations or local communities.

This type of intervention aims to educate the population through the improvement of skills, information, and resources [96]. Also, it focuses on studying risk and protection factors on a large scale and developing guidelines for responsible media reporting on suicide [57].

To date, multilevel interventions and national strategies constitute the main prevention actions that include this goal. In particular, multilevel interventions act on the three levels of prevention, including four action plans valid for all age groups: (1) optimization of the diagnosis and treatment of depression; (2) media campaigns to reduce the stigma concerning depression and help-seeking; (3) training of gatekeepers; and (4) targeted interventions for high-risk groups. These interventions are defined geographically, and, since they are research-based, they differ from interventions foreseen within national programs for suicide prevention [26].

The guidelines for the formulation of national strategies, drawn up by the United Nations [158], identify multidisciplinary collaboration and continuous monitoring as key elements. In particular, they highlight the need to make suicide prevention a multisectoral priority, adaptable to the diversity of social and cultural contexts, by identifying best practices and an effective allocation of resources.

To date, national strategies recognize the importance of late-life suicide, promoting access to integrated mental health services and supporting older people and their carers [116, 117].

Community-based awareness programs are, among the multilevel interventions, those most used specifically for old-age people. Several studies, conducted by Oyama et al. [126–128], implemented this type of program in rural areas of Japan, where there were very high suicide rates. Specifically, the interventions included mental health workshops to raise awareness of depression and suicidal risk, annual depression screenings for all residents aged 65 and over, clinical interviews with a psychiatrist or general practitioner, and follow-up meetings with specialized nurses. The combination of group activities, psychoeducation, and self-assessment of depression was found to be effective in reducing suicide, especially in women.

Selective Prevention Interventions

Selective prevention interventions target seniors potentially at risk of suicide, such as those who have recently retired, suffered a bereavement, were recently discharged from hospital, or suffer from a chronic illness. At this level, three macro areas of action should be contemplated: (1) specific interventions for vulnerable groups, (2) implementation of helpline services, and (3) community-based gatekeeper programs [175].

1. Interventions for Vulnerable Groups

Lack of clinical expertise in diagnosing depression and detecting suicidal risk, as well as poor training in suicidology, in general, constitutes the main obstacle to the prevention of suicide in old age at the selective/indicated level [77].

Particularly in the context of primary care, physicians should probe for the presence of depressive symptoms in older people with memory problems, severe physical conditions, functional deficits, or sleep problems. Emphasis should be on the presence, severity, and duration of mental disorders without loosening vigilance in patients who do not present suicidal behavior or ideation [118]. In addition, physicians should be trained to manage emotionally altered conditions even in emergency settings and provide ongoing care for the assessment and support of at-risk older people, fostering interdisciplinary approaches to care [107].

In this sense, selective interventions have – as their main objective – the improvement in psychiatric treatment strategies (e.g., drug compliance), the increase of awareness about important life events for older adults and alcohol abuse, and a specific focus on different medical conditions [57].

In addition, physicians need to be provided with systematic screening tools to assess depressive symptoms, behavior, and suicidal ideation in older adults who fall into risk categories. The Patient Health Questionnaire (PHQ) is one of the most widely used measures for detecting depression in the context of primary care [152]. It is a structured screening with a series of items that investigate the frequency of the main depressive symptoms (absence of pleasure and depressed mood), physiological (lack of sleep or appetite), and the presence of thoughts of death. Numerous studies have confirmed the predictive value and usefulness of PHQ, particularly for suicidal ideation [85, 97, 133].

Also, the use of semi-structured interviews such as the Geriatric Depression Scale (GDS) [180] and the Geriatric Suicide Ideation Scale (GSIS) [79], which include the analysis of related symptoms such as hopelessness, worthlessness, and meaninglessness toward life, is a useful tool for identifying potential older adult suicidal people [78, 79].

2. Helplines

Although older adults do not preferentially use helplines [2], this service has proved useful to guarantee support for people in crisis [111], integrate or provide short psychotherapy [139], and increase treatment adherence and motivation in individuals with histories of suicidal behavior [20].

In the specific case of older adults, helplines could be an additional source of community-based support to strengthen the sense of social connection and decrease feelings of isolation and loneliness [115].

In Italy, a team of researchers led by De Leo et al. [36, 38] implemented a telephone support program to reduce the risk of suicide in individuals aged 65 and over. Approximately 20,000 seniors were selected based on a standardized screening, which included the presence of somatic and/or mental disorders, physical and/or emotional isolation, and a range of known risk factors for suicide. The intervention, called TeleHelp & TeleCheck, was structured to guarantee a 24-hour emergency telephone service and a biweekly support service. Even after a long time since its implementation (the service is still running), it is believed that this program has contributed significantly to the prevention of suicide in old individuals, especially among women [37].

Another intervention focused on using the telephone line was proposed by Morrow-Howell et al. [112], who devised a telephone support service within a suicide prevention hotline. After 4 months, the Link-Plus program reported a significant reduction in depressive symptoms.

Two years later, Fiske and Arbore [61] initiated a community-based geriatric care program for suicidal seniors. The intervention included two action plans: the Geriatric Outreach had the task of providing telephone consultations and home visits. At the same time, The Friendship Line guaranteed emotional support, information on local services for older adults, and prompt intervention in the event of a suicidal crisis. At the 1-year follow-up, the study reported significant results regarding the reduction of feelings of hopelessness.

3. Gatekeeping and Peer Support

Another important goal of selective interventions is the training and education of gatekeepers, who can identify seniors at risk of suicide within the community. Strengthening the skills of mental health and primary care services in social workers, educators, and law enforcement agencies can prove to be very useful in recognizing and treating the most vulnerable people [175].

Older adults, in particular, are likely to turn to primary care facilities rather than specialist services [31]. In this sense, gatekeeper's role could be assigned within informal networks, such as senior centers and peer support groups, as well as in wider community networks such as banks, utilities, pharmacists, and postmen [28].

The focus of these interventions should encourage the autonomy and independence of the subject, the importance of healthy aging and social integration [120] by facilitating the transition from working life to retirement [129], and favoring proactive coping styles [169].

Van Orden [163] and colleagues have devised an innovative program to prevent the development of suicidal ideas among seniors at risk, combining the gatekeeper's function and the action of peer support. The Senior Connection is a community-based service. Older adults from primary care services, who report poor social integration or perceive themselves as a burden to others, are referred. The goal of the program is to increase the sense of social connection through companionship and peer interactions. In particular, each participant is assigned an older tutor, who can guide the integration process.

In these terms, the collaborative network between primary care providers, gatekeepers, and specialist services could help to significantly reduce the risk of suicide among older people [63].

Indicated Prevention Interventions

Indicated prevention plans focus on individuals who exhibit high risk of suicide behaviors, such as acute suicidal ideation or being a survivor of a suicide attempt.

Particularly in old age, such interventions are preferentially designed on collaborative care models [35, 76, 121] that connect primary care providers with mental health-care specialists [125]. These interventions involve doctors, nurses, social workers, and psychologists [136] and aim to optimize the processes of suicide risk assessment and the reduction of depression and suicidal ideation [89, 125].

In general, these interventions should guarantee decisive and immediate help through social and community resources, facilitating communication with older patients through the training of professionals and gatekeepers in the field [4]. They should implement home follow-up or by telephone [37] and develop practical guidelines, stimulating the use of systematized registers to identify better people who have attempted suicide [57]. Currently, psychosocial and clinical interventions are the main action plans for suicide prevention in old age at this level.

1. Psychosocial Interventions

IMPACT [160, 161] and PROSPECT [4, 16] are two treatment strategies that, through a randomized controlled study, examined the effect of the program on older depressed patients from primary care settings. In both studies, the control group received the usual care. In contrast, the experimental group received support for depression from health professionals, a brief psychotherapy treatment (interpersonal or behavioral), monitoring of depressive symptoms and drug side effects, and follow-up actions. After 12 months (IMPACT) and 24 months (PROSPECT), the studies reported a significant decrease in depression, suicidal ideation, and functional deterioration. In particular, the development of therapeutic alliance, personalized treatment plan following the patient, proactive follow-up system (monthly or biweekly depending on the severity of the risk), were the main elements capable of promoting psychophysical improvement and a greater sense of confidence and self-efficacy.

Another type of innovative psychosocial intervention has been aimed at old people at high risk of suicide, intercepted in emergency wards, to reduce or contain future suicidal crises [153]. Since these patients tend not to follow the mental health treatment recommended in the clinic consistently, the Safety Planning Intervention (SPI) is proposed as a short first aid intervention useful for structuring a personal safety plan. In particular, it involves the development of a written list of coping strategies and formal and informal assistance networks capable of implementing immediate responses to crises.

Sirey and associates [150] analyzed the efficacy of a short psychosocial intervention designed to incentivize mental health treatment initiation among older people with depressive symptoms who receive a meal-at-home service in the United States. *Open Door*, so-called, included five phases of intervention and motivational interviews to stimulate the request for help, through in-person and telephone interviews. Compared to the control condition referred to the service, almost one-third of the subjects (27%) who benefited from the project reported a significant decrease in suicidal ideation [150].

While the studies cited so far focus on risk predictors, Lapierre et al. [95] implemented an intervention to strengthen protective factors such as resilience. Based on a cognitive-behavioral approach, the program consisted of a cycle of seminars and small group activities for older people who could not tolerate the transition to retirement. After a 6-month follow-up, about 80% of the experimental group subjects reported the absence of suicidal ideation, depression, and psychological distress in favor of an improvement in the sense of hope and meaning toward life, flexibility, and serenity.

2. Clinical Interventions

In the literature, it is known that some pharmacological treatments can limit suicidal behavior, for example, through the use of drugs such as lithium [8], clozapine [110], antipsychotics [71], and antidepressants [7]. Currently, no studies based on drug and/or psychotherapy therapy have yet shown significant efficacy in decreasing the risk of suicide in older adults [77]. However, Scogin et al. [146] found that if involved in the choice of intervention, older adults prefer psychological or combined treatment, rather than just pharmacological.

Interpersonal psychotherapy (IPT), conceived by Klerman et al. [89] in the 1970s, is a time-limited form of treatment that focuses on the patient's present relationships. This psychotherapy's purpose lies in identifying and transforming the maladaptive personal context, focusing on the problems inherent in pain, conflicts and role transitions, and interpersonal deficits. Due to these peculiarities, this psychotherapeutic treatment appears to be useful in reducing suicidal ideation in old-age subjects.

Heisel and associates [81, 82], on the other hand, used interpersonal psychotherapy to strengthen protective factors in adults over the age of 60 at high risk of suicide in order to improve social support and satisfaction of interpersonal needs. The intervention, which lasted 4 months, offered weekly outpatient psychotherapy sessions, with the possibility of continuing treatment after the scheduled sessions. Additionally, participants were encouraged to improve their social connections and develop meaningful post-therapy relationships and activities. The study results showed a significant decrease in suicidal ideation and depressive symptoms and an increase in social adaptation and enjoyment of company activities.

Szanto and collaborators [155] analyzed the results from three studies for the treatment of depression in old age, based on the administration of nortriptyline and weekly IPT, paroxetine and weekly IPT, and nortriptyline and paroxetine, respectively. After 3 months of treatment, the decrease in suicidal ideation had tripled: at the beginning, only 22.5% of subjects denied the presence of suicidal ideation, while at the end of the trial, the percentage reached 81.6%.

Reminiscence therapy is a rehabilitation intervention designed specifically for old age, which uses a narrative approach to enhance remote memory skills, integrating past memories with current ones. The treatment exploits the natural propensity of older people to recall their past, favoring the processing of memories, in order to better interpret and live daily reality, limit isolation, strengthen self-esteem, and personal identity. A study of 256 nursing home seniors without a diagnosis of depression showed that the group undergoing reminiscence therapy reported lower

scores for depressive symptoms and hopelessness, even after the 1-year follow-up. These results lead us to hypothesize that this therapy may be useful for regulating mood alterations in seniors living in institutionalized settings [68].

Problem adaptation therapy (PATH), designed to reduce depression through the development of problem-solving skills, and supportive therapy for cognitively impaired older adults (ST-CI), based on the Rogersian approach of empathic listening, both showed a significant reduction of suicidal ideation after 3 months of treatment [88].

Other psychotherapeutic approaches that are effective among young adults, such as cognitive therapy [17], dialectical behavior therapy (DBT; [100]), and problem-solving therapy (PST; [108]), may be valid in decreasing suicidal behavior among older people but still need to be tested systematically.

Gender Differences in Late-Life Suicide Intervention

Globally, older men tend to die by suicide up to 7–8 times more frequently than women of the same age [114], especially in late old age. These data must be taken into account in planning preventive interventions aimed at this subgroup of the population.

The main gender differences in suicidal behavior among older adults relate to a higher tendency in men to carry out a suicide attempt with a fatal outcome [12], while in women to attempt suicide [72], and the use of more violent means, such as firearms and hanging, among the male population. Although women appear more vulnerable to depressive disorders [1], they are more resilient and more likely to seek help from mental health services [48]. In contrast, men, especially when very old [44], appear less prone to adaptation to stressful life changes and are less likely to undertake a therapeutic path [164].

These data would explain why older women, generally more disposed to dialogue and to receive emotional support, seem to benefit more often from the intervention programs implemented so far [37, 38, 128]. On the other hand, men seem to offer better results with more practical and problem-solving approaches [67, 128].

Finally, it must be considered that the very doctors may not refer older men to collaborative assistance programs, also by atypical manifestations of depression in the male population, making the choice of intervention more difficult [46, 84]. Another traditional obstacle is represented by the ageist perspectives of aging, with their heavy responsibility in authorizing lax approaches to the suicidal issues of older patients, implying the inevitability of the exit of “too old” people, no longer “useful” to societal dynamics [45].

New Frontiers for the Prevention of Suicide in Old Age

Research and suicide prevention activities in old age are still a little explored area [96]. In general, it would be advisable to carry out comparative studies on prevention interventions concerning different age groups and according to gender, selecting

similar outcome variables to favor the comparison between different types of intervention.

Since epidemiological data provide information on the cause, mode of death, and demographic characteristics, it would be highly suggestible to establish a national database that collects in-depth information on suicidal behavior to expand surveillance and introduce targeted preventive activities [76].

Furthermore, it would be useful to increase the volume of research on protective factors such as positive aging, adaptability, and resilience [96]; for example, through psychological autopsy studies, the association between protective factors and suicidal behavior could be analyzed in a representative sample of older adults in different rural and urban areas.

It is essential to involve clinical psychologists, doctors, and family members toward a cultural change to the reference ideas on mental illness and aging, promoting the recognition of the value of older people and social inclusion [77]; government policies must also act in this process, to improve retirement programs and provide better access to mental health [35].

At the level of universal prevention, it is necessary to favor routine screening for depression and implement preventive programs for the restriction of means, designed specifically for old-age people [96]. Furthermore, it would be advisable to include, within the multilevel interventions, interventions aimed at older adults. The European Alliance against Depression has indeed shown that it is possible to implement basic but important elements, in different cultural and demographic contexts, through a standardized procedure [74].

Particularly for older people, it is essential to reduce the generational stigma for help-seeking behavior and the labeling of depression, often supported by ageist perspectives [45, 96]. In this sense, one of the main priorities lies in educating doctors on suicidology, inducing them to consider multiple risk factors of different severity [84], and to verify the impact of such education in the medical field concerning the suicide in old age [46, 96].

Furthermore, the training of community guardians [106] and the study of the quality of life of seniors living in institutionalized contexts, such as nursing homes, are essential to reach the people at risk of suicide [96].

The development of telecommunication technologies, based on the telephone, videoconferencing, and web, can be useful for offering support to frail elderly people, encouraging help-seeking behavior, screening and assessment of suicidal risk, and the dissemination of useful information to identify territorial, appropriate resources [94, 99, 124].

Prevention interventions at the indicated level should encourage the frequency of visits and monitoring of older people at risk within primary care facilities, expanding the range of risk factors to be considered in this particular age group [96].

Some innovative aspects concern the implementation of studies on substance abuse and impulsiveness regarding suicidal behavior in later life and the possibility of involving relatives and key caregivers within the treatment process [96].

Finally, future research should focus on devising new psychosocial interventions, which appear to be a promising method for reducing late-life suicide. In fact, in this

specific population group, pharmacological treatment is limited due to the often moderate effects of the treatment, drug–drug interactions, and greater vulnerability to side effects [47]. On the other hand, clinical interventions must focus on treating older people who have suicidal characteristics even in the absence of depression and explore potentially effective therapies, including family therapy [140].

Conclusions

Suicide in old age brings out the difficulties of facing a composite phenomenon such as aging, which involves researchers, professionals, and politicians in their role as experts and future users. In modern culture, collective experiences tend to relegate older individuals to marginal and stereotyped contexts: the grandfather, the pensioner, the sick, and, in some cases, the inept.

However, looking at aging from an evolutionary perspective, it is possible to consider entry into old age as a physiological process that increases the entropy of a system. Contrary to the ageist visions of aging, the older adult can be thought of as an even more complex and diversified individual, capable of developing particular adaptive capacities, precisely by their age.

Thanks to life experiences and the less hectic pace of their present lives, seniors have more time to reflect, process, and transform ideas and behavior patterns adopted in life, developing powerful wisdom and resilience. In this sense, the guiding principle of preventive interventions lies not only in the observation that suicide in old age is preventable but above all that it is a battle worth fighting.

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Suicide and Older Adults: The Role of Risk and Protective Factors

25

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Abstract

Death by suicide is a worldwide public health concern, a clinical crisis for mental health personnel, and one of the major causes of death in the United States. The

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risk for suicide is often more difficult for clinicians to detect in older adults than in younger adults. While relatively little attention is spent on educating clinicians about suicide in older adults (65 years old and over), it is a significant problem that warrants increased and ongoing attention from educators, healthcare providers, researchers, and society at large. The risk factors and the expression of suicidality are different for older adults when compared to their middle-aged counterparts. When evaluating for suicide risk, it is important to consider age, gender, gender identity, ethnicity, occupation, and socioeconomic status. However, older adults have additional risk factors that may be missed such as changes in health status, loss of a spouse, social isolation, and lack of purpose or reasons for living. Older adults from different ethnic backgrounds may also have different risk and protective factors based on their experiences, religious beliefs, and cultural customs. Protective factors also vary for each subgroup of the population. Identification of older adults at risk and their protective factors is important for early intervention and treatment. This chapter will provide a description of the complex nature of suicide and aging and elaborate on the risk and protective factors. The development and implementation of evidence-informed strategies that are aimed at suicide prevention can promote a reduction in the epidemic of late-life suicide.

Keywords

Older adults · Suicide · Risk and protective factors

Introduction/Purpose

Suicide is a public health concern of the global dimension because it results in devastating effects, not only on the deceased person's family, but on community morale as well [20, 23]. Suicide is a leading cause of death in the United States, with certain age groups being at higher risk, including adolescents and older adults [31]. Risk factors in the general population include psychiatric disorders, genetics, substance use, gender, marital status, physical illness/ailments, employment, status, social support, and socioeconomic status [31]. In general, suicide rates rise with age, with older adults over the age of 60 years at greatest risk [7, 35].

Advances in rehabilitative medicine and healthcare coverage are increasing life expectancy globally [25]. Following this trend, the overall American population is progressively becoming living longer in late life [29]. Because of the baby boomer generation, the older adult segment (age 65 and older) is the fastest-growing stage subgroup of the population [9]. Despite the increasing numbers of older adults who die by suicide, the bulk of media attention continues to focus on suicide deaths by youth, adolescents, and young adults [11]. This attention bias implies that death by suicide by this age group is somehow less problematic because older adults have lived the majority of their lives. Noteworthy is that other cultures, those that are collectivistic and eastern, may not hold this bias due to their cultural norms regarding the treatment of older adults when compared to western cultures. It is not unusual for older adults to go without adequate care for mental health issues due to stigma,

misinformation, and false beliefs about aging and instead be prescribed psychotropic medication that treats some symptoms of distress but fails to address underlying mental health concerns [34]. The lack of awareness about the mental health and aging can result in some clinicians believing that older adults have outgrown any earlier manifestations of psychopathology. Yet, older adults and individuals born post-World War II and Holocaust survivors are at a higher risk for suicide when compared to other birth cohorts due to their war experience stressors [2, 9]. It is likely that generational trauma from war and general community stress influenced the psychosocial development of these individuals as children and predisposed them to respond to stress by seeking escape as a coping mechanism.

This chapter will provide an overview of suicide rates in the United States and compare younger and older adults. The focus of this chapter is on risk and protective factors for older adults, with implications for providers and family members to help reduce death by suicide by older adults. Factors such as gender, race, ethnicity, education, socioeconomic status, and health are considered as well as access to means. Additionally, the prevalence of psychiatric illness and physical illness among older adults is considered. Finally, the screening, assessment, and treatment of suicide is reviewed in order to help mental health professionals monitor and increase the well-being of older adults.

General Suicide Rates in the United States

Rates of suicide continue to increase despite policy and clinical initiatives that target reducing suicide rates in the United States [28]. Indeed, numerous research studies are routinely conducted to examine risk and protective factors, conceptualization models, and treatment approaches. Yet, suicide rates continue to increase across gender, racial, and ethnic groups [36]. Some examples of factors influencing these rates could be minority stress, cultural perceptions of mental health treatment, negative interactions with healthcare professionals, or a combination of these and other factors. A 33% increase has been reported in deaths by suicide from 1999 to 2017, and it continues to remain the tenth leading cause of death in the United States [42].

Suicide in Older Adults

As a whole, suicidal ideation manifests differently across age groups, with differences in both risk factors and method of death [27]. There is some homogeneity across age groups (children, adolescents, adults, and older adults) with regard to risk factors for suicide, including psychiatric illnesses, access to firearms, impulsivity, poor coping skills, and gender identity [4, 28]. Unlike other age cohorts, research shows that children and adolescent suicide attempts are not typically driven by a desire to end their lives but rather a cry for help [4]. This implies problems with communicating distress and securing appropriate help. Age-specific risk factors for children and adolescents also include family history of suicidal behaviors, attempts, and deaths; aggressive or disruptive behavior, exposure to violence (i.e., physical

and sexual abuse); rejection or neglect; and bullying [4]. Interestingly, this finding suggests that other age cohorts may be better able to express their distress or have made the decision to covertly end their lives. A combination of stigma and social isolation among older adults may contribute to a larger number of deaths by suicide without warning signs and with greater lethality. Young adult and older adult suicidal risk factors are similar and include educational level, type of occupation, as well as problems related to unemployment, marital status, socioeconomic status, presence of mental illness that is amplified by a coexisting personality disorder, and substance use [28]. A noteworthy point is that these factors can and often do co-occur with one another, further increasing the level of risk. Of great concern is that older adults consistently use more lethal means, particularly firearms, for dying by suicide and are often more isolated leaving them with less opportunities for rescue or intervention by an outside party, particularly when compared to younger cohorts [5, 10, 19].

As previously mentioned, suicidal ideation and behavior among older American adults have become a serious public health problem [24]. Because they are the fastest-growing age group, the number of older people who decide to die by suicide will continue to increase [19]. It is estimated that for every four older adults who make a suicide attempt, there is one death by suicide. This is greater than other age groups, where estimates show approximately 25 attempts result in one death by suicide in younger cohorts [35]. The death by suicide rate is most likely influenced by access to and use of lethal means that is coupled with a lower possibility of being rescued. Young adults and adolescents may have more opportunities for a family member to check in on them or a roommate who is able to interrupt an attempt.

Older adults make up about 15.2% of the US population [1]. Yet, suicide in later life often remains overlooked and is a major concern, particularly because of the high prevalence and fewer warning signs [3, 11, 19, 38]. This category of adults represents the greatest risk for suicide than any other age-group and accounts for higher rates of death by suicide when compared to younger adults (Conwell et al. 2002), resulting in approximately 18% of all suicide deaths [19]. Higher rates of death by suicide could be attributed to social isolation, stigma about mental health (self-judgment for experiencing distress), or hopelessness related to physiological health. Considering that older adults make up 18% of suicides in conjunction with the fact that 75% of older adult attempters do not die by suicide, one can imagine how much higher suicide rates would be if more attempters died by suicide. Thus, there is a need to continue to stop attempts as well as prevent older adults from getting to a level of distress where they consider attempting suicide to be their best option.

Suicide and Gender Identity

Suicide risk and behavior are influenced by sex [23]. Due to stigma surrounding nonbinary genders in this generation, literature on nonbinary older adult suicide is sparse. Overall, women attempt suicide at a higher rate than men; however, men tend to make more serious attempts by using more lethal methods [23]. Additionally, women are more likely to seek out social support when distressed, whereas men are

more likely to isolate [6]. This decreases the possibility of being stopped when attempting to die by suicide. Another factor that increases the risk for men is the method of suicide death. Access to and the use of firearms was associated with men's attempts and the risk increases with age [11]. Possession of firearms by older adults may be due to cohort effects or concerns about safety and protecting oneself. Suicide risk is also affected by marital status in both men and women where widowed men and women's suicide rates are 3.3 times higher than married men and women [23]. In women, those who are divorced or separated accounted for higher suicide rates compared to married women [23]. Relationship satisfaction has been found to be more indicative of suicide risk than marital status as a whole. Married women who are unsatisfied with intimacy are more likely to endorse suicidal ideation [6]. It appears that women require strong emotional support and intimate connection for a relationship to be protective. Suicide rates have been on the rise among both older men and women [24]. The highest risk for death by suicide is among older White men [13]. It is worth noting that suicide rates among older adults in some cultures are relatively low when compared to younger cohorts, particularly for indigenous groups [35].

Suicide, Race, and Ethnicity

Suicide rates differ across the population, particularly with regard to ethnic and demographic groups as well as geographic regions [20]. In general, African Americans attempt and die by suicide at younger ages [20]. When looking at suicide rates and race in older adults, Asians and Whites report the highest rates of suicidal ideation whereas African Americans have the lowest reported rates of ideation [23]. However, the highest suicide rates remain among White, particularly non-Hispanic White men over the age of 85 years [24]. An important consideration is the effect of minority stress on day-to-day functioning, willingness to seek treatment, access to treatment, and social coping resources.

Suicide and Education/Occupation/Socioeconomic Status

In general, low socioeconomic status (SES) and less educated older adults are often at greater risk for death by suicide [15]. These individuals may have had negative prior interactions with healthcare providers and insufficient access to services or financial resources to afford care, or do not consider the care to be worth the cost and effort to obtain. A relationship between SES and suicide has also been found to be true for older adults. Older adults that attempt or die by suicide were found to have completed less education than their younger cohorts, most likely due to a lack of resources or difficulty obtaining an education [38]. Low SES may be indicative of low education, mental illness, or even familial factors [15]. Links between suicide in late life and low SES could be explained by the adverse effects that low SES has on older adults when compared to younger adults [31]. Examples include job

discrimination, low social security benefits, physical limitations that prohibit the ability to perform some job, and feelings of worthlessness stemming from an inability to work. For older adults who do not intentionally retire when they are financially able, it is no surprise that unemployment rates among older adults are high [38]. It is likely that after retiring some older adults are unable to exist on social security alone without financial assistance from their families. They may then be discriminated against by potential employers because of their age and potential age-related limitations. Unemployment or lack of a sufficient and stable income may contribute to higher suicide rates among older adults [38]. It is possible that this could be a stand-alone risk factor, or it may be a factor that contributes to feelings of hopelessness, worthless, and despair.

Risk Factors

Suicidal ideation is a major risk factor for suicide that elevates the potential for more serious suicidal behavior [27]. Thinking about dying by suicide may desensitize individuals to these thoughts and make suicide seem like a reasonable solution to an often temporary or solvable problem. However, establishing and understanding the cause of such a multifaceted, subjective, and complex behavior are a laborious task [11]. According to the stress-diathesis model of suicide, vulnerability is a predisposition to suicide, especially in conjunction with individual risk factors [7]. Some significant risk factors include a history of suicide attempts, family history of suicide, isolation, and substance use. Risk factors can vary by cohort and age group but often including individual disposition, relationship status, and community involvement [26]. These risk factors can intersect to have compounding effects as well. For example, a 70-year-old man, experiencing anhedonia, with no living family, who is not involved in his community may have a higher level of risk than a 70-year-old man who experiences anhedonia, lives with his son, and plays chess with his friends at the senior center. The following risk factors are not exclusive to older adults but are associated with older adults at risk for suicide: psychiatric illness, physical health, social connectedness and support, and functional capacity [11]. As previously mentioned, these can combine in any number of ways to affect an individual's global level of functioning and influence their level of risk.

Psychiatric Illness

Psychiatric illness is the most potent risk factor for suicide in older adults [11]. It is estimated that approximately 85–90% of older adults who died by suicide had a major psychiatric illness or diagnoses at the time of their death [39]. It is likely that some older adults underreport experiencing psychiatric symptoms (e.g., feeling of depression) prior to dying by suicide and that many clinicians are not able to detect increased suicide risk because of inadequate training or time constraints. The prevalence of major depressive disorders is high in older adults and is a key risk

factor for suicide [24]. The majority of older adults who die by suicide carried a diagnosis of depression [32]. Whether their distress was communicated to those around prior to their death is unknown. Some older adults who share their distress with their family members may find them minimizing their experiences because they do not know how to respond and provide assistance. Healthcare clinicians in all settings may rationalize the distress of older adults as normative to the aging process. In long-term care settings, it is not uncommon for older adults to state that they wish they could go to sleep and not wake up. At minimum, healthcare workers should consider this a cry for help, and mental healthcare should be provided to address the feelings that life is no longer worth living.

Psychotic illnesses, anxiety disorders, and substance use disorders are not the primary factors driving older adult suicide when compared to younger adults (Conwell et al. 2002). This further supports the need to treat depressive symptoms in older adults. Dementia represents the highest risk factor among neurocognitive disorders for suicide among the older adults [7]. Symptoms of a neurocognitive disorder can sometimes mask symptoms of depression. Consider that confusion or inability to carry out activities of daily living could mask symptoms of anhedonia. Cognitive symptoms of depression are often intertwined with those of a neurocognitive disorder. Older individuals are less likely to disclose suicidal ideation and more likely to present with fewer mood symptoms but more fatigue, concentration difficulties, and memory issues, making detection of suicide risk and a diagnosis more challenging [38].

Physical Health

Physical conditions and impairments increase with age. There is a strong association between physical illness and suicidal ideation and behavior among older adults [7]. Some older adults live with a physical illness and experience feelings of hopelessness. Physical illness often decreases independence and autonomy, which in turn erodes self-esteem while resulting in higher levels of stress [38]. This stress could be momentary, or it could result in feeling like a burden to both family and close friends. As the number of physical impairments increases, the risk for suicide escalates [11]. Suicidal ideation emerges as a result of frustration, pain, and loss of dignity and pleasure in life [7]. These older adults likely begin to look for an escape and start to rationalize that they have lived enough already. Subsequently, as the number of diagnosed illnesses increases, so does the risk of suicide [39].

Other considerations related to physical health are pain and physical debilitating diseases. Pain is a significant risk factor for men, elevating the likelihood of thoughts of self-harm and suicide [39]. It is likely that escapism is a factor, as well as self-judgment for not being able to overcome the pain. In general, chronic pain often doubles the chance of death by suicide [24]. On the other hand, some physical diseases are significant, stressful life events and not gender specific [7]. Specific diseases, such as cancer, heart disease, stroke, and COPD, are often associated with death by suicide [7].

Social Connectedness and Support

As individuals age, they experience physical changes and life events that are common but can still precipitate suicidal thinking and behaviors. These include reduced social status and financial problems (particularly debt) [22, 24]. As previously mentioned, health issues in late life are often associated with suicide. However, loss, loneliness, ruptured relationships, and interpersonal conflict are also common risk factors in late life [11, 39]. The intersection of physical health issues and a lack of social support to cope with these stressors contribute to an increased risk of death by suicide. When considering social connectedness and suicide in late life, the Interpersonal Theory of Suicide by Joiner and colleagues suggests that losing a sense of belonging and perceived burdensomeness are two causes for suicidal thinking [41]. Decreased belonging and increased feelings of burdensomeness may combine with isolation (e.g., family living far away, friends passing away) and result in loneliness. The feeling of being isolated coupled with social problem-solving deficits, such as the inability to resolve conflict, also increases suicide risk [7]. Suicide may present as the more desirable option rather than confronting difficult relationship dynamics.

The scientific literature additionally supports the notion that older adults who died by suicide were less likely to have a strong social support network due to being single, not having children, and not being involved in religious or spiritual practices [7]. Further, existing family may live far away, or it may be culturally normative for their family of origin to not value older adults. Physical health issues may hinder older adults from engaging in social groups or attending religious meetings. In addition, clustered stressful events often proceed suicidal attempts and deaths in the weeks and months prior [9]. Again, physical illness and loss are common stressors among older adults. However, loss, loneliness, and isolation that is coupled with physical illness increase the risk for suicide [9]. Significant losses can include as losing a partner or friends, losing a familiar living situation, and losing self-worth due to adjustment issues [24]. These individuals may then be unable to grieve or access coping resources (social support, mental health services, exercise) and see suicide as a reasonable option to cope with a difficult situation.

Functional Capacity

Another risk factor in older adult suicide attempts and deaths is a functional decline [22]. Consideration should be given to cognitive functioning, decision-making, and deficits in activities of daily living. Functional capacity deficits have been linked to increased suicide risk in older adulthood [39]. These deficits may act as a catalyst for hopelessness or mask symptoms of depression. Previous literature had indicated that impaired decision-making was related to poor impulsivity control and acting on suicidal ideation [7]. However, it is now suggested that impaired decision-making may also be linked to a lack of capacity or impaired ability to access and scrutinize past experiences and their possible consequences [7, 11]. Deficits in cognitive

inhibition indicate older adult's vulnerability to suicidal thoughts and, subsequently, death [7]. Further, a failure to control intrusive ideas and thoughts due to decreased executive control and cognitive inhibition can lead to triggering thoughts and suicidal behaviors [7]. Intrusive thoughts and impaired decision-making make for unstable mental health and can lead to suicidal behaviors.

Access to Means

Relative to their younger counterparts, older adults are more likely to use highly lethal methods, offer fewer warning signs, and engage in self-destructive behaviors [10]. Additionally, cohort effects can be observed. Owning a gun may be considered more culturally normative by older adults than younger adults. It is estimated that over 70% of older adults use a firearm to die by suicide [10]. With increased social isolation and fewer social connections, older adults who engage in suicidal behaviors are less likely to be found in time to thwart their attempt [9]. The use of lethal means would likely make it hard to save a suicide attempter who had a self-inflicted mortal wound.

The literature suggests that providers who are trained in lethal means safety are more likely to assess for access to guns and ammunition and engage in lethal means restriction with patients, their families, and close friends [30]. Therefore, one barrier to protecting patients with access to lethal means is provider competence. A study on geriatric care providers found that just one-third of providers assessed for suicidal ideation. When a patient made comments involving hopelessness and suicide, providers who had received training on assessment and lethal means counseling were less reluctant to assess for risk and access to lethal means [30, 33]. It seems that there is a domino effect where providers fail clients because their formal education failed to provide adequate training. To target this training deficit, the Counseling on Access to Lethal Means (CALM) training protocol was developed. The educational program describes warning signs and prevalence, types of lethal means (with an emphasis on firearms), and examples of reducing lethal means access [33]. Health providers who received the CALM training reported significant increases in assessment confidence, knowledge, and behavioral change (administering more assessment) from baseline to 3-month follow-up [33]. Having a healthcare provider who understands how to assess for ideation and lethal means could be a strong protective factor for keeping older adults who are experiencing suicidal ideation safer.

Protective Factors

Suicide becomes an escape for older adults who lack a positive outlook on life, feel useless or like a burden to others, and lack social connectedness [14]. Depressed mood is often shrugged off by family members who consider it normative aging. However, feelings of burdensomeness and social isolation are a dangerous combination. Adding invalidation from loved ones creates an environment primed for increasing suicide risk. Therefore, protective factors should be assessed and used in

treatment planning to offset the risk factors that are present for many older adults. In general, protective factors have not been studied as much as risk factors [26]. Understanding the role of protective factors could help prevent future deaths by suicide. Protective factors convey resiliency and include both societal and psychosocial conditions as well as behaviors that reduce suicidal behavior [14]. Protective factors sometimes appear in the absence of a known risk factor. For example, Heisel [22] suggested that lacking mental health illnesses, physical ailments, and introversion decreased the risk of suicide to a degree. Some people are simply less likely than others to be suicidal because of genetics, personality, environmental factors, or luck. Other protective factors include engaging in positive health behaviors, such as minimal alcohol use and regular doctor's appointments [22]. Similarly, the likelihood of engaging in these protective health behaviors could be a result of coping styles, upbringing, or some unknown variables. Other protective factors include personality traits, family connection, and involvement in communities that have the potential to prevent or mitigate suicidal thoughts, behaviors, and deaths [26]. Examples of protective communities are 12-step groups, religious organizations, and work environments. Other protective factors include religious beliefs, fear of disapproval, legacy, and obligations [3]. Even when considering death by suicide, individuals still are struck by a desire to not disappoint their God or harm their loved ones.

Strong social support can serve as a source of protection from late-life stressors, possibly protecting older adults from death by suicide [7]. This is true of many age groups; however, arguably, older adults typically have fewer built-in social interactions in their day-to-day lives. Consider retired older adults who are not involved in clubs or activities and rarely leave their homes. In particular, strong feelings of social connectedness and family involvement with significant others, children, and grandchildren can be potent social protective factors [26]. In addition to providing valuable social support, these connections can reinforce a sense of belongingness, purposefulness, and legacy. Further, religious beliefs and spirituality strengthen as a function of age. Because most religions typically do not condone suicide, participation in a religious organization provides both social and spiritual value to older adults [27]. Faith can provide comfort about what happens after death can instill a sense of hope. Overall, social connectedness may be an especially important factor to consider when developing treatment plans to address the risk for late-life suicide [11].

Screening/Assessment, Prevention, and Treatment Strategies for Suicide in Older Adults

Older adults, white men, in particular, are at the greatest risk for death by suicide [16]. Given the greater number of risk factors that adults face as they age (i.e., loss, adjustment issues, changes in health status, isolation, etc.), screening and assessing for suicide is critical [32]. Older adults may not disclose suicidal ideation to providers due to cultural norms, stigma, or lack of trust. Providers must screen for mental health problems during regular checkups. With so many individual factors influencing reporting style and clinical presentations, it can be difficult to identify

at-risk individuals in time to intervene. To develop more effective treatment approaches, it is important to study the etiology of risk factors [37]. The overall goal of suicide research is to prevent death by suicide [37]. Knowing the etiology and presence of risk factors can help providers know what to look for when working with older adults, elements to include in a treatment plan, and when to recommend more intensive care.

Screening and Assessment

It is important to screen and assess for suicidal ideation when risk factors are recognized, particularly for older adults [32]. As previously stated, many may be reluctant to volunteer information. Therefore, it is up to medical providers to recognize warning signs. However, due to the high prevalence of suicide and the few warning signs that older adults provide, a broad screen may be an important addition to routine medical checkup [32]. In this scenario, older adults could answer honestly without the pressure of a physician asking them directly. Additionally, the wording on some screeners may be less intimidating than being asked “Are you thinking about suicide?” Research shows that older adults who die by suicide often visit their primary care physician within a month before their death. Given this finding, primary healthcare providers have an opportunity to initiate a conversation about mental health with their patients and to recommend mental health treatment when indicated [32]. All primary care settings should have suicide screening, assessment, and referral protocols in place [32]. Older adults may also be more willing to receive mental health services on the recommendation of their primary care provider and if the referral is initiated during the visit. To do this effectively may require having a mental health clinician on staff.

To help healthcare providers detect and intervene with potentially suicidal patients, regulatory agencies and professional organizations have developed physician guidelines [32]. The difficulty with this recommendation is that it relies on the patient to honestly disclose their symptoms of depression or their substance use as well as sharing their feelings of distress and despair. While there are no guidelines that are specific for screening older adults who seek treatment from a physician, a broader screening scale should be considered [32]. The Reasons for Living-Older Adults Inventory (RFL-OA) considers age-related factors and consists of 69 questions that clinicians can ask older adults who are at particular risk [16]. This assessment considers protective factors, such as family and religion, as well as personal views on life and death [16].

Prevention

Approaches to preventing suicidal behavior and attempts involve the detection and treatment of high-risk individuals, such as older adults [28]. Given that older adults tend to visit their primary care providers within days to months prior to their death by

suicide, it is important for physicians to be educated in recognizing risk factors [22, 24]. As previously discussed, through increased training and screening procedures, this is one way to help older adults who are distressed and suicidal. However, because primary care providers have limited time designated for each patient visit and older adults' tendency to underreport symptoms, it can be difficult to carry out an adequate assessment [22]. It is easy to imagine a patient making a comment that suggests feelings of hopelessness and having the comment ignored or insufficient follow-up questions. One technique that is being used is similar to a safety plan or contract. This technique is a no-suicide contract that primary care physicians discuss and implement, where the older adult agrees to remain safe until the next scheduled appointment [24]. For some patients, this may be an effective short-term approach. However, this approach is dependent upon the individual taking the agreement seriously, agreeing to using mental health treatment, and is not prone to high impulsivity. An individual who possesses a firearm and uses substances or has a cognitive impairment that decreases reasoned thinking and increases impulsivity may not care about the agreement they made with their physician.

As effective interventions are being developed, prevention programs can be used to address suicide at multiple levels [17]. Prevention can be implemented within the community, medical settings, and with family and friends. Universal prevention targets entire populations by implementing self-administered screenings, limiting access to means, addressing issues related to aging, and providing psychoeducation about risk factors [17]. This is a broad approach and may not be suitable for all populations. In particular, someone with low insight may not benefit from a universal prevention approach. Selective prevention attempts to reduce suicide in those with known risk factors by implementing systematic screening tools in medical and nonmedical settings, utilizing treatment strategies, providing systematic support, and increasing awareness [17]. This approach allows for a more targeted prevention effort but also requires a knowledge of the patient's history, social support, physical health, mental health, and current life stressors. Not all healthcare providers have access to all of this historical and current information. The third category of suicide prevention among older adults is prevention which targets individuals with acute suicidal ideation and attempts [17]. This is both prevention and postvention in that it allows for examining patient history to inform prevention efforts. Again, this requires a level of insight and a motivation to stay alive while experiencing suicidal ideation.

Treatment

Appropriate and effective treatment targeting risk factors and identifying protective factors (reasons for living) is pivotal in preventing suicide in older adults [3]. This is a subgroup of the population that is often unlikely to report their distress and frequently viewed as just "getting older." Therefore, it is necessary for the individuals around them to be vigilant and take protective action. Many of the available evidence-based treatments for suicidal ideation in older adults target depressive symptoms concurrently. A range of psychological treatments have been found to

be efficacious in treating depression and suicidal ideation in older adults [3]. Treatment approaches include reminiscence therapy, problem-solving therapy, cognitive-bibliography, and cognitive behavioral therapy (CBT) [3]. Reminiscence therapy is a useful approach for those who have been diagnosed with dementia and other related neurocognitive disorders. Patients are invited to recall and discuss their memories and past experiences through tangible mediums (i.e., photographs, music, etc.) which helps with meaning-making [43]. Problem-solving therapy, a process of identifying, exploring, and discussing goals, is a promising intervention for older adults at risk for suicide as it aids in reducing impulsivity while supporting effective decision-making skills [21]. Indeed, a problem-oriented approach may also help to destigmatize emotional distress. Cognitive-bibliography therapy is an approach that utilizes the reading of a self-help book as a form of treatment for psychological problems [18].

In general, CBT and safety planning have been found to be effective treatment approaches for depression and suicidal ideation. CBT for older adults is a practical approach with a specific psychoeducational component that targets empowering older adults to apply developed skills outside of the psychotherapy relationship while increasing overall life satisfaction [12]. Safety planning is the process of planning for emotional distress and developing accessible, visible alternative behaviors and has been associated with decreased hospitalizations and decreased suicide attempts [8]. The intervention is a plan for recognizing distress, choosing a safe coping behavior, and eliminating the guesswork of how to cope.

The interventions described above typically target depression as the primary focus with a secondary aim of reducing suicide risk. They may help treat depression symptoms for some patients; however, these approaches do not always sufficiently reduce key indicators of suicide risk, particularly in aging adults [3]. Conti et al. [8] suggest a model that incorporates depression, functional impairment, physical illness and pain, social isolation, and access to lethal means. More research is needed to determine how best to treat suicidal ideation in older adults. After they have screened as having risk factors and are willing to receive treatment, how do we help them remain safe? The goal for suicidal ideation reduction is to promote both physical and cognitive functioning as well as increasing overall well-being [40]. In some cases, this may be enough, but not all older adults can have their physical functioning improved or restored. Not all older adults have cognitive functioning that can be improved significantly. Yet risk for suicide is still present for these individuals. As such, continued effort must be made by the people around them and by experts in the field to find the best practice for older adults who are experiencing suicidal ideation.

Conclusion

Suicide is a growing problem that requires the attention of clinicians, researchers, program developers, and policymakers. Perhaps even more importantly, each individual must adopt some level of vigilance to look out for friends and loved ones who might be at increased risk. Due to mental health stigma, not everyone is willing to

seek help. This can be especially common for older adults who may feel reluctant to share their feelings and concerns. Primary care providers, home health nurses, and family members are often the first line of contact for many older adults. If these individuals can become familiar with the warning signs and best practices of assessing and monitoring for suicide, some older adult deaths could be prevented. It is the responsibility of all health clinicians to monitor and assess the wellbeing of older adults in their care.

In this chapter, both risk and protective factors were presented. Family members could be educated to be more aware of older adults' needs as they continue to age and useful ways to intervene if distress is detected. Isolation and mental health stigma are common. Even if someone was available for an older adult to speak with daily about their concerns, they still may underreport their actual distress. Additionally, the prevalence of physical illness presents factors that affect daily living and could contribute to feelings of hopelessness. Lastly, access to lethal means allows for little-to-no interruption of the thought-impulse-action continuum. The above risk factors could also be helpful to providers who are conceptualizing patient risk. Providers may wish to implement suicide screening procedures when working with older adults. Having a medical professional normalize the use of mental health services could reduce stigma and increase the likelihood of working with a therapist.

Through mental health interventions such as safety planning, cognitive therapy, and problem-solving therapy, many older adults experiencing suicidal ideation may find peace of mind. These treatments, as well as prevention efforts are ways that providers can effectively decrease suicide rates on their caseload. Psychoeducation of the public and provider competency training in suicide assessment can help to destigmatize suicide and perhaps increase the likelihood of older adults seeking help. For those that do not seek help, it is clear that those around them must take responsibility for the wellbeing of their loved ones. Depression and suicidal thinking are not a normative part of aging. Rather, these are mental health conditions which should be treated as such so that older adults can safely and happily continue to live their lives.

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Preventing Suicide in Boys and Men

26

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Abstract

Around the world, males dominate suicide statistics. Masculinity – socially constructed gender ideals for boys and men – may be a key contributory factor underpinning the heightened risk of suicide in males. Conformity to “dominant” masculine norms like self-reliance is associated with reduced help-seeking in boys and men. If they do seek help, they often find that services are not well matched to their ways of dealing with problems. Addressing the problem from both ends – norming help-seeking and engaging boys and men with effective help – is much more likely to yield success than addressing these long-standing issues separately.

Keywords

Suicide · Males · Men · Boys · Masculinity

This chapter discusses the intractable issue of male suicide. It describes the magnitude of the problem and explores whether the expectations that society places on boys and men to behave in certain ways may heighten their risk for suicide. It then goes on to discuss the kinds of interventions that might be required to address the root causes of male suicide, noting that our knowledge about the effectiveness and cost-effectiveness of these interventions is limited.

Many chapters of this kind would stop there, indicating that further research is needed to fill these gaps. Instead, ours describes a comprehensive program of research that our team is conducting to further understanding whether certain interventions may help to prevent suicide in boys and men. The research program involves a partnership in which a multidisciplinary group of researchers from five universities (University of Melbourne, Monash University, Deakin University, University of Wollongong, and University of British Columbia) is collaborating with 14 community/industry organizations with a strong commitment to male suicide prevention (Australian Men’s Health

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Forum, Australian Psychological Society, EveryMind, Heiress Films, Gotcha4Life, Lifeline, Mantle Health, MATES in Construction, Mental Health First Aid, Movember, Stop Male Suicide, Suicide Prevention Australia, Tomorrow Man, and Victorian Men's Sheds Association). Many of these partner organizations are or will be responsible for co-designing and delivering the interventions we will test.

Suicide in Boys and Men

Around the world, males feature prominently in suicide statistics. The World Health Organization collated international suicide statistics in 2014 and found the global rates in high-income countries were 19.9 per 100,000 for males compared with 5.7 per 100,000 for females [1]. The gap was less striking in low and middle-income countries, but male suicides still outnumbered female suicides by a factor of at least 3:2 [2]. In Australia, our figures are consistent with those in other high-income countries. In 2020, 3139 Australians died by suicide, 2384 of whom were males [2]. This put our male suicide rate at 18.6 per 100,000, more than three times higher than the rate of 5.8 per 100,000 for females [2].

Each time we lose one of our brothers, sons, fathers, uncles, grandfathers, or male friends, colleagues, or peers to suicide, there is an enormous ripple effect. It has been estimated that for every person who dies by suicide, around 135 people suffer intense grief or are otherwise affected [3]. In Australia, that's 313,200 a year who experience the heartache of losing a male in their life to suicide. For many, this impact will be devastating and long-lasting [4, 5] and may increase their own risk of suicidal behavior [6, 7].

Masculinity, Seeking and Receiving Help, and Suicide

There are various explanations for the excess suicide rate among males, including that they are more likely to choose lethal suicide means [8], overuse drugs/alcohol, and withdraw in the face of stress [9, 10], and are less likely to seek help [11]. Masculinity – socially constructed gender ideals for boys and men [12] – may be key contributors to all of these explanations. There are multiple masculinities [13], but in many countries, the “dominant” one promotes norms of power, strength, competitiveness, self-reliance, stoicism, independence, and avoidance of negative emotions [14–16]. These norms are often positive, providing some men with a protective buffer against mental health issues [17], but rigid adherence to them may exert an influence on male suicide (e.g., the choice of lethal means may relate to the view that nonfatal suicide attempts are “feminine” or “weak,” [5, 18] and heavy drinking – which is accepted in many masculine milieus [19] – may be a way to manage depression [20–22]).

The interplay between masculinity, help-seeking, and suicidality may also be particularly important. Conformity to masculine norms has been shown to be associated with reduced help-seeking [23–26] and suicidality [27–30]. The influence of masculine norms on help-seeking is in turn mediated by intersectional factors

including age, socioeconomic status, culture and ethnicity, and sexuality. Self-stigma can act as a barrier to help-seeking for men [31], suggesting that interventions that encourage males to seek help may need to challenge rigid masculine norms.

Even when boys and men do seek help, it may not meet their needs. Health services have been criticized for being “gender-blind,” and males often find them inconvenient, unengaging, and inadequate [32]. Mental health services may exacerbate the situation because males doubt that psychotherapy works, don’t feel safe disclosing that they are not coping [33], and/or view treatment as transgressing masculine norms that idealize self-reliance and self-management [34]. A less-than-satisfactory initial experience with services is likely to put males off when it comes to seeking help if they need it in the future [35]. There have been calls to tailor mental health services and the treatments they offer to the specific needs of boys and men, with recommendations that providers consider the impact of masculine norms on consumers, use skills that orient men to health care, adapt their language to include male-oriented metaphors, and utilize collaborative, transparent, strength-based, and goal-focused treatment styles [36].

Suicide Prevention Interventions

Suicide prevention interventions are classified as (1) universal (targeting whole populations and focusing on certain risk factors without identifying individuals with those risk factors); (2) selective (targeting individuals who are not suicidal, but who have recognized risk factors for suicidality); and (3) indicated (targeting individuals who are experiencing suicidal thoughts or behavior) [37, 38]. Often a variety of universal, selective, and indicated interventions are implemented in conjunction with each other, via a coordinated a “systems-based” approach [39]. The idea is that interventions delivered simultaneously across these different levels have a greater chance of bringing about significant, lasting change than interventions delivered in isolation.

Universal/Selective Interventions That Encourage Help-Seeking Through a Focus on Masculinity

Recently, increasing emphasis has been given to interventions that encourage help-seeking via a focus on masculinity. These tend to be universal interventions, delivered to all males in particular settings, through workshops, training, or media campaigns. In Australia, our partner organizations are delivering some prominent examples: *Breaking the Man Code* (run in schools; Tomorrow Man), *Ahead of the Game* (run in sporting clubs; Movember), and *MATES in Manufacturing* (run in manufacturing work sites; MATES in Construction). Some of these interventions have selective elements too (e.g., *MATES in Construction* trains “connectors” and Applied Suicide Intervention Skills Training [ASIST] workers to support at-risk individuals).

Despite their increasing popularity, the evidence base for these interventions is still underdeveloped. There are published examples of pre-/post-evaluations and nonrandomized trials [40], but only one randomized controlled trial has been reported. This was our own trial of *Man Up*, a three-part documentary aired on ABC TV that explored the relationship between masculinity and suicide and encouraged men to seek help. *Man Up* was created by members of our research team with two of our partners (Heiress Films, Movember) and was hosted by Australian radio personality Gus Worland, who then founded another of our partner organizations (Gotcha4Life). Our RCT showed that *Man Up* increased men's help-seeking intentions [41]. A few other relevant randomized controlled trials are underway [42, 43], including one of *Breaking the Man Code* and another of *MATES in Construction*. These latter trials are being led by members of our research team. The focus of all trials to date has been on effectiveness; none have examined cost-effectiveness.

Indicated Interventions That Ensure That When Boys and Men Do Seek Help, It Meets Their Needs

In Australia and elsewhere, far less attention has been devoted to indicated interventions that ensure that when boys and men do seek help, it is appropriate to their needs. A recent review of Australian tertiary medical training programs showed that limited attention has been paid to the role masculinity plays in engagement with and outcomes of treatment [44]. Guidelines have been developed for the Australian Psychological Society, and a psychologists' training program called *Men in Mind* has been created based on consumer and expert consultation and is due for piloting. However, there are very few examples of best-practice services. Those that do exist, like *Mantle Health*, are in their infancy. No randomized controlled trials have been conducted of any services that provide mental health care through the lens of masculinity.

Addressing Research Gaps: Advancing Knowledge by Answering Critical Research Questions

To summarize, we know that in many countries three quarters of all suicides are by males and that conformity to masculine norms may explain this, at least in part through its role in inhibiting help-seeking and norming self-reliance. Universal/selective interventions that encourage help-seeking in boys and men through a focus on masculinity are likely to be of value, but only if indicated services are "male friendly." There is a major gap in our knowledge, however, as to whether these universal/selective and indicated interventions work.

Our team has recently received funding from Australia's Medical Research Future Fund to address this knowledge gap. We are embarking on a 4-year program of research that will answer four critical research questions:

- Are universal/selective interventions that encourage help-seeking through a focus on masculinity effective and cost-effective?
- Are indicated interventions that are tailored to the specific needs of boys and men effective and cost-effective?
- How might these universal/selective and indicated interventions best work together?
- How can they each be optimized and scaled up?

Our Research Program

Figure 1 shows the conceptual basis for the research. The problem we are addressing is that societally imposed dominant masculine norms run counter to at-risk boys and men seeking help and that those who do seek help often do not receive services that meet their needs, leading to negative outcomes. Our research will investigate whether the solution to this is universal/selective interventions that encourage help-seeking through a focus on masculinity, delivered alongside indicated interventions that are tailored to the specific needs of boys and men.

Our research program involves a series of randomized controlled trials (run by our researchers) of universal/selective and indicated interventions (delivered by our partners). Most of these interventions already exist, and although some have even been evaluated, as noted, this evaluation has tended to be minimal. Only two are the subject of current randomized controlled trials, and these trials do not include cost-effectiveness analyses. We are planning to complement the existing interventions with some new or modified interventions that will be co-designed with our partners and males with lived experience of suicidality. The randomized controlled trials will be augmented by modeling exercises which will consider the broader budgetary and societal implications of rolling out the interventions, in tandem, at scale.

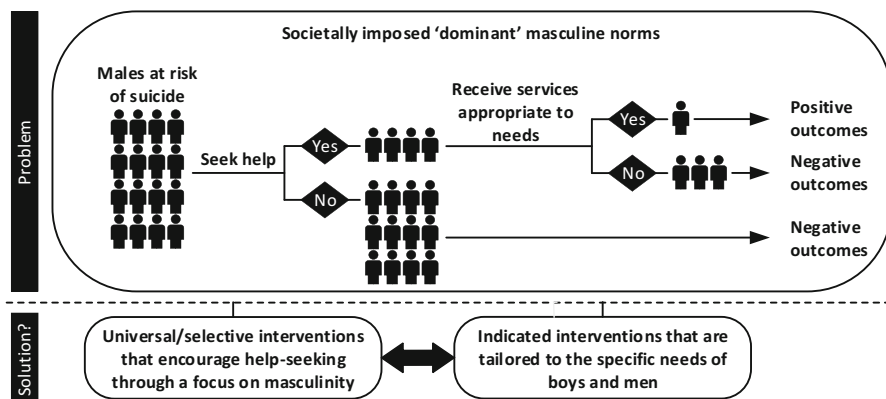


Fig. 1 Conceptual framework

The Interventions

We will trial seven interventions (five universal/selective and two indicated; see Fig. 2):

- *Universal/selective interventions*: Three of the universal/selective interventions (*Breaking the Man Code*, *Ahead of the Game*, and *MATES in Manufacturing*) are well-established and encourage help-seeking in boys and men by challenging dominant masculine norms. *Mental Health First Aid – Conversations about Suicide (MHFA-CS)* is a more general training program that promotes help-seeking and help-offering, and we will modify it for use in Men's Sheds (community organizations that advance men's wellbeing in a safe environment where they work on meaningful projects with other men). The *media-based male suicide prevention campaign* is the only universal/selective intervention that we will develop de novo. This will be multifaceted and involve traditional and digital media. The modification of *MHFA-CS* and the development of the *media-based male suicide prevention campaign* will be co-designed with the relevant partners and boys and men with lived experience of suicidality.
- *Indicated interventions*: Both of the indicated interventions are currently in the development stage. A set of *specialist Lifeline services* will be delivered by Lifeline, Australia's largest provider of 24-h crisis support and suicide prevention services. Lifeline will develop a model of service delivery that responds to men's needs, co-designing it with male callers. The specifics of the model are yet to be finalized, but it might include messaging that appeals to males (while at the same time resonating with females). The second intervention is *Men in Mind*, a world-first online training program that offers psychologists evidence-based, interactive modules to leverage therapeutic principles that work for men and incorporate these into the way traditional mental health treatments are delivered.

The Randomized Controlled Trials

We will conduct new trials to test the effectiveness and cost-effectiveness of three of the universal/selective interventions and both of the indicated interventions. Trial of *Breaking the Man Code* is underway, and we will strengthen this by adding an economic evaluation component and expanding the number of participants (to maximize the potential for sub-group analyses). In each trial, the given intervention will be compared with an appropriate control condition (e.g., a waitlist control, a minimal awareness-raising intervention or usual practice).

Most trials will be conducted in the settings in which the interventions are delivered. The exception is the trial of the *media-based male suicide prevention campaign*, which will be run in a "laboratory" setting. In each case, participants will be the target group of the particular intervention.

The primary outcome in each of the trials will relate to what each intervention is aiming to achieve (e.g., increases in participants' likelihood of seeking help,

Universal/selective interventions		
Breaking the Man Code • Intervention status: Existing • Target group: Yr 10-12 boys • Setting: Schools • Format: Workshops • Partners: Tomorrow Man, Gotcha4Life	Ahead of the Game • Intervention status: Existing • Target group: 12-17yo males and their parents and coaches • Setting: Sports clubs • Format: Workshops and online modules • Partner: Movember	MATES in Manufacturing • Intervention status: Adapted from existing • Target group: Manufacturing workers (~75% male) • Setting: Manufacturing work sites • Format: Integrated program of training and support • Partner: MATES in Construction
Mental Health First Aid – Conversations about Suicide (MHFA-CS) • Intervention status: Needs modification • Target group: Older men • Setting: Men's Sheds • Format: Workshops • Partners: MHFA, Victorian Men's Shed Association		Media-based male suicide prevention campaign • Intervention status: New • Target group: Boys and men • Setting: Community • Format: Digital and traditional media • Partners: Heiress Films, Everymind, Gotcha4Life
Specialist Lifeline services • Intervention status: New • Target group: Male Lifeline callers • Setting: Lifeline • Format: To be finalised, but likely to include messaging that appeals to males (while at the same time resonating with females) • Partner: Lifeline		Men in Mind • Intervention status: Existing • Target group: Professional men • Setting and Format: Psychologists receive training program which allows them to leverage therapeutic principles that work for men and incorporate these into treatment. These psychologists deliver services to professional men via a secure phone/video-link format that responds to identified barriers (e.g., self-stigma) • Partners: Movember, Mantle Health

Fig. 2 Interventions

decreases in participants' levels of suicidality). In each case, we will use standardized instruments that we have used in previous trials to assess the outcome (e.g., the General Help Seeking Questionnaire [45] or the Adult Suicide Ideation Questionnaire [46, 47]). We also use the AQoL-4D [48] to derive utility values in order to calculate quality-adjusted life years (QALYs) for the cost-effectiveness analyses (e.g., using the Australian Quality of Life Instrument [48]) and will capture information on resource use and lost productivity through a validated self-report questionnaire and, ideally, through linkage to routinely collected service use data.

The Modeling Exercises

Although “within-trial” economic evaluations will be embedded in each of the trials, there are limits to these. Firstly, important longer-term impacts of the interventions will not be fully captured in the trials because the outcomes measured will be surrogate outcomes relating to, for example, help-seeking intentions, reductions in suicidal thinking and quality of life, rather than the ultimately desired outcome of a reduction in male suicide rates. Secondly, the broader budgetary and societal implications (including scalability cost considerations) of the interventions will not be accounted for.

For these reasons, we will develop a purpose-built lifetime (age 15 to death) economic model, designed to inform decisions about future investments in male suicide prevention. The model will use cost and outcome data from each of the trials to evaluate the population cost-effectiveness of implementing the universal/selective and indicated interventions in combination. It will also draw on empirical analyses of data from longitudinal studies and systematic reviews of epidemiological literature to estimate longer-term trajectories of suicidality and service use in boys and men, along with the resource implications of these.

Strengths and Weaknesses of Our Approach

Our research program will rigorously test a large number of interventions and will therefore exponentially expand the evidence base around male suicide prevention. It is feasible because most of the interventions already exist in some form, having been developed and delivered by our partners. This collaborative participatory action approach also means that if the interventions are found to work, they can readily be scaled up. In addition, these partnerships enable us to channel most of our budget to foster high-impact research and research capacity building, rather than to develop interventions. The existing interventions have been developed with input from stakeholders, including boys and men with lived experience of suicidality, and the new or adapted interventions will be similarly co-designed.

The fact that most of the interventions exist does, however, impose some constraints on trial conduct (e.g., we will need to conduct cluster randomized controlled trials rather than individually randomized controlled trials of most of

the universal/selective interventions because many of these interventions are setting-based). This also makes it difficult to test interventions that *both* encourage boys and men to seek help and provide tailored services for them, although our modeling exercises will explore the impact of delivering the universal/selective and indicated interventions in tandem. Our interventions do not target particular at-risk groups, but the modeling exercise will take subgroups into account via its focus on individual trajectories and our team includes people whose expertise will help us conceptualize how the interventions might be tailored for specific subgroups (e.g., male veterans, Indigenous males; men who are or have been incarcerated).

A Final Comment

Our efforts in this area may be all the more important in the time of COVID-19. Suicide prevention experts from around the world have warned that particular risk factors for suicide may be heightened as the pandemic continues [49], and some of these may be particularly salient for males. For example, the social isolation associated with lockdown may be exacerbated for men with already-limited networks or those whose contact with their male friends relies on activities (e.g., catching up at sporting events). Similarly, the economic consequences of the pandemic may be particularly damaging for working age men who align to breadwinner and provider roles but lose their jobs and careers. We must do all we can to contextualize males' suicide risk and support vulnerable boys and men in these times.

We genuinely believe that our program of work could be game-changing. If we could “crack the nut” of how to prevent male suicide, we would be able to make major inroads into bringing down the overall suicide rate. Addressing the problem from both ends – norming help-seeking and engaging boys and men with effective help – is much more likely to yield success than addressing these long-standing issues separately.

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The Workplace: Our Most Crosscutting and Under-Leveraged System in Suicide Prevention and Suicide Crisis Response

27

Sally Spencer-Thomas

Note: This chapter is dedicated to Dr. Allison Milner, an international expert and leading scholar focused on researching workplace suicide and suicide prevention. Dr. Milner died tragically on August 12, 2019, as we were putting the final touches launching the National Guidelines for Workplace Suicide Prevention (USA). Dr. Milner was an inspiration and mentor to many of us who work in suicide prevention in the workplace, and her contributions to the field are unparalleled.

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Abstract

Arguably, the workplace is our most crosscutting system for suicide prevention and suicide crisis response. On a daily basis, there are more people impacted by suicide and suicidal intensity showing up to work than there are people intersecting with our healthcare, education, or religious systems. Thus, we have opportunities for prevention and postvention in our workplaces, yet historically, the workplace has not been leveraged in this way. This chapter summarizes

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historical theories, case studies, and industry-specific research related to workplace suicide risk and prevention. The chapter concludes by offering a comprehensive strategy based on the U.S. National Guidelines for Workplace Suicide Prevention. This public health approach acknowledges that there are upstream, midstream, and downstream tactics needed to mitigate workplace psychosocial hazards, increase access to mental health supports (including peer support), and respond with dignity and collaboration during employees' psychological emergencies.

Keywords

Workplace Suicide Prevention · National Guidelines for Workplace Suicide Prevention · Strategy · Crisis response · Training · Postvention · Leadership · Managers · Human resources · Job strain · Psychosocial hazards · Peer support · Mental health · EAP · Lethal means · Industry · Construction · First responders · Healthcare

According to the International Labour Organization, 57% of global citizens 15 years and older are employed [12]; we often spend more waking time working each week than we do with our families. Arguably, the workplace is our most crosscutting system for suicide prevention and suicide crisis response. On a daily basis, there are more people impacted by suicide showing up to work than there are people intersecting with our healthcare, education, or religious systems. Thus, we have opportunities for prevention and postvention in our workplaces, yet historically, the workplace has not been leveraged in this way. Most of the scarce workplace suicide prevention programs that exist have usually not been evaluated [20].

When a workplace is working well, it is often a place of belonging and purpose – qualities of our well-being that can sustain us when life gets unmanageable. Proactive workplaces provide access to needed mental health resources through employee assistance programs and peer support.

Because suicidal thoughts are usually invisible, employers usually assume “it doesn’t happen here” – until it does. Coworkers then are often forgotten grieverers after a suicide. Rarely, until now, did employers consider their role in suicide prevention.

Increasingly, the global community of employers is widening the lens from seeing suicide only within a mental health framework to a broader public health one. In other words, suicide and suicidal intensity are now being seen beyond the symptoms of a mental health condition. Through this broader public health lens, workplaces now understand the importance of a culture that contributes to emotional resilience rather than to psychological toxicity, and they can take steps to create a caring community of well-being.

Why Should Workplaces Care About Suicide Prevention?

Work as a social structure and its relationship to suicide. Over a century ago, Emile Durkheim [7, 8] considered suicide as a society-determined phenomenon in which the role of work played a significant role. Durkheim argued that when

working well, work fosters social relationships and offers people a place of purpose and solidarity. According to Durkheim the place of employment sets a social structure, moral values, and a sense of identity for an individual – all of which helps give the individual meaning and reasons for living. When social structures like work disintegrate, the individual suffers, and sometimes suicide can be a consequence. When workers are only seen as a source of profit or an obstacle to profit, suicidal despair may result due to the disconnection people feel [31].

Over 150 years later, employers across the world are becoming increasingly aware of the need for and benefit of addressing mental health promotion and suicide prevention in the workplace, both from a business cost perspective and from a social responsibility perspective. Awareness has been slow to turn to action because employers are not sure where to begin, how much they need to do, and when they have satisfied their ability in promoting and protecting employee well-being.

The cost of suicides and suicidal behavior on workplaces. Recently, a team of health economists have been studying the costs of suicide and the return on investment of suicide prevention and intervention activities to workplaces and communities. For instance, Doran et al. [6] found that on average the cost of a suicide death of one male construction worker was \$2.14 million, mostly due to the average 27.3 years of productive employment lost. They also determined that for every dollar invested in suicide prevention \$4.60 would be returned to society. Another study [13] measured a number of costs related to suicide and suicidal behaviors including production disturbance (e.g., value of lost production and staff turnover), human capital lost, medical costs, administrative costs (e.g., due to employer investigation), and more. They examined the costs associated with short- and long-term absences after a suicide attempt, full incapacity, and fatality and found a 1.50:1 benefit-cost ratio for investing in suicide prevention. They surmised that if employers were more aware of the economic consequences of the impact of suicide and suicidal behavior on their workplace, they might be more motivated to provide more mental health promotion and well-being initiatives.

Not all suicide prevention is crisis oriented; in fact, proactive efforts may even have a bigger ROI. Just like promoting heart health is less expensive than responding to the crisis of a heart attack, promoting optimal and holistic well-being makes good business sense. Rather than only focus on deficit or symptom-focused models of workplace intervention, many positive psychological resources can also be cultivated like self-esteem, mastery, resilience, and emotional intelligence. Well-being has clear connections to greater employee engagement, proactive work behavior, and transformational leadership [19]. Altogether, promoting protective factors, early intervention, and effective suicide crisis response save companies money and heartache.

Suicide waves in industries and the impacts on companies. In 2012 the Chief Executive of France's Telecom was forced to resign, and six other executives faced legal action taken against the company following an investigation. Charges filed against the company were related to workplace bullying, harassment, and toxic "management-by-terror" practices that were allegedly connected to over 80 employees' suicide attempts or deaths. Several of the suicide notes written by those who went on to die by suicide explicitly identified France Telecom as the sole cause for death due to "intolerable conditions" [31, 32].

In this case, the executives reportedly mandated a number of highly disruptive practices in order to downsize the company. For instance, they repeatedly transferred highly skilled workers to low-level jobs and then relocated the workers, disrupting their families. The communication around these transitions was infused with guilt and fear and pitted workers against one another. These former professional technicians were often placed in humiliating situations where they needed to ask permission to use the toilet [31, 32]. Once questioned about the suicides (which reached a peak in 2010 with 27 deaths), the leaders resorted to concealing or denying the deaths or rationalizing them as individual anomalies to keep hidden from public view.

Around the same time, another similar suicide wave emerged in a different part of the world. China's Foxconn, a telecommunications company that supports the manufacturing of Apple products, also experienced a suicide cluster in 2010 and underwent highly public scrutiny. Here, instead of highly skilled professionals, the victims were often migrant workers displaced from their rural communities to work manual labor under poor conditions [32]. At one point 300 workers allegedly took to the roof of Foxconn and threatened to jump unless they were treated more fairly.

Other "suicide waves" connecting work to suicidal despair have been noted in other cultures and industries including Australian miners, British bankers, Indian farmers, and Japanese managers. In fact, the Japanese even have a word describing suicide from overwork – *karo-jisatsu* – and consider the problem an urgent public health issue [32]. The United States has also seen surges of highly publicized suicide deaths related to work including numerous banker deaths in 2015 [26] and a current surge in first responder suicide deaths [10].

Job strain and suicide. Toxic work demands and negative employee perceptions of the work environment have been historically underappreciated in the conversation about suicide prevention; however, research connects a number of job stress-related factors to risk of suicide death and attempts, even when controlling for mental health problems.

Howard et al. [11] examined the "perceived reality" workers had about certain job design characteristics and threats to personal resources and determined that several indirectly contributed to the risk of a suicide attempt including:

- Lack of job autonomy
- Lack of job variety
- Work-family conflict (i.e., work demands make family responsibilities more difficult)
- Family-work conflict (i.e., family demands make work role challenging)
- Heightened job dissatisfaction and the feeling of being "trapped"
- Work that was not meaningful or intrinsically rewarding

The increased attention to "mental health literacy" at work may in part be a deflection away from the importance of these findings. If workplaces believe that the mental health symptoms and suicide crises are only due to untreated or mistreated mental illnesses, they may be engaging in a "state of denial" about their own

systemic contribution to the problem [32]. One tactic used to minimize workplaces' role is by medicalizing suicide as being the sole result of individual psychopathology rather than anything linked to work conditions [32].

Workplace fatalities. Worker safety is a core value in many industries, and thus safety directors routinely pay attention to trends in workplace morbidity and mortality. Because most suicide deaths do not occur at a worksite, suicide has not historically been “on the radar” of safety professionals. When a workplace fatality happens, the cause is almost always determined to be “accidental,” and a deeper investigation into intent to die is not undertaken. Because this deeper investigation is not done, the only remedy suggested is more safety training. While safety training will help those who did not intend self-harm, it will not benefit those whose death is intentional.

When we look at the fatal occupational injuries [3], the first two most common (transportation incidents and falls) are also common ways people think about taking their lives [4, 5]. Thus, it is possible that some if not many of these workplace fatalities are actually suicide deaths, which then means that safety training may not be effective in preventing them.

Specific industries at heightened risk. Not all workplaces are created equal when it comes to suicide risk. In some situations, it is the demographics and risk factors of the types of workers coming into certain occupations (e.g., industries comprised of a majority of men), in other situations it is the nature of the work that increases risk, and often it is a mixture of the two.

While self-reliance is often valued as a sign of strength and mental stability, it is paradoxically one of the strongest predictors of poor mental health and suicide risk [1, 9, 16, 18]; thus, industries that value self-reliance are often at heightened risk. Attitudes and beliefs like “I can solve my own problems” and “others do not need to worry about me” are often a major barrier to seeking support from family, peers, or professionals.

Thus, it is not surprising that occupations that are male-dominated and value stoicism and traditional masculine norms like construction and extraction have the highest rates (53.2/100,000 for men in the United States) of suicide. In fact, in one US study looking at suicide and occupation [24], 20% of the male suicide decedents from 17 states were in the construction/extraction industry. The study went on to suggest that tailored suicide prevention approaches would be needed for these types of industries – both efforts related to promoting early identification and help-seeking and improving working conditions.

An Australian study [21] found that proximal risks to the construction workers' suicide deaths included a transition in work experiences, a workplace injury resulting in pain or disability, and financial issues. The study also found that the decedent often disclosed to coworkers about suicide plans prior to death, indicating that peer support could be a life-saving intervention.

Some other industries also have unique risk factors, such as access to lethal means among law enforcement and exposure to trauma in protective services and some health services. For instance, the workplace suicide rate (suicide at the worksite) for protective service is 3.5 times greater than the overall US worker rate; 84% of these

suicide deaths involved firearms [29]. Female physicians' suicide deaths are 130% percent higher compared to females in other professions; male physicians' risk of suicide is 40% higher than males in other professions [25]. Like with law enforcement, this disparity may result in part from greater knowledge of lethality of drugs and easy access to means. Veterinarians also have suicide rates that are significantly higher than the general population [30], and some speculate this is in part due to their unique role in euthanizing animals, thereby increasing their exposure and reducing their fearlessness to death.

Another international study [15] found that agricultural, forestry, and fishing workers had higher risk and speculated that in addition to having the trait of high self-reliance, these workers were also socially isolated. These workers experienced highly physically demanding work (possibly resulting in acute and chronic pain), excessive work hours, and exposure to toxic/potentially lethal substances (i.e., pesticides). Finally, they were often at the whim of weather or economic disruption that impacted their ability to sustain profitable enterprises.

In summary, the issue of suicide and the workplace is complicated and nuanced. The only way to truly address these issues with integrity and sustained purpose is to use a system-wide, broad-based, and comprehensive approach. Employers and professional associations must be educated to see the benefits of addressing these issues comprehensively, with tools, resources, and training that support this continuous broad-based approach. Fortunately, the United States can learn from other nations who have already been building guidelines for workplace suicide prevention.

Global Models of Workplace Suicide Prevention Guidelines

Canada. Canada has had a "National Standard of Canada for Psychological Health and Safety in the Workplace" since 2013 [17]. The National Standard of Canada on Psychological Health and Safety in the Workplace (the Standard) was sponsored by the Mental Health Commission of Canada (MHCC) and project managed by the Canadian Standards Association. Its broad scope addresses cultural change through evaluation and implementation related to 13 psychological risk areas using a psychological health and safety management system which addresses issues upstream, midstream and downstream. In the first 4 years, there were over 25,000 downloads.

Australia. In Australia in 2014, suicide prevention was the focus of a position statement created by the Suicide Prevention Australia, a nongovernmental organization. The position states made the business and social case for addressing suicide prevention in the workplace, with midstream and downstream directives presented. Later the National Mental Health Commission and the Mentally Healthy Workplace Alliance [23] reviewed the research and identified six key areas [22] and strategies for creating mentally healthy workplaces:

- Smarter Work Design: More flexibility, greater individual and team input into decision-making, harm and hazard reduction

- **Build Resilience:** Training on stress management for high-risk jobs using evidence-based approaches, increasing physical activity, and providing opportunities for mentoring and coaching
- **Support Recovery:** Helping employees reintegrate and get support during and after stressful life events and challenges with mental illness, having generous sick leave and accommodations
- **Build Better Work Culture:** Senior leadership engagement, mental health education, zero tolerance for bullying or discrimination, a climate of safety, mental health education, and change management that has open and realistic communication
- **Early Intervention:** Well-being checks, ability to seek help easily and early, evidence-based training for providers, opportunities for peer support
- **Increase awareness:** Promoting mental health resources, trainings, and programs, participating in community and national events and campaigns.

The 2020 Workforce Strategy Policy Position Statement of Suicide Prevention Australia goes on to recommend three incremental strategies to strengthen the workforce: (1) industry-specific peer support, (2) training community connectors or ‘gatekeepers, and (3) to become enrolled in the national alliance of business groups, unions, or community organizations who are implementing suicide prevention best practices.

The well-established Australian program called MATES in Construction sets the gold standard for developing an evidence base supporting its effectiveness. The program is a large-scale multicomponent suicide prevention program for construction workers, which began in Queensland in February 2008 under the leadership of Jorgen Gullestrup. In addition to ROI studies [6], the program demonstrated that a one-hour general awareness training that highlighted an understanding of suicide and mental health, offered support, and encouraged help-seeking/help-giving resulted in significant positive shifts in attitudes [14].

United States. After almost a decade of research and development, in 2019 the National Guidelines for Workplace Suicide Prevention were launched through a collaborative effort among the American Foundation for Suicide Prevention and the United Suicide Survivors International. The Guidelines evolve within an interactive community of practice found at www.WorkplaceSuicidePrevention.com. Here, employers and professional associations become “pledge partners” and take action steps to become suicide-informed.

Within the National Guidelines are eight Guiding Principles, Values, and Assumptions designed to help workplaces and professional associations build a comprehensive and sustained strategy.

1. *Strategic Integration:* Workplaces are a uniquely positioned and necessary part of a larger public health approach to suicide prevention, and as such they can systemically embed suicide prevention within health and safety priorities.
2. *Comprehensive and Sustained Investment:* “Upstream, midstream and downstream” approaches are all important and require adequate investment of time and financial resources.

3. *Harm Reduction*: Workplaces owe employees a safe and healthy work environment and can strive to decrease the harmful exposures and psychosocial hazards that increase the risk of suicide.
4. *Culture Cultivation*: Workplaces can offer protection from suicide by cultivating connectedness and healthy and caring community that looks out for one another. Leaders drive this culture by recognizing and rewarding these values.
5. *Dignity Protection*: Workplaces can prevent despair and promote healing by fighting against bullying, harassment, discrimination, and prejudice and can uphold dignity with collaborative and respectful reintegration.
6. *Well-being Promotion*: In suicide prevention it's not good enough to focus on pulling people back from the brink; workplaces also contribute to enhanced hope, purpose, and identity that gives people reasons for living and provides a pivotal role in recovery.
7. *Empowered Connection*: Workplaces can provide or connect to accessible and effective treatment and peer support services and can prepare employees to help compassionately link people to care.
8. *Action Orientation*: Awareness is necessary but not sufficient for change. Workplaces must engage in action through policy, training, and other tactics listed throughout the report.

The goal of the National Guidelines for Workplace Suicide Prevention is to increase mental wellness and resiliency and reduce the incidence of and the disruptive and potentially lethal consequences of toxic job strain and undertreated mental health concerns through a focus on:

- *Upstream: Build Protective Factors*: to prevent the problems from happening in the first place by promoting life skills, community, and mental health/suicide prevention literacy
- *Midstream: Early and Effective intervention*: to identify problems early in the course of their development, correct environmental hazards, and connect people who are suffering to qualified supports efficiently
- *Downstream: Safe and Compassionate Responses to the Aftermath of Mental Health and Suicide Crises*: to follow best practice guidelines to reduce the impact of suicide, suicide attempts, and other mental health crises while promoting dignity and empowerment for all impacted.

The National Guidelines offers a comprehensive and action-oriented approach to suicide prevention and postvention and is organized around nine practices – three upstream, three midstream, and three downstream.

Upstream

1. *Leadership: Cultivate a Caring Culture Focused on Community Well-Being*: Create a healthy and caring community and foster genuine community support

and a sense of belonging. Engage leadership around a mindset that mental health and suicide prevention are important pieces of the overall health and safety concerns of the community.

2. *Assess and Address Job Strain and Toxic Work Contributors*: Reduce certain environmental aspects of job strain, burnout, stress, trauma, and life disruption that impact negatively employee vibrancy.
3. *Communication: Increase Awareness of Understanding Suicide and Reduce Fear*: “Bake in” messaging around suicide prevention, mental health promotion, and resilience wherever health and safety messaging is happening. Share stories of recovery, resilience, making-meaning, and support to create a more powerful tale and humanize the issues.

Midstream

4. *Self-Care Orientation: Self-Screening and Stress/Crisis Inoculation Planning*: Help people self-detect emerging suicidal thoughts or mental health concerns (e.g., depression, anxiety, anger, and substance use issues) early in the development of these problems and link people to helpful resources and supports. Teach people to plan for crisis before they are in crisis.
5. *Training: Build a Stratified Suicide Prevention Response Program*: Offer a tiered approach to training that builds skills and confidence at different levels of intensity. Develop specialized training by role for people in a position to offer advanced intervention (e.g., managers or human resources). Provide ongoing training on skills like emotional regulation, conflict resolution, stress management, communication skills, financial planning, goal setting, etc.
6. *Peer Support and Well-Being Ambassadors – Informal and Formal Initiatives*: Enroll peers, ombudsmen, and ambassadors to increase awareness of and comfort with mental health and suicide prevention resources, improve positive coworker assistance, and normalize help-seeking and help-giving behavior with an emphasis on least restrictive peer support, collaboration, and empowerment.

Downstream

7. *Mental Health and Crisis Resources: Evaluate and Promote*: Provide highly trustworthy mental health services well-versed in state-of-the-art suicide risk formulation, management, and support and a range of evidence-informed treatment options. Promote these resources through multiple distribution channels frequently over time.
8. *Mitigating Risk – Access to Lethal Means and Legal Issues*: When potential for suicide is high, collaborative negotiate reduced access to guns, pills, and other suicide means, especially if accessible through job duties. Address workplace legal concerns with issues like privacy, liability, and others.

9. *Crisis Response – Accommodation, Reintegration, and Postvention*: Follow crisis management procedures and longer-term support in the aftermath of a suicide or mental health crisis [2].

To date upwards of 1000 workplaces and professional associations have pledged to make suicide prevention a health and safety priority at work. In September 2020, the Guidelines partners launched a “badge” program where organizations are recognized and rewarded for completing initial action steps within the nine practices.

Conclusion

While we have known that the workplace is a factor in suicide risk and protection for centuries, only recently have we begun to intentionally leverage workplaces as a system for suicide prevention and crisis response. The global effort for workplace suicide prevention is gaining momentum with many countries developing national standards, guidelines, and position statements. What is needed goes beyond a one-off training or awareness day – proactive workplaces and professional associations realize that a comprehensive and sustained strategy is essential (see Logic Model in “[Appendix](#)”).

In essence more workplace leaders are realizing it is time to “Be vocal, be visible, be visionary. There is no shame in stepping forward, but there is great risk in holding back and just hoping for the best” [28].

Appendix

Inputs	Potential Outputs	Potential Process Data	Short-Term Change (6 months–1 year)	Long-Term Change (1 year + with refreshers in training and communication)
Investment of time Investment of money Comprehensive strategy	Needs and Strengths Assessment Strategy linked to mission/vision Policy reviewed On-going Communication plan Support resources list vetted and promoted Support Network	Numbers of people trained/reached Number using counseling and health services (for MH) Number involved in Support Network Demographics of participants Immediate Outcomes Program satisfaction Awareness of and	Program content spread (how many people told) Change in Attitudes Confidence Stigma (self and public) about suicide, mental health of help-seeking Hope Cultural perception of suffering vs. care and resilience	Elimination of barriers to support Increase in help-giving Increase in help-seeking Decrease in despair Decreased isolation Increased coping Increased successful reintegration after suicide

(continued)

Inputs	Potential Outputs	Potential Process Data	Short-Term Change (6 months–1 year)	Long-Term Change (1 year + with refreshers in training and communication)
	Stratified training program Screening program Suicide Crisis Management Plan (safety agreements)	confidence in resources Self-Efficacy/Competence Ability to identify people with emerging concerns How to approach someone who might be suicidal How to negotiate reducing access to lethal means Identification in gaps in supports	Change in Knowledge Resources How to access support Warning signs and risk factors Making home safer from suicide Change in Behaviors Peer care gatekeeper skills improved Increased help-giving and help-seeking Other Resources improved and more accessible	crisis Decreased plans for suicide Decreased Suicide attempts & near misses Decreased Suicide death

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Suicide Risk Among Psychiatric Patients

28

Erkki Isometsä

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Abstract

Severe mental disorders have a central role as a risk factor for suicide and as targets of prevention. In psychological autopsy studies, between one-half and two-thirds of suicide have suffered from unipolar or bipolar mood disorders, and a significant minority of subjects have been psychotic at time of death.

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Representative national register-based studies have found about 40% of all suicides to be by people who have at some point in their lives been psychiatric inpatients. A meta-analysis found about 4% of all suicide to occur during psychiatric hospitalization, but 18% to have been inpatients during the preceding year. Vast national diagnosis-specific register-based cohort studies show about 2–8% of inpatients with unipolar depression, bipolar disorder, or schizophrenia to have died by suicide. However, such estimates do not necessarily generalize to outpatients, depend on time and context, and may vary over time. In all the three patient groups, incidence of suicide has been shown to be extraordinarily (standardized mortality ratios exceeding 100) high during the first week of psychiatric admission or first week after hospital discharge, declining steeply thereafter. Of all risk factors for suicide deaths, preceding suicide attempts, male gender and comorbid substance use disorders are the most consistent.

Keywords

Suicide · Schizophrenia · Bipolar disorder · Depression · Psychiatric

Introduction

Suicide is an important cause of death, and in the Global Burden of Disease (GBD) Study, about 1.5% of all deaths worldwide in 2016 were by suicide [1]. Thus, annually worldwide almost 800,000 people take their own lives. Factors underlying suicides are complex, with multiple relevant domains of risk factors, and many valid perspectives for both scientific explanation and prevention. Suicide deaths form only the tip of an iceberg; for every suicide death, there are approximately 20–30-fold numbers of nonfatal suicide attempts, for any attempt, a 5–10-fold number of those with serious suicidal ideas and plans. Although the global suicide mortality has declined by a third between 1990 and 2016, the total numbers of suicides are still increasing due to population growth [1].

Severe mental disorders are central for suicide prevention. According to numerous psychological autopsy studies [2, 3], particularly to those in European and North American settings, almost all (~90%) subjects have suffered from some – usually multiple – mental disorders at time of death. Of all completed suicides in high-income countries, one-half to two-thirds are by people who have suffered from mood disorders, a significant minority from psychotic disorders, and up to one-half from substance use disorders, most commonly of alcoholism or polysubstance abuse. Findings from low- and middle-income countries (LMIC) are broadly similar, but proportion of subjects with mental disorders is highly variable and often lower [4]. Controlled psychological autopsy studies find 4–14-fold suicide risk for subjects with mood disorder [5]. Moreover, a recent national Danish study [6] found 41% of all suicides in Denmark to be subjects who have been psychiatric inpatients at some point in their lives. A systematic review found one-quarter of suicides having been in contact with mental health services during the year preceding suicide [7]. Thus,

prevention of suicides by subjects suffering from severe mood or psychotic disorders is a key issue for suicide prevention overall [8, 9] and therefore comprises the main foci of this review.

Monitoring suicide mortality, knowledge of risk factors for suicide, and provision of adequate treatment for patients with these disorders are central tasks. As suicides tend to cluster on the more severe mental disorders and psychiatric care is the setting where these are treated, role of psychiatric settings is central for suicide prevention. Given limited space, I will focus on three central patient groups, those with depression, bipolar disorder or schizophrenia, and findings pertaining suicide deaths rather than nonfatal attempts. According to a recent meta-analysis [10], pooled suicide rate for people with these serious mental disorders was estimated at 313 (95% c.i. 230–407) per 10^5 person-years in 41 studies published worldwide. Thus, it is order of magnitude higher (28-fold) compared with the global general suicide mortality estimated at 11.1 per 10^5 by the GBD study [1].

Although risk factors for nonfatal suicidal behavior and suicide deaths overall have been vastly investigated, diagnosis-specific rate and risk factors of suicide deaths are less well known. Suicides are rare events, and investigating their illness-specific rates and risk factors necessitates massive patient samples. Advances have been made in the knowledge of risk factors for suicide, and this information has been condensed into risk estimates in important meta-analyses [11–13]. However, due to limitations of the samples available, uncertainty of importance remains for many important risk factors. Research on nonfatal suicidal acts can form an important proxy for studies of suicide deaths and complement view of significant risk factors, but studies of suicide deaths are needed for confirming generalizability of findings between the populations. Therefore, national-level or other representative large-scale studies are necessary for research on risk factors for suicide in severe mental disorders.

Case Definition: Who Is a Psychiatric Patient?

As this review concerns suicide rates and risk factors among psychiatric patients, it is essential to note about importance of case definition. Although defining who is a psychiatric patient may appear self-evident, it is not. The populations included under the rubric may differ markedly. First, the way health care is organized and funded varies widely, as well as density and availability of psychiatrists, or important aspects of legislation. Psychiatric services may be organized as part of national public health care services or as health-insurance-based private services, and public and private services commonly coexist. Private services may or may not be included into the available registers. Therefore, the characteristics of populations served and availability of meaningful data can be highly variable. Second, there are important national secular trends related to deinstitutionalization, expansion of outpatient services, and treatments available. Therefore, temporal context of study matters. Third, clinical epidemiology differs significantly between severe and common mental disorders. While in most countries subjects with schizophrenia or other

psychoses are treated in public sector psychiatric settings, the majority of those with depression are commonly treated in primary health care, and those in psychiatric care represent a subgroup. Fourth, populations of psychiatric patients may include either in- or outpatients or both, and either only those currently receiving care, or subjects who have sometimes received psychiatric services. In particular, major national register-based suicide studies typically include cohorts of inpatients followed-up for years or decades, and information on their current treatment setting, if any, is usually missing. Therefore, it is important to be explicit about settings, definitions, and characteristics, and consider their role in differences of outcomes. Generalizability of findings related to incidence and prevalence of endpoints, or predictive values of risk indicators from one setting to another, remains somewhat uncertain.

Studies on rate and risk factors for suicide deaths necessitate vast patient cohorts. Literature on these unavoidably relies on settings, from which such data is available. For example, due to availability of extensive health care and other population registers plus a personal identification number allowing record linkages in the Nordic countries – Denmark, Finland, Iceland, Norway, and Sweden – vast national-level studies of suicides in mood or psychotic disorders are feasible [14]. Such studies can provide relatively unbiased, generalizable information on suicide rates and risk factors relative to the general population. Overall, the available literature comprises mostly Western European and North American studies. Systematic reviews and meta-analyses effectively condense the available worldwide data and will be reviewed below.

Suicides in Psychiatric Hospitals

Patients are commonly referred to psychiatric hospitals, often involuntarily, in order to protect them from their self-destructive intentions. Thus, hospitalized patients are a highly selected group of subjects with often immediate risk of suicide, and concurrently suffering from illness episodes of severe mood or psychotic disorders. While suicide prevention is a central task during a hospitalization, suicide mortality in psychiatric hospitals has been remained during the last few decades. In part, this is due to deinstitutionalization, which has been a worldwide trend since the 1980s and resulted in a smaller number of hospital beds and shorter hospital stays, even though wide variations in these exist. Thus, the threshold for hospitalization has become higher, and as a group, the patients and their conditions have become more severe. This is a likely explanation for the fact that overall incidence suicides in psychiatric hospitals have not generally declined, despite preventive efforts. A meta-analysis [7] shows about 4% of all suicide to occur during psychiatric hospitalization, but 18% to have been inpatients during the preceding year. Thus, from a perspective of prevention, even more important than the role of inpatient suicides is the significance of recent discharge as an indicator of a patient belonging to a group of individuals with very high risk.

A recent Danish national inpatient suicide study [6] of the years 1995–2016 investigated suicides during and after psychiatric hospitalization. It found the incidence during the first week of admission to be extremely high and comparable to the known high-risk period of the first week after discharge (Fig. 1). The by far highest first-week incidence was among males with depression, the second among males with anxiety and stress disorders. The first-week incidence was lower but still remarkably high for females of the respective diagnostic groups, or those with schizophrenia spectrum disorders or bipolar disorder, of whom a great proportion are hospitalized for mania involving lower risk than depressive or mixed episodes. The rate of suicides declined markedly after the first week, mostly approaching outpatient rates over time.

Risk factors for hospital suicides can be reasonably expected to be the same as for suicides overall, but with some specific features. A meta-analysis of risk factors for suicides during psychiatric hospitalization [15] found a history of deliberate self-harm, hopelessness, feelings of guilty or inadequacy, depressed mood, suicidal ideas, and a family history of suicide-significant risk factors. Patient categorizations according to their estimated risk were found to be associated with very high risk, but positive predictive value of high-risk status nevertheless remained low.

A central preventive issue is controlling availability of lethal means in the hospital environment, e.g., eliminating possibilities of hanging or jumping. Whether or not locking psychiatric wards for safety is necessary is major policy issue. A vast German observational study [16] found no difference in risk of suicide death between locked or unlocked wards. However, this may depend on and vary by setting. A common finding is that at least 40% of hospital suicides occur during approved or unapproved leaves from the hospital [17]. Hospital staff is in a difficult position in trying to evaluate, when a patient's condition allows temporary leave from the hospital. It is further complicated by lack of last visit or last day communication of suicidal intent, which has been shown to be a common occurrence in cases of suicide in psychological autopsy studies [18]. Suicides may also be triggered by unanticipated negative events occurring during the leaves in home environment, risk of which remains unavoidable.

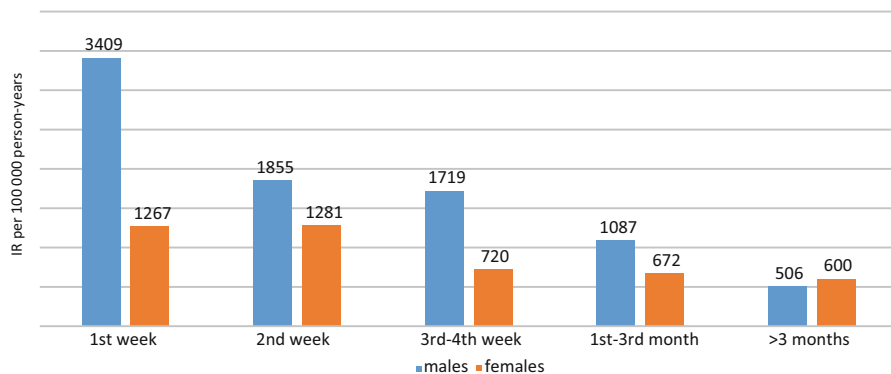


Fig. 1 Incidence Rates of Suicides During Psychiatric Hospitalization in Denmark 1995–2016. (From Ref. [6])

Suicide risk is well known to be extraordinarily high immediately after discharge from psychiatric hospital, and then gradually decline over time (Fig. 2). Overall, incidences during the first weeks after admission or first week after discharge are comparable [6, 19]. In a recent meta-analysis, the pooled estimate for suicide rate during the first postdischarge week was 2950 per 10^5 person years, and 2060 during the first month [19]. Due to differences between diagnostic groups, research findings are reviewed by diagnosis in the following paragraphs.

Suicides Among Depressive Patients

Suicide Deaths in Unipolar Depression

Early estimates for accumulating suicide mortality in major mood disorders were as high as 19% [20]. However, there were significant limitations both in the available data as well as methodology, and the high estimates are incompatible with prevalence estimates of depression in the general population. Already 20 years ago, researchers suggested [21] an epidemiologically conceivable gradient of lifetime suicide risk (case fatality prevalence) from general population 0.5% to 8.6% among suicidal psychiatric inpatients. Nevertheless, scarcity of representative contemporary diagnosis-specific data is a major problem, despite a great need for monitoring rates of suicide in these central patient groups.

Several Nordic national studies have reported on rate and risk of suicide in unipolar depression [22]. They have found between 2% and 8% of psychiatric inpatients with depression to have died by suicide between the 1970s and early 2010s. Of these national studies, the Danish study by Nordentoft et al. [23] was the most long term (median follow-up 18 years), following all subjects treated in a psychiatric hospital or as outpatients in Denmark [23]. It found lifetime risk for men with depressive disorders 6.7% and for females 3.8%. In the longest clinical follow-up study reported thus far, Angst et al. [24] found 11.1% of Swiss inpatients with mood disorders treated in the late 1950s to early 1960s to have committed suicide in 40–44 years. All such estimates unavoidably reflect treatments available during the past decades, not outcomes of patients treated in current settings. As an important demonstration of marked temporal trends in suicide mortality of psychiatric patients, a recent Finnish national study [25] demonstrated decline of hazard ratio for suicide to 0.48, i.e., halving of risk among depressive inpatients between 1991 and 2014. Thus, all mortality estimates are bound to their societal and temporal context, and they can and they do change over time.

Temporal Variations in Suicide Risk During Hospitalization and After Hospital Discharge

According to a recent meta-analysis [10], pooled suicide rate for people with major depressive disorder was estimated at 534 per 10^5 person-years. However, the estimate was based on only four studies and represents averaged incidences of

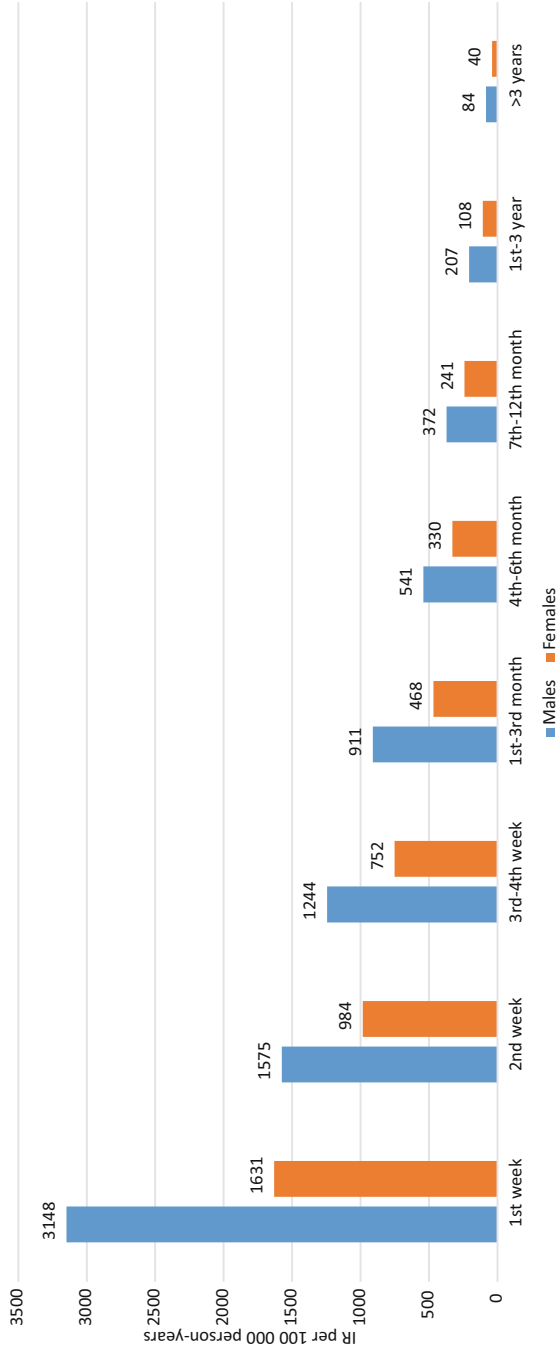


Fig. 2 Incidence rates of suicides after discharge from a psychiatric hospital in Denmark 1995–2016. (From Ref. [6])

suicide in studies with variable durations of follow-up. Suicide rates among patients with depression vary markedly depending on type of subgroup, treatment setting, and phase of treatment.

Besides psychotic features and functional incapacity, imminent risk of suicide is a key indication for psychiatric hospitalization among subjects with depression. Despite all preventive efforts in hospitals, within this high-risk group and during such a high-risk period, incidence of suicide is remarkably high. In the Danish national study by Madsen et al. [6], the highest first-week incidence (5713 per 10^5 person-years) was among males with depression, and it was remarkably high also for depressive females (1710 per 10^5 person-years), remaining somewhat lower but still high throughout the hospital period.

The transition from protected hospital environment back to home and community is for long known to involve extraordinarily high risk, particularly immediately after the discharge. During this period, the suicide rates have a strong relationship to time elapsed since discharge, and these findings hold worldwide [26]. In the Danish national study [6], incidence of suicide was extremely high during the first week (4554 per 10^5 person-years among males and 2197 per 10^5 person-years among females), exceeding the rates of latter part of hospitalization (males) or hospital period overall (females). The rates declined over time, remaining exceedingly high during the first 3 months, and still high during the whole first year. In a Swedish national study from 1973 through 2009 [27], suicide rate among depressive inpatients in the first month after discharge was 3600 per 10^5 patient-years. Several other national Nordic studies have made similar findings, although with less accurate temporal resolution [22]. The relative risk of suicide among depressive inpatients has been consistently found extremely high ($\text{SMR} > 100$) during the first weeks postdischarge, declining then over time to approximately SMR of five after 5 years of the last hospitalization [6, 22].

Although the postdischarge treatment phase is a well-known period of high risk of suicide across diagnostic groups, the documented role of illness factors needs to be noted. Haglund et al. [27] found marked differences in rates between diagnostic groups. After the immediate postdischarge weeks, suicide risk generally steeply declines over time, typically reaching a level of about fivefold suicide mortality when over 5 years has passed after the last hospitalization [20]. These temporal patterns are important for suicide prevention. There is a time window of very high risk to which preventive efforts need to be focused. However, it is somewhat surprising that, despite this well-known high-risk period and availability of large-scale data, short-term risk factors during this period have remained relatively little studied, with few consistent useful findings [28] beyond preceding history of suicide attempts being an important indicator of risk.

Risk Factors for Suicide Among Subjects with Depression

Information on risk factors for suicide death among patients with depression is relatively limited. The register-based Danish national longitudinal study [23] found male gender, history of a suicide attempt, and comorbid substance use disorder all associated with higher risk of completed suicide in unipolar mood

disorders. Prospective clinical cohort studies of patients with mood disorders have found risk factors for completed suicide to include male gender, family history of suicide, previous suicide attempts, hopelessness, suicidal ideation, psychotic symptoms, comorbid personality disorders, alcohol dependence or misuse, and anxiety disorders. A systematic review by Hawton et al. [11] confirmed the role of these risk factors, except psychotic symptoms and suicidal ideation not reaching statistical significance. The Nordic national studies reporting on risk factors for suicide [22] consistently found male gender, preceding suicide attempts, high severity of depression, and substance abuse risk factors for depression in long term. Aaltonen et al. [29] in Finland investigated also gender differences in 13 risk factors, finding only small differences in them, but major differences in lethal methods used. A Danish study [30] focused on psychotic versus severe nonpsychotic depressions, finding no excess risk due to psychotic symptoms per se.

Some psychological autopsy studies have specifically focused or reported on suicides with mood disorders, and largely concordant findings [31]. Almost all suicides with major depression have significant psychiatric or somatopsychiatric comorbidity. Of specific comorbid disorders, particularly substance use disorders and borderline personality disorders are prevalent. Impulsive-aggressive are important risk factors among suicides among young adults, particularly males, whereas the role of concurrent physical illness is more important among the middle-aged or elderly. Adverse life events, particularly losses, are the typical psychosocial context of suicide. Multiple stressors, some perhaps precipitating mood episodes, others more likely triggering the act, appear common among suicides by subjects with mood disorders [31].

Prevention of Suicides Among Depressive Psychiatric Patients

In most countries, psychiatric facilities are responsible for the severity of depressive disorders, typically of moderate, severe, and psychotic depressions. Therefore, emphasis in their treatment is relatively more in biological treatments rather than psychotherapeutic interventions, as in milder depressions. Although there are effective treatments for depression and they are plausible means of suicide prevention, there is little if any direct evidence for that. These questions are central for suicide prevention in severe mental disorders. In Finland, suicide mortality of inpatients with depression has halved from the 1990s to the 2010s [23]. Whether or not this has to do with improvements in care remains unknown.

Suicides Among Patients with Type I or II Bipolar Disorder

Suicide Deaths in Bipolar Disorder

Rates and risk factors for suicides and suicide attempts among patients with bipolar disorder have been systematically reviewed by the ISBD Task Force for suicide prevention in 2015 [12, 32]. The reported incidences varied markedly but were on average 164 (95% c.i. 5–324) per 10⁵ person-years, and risk was 1.7-fold among

males [32]. According to a more recent meta-analysis [10], pooled suicide rate for people with bipolar disorder, based on 16 studies, was estimated at 237 per 10^5 (95% c.i. 160–329). Also according to this meta-analysis, risk of suicide was twofold (relative risk 1.88) among males compared to females.

Several Nordic national studies have reported on accumulating lifetime incidence of suicide in bipolar disorder. In general, these studies found 4–8% of their bipolar patients having died by suicide [20]. However, all these studies reflect suicide mortality almost exclusively of inpatients and mostly in the past decades from 1970s to 1990s onward. In all the Nordic countries, suicide mortality has markedly declined since the 1990s, and whether or not these estimates from different treatment eras reflect current realities remains open. For example, an outpatient study based on the national Swedish quality register [33] found significantly lower suicide mortality in 2004–2014 among the bipolar patients included, 1.14% among males and 0.44% among females during a median follow-up of 3.8 years. Thus, accumulating suicide mortality may be lower in out- than inpatient settings, and currently than during the preceding decades. None of the studies has been able to examine possible differences between type I or II patients in rates of suicide deaths. The ISBD Task Force meta-analysis found no difference between these subtypes in rate of suicide attempts [12, 32].

Rate of suicides is very strongly related to phase of illness and treatment. Incidence of suicide in the first weeks after discharge from a psychiatric hospital has been consistently found to be very high, even over hundred times that of the general population. In the Swedish national study from 1973 through 2009 by Haglund et al. [27], suicide rate in the first month after discharge was among bipolar inpatients 1740 per 10^5 patient-years. In the Danish national study [6], incidence of suicide during the first postdischarge week was 2338 per 10^5 patient-years among male and 1434 among female bipolar patients, declining steeply thereafter as among inpatients with depression. Findings from Finland [34] are broadly similar, and the Nordic findings in accordance with the broader international literature [19]. Although the postdischarge treatment phase is a well-known period of high risk of suicide across diagnostic groups, the documented role of illness factors needs to be noted. Isometsä et al. [32] found marked differences in temporal patterns of risk between hospitalizations for different types of index episodes among bipolar patients, the risk being highest among those hospitalized for a depressive episode, and among those who had recently attempted suicide. After the immediate postdischarge weeks, suicide risk generally steeply declined over time. Like in unipolar depression, short-term risk factors during this period have remained little investigated. However, preceding suicide attempts are a strong indicator of severalfold risk during the postdischarge period [34].

Risk Factors for Suicide in Bipolar Disorder

In the ISBD Task Force meta-analysis of risk factors for suicide in bipolar disorder [11], only male gender and positive family history for suicide were found significant risk factors for suicide in bipolar disorder. Three national Nordic studies [21, 31, 32]

found male gender, preceding suicide attempts, and hospitalization for depressive and mixed episodes to associate with risk. In addition, the Swedish quality register study [33] found male gender, living alone, criminal conviction, previous year depressive episodes, psychiatric comorbidity (substance abuse, anxiety, or personality disorders), and severity indicators of psychiatric history (inpatient treatment, involuntary commitment) as risk factors for suicide.

Longitudinal clinical studies [12, 32, 35] of patients with bipolar disorder have demonstrated the importance of illness course for risk of suicidal acts. Suicide attempts cluster into depressive and mixed illness episodes. They are also associated with anxiety, substance use, and borderline personality disorder comorbidity.

Role of Lithium Treatment in Suicide Prevention

Numerous observational studies and a limited number of randomized treatment trials suggest long-term lithium treatment to reduce suicide rates. Whether or not lithium reduces risk more than other evidence-based treatments still remains somewhat uncertain [32, 36]. While the reduced suicide rate among those receiving lithium in long term has been amply documented and is highly consistent, the role of various underlying factors still remains unclear. As lithium is toxic in overdose and necessitates adherence to laboratory monitoring, patients for whom it is prescribed probably are a selected subgroup of patients able to comply with such a regimen. There are also quite few major randomized studies comparing lithium with alternative treatments, and observational comparisons suffer from unknown degree of confounding by indication, which can only in part be controlled by statistical methods.

Suicides Among Patients with Schizophrenia

Suicide risk in schizophrenia is as high as in the major mood disorders. According to a recent meta-analysis [10], pooled suicide rate for people with schizophrenia, based on 16 studies, was estimated at 352 (95% c.i. 239–486) per 10^5 person-years. According to this meta-analysis, risk of suicide is twofold (relative risk 2.01) among males compared to females. The lifetime risk of suicide death in patients with schizophrenia is commonly estimated at about 5% [37]. It is also important to note that in many countries like Denmark [38] and Finland [39] suicide mortality of subjects with schizophrenia has declined along with overall suicide mortality. In Finland, during the 30 years between the years 1984 and 2014, standardized mortality ratio for suicides among patients with schizophrenia declined about 40% [39].

However, like in the other severe mental disorders, suicide risk remains remarkably high during hospitalizations and immediately after discharge, particularly during the first weeks. In the Danish national study of inpatient suicides, incidence of suicide per 10^5 patient years was 1666 among males and 864 among females with schizophrenia spectrum disorders [6], declining only after the first month. A similar period of extreme risk is the first post discharge week, during which the incidences are 1809 and 1246, respectively, declining then gradually over time.

A comprehensive meta-analysis [13] examining risk factors associated with suicide death and other suicidal behavior in subjects with schizophrenia found being male, history of attempted suicide, younger age, higher intelligence quotient, poor adherence to treatment, and hopelessness ($P < 0.0001$) to be most consistently associated with suicide. These findings were broadly consistent with findings of an earlier meta-analysis of risk factors for suicide in schizophrenia [40], which also found previous suicide attempts and depressive symptoms of importance. Other clinical risk factors, such as positive and negative symptoms, seemed to be of less importance. However, a recent Nordic study [41] verified importance of comorbid substance use disorders, particularly of multiple substances, for increasing both suicide and overall mortality. Overall, suicides among subjects with schizophrenia seem clustered into young patients facing severe losses due to their incapacitating illness, and a distressing course of illness with multiple acute psychotic recurrences [13, 42], often complicated by substance use.

Suicides in schizophrenia are commonly described as unanticipated. However, suicides in schizophrenia differ little from the other, in terms of preceding communication of intent, but are reportedly less often preceded by presence of precipitating adversity [17, 43, 44].

Does Clozapine Treatment Prevent Suicides Among Subjects with Schizophrenia?

An important consideration also in schizophrenia is the possible preventive role of treatment. Continuous clozapine treatment of schizophrenia patients has been associated with a significantly lower long-term all-cause mortality rate compared to other antipsychotic use. A Nordic register-based study [45] investigated the comparative effectiveness of antipsychotics for the risk of attempted or completed suicide among representative cohorts of patients with schizophrenia in Finland ($n = 61,889$) and Sweden ($n = 29,823$). Compared with no use of antipsychotics, clozapine use was the only antipsychotic consistently associated with a decreased risk of suicidal outcomes. Hazard ratios (HRs) and 95% CIs for attempted or completed suicide were 0.64 in the Finnish cohort and 0.66 in the Swedish cohort. Clozapine was the only antipsychotic associated with decreased risk of attempted or completed suicide among patients with schizophrenia. Thus, its role in suicide prevention needs to be considered, balancing advantages with the need of laboratory monitoring because of risk of agranulocytosis involved.

Discussion

Overall, findings of the available studies on suicide by subjects with severe mental disorders accord in multiple ways. The lifetime risk of suicides in all the three major disorders – depression, bipolar disorder, or schizophrenia – is in representative inpatient cohort studies in the range of 2–8%. Suicide risk is approximately similar

or somewhat higher among patients with schizophrenia or bipolar disorder, of whom possible differences in mortality between type I or II patients remain unknown (Table 1). There are also concordant extraordinarily strong temporal patterns, as suicides cluster into the weeks immediately after admission into a psychiatric hospital and the immediate postdischarge period. However, suicide mortality estimates have been generally available only for psychiatric inpatients, and only recently have studies with data on outpatients emerged. The proportion of psychiatric patients treated exclusively as outpatients varies markedly by diagnosis, forming the vast majority of depressive patients and those with bipolar II disorder, but only a minority of subjects with schizophrenia or type I bipolar disorder. Furthermore, suicide mortality has markedly declined since the 1990s both overall and among psychiatric patients in most but not all countries, nor necessarily in all settings. For many developed countries, large-scale diagnosis-specific data on suicide mortality in severe mental disorders is either not available or not published. An important issue beyond the scope of this review is the overall high mortality and shortened life

Table 1 Summary of main findings of incidence rates and risk factors for suicide death in the three diagnostic groups in psychiatric settings

	Depression	Bipolar disorder	Schizophrenia
Cumulative incidence (95% CI) of suicide death in long-term follow-up ^a	Males 6.67% (5.72–7.78%) Females 3.77% (3.05–4.66%)	Males 7.77% (6.01–10.05%) Females 4.78% (3.48–6.56%)	Males 6.55% (5.85–7.34%) Females 4.91% (4.03–5.98%)
Overall suicide incidence rate (95% CI) per 10 ⁵ person-years ^b	534 (30.4 – 1449)	237 (160–329)	352 (239–486)
Incidence rates per 10 ⁵ patient-years for the first week of inpatient period ^c	Males 5713 Females 1710	Males 2664 Females 855	Males 1666 Females 864
Incidence rate (95% CI) of suicide per 10 ⁵ patient-years during the first month after discharge from a psychiatric hospital ^c	3600 (3390–3800)	1740 (1470–2040)	1470 (1310–1650)
Risk factors for suicide death	Male gender Previous suicide attempts High severity/psychotic features Hopelessness Comorbid substance use disorders	Male gender Previous suicide attempts Family history of suicide Depressive/mixed episodes Comorbid substance use disorders	Male gender Previous suicide attempts Young age Hopelessness Poor adherence Comorbid substance use disorders

^a In Denmark, from Ref. [23]

^b From Ref. [10]

^c In Denmark, from Ref. [6], schizophrenia group includes schizophrenia spectrum

^d In Sweden, from Ref. [27], converted to incidence rate per 10⁵ person-years

expectancy of subjects with severe mental disorders [46], which also calls for preventive action.

Role of Gender

Suicide mortality is overall markedly higher among males than females [1]. However, the role of gender as a risk factor in psychiatric settings appears less robust than in the general population. The comprehensive meta-analysis of 100 studies of postdischarge suicides by Chung et al. [26] found no marked gender difference. In contrast, the diagnosis-specific studies reviewed [11–13] consistently reported about twofold risk among males. The reason for this discrepancy remains unclear.

In studies of depression, long-term risk of suicide was found higher among males than females, those with preceding suicide attempts, high severity of depression at outset of illness, or concurrent substance abuse at baseline. Although there are few studies investigating risk factors specifically for suicide deaths in bipolar disorder, the risk is consistently about twofold among males. The Finnish national study by Aaltonen et al. [29] was the largest of the depression studies and was large enough to compare potency and prevalence of 13 risk factors between genders. The observed gender differences were found unremarkable, whereas differences in lethal methods were marked, making them the likely explanation for the higher male suicide mortality in mood disorders. The gender difference has been found about twofold also among patients with schizophrenia [13]. Besides differences in choice of lethal methods; in part, this may be explained by higher prevalence of substance use comorbidity among males [36].

Previous Attempts as Indicators of High Risk

A nonfatal suicide attempt is the strongest known indicator of suicide risk. Overall, patients admitted with suicidal ideas or behaviors have about fourfold suicide mortality postdischarge compared with patients admitted for other reasons [28]. Therefore, it is unsurprising that a preceding suicide attempt emerged as a very strong predictor of suicide among patients with mood disorders. The trajectories of higher risk seemed to persist over time. The clinical importance of this highly consistent finding is obvious, as the cumulative incidence of suicides, particularly among males with depression, approached 20% at worst [29]. However, to some extent these findings may be inflated by methodological factors, as information on all lifetime suicide attempts is usually unavailable, and only on those severe enough to result into hospital treatment, or temporally associated with the index hospitalization or the few preceding years is known. Methodological differences between studies in these factors are also likely to explain differences in observed findings. Since use of violent methods at index attempt may involve much higher risk of future suicide death than overdoses [47, 48], future studies should also examine risk based on the method used in the preceding nonfatal attempts.

Role of Illness Severity

Risk of suicide in severe mental disorders is likely related to severity of illness, but this is often difficult to investigate in the large-scale studies reviewed. In longitudinal studies of depression, patients with severe or psychotic illness at index hospitalization have had higher suicide mortality than those with moderate depression [22], and this higher risk appears to persist for years or even decades. This is true even though severity of subsequent episodes or state of illness at the time of death remains unknown. However, psychological autopsy studies of patients with depression generally find suicides to occur at a time when a depressive episode is ongoing, and clinical studies of suicide attempts among depressive patients find suicidal acts to cluster in illness episodes [31]. It is therefore likely, although uncertain, that suicides among inpatients treated earlier for depression occur during depressive episodes. Patients with psychotic features have highest risk for suicide among those with depression, but whether this is due to the higher severity of depressive symptoms overall, or psychotic features per se, remains unclear. Role of psychotic features for suicide risk in bipolar disorders has also remained unclear, in part because they may be present in mania as well as in depression or mixed states, and imprecise reporting does not allow differentiating these situations. Among patients with schizophrenia, the aspects of severity most strongly associated with suicides are early onset and recurrent exacerbations with prominent psychotic and affective symptoms [13].

Limitations of the Available Studies

The studies reviewed in this chapter comprise comprehensive systematic reviews and meta-analyses, plus large-scale, often national register-based studies. Besides obvious strengths, there are important limitations. Most studies reviewed comprise inpatient populations and therefore represent only the most severely ill patient populations. Thus, rates of suicide are likely to be overestimate rates compared with outpatient settings. In most of the longitudinal studies, data on individuals' characteristics is collected from the life situation at the time of study baseline, whereas situation at the time of suicide at the time of death remains unknown. Some paradoxical findings of higher income, education, or being married and employed as predictors for suicide among psychiatric patients longitudinal studies are likely explained by later losses, which remain unknown in studies relying on predictors at intake [42].

The crudeness of register-based data is revealed by comparing it with comprehensive clinical-epidemiological studies based on careful clinical evaluation. For example, the reported rates of psychiatric comorbidity among patients with mood disorders are minimal in register data compared with clinical cohorts based on structured interviews [22, 49]. Since information on longitudinal course of illness after study intake is usually totally missing, the remarkably strong relationship of clinical state, i.e., presence or absence of illness episodes with suicidal acts [35]

remains only indirectly observed from the temporal association of suicides with hospitalizations. Moreover, register-based studies usually cover only a few of the tens of putative risk factors, with few exceptions [25, 33]. Currently available register-based and other large-scale studies are important in providing epidemiologically credible estimates of total suicide risk over time among those most ill, and of some risk factors. However, they do not represent a complete picture of the numerous factors influencing suicide risk.

It is unavoidable that long-term follow-up studies inform about past decades rather than current conditions. However, there is also a significant delay in reporting findings and updating the literature, and a great need to move toward more real-time monitoring. As there have been significant temporal trends in overall suicide mortality in multiple countries, the suicide mortality estimates reported here may exceed current realities. Whether or not suicide rates and the architecture of risk factors have changed over time is an important future research topic.

Future Prospects of Research

Health care records and registers have been undergoing transformation. Quality registers [33] and electronic health care records [33, 50] may contain an order of magnitude of wider source of data, if available for research. This may markedly advance research on suicides. More sophisticated machine learning tools may also be helpful in uncovering patterns related to risk. However, statistical rarity of suicide will remain a challenge also for future studies, and therefore necessitate large scale data in research. It is to be hoped that availability of such data and methods will advance efforts to prevent suicides among patients suffering from severe mental disorders.

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Abstract

Completed suicide is among the leading causes of death worldwide. Globally, it accounts for more annual deaths than natural disasters, violence inflicted by others, war, and conflict combined. High occupational completed suicide rates are often linked to factors such as easy access to a method of suicide, social

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isolation at work, the natural selection of high-risk people to certain occupations, and socioeconomic forces. Physicians and other healthcare workers are considered a high-risk suicide group, and suicide risk seems to be higher for male and female physicians than the general population. Beyond that, the suicide risk appears to be present throughout the entire medical career. The aim of this chapter is to review the epidemiology of suicidality in physicians, risk factors related to suicidal behavior in physicians, suicide risk assessment, and suicide prevention.

Keywords

Physicians · Doctors · Suicide · Suicidality · Epidemiology

Introduction

Completed suicide is among the leading causes of death worldwide. Globally, it accounts for more annual deaths than natural disasters, violence inflicted by others, war, and conflict combined [1]. In 2016, completed suicide caused almost 800,000 deaths worldwide, down from nearly 850,000 completed suicide deaths in 2004 [1]. In 2016, the age-standardized completed suicide rates were 10.53 per 100,000 persons globally [1], and overall, completed suicides accounted for 1.4% of premature deaths worldwide. During the second and third decades of life, completed suicide is the second leading cause of death, representing an economic burden to society [2].

There is considerable inter- and intra-country variability in completed suicide rates, with as much as a ten-fold difference between regions, which correlates with economic status and cultural differences [3]. Moreover, a review of 114 studies deduced that the higher the quality of single studies, the higher the reported suicide rate [2].

The World Mental Health (WMH) Survey Initiative, a study that used data from the World Health Organization (WHO), found that being female, younger, less educated, unmarried, and having a mental disorder were consistent cross-national risk factors for suicidal behaviors [4]. Suicidal behavior is not restricted to fatal suicidal acts, but also includes parasuicide [5]. The suicidal process comprises suicidal behavior as a continuum of gradually increasing seriousness: feelings that life is not worth living, thoughts of taking one's life, seriously considering suicide, suicidal planning, suicidal attempt, and completed suicide [6]. Suicide attempts are up to 30 times more common than completed suicides; however, they are essential predictors of repeated suicide attempts and completed suicides [7].

High occupational completed suicide rates are often linked to factors such as easy access to a method of suicide, which could influence the way chosen [8], social isolation at work [9], the natural selection of high-risk people to certain occupations [10], and socioeconomic forces [11]. Efforts aimed at identifying those occupations at risk and implementing prevention and treatment are hindered by a non-cohesive framework for understanding suicide risk [12].

Physicians and other healthcare workers, such as nurses, were considered high-risk suicide groups in different countries [1, 13, 14]. Both professional status and employment were more critical for men healthcare workers than for women [15]. For instance, one study (1961–1985) in Sweden suggested that suicide risk was higher for male and female physicians, and females (not males) in healthcare jobs, which required lower education, had a lower suicide risk [15]. Even though physicians' completed suicide rate is higher than in the general population, the rate of nonfatal suicidal acts is not [4, 16]. This data supports the hypothesis that physicians do not look for help, but are inclined to act out their suicidal impulses [17].

A 2002 Consensus Statement from specialists invited by The American Foundation for Suicide Prevention to evaluate and devise recommendations for the treatment of depression and the prevention of suicide in physicians established that physicians' suicide neglect sharply contrasts with physicians' heightened attention to smoking-related mortality [18]. Physicians' mortality rates from smoking-related cancer, heart disease, and stroke reduced 40% to 60% from the 1960s [18]. Physicians already face lower mortality risks for cancer and heart diseases than the general population; however, the suicide risk is currently higher [1, 13, 14, 18, 19].

In the next lines, there is an attempt to review the following topics: further epidemiology of suicidality in physicians, risk factors related to suicidal behavior in physicians, suicide risk assessment, and suicide prevention.

Suicide Risk Assessment

Overall Perspective

Tyssen et al. (2004) examined a nationwide representative sample of Norwegian medical students prospectively initially during their final term of medical school (T1), secondly at the end of the first postgraduate (internship) year (T2), and finally in their third (T3) or fourth (T4) postgraduate year [6]. They found a relatively high prevalence rate of 6.4% of postgraduate suicidal planning (T1), in comparison to two previous US studies, whose 1-year prevalence of suicidal planning was 2.8% [20] and 3.9% [21]. Moreover, in an earlier study (2001) of the same group, the lifetime prevalence of suicidal planning at the same T1 was 8% [22], an even higher prevalence than that found in 2004, suggesting the enduring nature of this problem in the medical profession [6]. Accordingly, 9 of the 13 reported suicidal planning remained both at T2 and T3, demonstrating the persistence of suicidal behavior [6]. Common predictors for postgraduate suicidal planning and transition from suicidal thoughts to suicide planning were severe depressive symptoms and personality traits [6]. Reality weakness, considered in this study, a personality trait, defined by chronic illusions, paranoid features, and problems with identity-insecurity and relations, was the most decisive trait for aggravation in suicidal ideation [6].

Another Norwegian study investigated 1042 physicians about suicidal thoughts and attempts and found a lifetime prevalence of serious suicidal thoughts of 10% [16]. The main risk factors were being a woman, living alone, and depressive

symptoms. However, in this study, personality traits did not relate to suicidal thoughts [17].

According to Braquehais et al. (2016), who examined 493 medical records of physicians and nurses admitted to an inpatient unit, patients with a recent suicide attempt (RSA) attempted suicide more frequently when compared to patients without an RSA (OR = 11.364; 95% CI = 5.361–24.086) [23]. RSA physicians were younger than those without an attempt, but their age was similar to that observed in completed suicide [23]. Concerning the primary diagnosis at admission, unipolar affective disorders and cluster B and C personality disorders were predictors of suicide attempts [23]. This study's main limitation was the small sample size ($N = 36$), which restrains the conclusions [23]. Recently, a meta-analysis about suicide among physicians and healthcare workers stratified its results and meta-analyzed five studies to find the number of physicians who had attempted suicide among all the physicians. They also meta-analyzed seven studies to investigate the number of physicians with suicidal ideation among all the physicians [13]. The authors found that the prevalence of physicians who attempted suicide among all the physicians was significant (0.01, 95CI 0.01, 0.02; $p < 0.001$), as the prevalence of physicians with suicidal ideation among all the physicians (0.17, 95CI 0.12, 0.21; $p < 0.001$) [13]. One significant aspect to observe while analyzing physicians' completed suicide studies concerns the epidemiologic measures of differential mortality risks. The Standardized Mortality Ratio (SMR) of physicians stands for age-standardized suicide mortality ratio, the ratio of observed (O) and expected (E) suicide deaths as follows: $SMR = O/E$, where O equals total physician suicides/total physician population, and E equals total population suicides/total population (using the same sex, age groups, locations, and year ranges) [1, 24]. The Proportionate Mortality Ratio (PMR) of physicians indicates the ratio of the physician suicide proportionate mortality (i.e., physician suicide/physician all-cause mortality) to that of the general population suicides (i.e., general population suicide/general population all-cause mortality) [1, 24]. Because the PMR is a ratio comparing proportionate mortality in physicians vs. that of the general population, it can be harder to interpret the SMR as the all-cause mortality influences the SMR. Also, in the SMR, the denominator of observed and expected suicides is the same number (100,000 population of physicians or general population). Thus, the PMR is typically calculated when there is insufficient data for the SMR. The SMR and the PMR are therefore useful for different reasons; for example, policymakers might care more about the effects of a particular occupation on suicide compared to the general population, while others might wonder how suicides compare to other causes of mortality within a specific occupational group [1, 24]. For a population-based study, the SMR might be more valuable as it depicts the number of deaths per 100,000 in a given population, adjusted by age in a given year. This health indicator shows the real impact of physician suicides and is less influenced by other causes of mortality [1, 24]. Finally, despite not being a comprehensive study of all physicians' completed suicides, but a gender sub-analysis, a scanning from an England dataset made it possible to obtain the SMR and the PMR for comparison during the same interval (2011–2015). This was essential to highlight the differences between the two

measures. The suicide PMR was high for male physicians (1.85 [95%CI: 1.41–2.38]) and higher for female physicians (1.97 [95% CI: 1.23–2.98]), which was significant in both cases despite the much lower and nonsignificant risks suggested by their suicide SMRs (0.63 [95%CI: 0.43–2.28] and 1.01 [95%CI: 0.44–2.31] for male and female physicians, respectively [1]. The limited PMR data suggests that out of all causes of death in physicians, suicide is an important one. However, physicians are not as protected from suicide as they are protected from other causes of mortality [1].

The meta-analysis by Schernhammer and Colditz [14] included mostly SMR but also PMR data [14]. Duarte et al. [1] adopted the same procedure, despite preferring the SMRs for the meta-analysis. They were striving for better consistency and the understanding of the results concerning their aim: to compare male and female suicide risks with those of the general population [1]. They found that the male physicians' SMR was significantly lower than the SMR of the general male population (0.67 [95% CI, 0.55–0.79], while the female physicians' SMR was considerably higher than the SMR of the general female population (1.46 [95% CI, 1.02–1.91]) [1]. A cumulative meta-analysis revealed that the male physician SMR still decreased, but with greater precision (effect sizes from 0.58 [95% CI, –0.20 to 1.36] to 0.67 [95% CI, 0.56–0.78]). Female physicians showed an early increase (effect sizes from 0.62 [95% CI, –0.23 to 1.47] to 1.76 [95% CI, 1.34–2.18]), followed by a trend toward decreasing suicide risk (effect size, 1.43 [95%CI, 1.12–1.73]), that was still high compared to women in the general population [1]. Duarte et al. [1] also showcased the PMR data from the US National Occupational Mortality database (NOMS) as a critical demonstrator of the trends (1985–1998 dataset to the 1999–2003, 2004–2007, 2013 dataset) from the differences by sex and race in physicians' suicide [1] (addressed below in risk factors).

Crude completed suicide rates for both men and women decreased between 2000 and 2016 in Europe and all World Health Organization regions other than the Americas [1]. To better understand whether the SMR changes over time (before and after 1980) were driven by observed suicide rates in physicians (male and female) or by expected suicide rates in men and women of the general population, Duarte et al. [1] performed a meta-regression and found different patterns [1]. The meta-regression results assessing the association of time with (i) expected suicide rates in the general population and (ii) observed suicide rates in male physicians, showed a decrease in suicides after 1980, but this was only significant in male physicians ($\beta = -35.37$ [95% CI, –62.33 to –8.41]; $P = 0.01$), and time explained 20.21% of the variance. Meanwhile, the results were nonsignificant in each of the meta-regressions for expected suicide rates among women in the general population) and observed suicide rates in female physicians [1].

A similar pattern was lately reproduced by a recent meta-analysis and systematic review about physicians suicidality [13]. This review evidenced an overall time effect on completed suicide SMRs (–0.15; 95CI –0.29, –0.01; $P = 0.032$), which signify that the risk decreased over time. This relationship was significant in Europe (–0.18; 95CI –0.37, –0.01; $P = 0.044$), but not in the USA (–0.11; 95CI –0.37, 0.15; $P = 0.370$) or in Australia, New-Zeeland, and Pacific (–0.48; 95CI –0.09,

7.12; $P = 0.570$) [13]. It also found an elevated physicians' completed suicide SMR (overall; male and female) to general population of 1.44 (95CI 1.16, 1.72), despite an important heterogeneity ($I^2 = 93.9\%$), and with some countries showing higher risks [13]. The SMR was 1.27 (95CI 1.05, 1.49; $P < 0.001$; $I^2 = 71.3\%$) in Europe, 1.63 (95CI 1.29, 1.96; $P < 0.001$; $I^2 = 74.1\%$) in North America, 0.79 (95CI 0.03, 1.62; $P = 0.002$; $I^2 = 79.5\%$) in Australia, New-Zeeland, and the Pacific, and 1.26 (95CI 0.56, 1.96) in Africa [13]. Meta-regressions demonstrated a higher risk of suicide in North America than in Australia, New-Zeeland, and the Pacific (0.92; 95CI 0.22, 1.63; $P = 0.013$), and especially higher in the USA vs. the rest of the world (1.34; 95CI 1.28, 1.55; $P < 0.001$) [13].

General Hypothesis and Specific Risk Factors for Completed Suicide

Cornette and colleagues [26] initially suggested the possibility of using the interpersonal psychological theory of suicidal behavior (IPTs) [25] to understand suicide in physicians [12, 25]. The components of the IPTs are burdensomeness, thwarted belongingness, and acquired capability for suicide. This theory postulates perceived burdensomeness as a miscalculation made by an individual who feels that their death would be of more benefit to others than their life. Thwarted belongingness would be a profound sense of isolation from others. Finally, acquired capability for suicide is the physical capacity to inflict severe self-injury and is hypothesized to result from continued exposure to painful or provocative events [25, 26]. Medical trainees and physicians experience feelings of burden in the circumstances such as academic failure and burnout, financial debt, mental illness, feeling excessively responsible for the patients' issues, and inter-role disagreement [26]. Failure in interpersonal belongingness might arise from difficulty accessing various sources, such as family, friends, coworkers, and a team (e.g., sports) or group (e.g., medical trainees). Studies suggest that the medical training environment may not be supportive, and seeking professional help is considered by the students, potentially stigmatizing and harmful to their future careers. Thus, students are more prone to talk to their peers since they could better empathize with their issues [26]. For students, who were inclined to seek professional help provided by their medical school, there was a lack of knowledge about both university and nonuniversity-related services in the area [26]. Medical training accustoms individuals to be less emotionally reactive to injury and death. This could facilitate self-harm and suicide attempts in individuals who are not coping with stress [26].

Moreover, medical trainees know the dosing and effects of lethal medications, an expertise that is unknown by the general population [26]. Fink-Miller (2015) studied a sample of 419 physicians and examined the components of the IPTs and their relationship to suicidal behavior. He demonstrated that perceived burdensomeness predicted suicidal ideation, while thwarted belongingness was a predictor of prior suicide attempts [27]. Furthermore, first attempt suicide physicians displayed the same capability of those who had attempted suicide previously. Being a physician is part of a population that shows high capacity for suicide [12, 28]. A follow-up study assessed provocative experiences that physicians commonly encounter at work (e.g., withdrawing life support, witnessing a patient's death) to determine whether these

events' frequency predicted capability for suicide [29]. Results indicated that provocative work experiences predicted scores on ability, even while controlling for painful and provocative experiences outside the workplace. These findings ultimately suggest that physicians' idiosyncratic occupational experiences could increase their suicide [29].

Suicide risk factors already well established for completed suicide in the general population were also related in physicians' data: mental disorders [29–32] and civil status/relationship problems [30–33]. Other less common factors in the general population analysis found in the physicians' studies were employment status (31,336) and access to the means of suicide [36].

Psychiatric Diseases Risk Factors

Depression is the leading cause of death by suicide worldwide and is number two in years lived with disability (globally up to 11%) [7]. Medical practitioners at all stages of their careers have higher depression levels than the general population [37]. A series of recent meta-analyses estimates the prevalence of depression to be 27% in medical students [38] and 29% in resident physicians [39]. The investigation of depression in primary care settings can be addressed by questioning about anhedonia and depressed mood. They are usually accepted as a sensitive and specific screening measure [40]. A Canadian survey examined 3213 physicians and found that 23.2% reported feeling “sad, blue, or depressed for two weeks or more in a row” during the 12 months before the survey. Female physicians were more likely depressed (28.6%) than male physicians (20.4%; $P < 0.001$) [40]. Moreover, 20.8% declared having had anhedonia for 2 weeks (22.7% of women and 19.8% of men, whose difference was not statistically significant). As expected, depression was significantly related to anhedonia ($P < 0.001$); however, this association was not absolute [40].

To investigate factors associated with suicide in physicians, Hawton et al. (2004) conducted a psychological autopsy of 38 suicide cases of working doctors. They found that 86.2% had psychiatric disorders, with depression being the most common one, followed by drug or alcohol abuse [41]. Other group found that the three most common psychiatric disorders among physicians who committed suicide were depression, drug dependence, and alcoholism [5]. Moreover, studies analyzing physicians' blood samples regarding the presence of antidepressants demonstrate that physicians are undertreated for depression, despite current effective treatments [1, 19].

Among the individuals who completed suicide, having a mental disorder was associated with a higher odds of being a physician (OR: 1.34, CI: 1.01–1.82, $P = 0.045$) [19]. Nevertheless, logistic regression analysis using backward stepwise elimination found that the mental disorder dropped out of the final model given potential multicollinearity among the predictors ($P = 0.054$). Recently, in a meta-analysis by Duarte et al. [1], there was a positive association between previous or current mental disorders and physicians' suicide risk in all studies included in this meta-analysis [30–33].

Sex Risk Factor

Two previous reviews evidenced the difficulty in establishing the physicians' sex with higher suicidal risk [14, 42]. Lindeman et al. (1996) showed that both sexes

conferred higher suicidal risk for physicians than the general population. The completed suicide rate of female physicians, even after adjustment, would be close to that of their male counterparts [42]. These findings were replicated by Schernhammer et al. (2004) (male: 1.41; 95% CI: 1.21–1.65/female: 2.27; 95% CI = 1.90–2.73); however, they draw attention to data revealing randomness for men, but some indication of publication bias for women, since data on female physicians' suicides are still few [14].

More recently, a published systematic review and meta-analysis by Duarte et al. [1] about age-standardized suicide mortality ratios for female and male physicians from 1980 to the present moment showed differences in physicians' sex suicide over time [1]. There were significantly higher physician completed suicide rates for women compared to women in the general population (SMR of 1.46 [95% CI 1.02 to 1.91]). However, male physician completed suicides were no longer significantly greater than men-age-adjusted suicide mortality ratios (SMR of 0.67 [95% CI 0.55 to 0.79]). Therefore, Duarte et al. [1] SMRs remained high for female physicians but became lower for male physicians when compared Schernhammer and Colditz [1, 14]. Moreover, meta-regression suggested that the decrease in male physician suicide SMRs overtime was driven by the physicians rather than the population completed suicide rates [1]. Male physicians' relatively protection from workforce/unemployment factors affecting men of lower socioeconomic status may have obscured any burnout-related effects.

Conversely, the same claim could not be made for female physicians vs. females in the general population, potentially because the pre-1980 data was underpowered [1]. Nevertheless, while decreasing, the SMR for female physicians was still high, implying that more excellent female representation in the physician workforce may not have overcome the magnitude of their increased risk than women in the general population [1]. Moreover, family demands, frustration, and career dissatisfaction could be a crucial factor explaining higher risk in female physicians [43, 44]. Besides, the well-known risk association between suicide and mental disorders could render female doctors higher suicidality because of their higher morbid risk for primary affective disorders [45]. Among male physicians, the excess of completed suicides may also reflect depression induced by a sense of failure to achieve early goals, missed opportunities, and constricting potential for the future [44].

Finally, internal characteristics should also be taken into account while analyzing these results. In Kőlves and De Leo (2013), the same female medical doctors had significantly higher completed suicide rates when compared to education professionals (RR: 3.88; 95% CI: 1.54–9.34), but not when the general female population was used for comparison (RR: 1.74; 95% CI: 0.76–3.78) [32]. Lindeman et al. (1997) evidenced a similar behavior; while comparison between male physicians and other male professionals had an SMR of 2.4 (95% CI: 1.7–3.3), male physicians and the general population had an SMR of 0.9 (95% CI: 0.6–1.2) [43].

Race and Ethnicity Risk Factor

Studies suggest that race could be a covariate in physicians' suicidality epidemiology. In the United States, data suggests that while US black men had improvements

in both suicide and all-cause mortality between the time-periods (1985–1998; 1999, 2003–2004, 2007–2013) [1, 24]; black male physicians either had a spike in suicide rates or a sharper drop in all-cause mortality than the rest of the black male population, or both [1, 24]. Conversely, suicide risk appears lower in white male physicians than white men in general [1, 24]. For white female physicians, there was a slight drop from 2.66 to 2.42 (higher than white male physician PMRs in either case), while black female physicians' suicide PMRs were unavailable.

The place of birth of a physician was relevant to suicide mortality rates in unpublished data that established that young people from overseas had a significantly higher mortality rate from suicide than those born in the British Isles [44].

Age Risk Factor

Petersen and Burnett (2008) demonstrated that as male physicians get older, there is a tendency for them to have a significantly higher suicide risk than the general population [47]. Besides, using the general population as control may inevitably lead to significant differences between physicians and the general population, especially if the general population predominant age is inside the age group less likely to commit suicide [48, 49].

An epidemiological study by Gold (2013) that used data from the United States National Violent Death Reporting System to evaluate demographics, mental health variables, recent stressors, and suicide methods among nonphysician versus physician suicide victims in 17 US states evidenced that being older was a risk factor for the latter [1, 19]. Of the 31,636 US adult suicides, physicians were older than nonphysicians (mean age 59 vs. 47 years, respectively; OR: 1.04, CI: 1.03–1.05, $P < 0.0005$) [19]. Nevertheless, US suicide rates rise rapidly up to age 24, and it is unlikely for medical students to have finished their professional training by the age of 24. Therefore, it would be impossible to identify physicians among the deaths of younger individuals [19]. Ultimately, Duarte et al. [1] evidenced that global suicide rates were higher between 15 and 59 years old than 60 and older, while the physician suicide risk was higher at age 55 and older [1].

Medical Specialty Risk Factor

The majority of studies, which looked upon a conferred suicidal risk accordingly to medical specialty, found specialties with a higher risk than others [16, 34, 43, 46, 50–52], but with contradictory findings. For instance, anesthetists could be those with a greater suicidal risk [46, 51–53]; however, in Carpenter et al. (1997) [50] and Lindeman et al. (1997) [43], they were exceeded by psychiatrists. Moreover, whereas in Carpenter et al. (1997) [50], general surgeons were significantly less prone to suicide, in Arnetz et al. [16] they were diametrically more prone. Nevertheless, Dutheil et al. [13] seem to have a more definitive answer concerning this issue. In their review, the percentage of suicide in general practitioners was 32% (95CI 21, 43; $P < 0.001$; I₂ = 93.1%), while in internal medicine it reached 16% (95CI 9, 23; $P < 0.001$; I₂ = 88.6%). Among psychiatrists, the percentage of suicide was 11% (95CI 9, 14; $P = 0.30$; I₂ = 17.5%), followed by 4% in surgeons (95CI 2, 5; $P < 0.001$; I₂ = 62.8%), 3% in other medical specialties (95CI 3, 4; $P = 0.02$;

I2 = 40.7%), and 2% in internships (95CI 1, 4) [13]. Meta-regressions demonstrated a higher risk of suicide in general practitioners than internal medicine (0.12; 95CI 0.05, 0.19; $P = 0.001$), than psychiatrists (0.17; 95CI 0.09, 0.24; $P < 0.001$), other medical specialties (0.24; 95CI 0.18, 0.30; $P < 0.001$), surgeons (0.25; 95CI 0.19, 0.30; $P < 0.001$), and internships (0.24; 95CI 0.15, 0.34; $P < 0.001$) [13]. Moreover, a higher risk of suicide was found in internal medicine than in other medical specialties (0.12; 95CI 0.08, 0.17; $P < 0.001$), surgeons (0.13; 95CI 0.08, 0.18; $P < 0.001$), and internships (0.13; 95CI 0.03, 0.22; $P = 0.008$) [13]. Finally, there was a higher risk of suicide in psychiatrists than other medical specialties (0.07; 95CI 0.02, 0.13; $P = 0.009$) and surgeons (0.08; 95CI 0.02, 0.13; $P = 0.005$) [13].

Easy access to potentially lethal drugs, a high prevalence of burnout, increased workload with fear of harming patients, the organizational burden with low autonomy, and conflicts with colleagues could render a higher risk of suicides in anesthesiologists [13, 36, 51, 54]. Half of the anesthesiologists who committed suicide chose an anesthetic agent for these acts [36]. On the other hand, psychiatrists, who self-poisoned, did not use any psychotropic medication [36]. This might reflect that psychiatrists rarely have direct contact with the drugs they prescribe. They may be aware that many psychotropic agents are less dangerous in overdose than other medications [36]. Stressful and traumatic experiences such as, paradoxically, dealing with suicides of the patients, seem much more related to a higher risk of psychiatrist's suicide [13].

Civil Status Risk Factor

Young married couples seem to have an increased suicide risk, with some studies suggesting that marriage can be protective for men but not for women [19]. This gender influence on marital status and suicide risk could also be real for physicians. Moreover, data from patients with a psychiatric hospitalization demonstrate that having a high income, employment, postgraduate education, and being married raises suicide risk [19]. Physicians have much lower rates of divorce than the general working population and are more likely to be married at the time of death [19]. Therefore, civil status could influence suicide risk, especially in young female physicians. They could have a higher completed suicide risk than their male counterparts and the general population.

A study tried to disentangle this question by performing a multivariate logistic regression analysis of national mortality data from the US Public Health regarding the independent variable marital status. It found that after controlling for marital status, the odds ratio for physicians' suicide were: divorced: OR 1.46, $P < 0.05$; widowed: OR 1.54, $P < 0.05$; single: OR 0.82, $P < 0.05$ [35]. In conclusion, these findings demonstrate that marriage can have a protective effect. Because other studies did not control for marital status among physicians, they could have underestimated the incidence of suicide in this population [35].

Research addressing the physician's family suicide rates would also be of interest since physicians' wives seem to have a higher risk of suicide than the general population wives [55].

Career Risk Factor

Suicidality in physicians could have its geneses in the student years or even earlier [22, 38, 56]. A 2016 meta-analysis that assessed depressive symptoms before and

during medical school ($n = 2432$) showed a 13.5% (range, 0.6% to 35.3%) median absolute increase in depressive symptoms [38]. With a crude prevalence of suicidal ideation of 11.1% (2043/21002 individuals; 95% CI, 9.0% to 13.7%, $I^2 = 95.8\%$) [38].

Appreciated qualities in the workplace like perfectionism, obsessive attention to detail, an exaggerated sense of duty, an inflated sense of responsibility, the desire to please everyone, increased stress, and depression [57] imprison physicians in a vicious circle [7, 13, 33, 58].

Research suggests that most physicians commonly use self-prescribed drugs and self-treatment when faced with medical illness and psychological distress [1, 6, 59]. Additionally, retrospective toxicology screening of suicide data finds that physicians were at significantly higher odds than the nonphysicians of having antipsychotics (OR: 28.7, CI: 7.94–103.9, $P < 0.0005$), benzodiazepines (OR: 21.0, CI: 11.4–38.6, $P < 0.0005$), or barbiturates (OR: 39.5, CI: 15.8–99.0, $P < 0.0005$) present on toxicological tests. There was no significant difference concerning antidepressants, opiates, amphetamines, or cocaine and physicians were less likely to have a blood-alcohol level above 0.08% [19]. These positive toxicology findings may indicate substance abuse, self-medication, or intentional abuse [1].

Physicians referred for fitness for duty evaluations showed a completed suicide rate of 3.5%, a number 175 times higher than those in the general population [33]. Being found unfit to practice, in solo practice, and the chronic use of benzodiazepines was associated with physicians' suicidal behaviors [33]. A more recent study in the UK showed that, despite being under GMC (General Medical Council) investigation (2010–2013), only 4.8% of the complaints led to warnings/sanctions. However, defensive practice augmented, and 82–89% of the physicians become overcautious, while 46–50% adopted an avoidance posture, avoiding complicated patients and procedures [58]. Furthermore, nearly a quarter of the deaths in physicians evaluated for fitness to practice by the GMC (2005–2013) were due to suicide ($n = 24$) or suspected suicide ($n = 4$) [22, 58, 59]. The investigation itself was associated with suicidal ideation (15% of physicians), moderate-severe depression (>26%), and moderate-severe anxiety (22%) [58].

A survey showed that physicians' satisfaction declined over the last 10 years in the USA, which was related to lesser time spent with the patient and their private life [13]. US physicians might also be particularly stressed by medical errors, which are the third most important cause of death, leading to a more defensive practice [13]. Indeed, job-related problems are 3.12 times more likely to predict suicides in physicians vs. nonphysicians. Physicians' job satisfaction might be an intermediary in "a causal pathway between depression and suicide" [24, 61]. Making decisions about life and death, and being always in the vicinity of seriously ill people may exert severe pressure, challenging to cope with [15]. Work-related stress was associated with physician suicide [35], as anticipated when physicians retire, if all else remains equal, their relative risk of suicide should diminish [35].

The already mentioned 25 years study (1979–1995) in England and Wales that analyzed death entry data of physicians who died by suicide or undetermined cause, compared methods used for suicide by physicians with those used by the general population. Methods used were analyzed according to sex, occupational

status, and medical specialty, to undercover if access to dangerous means influenced the pattern of suicide. Self-poisoning with drugs was more common in physicians than in the general population suicides (57% vs. 26.6%; OR = 3.65, 95% CI 2.85–4.68); including the retired physicians. The excess of self-poisoning deaths was more pronounced in males than females, although self-poisoning was generally more common in females, both in physicians and the general population [36]. Self-poisoning was somewhat, but not significantly, more frequent in female physician doctors than the male counterparts [36]. Finally, a systematic review showed that countries with lower firearm prevalence (e.g., in Western Europe) had fewer firearm suicide deaths when physicians' suicide was examined [1]. Furthermore, suicide methods may also vary inside countries and follow the same pattern: physicians in states with high firearm prevalence seem to die of suicide by firearm more than physicians in states with lower firearms prevalence (e.g., California) [1].

Burn-Out

Physicians are exposed to various stressors related to medicine judicialization and organization oversight that go beyond the complexity of diseases and clinical cases [61]. The interaction of medicine judicialization and organization (e.g., federal/state levels, medical boards/oversight agencies, etc.) harms physicians' and patients' health [61]. A NEJM Catalyst survey highlights the disconnection between healthcare executives and clinicians [61]. It suggests that physicians tend to experience systematic factors that they do not directly have control, such as documentation/clerical work as having the most significant impact on burnout [61]. On reviewing the National Academy of Medicine Action Collaborative on Clinician Well-Being and Resilience Reference Collection, a recurrent association was found between burnout and the lack of social connectedness [61]. Burnout affects 50% of physicians, who are mostly working in emergency medicine, a scenario that has been compared to warzone [61]. Burnout was twice as prevalent among physicians as US workers in other fields, after controlling for work hours and other factors [62]. Between 2011 and 2014, the prevalence of burnout increased by 9% among physicians, while remaining stable in other US workers [62]. Several studies have also found a high prevalence of burnout and depression among medical students and residents, with rates higher than those of age-similar individuals pursuing other careers [62]. Cross-sectional studies of physicians demonstrated that burnout is independently associated with 25% increased odds of alcohol abuse/dependence and 200% increased odds of suicidal ideation among physicians [62]. In a longitudinal study of medical students, burnout predicted the development of suicidal thoughts over the ensuing year, independent of depression [62].

High clinical workload raises the risk of malpractice since there is little time to establish an excellent physician-patient relationship and optimal clinical care [61]. Malpractice risk also increases by age and male sex (both suicide risk factors) [61]. Yet, specialties at the highest risk of paid claims, mostly surgical specialties, do not have high suicide rates. On the contrary, the specialties psychiatry and anesthesiology, which produce less in claims, have higher suicide rates [61].

Suicide Prevention

Despite the questionable effect, physicians get used to coping with their stress or psychologic problems with denial and avoidance [6, 63]. It seems that physicians fear that their need for help may indicate weakness or inability to cope [63]. Moreover, they have concerns about confidentiality [59]. These doctors' attitudes denote a perceived stigma by those who should not, and impede their access to appropriate healthcare [63]. Even if a physician had consulted a colleague within the past 3 years, 76% still self-treated [7]. Approximately one-quarter of physicians reported mental health concerns, which interfered in their handle with their workload at least some of the time in the past month (26.5%), and disagreed having a balance of work and nonwork activities (24.5%).

Additionally, one out of seven physicians reported not knowing of resources they would feel comfortable using if they needed help for a mental health problem (14.5%). The presence of either depression or anhedonia was significantly related to all three findings above ($P < 0.001$). A logistic regression examining not knowing of mental health resources as the outcome and three predictors – (1) sex, (2) specialty (dummy coded to examine: general practitioners/family physicians vs. psychiatrists vs. anesthesiologists and other specialists), and (3) practice type (solo vs. group or different practice settings) revealed that the first two, sex and specialty, were independently significant predictors [40].

Furthermore, considering the stress-vulnerability model, where vulnerability traits due to several factors (such as psychiatric comorbidities, history of suicide attempt, childhood-maltreatment) overlap with environmental stress [1, 24, 61], physician suicide prevention may need a multilevel approach. The preventive approach may consist of screening, assessment, referral, and education and destigmatizing help-seeking by at-risk medical students/physicians [13]. Vulnerability traits should be recognized early in training by parties not involved in the institution, medical regulation, and legislature. If this information is protected even from subpoenas, then vulnerable students and physicians can be given support and resiliency training early on and maintain a support network throughout their careers [1, 24, 61]. A review of the literature on stress management programs for medical trainees demonstrated that participants showed decreases in depression and anxiety and greater use of positive coping skills. Moreover, they resolved their conflicts remarkably and improved immunologic functioning, enhanced knowledge of the effects of stress, and other beneficial effects [40]. In New Zealand, the Medical Protection Society and Medical Assurance Society jointly funded a counseling service for physicians with work-related stress or impairment. An evaluation of the program revealed that participating physicians valued confidentiality, choice, and independence of the provider and believed that the service contributed to them remaining in or returning to work; and identified a need for more significant publicity about the service [40].

Therefore, barriers to physicians' access to proper healthcare should be the first aspect addressed while preventing their suicide. Kay et al. (2008), in a systematic review of 26 studies of physicians' healthcare, revealed essential similarities

between doctors and the general population in their health access, especially regarding mental health issues [7].

Despite the low quality of the data, physicians' healthcare access barriers are possibly divided into three categories: related explicitly to the doctor-patient seeking healthcare, predominantly under the control of the provider of the medical care, and within the medical system itself [7].

Patient Barrier

Embarrassment

Up to 71% of doctors described themselves as embarrassed when seeing another doctor, which was more prominent for mental health problems. Besides, many doctors described concern (embarrassment) that they should not impose upon another doctor's time, mostly if the illness were a trivial one [7].

Time and Cost

The lack of time was the single most quoted barrier [7]. Both direct and indirect costs included fees charged, time off, and access to disability and business insurance cover [7].

Personality Traits

Physicians more likely to be under general practice care were those who held a mild belief that a physician could help. However, a physician who had a strong idea that health was under their control were less likely to have general practice assistance [7].

Medical Knowledge

A doctors' reluctance to seek healthcare for minor illness was coupled with a tendency to rationalize symptoms as minor (trivial), which in the end were modulated by having special knowledge in the health field affected [7]. Medical acknowledgment also made doctors more aware of medical care limitations and encouraged skepticism and lack of compliance [7].

Provider Barrier

Confidentiality

Physicians' awareness of confidentiality limitations was another hurdle since the provider sets how to keep confidential information. Moreover, anxiety about confidentiality was greater for physicians with mental health issues [7].

Quality of Care

The quality of care is implemented by the provider; however, there are substantial reports of poor medical care experience, which could reduce the physician-patient's future health access [7].

System Barrier

Structural Issue

The long hours of duty, difficulty accessing locums, the lack of training in accessing appropriate self-care, and how to treat their peers (in formal and informal settings) made it difficult for the doctor to access care [7].

Cultural Issues

Doctors commonly face intense pressure from both medical colleagues and the community to be healthy or control their illness, encouraging self-treatment and corridor consultations. Besides that, about 25% of the physicians hide their illnesses from colleagues [7].

Despite the wide range of the barriers postulated above, in the end, physicians' access to healthcare were more significantly related to systemic (long hours and cultural issues) than individual obstacles [7]. Therefore, the conduction of short automatized mental health screenings and the annual physical examinations and other required health screenings could be an efficient measure to hinder these difficulties [64]. The American Foundation for Suicide Prevention offers an example of an Interactive Screening Program that provides subscribed institutions with access to a customizable software tool to conduct anonymous, confidential, and web-based screenings [64]. Responses are analyzed and triaged, and, if necessary, a counselor facilitates referral for mental health treatment [64]. Incorporating this screening tool into traditional evaluation and referral processes could reduce stigma and allow for service coverage with employee health insurance [64]. It is important to note that mental health treatment may impact the physicians' ability to practice medicine, e.g., medication side effects or cognitive effects of electroconvulsive therapy. Therefore, it is critical managing psychiatric comorbidities in early stages, reducing the need for more extreme treatments [1, 24, 61]. The WHO reports that suicide reduction could benefit from cognitive and problem-solving therapies, intensive care plus outreach, interpersonal psychotherapy, acceptance, and commitment therapy [1, 24, 61].

Since 2000, national prevention strategies have been established in 28 countries. These include primary and secondary preventive strategies in Europe (13 programs), the Americas (8 programs), Western Pacific (5 programs), South-East Asia (2 programs), and Africa and Eastern Mediterranean (0 programs) [2]. For instance, OSPI-Europe intervention is a five-level approach for optimizing and implementing suicide prevention. In level 1, general practitioner physicians were educated and trained using training sessions and videos. In level 2, which consisted of public relations activities, training sessions were made available for multipliers and community facilitators such as priests, social workers, teachers, caregivers, and the media (level 3). In level 4, the target individuals were psychiatric patients and their relatives. They were offered support and self-help groups, emergency cards, and information material. The restriction of lethal means, especially benzodiazepines, was part of level 5 [65]. This restriction was primarily implemented in the local setting and integrated into the preexisting groups because to restrain the access

to lethal means is not possible to carry out without a community-based intervention approach, often requiring national legislation [65].

On the other hand, programs focusing mainly on physicians would be of crucial importance since, as evidenced above, physicians' suicide have intersections and disentanglements with the general population [24, 61]. Even though these strategies are not occupational specific, some physicians' characteristics should receive a more profound look while addressing their suicide prevention. For example, the diminished rate of physicians' suicide in Europe could be associated with a significant reduction over the last decades in physicians' working hours, following official instructions such as the European Working Time Directive (EWTd) [13].

Initiatives like those of the Centers for Disease Control and Prevention, which gathers annual data from hospitals on self-harm-induced nonfatal injuries and collects survey data, are crucial to improving identification of suicide attempts. They are much more prevalent than completed suicide and are the most validated predictor for future suicide attempts [1, 13, 14].

Regarding the lack of global data on physician suicides, it may be particularly helpful to expand existing databases such as the ILO Global Database on Occupational Safety and Health Legislation (LEGOSH), collecting more detailed data on the cause of death, demographics, and occupation [1, 24, 61].

The American Foundation for Suicide Prevention elaborated a consensus for confronting depression and suicide in physicians [18]. It recommends the transformation of professional attitudes and the modification of institutional policies so that physicians would feel encouraged to seek for help. Since physicians' health habits can affect their health and prevention recommendations, becoming aware of their depression and suicidality can increase the recognition and treatment of these mental health problems in patients, colleagues, and medical students [18]. Additionally, as physicians gain experience in caring for their patients' depression and suicidality, they are more inclined to get care for themselves [18]. The investment of time and resources in healthcare teams could increase the clinician's well-being and ameliorate patient outcomes [66]. However, to develop, administer, and maintain high-functioning healthcare teams is a complicated task. Although high-functioning healthcare teams are very heterogeneous, they usually have key features that make them succeed [66]. These are shared team identity, values, aims, leadership, defined roles, routine meetings, competent staff, shared space, psychological security, accessible communication, and reciprocal respect [66]. Furthermore, helping team members virtually, constructively solving conflicts, sharing and shifting functions, coordinating the team, observing, and giving feedback can also contribute to a high-functioning healthcare team [66].

People close to physicians who died of suicide are often unaware of their suffering, possibly due to the physicians' pretense of being well-adjusted, and loved ones usually attribute behavioral changes to work-related stress. Beyond that, some personality factors and the fear of being obligatorily reported as impaired by colleagues may prevent them from seeking help [26]. Joining healthcare teams and being encouraged to communicate openly can destigmatize psychological and work-related vulnerabilities, allowing doctors to ask for professional and personal help [61]. Some initiatives like the Physician Support Line – (+1 888 409-0141)

(a free and confidential support line launched on 30 March 2020) are already connecting American physicians with volunteer psychiatrists [61] and could be replicated across the nations.

Ultimately, most anti-burnout efforts target personal factors (e.g., physician resiliency), not core problems. Burnout is driven by workload and inefficiency, lack of work autonomy and meaning, work-home conflict, negative patient relationships, and clerical tasks [61]. Workplaces should use effective strategies to reduce burnout, such as minimizing clerical duties, redesigning practice, aligning physicians/organizational values, increasing meaningful work, and finally by providing unforced physician resiliency training [61]. Training physicians may benefit from “compagnonnage” and training on dealing with future organizations [61]. Furthermore, complementary strategies on burnout and suicide prevention for physicians should foster social connectedness [61]. In more practical terms, recommendations like those by the General Medical Council investigation (UK) can positively impact reducing burnout. They included reducing health examiner assessments, making physicians feel innocent until proven guilty, having investigational staff exposed to frontline clinical practice, and establishing a National Support Service for physicians [61].

Another practical proposition to tackle burnout would be adopted by the US Federation of State Medical Board (FSMB), which has as policy the Report and Recommendations of the Workgroup on Physician Wellness and Burnout [67]. They recommend that State Medical Boards (SMB) evaluate the necessity to actively question physicians about their mental health, addiction, or substance use. The questions should focus on the current impairment related to the physician’s practice, competence, and ability to provide safe medical treatment to patients. Questions should neither concentrate on the illness/diagnosis nor previous therapies. Moreover, physicians currently in treatment for mental health problems or addiction can apply for licensure or license renewal without disclosing their diagnosis/treatment to the board. Information about their treatment should not be publicly disclosed. Beyond that, SMB should highlight the physician’s treatment importance by making available options for treatment and other resources. About the disciplinary undertaking, SMB should explain that it is not the same as an investigation. Beyond that, state medical boards should review the policies and procedures for working with physicians who are impaired to provide safe care to patients and protect them.

Greater legal, legislative, and organizational advocacy led by physicians to protect physician rights, privacy, enforcing existing laws and creating a culture of trust and transparency between healthcare workers, patients, and boards/oversight organizations could also reduce the impact of judicialization on burnout [61].

Limitations

Suicide reports vary by country and location for various reasons. One reason is that suicide data is collected from multiple incomplete sources. Different locations and organizations may have challenges in reporting or identifying suicides. Further, they may lack the resources to gather information, or the data are not collected

systematically and reliably [61]. These data may be incorrectly codified, whether this is due to lack of information available (e.g., death of unclear intent), due to negligence, or due to intention (e.g., physicians not reporting the death of a colleague as suicide to spare the feelings of the family and for life insurance). Hence, medical schools and healthcare organizations often do not fully record student and physician suicide deaths [61]. Besides, doctors may be unwilling to classify a colleague's death as suicide but prefer an accident [16, 50]. As an example, Carpenter et al. (1997) showed that most accidental poisonings in physicians, which committed suicide, involved prescription drugs. Well, it seems implausible that consultants would be more likely than the general population to take a fatal overdose inadvertently [50]. However, this does not seem to have occurred for female consultants' deaths [50]. Broad study locations, period, and methods (e.g., different International Classification of Diseases codes and data sources) are also limitations. Nevertheless, Richings et al. (1986) have shown that a broader definition of suicide does not significantly change the overall picture of excess mortality from suicide among physicians [46]. Moreover, recent studies are focused on addressing quality scores, analyzing the heterogeneity of the samples, undercover publication bias, and implementing meta-regression to increase their validity [1].

Limitations proposed by Von Brauchitsch [68] for physician suicides studies are: (i) the examination of successful suicides rather than attempted suicides, (ii) small sample sizes, under which he includes studies of proportionate deaths, and (iii) insufficient standardization [65], with exception to (i) were ultimately trespassed by the meta-analysis aforementioned [1, 13, 14].

Conclusion

In conclusion, the great extension of intricate and contradictory findings indicates the need for more research in physicians' suicidality. Current studies focus on the epidemiology of completed suicides. However, to a better understanding, future research should expand to the other aspects involving suicidality. The suicide of physicians suicide can be mitigated only through a multimodal approach, optimizing the recognition of suicides and their risk factors, and then addressing systematic problems. The interaction of nonmodifiable risk factors such as sex, race/ethnicity, age, and educational attainment/healthcare career and location require further investigation [1, 13, 14].

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Suicidal Risk Across the Life Span

30

A Developmental Perspective

Massimiliano Orri, Gustavo Turecki, and Marie-Claude Geoffroy

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Abstract

Emerging evidence suggests that the origin of suicide may be traced to factors occurring during early developmental periods (perinatal, childhood, and adolescent periods), opening important windows for early prevention. In this chapter, we aim to discuss the contribution of various factors taking place in key

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developmental periods that could contribute to suicide risk. First, we present evidence on the association between in utero and perinatal factors with suicide, suicide attempt, and suicidal ideation over the life span. Subsequently, we focus on factors related to three broad developmental areas: cognitive, behavioral and emotional, and social development. We largely rely on epidemiological evidence, in particular from longitudinal studies following up children from the general population.

Keywords

Development · Perinatal risk factors · Cognitive development · Behavioral problems · Emotional problems · Peer victimization · Suicidal ideation · Suicide attempt · Suicide

Introduction

Suicide is a complex and multifactorial phenomenon [1]. Mental disorders such as depression and substance abuse are main factors contributing to suicide risk [2]. The stress-diathesis model of suicide posits that proximal environmental stressors, such as economic breakdowns and relationship problems, increase the risk of transitioning from suicidal ideation to suicide acts, especially among vulnerable individuals [3]. Beyond the documented influence of such proximal risk factors, a body of research suggests that distal factors occurring during development (perinatal, childhood, and adolescence) may also increase risk of suicide later in life. From a population-based perspective, identifying and understanding developmental factors associated with suicide risk is important to guide the development of new preventative interventions taking place early in life.

In this chapter, we aim to discuss the contribution of various factors taking place in key developmental periods that could contribute to suicide risk. First, we present evidence on the association between in utero and perinatal factors with suicide, suicide attempt, and suicidal ideation over the life span. Subsequently, we focus on factors related to three broad developmental areas: cognitive, behavioral and emotional, and social development. During the last decades, substantial research has been conducted to understand the influence of developmental factors on suicide risk from different perspectives: psychological, epidemiological, neuroscientific, and molecular. Here, we largely rely on epidemiological evidence, in particular from longitudinal studies following up children from the general population.

In Utero and Perinatal Influences

Numerous studies have provided evidence of the association between in utero and perinatal factors (including in utero conditions, maternal-related factors, and socio-economic environment at birth) and later health problems. These studies should be

interpreted in the wider context of the developmental origin of health and disease (DOHaD) model, which states that events occurring early in life can have long-lasting influence on health and diseases [4], including mental health [5]. A seminal work published 35 years ago opened the investigation of the perinatal influences on suicide risk. It investigated 46 risk factors from the prenatal, birth, and neonatal records of 52 adolescents who died by suicide and matched controls. Factors such as respiratory distress at birth, absence of antenatal care before 20 weeks of pregnancy, and chronic disease of the mother during pregnancy were found to distinguish adolescents who died by suicide from controls [6]. However, as early-life factors and suicide-related outcomes are rare in the general population, larger samples with sufficient statistical power are needed to reliably establish such associations. This field of research has moved further in recent years owing to the aging of participants enrolled in large birth cohorts and to the possibility of linking several population registers (e.g., in Northern-European countries). To illustrate, several studies have been able to identify early-life risk factors associated with increased suicide risk, such as low birth weight, teenage motherhood, and exposure to impoverished socioeconomic environment [7, 8]. Available evidence on the association between in utero and perinatal factors and suicide-related outcomes have been recently summarized in a systematic review and meta-analysis of all available longitudinal studies conducted in general population samples [9]. This study identified 42 articles including data from 21 cohorts from Europe ($n = 15$), North America ($n = 3$), Taiwan ($n = 1$), New Zealand ($n = 1$), and Brazil ($n = 1$), with sample sizes ranging from 140 to over 3 million participants, following participants for up to 89 years. The majority of the studies investigated suicide mortality as an outcome ($n = 14$) although some studies also investigated suicide attempt ($n = 9$) and suicidal ideation ($n = 4$). Although a wide range of perinatal factors were investigated in these studies, only for 14 of them were there enough evidence (≥ 2 studies) to perform a quantitative meta-analysis. This study reported several associations between family and parental characteristics and suicide-related outcome (Fig. 1).

Increased risk of suicide was found for individuals with high birth order. Specifically, compared to first-borns, individuals born second/third or fourth or more in the birth order were at higher risk of suicide mortality. There is convincing evidence from studies using within-family design that this association is robust to familial confounding factors (such as socioeconomic conditions and parental mental illnesses). For example, a Swedish study that investigated suicide risk in sibling groups of two or more children, in which at least one died by suicide, found that each increase in birth order was related to an 18% increase in suicide risk [10]. Other parental and family characteristics associated with increased risk of suicide and suicide attempt identified in the meta-analysis were teenage motherhood and family structure. In this line, several studies found that individuals born from a younger mother (aged 20 years or less at childbirth) were more likely to die by suicide compared with individuals born from older mothers, with a pooled meta-analytic odds ratio (OR) of 1.80 [9]. A similar risk was found for offspring born in nonintact families (e.g., single mother), compared to those born in intact families. Although the meta-analysis could not find evidence of increased suicide risk associated to

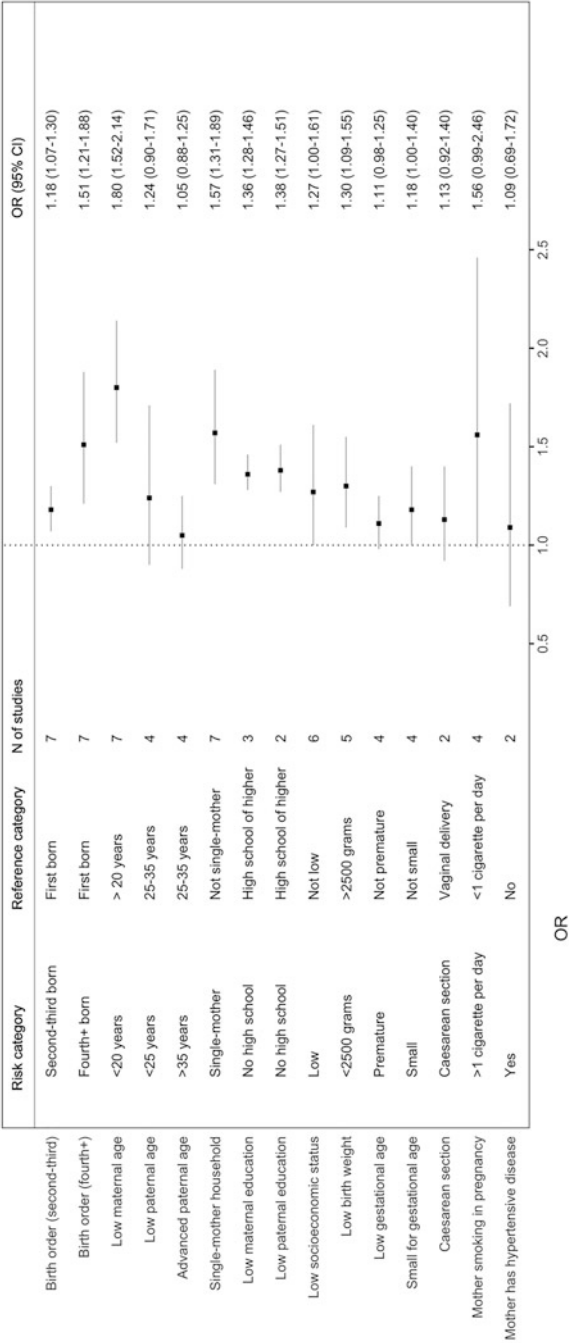


Fig. 1 Summary of the results of the meta-analyses of in utero and perinatal risk factors for suicide. (Note: The figure reports the pooled meta-analytic estimates (odds ratio) for the associations between different in utero and perinatal risk factors and suicide [9])

paternal age, one study using a robust within-sibling design reported increased risk of suicide attempt for offspring born to fathers aged 45 years or older compared with fathers aged 20–24 years [11].

Characteristics of the socioeconomic environment in which the child was born were strongly associated with suicide mortality, suicide attempt, and suicidal ideation across the studies included in the meta-analysis. For example, offspring of parents with low levels of education or low socioeconomic status (e.g., unskilled job) at the moment of childbirth were about 20–40% more likely to die by suicide and 70% more likely to attempt suicide in their life span [9]. The meta-analysis also reveals an association between indices of poor fetal growth and suicide risk. Individuals born with a low birth weight (<2500 g) were more likely to die by suicide, attempted suicide, and have suicidal thoughts compared to those with normal birth weight, even when taking into account children's gestational age [12]. Prematurity *per se* (i.e., a gestational age of ~37 weeks or less) was not associated with increased risk of suicide but was associated with increased risk of attempting suicide. Quasi-experimental evidence also pointed toward a possible causal role of birth weight in the pathway leading to suicide attempt [13].

Several studies investigated associations between obstetric characteristics and suicide-related outcomes, but no statistical evidence of association was found in the meta-analysis. For example, no increase suicide risk was reported for children born by caesarean section (versus vaginal delivery), for placenta abruption, and from low (i.e., <7) Apgar score. However, a small but significant association between cesarean section and suicide attempt was reported in one Swedish study [7]. Finally, associations between exposure to maternal physical (e.g., pregnancy hypertension) and psychological (e.g., stressful life events experienced by the mother while pregnant) factors during pregnancy were investigated for their associations with suicide risk, but no clear evidence of association was found [9]. For maternal smoking during pregnancy, associations were not consistent across studies, and the crude meta-analytic association only approached statistical significance (OR, 1.56; CI, 0.99–2.46). However, in single studies, no clear dose-response association was found between the number of cigarettes smoked per day and suicide risk. In addition, associations were strongly attenuated when the analysis was restricted to sibling pairs discordant for suicidal acts and prenatal smoking exposure [14]. These findings mine confidence on the existence of an association.

Taken together, findings from this meta-analysis suggested that some in utero and perinatal factors are associated with increased suicide risk across the life course, with main contribution of impoverished family and socioeconomic environment and restricted fetal growth. However, the meta-analysis also pointed out that evidence was scarce for some salient questions. Specifically, evidence for suicide attempt and suicidal ideation is still limited, as very few studies documented associations between perinatal factors and these outcomes. Additionally, mechanisms explaining associations between in utero and perinatal factors and suicide related-outcomes are still poorly understood. A recent study based on the Québec Longitudinal Study of Child Development (QLSCD) and the Avon Longitudinal Study of Parents and Children (ALSPAC), two birth cohorts respectively from Canada (province of Québec),

and the United Kingdom (county of Avon) addressed these gaps [15]. The study documented patterns of associations among 32 adverse perinatal factors (including fetal, obstetric, psychosocial, parental mental health and substance use problems), identifying 5 profiles of children characterized by exposure to certain categories of risk factors (Fig. 2): (1) *Poor fetal growth* (4.6–5.2%), including children not only with the highest probabilities of showing fetal growth adversity, but also with high probability of other adversity such as birth/delivery adversity, psychosocial adversity and to be exposed to maternal smoking in pregnancy, and with mothers experiencing depression; (2) *Psychosocial adversity* (16.5–21.6%), including children with the highest probabilities of psychosocial adversities, exposures to smoking, drugs, alcohol, and medications during pregnancy, parents with history of delinquent behaviors, and experiencing depressive symptoms; (3) *Delivery complications* (16.6–24.5%), including children born with caesarean section and having longer neonatal hospitalization; and (4) *Parental mental health problems* (7.8% in ALSPAC only), including children with parents experiencing high levels of anxiety and depressive symptoms; (5) the remaining children were part of the *No perinatal risk profile* (49.5–53.9%), including children with average probability of all perinatal adversity factors.

This study found that children in the *Poor fetal growth* and *Psychosocial adversity* profiles were at higher risk of attempting suicide by age 20 years, compared to children in the *No perinatal risk profile*. These findings were in line with the results

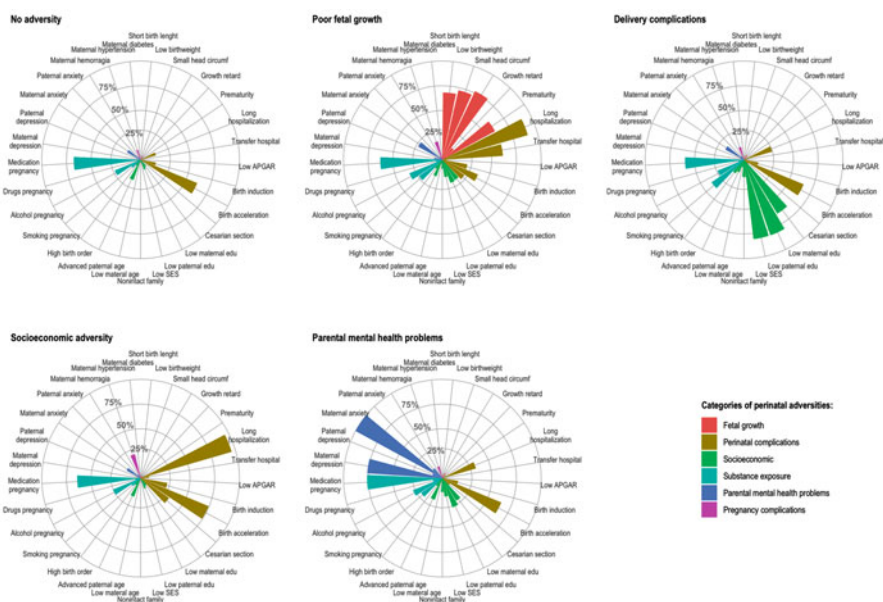


Fig. 2 Perinatal adversity profiles in the Avon Longitudinal Study of Parents and Children. (Note: The plots show the prevalence of the investigated perinatal adversity factors for each identified perinatal adversity profile [15]. Colors indicate categories of risk factors as described in the legend)

from the meta-analysis described above [9], suggesting that perinatal risk factors pertaining to poor fetal growth and adverse socioeconomic environment increase the risk of suicide attempt by late adolescence. Additionally, the study found evidence of increased risk of attempting suicide among children in the *Parental mental health problems* profile, compared to those in the *No perinatal risk* profile. To better understand why children with poor fetal growth and exposed to socioeconomic adversities or parental psychopathology were more likely to attempt suicide, the authors conducted a mediation analysis. The objective was to clarify to what extent externalized (e.g., conduct and impulsivity-inattention), internalized (e.g., anxiety and depression), interpersonal (e.g., exposure to peer victimization), and cognitive (e.g., poor verbal intelligence) problems during childhood (ages 6–12 years) accounted for the observed associations between psychosocial and poor fetal growth adversity profiles and suicide attempt. Two patterns of association were found: On the one hand, the increased risk of suicide attempt of children exposed to psychosocial adversities was largely explained by the investigated childhood problems (i.e., around 40% of the association was accounted for by these problems). Therefore, prevention of these problems across childhood may potentially help reducing suicide attempt in young people if associations are causal. On the other hand, internalized, externalizing, interpersonal, and cognitive problems only explained a small proportion of the increased suicide attempt risk of children exposed to fetal growth adversities and parental mental health problems. Therefore, prevention of these problems for those children would have a limited effect on reducing their suicide risk, and it is critical to identify other mechanisms implicated in this pathway.

Cognitive Development

Cognitive development refers to the acquisition of skills such as information processing, conceptual reasoning, language learning, and problem solving which help individuals to think about and understand the world around them. Cognition is a key determinant of both physical and mental health [16]. Numerous studies have reported differences between individuals who attempted suicide and controls on several neuropsychological markers, such as executive functions, memory, and decision-making [17, 18]. While these studies highlighted the role of cognition in the vulnerability to suicide, their contribution to the understanding of cognition-to-suicide link from a developmental perspective is limited, as they mostly relied on cross-sectional samples of clinical adults. Recently, large longitudinal studies (specifically those using administrative data from Scandinavian countries) were able to investigate associations between cognition during childhood and adolescence (measured using either intelligence tests or school performance assessments) and suicide-related outcomes in the general population. Overall, these studies showed an inverse association between cognitive skills in childhood and adolescence (ages 7–18) and later suicide risk [19–22]. For example, a Swedish study based on more than 20,000 individuals with information on intellectual quotient (IQ) in early adolescence reported that lower IQ scores were associated with increased risk of suicide in

midadulthood in women [23]. Other studies measuring IQ in young adult men at conscription showed an inverse association between IQ and risk of suicide attempt and mortality 30 years later [24, 25]. In another large Norwegian cohort including 610,359 participants, poorer academic performance at age 18 years predicted increased risk of suicide mortality up to three decades later [26]. These results were similar to those reported in a Swedish study showing that risk of hospitalization for self-inflicted injury increased steeply with decreasing grade point average from the last year of compulsory school [27]. A recent study also provided evidence of long-term stability of the association between IQ at ages 18–20 years and suicide attempt and mortality up until age 59 years [28]. Worth noting is also the linearity of the association between IQ and suicide, with a constant increase of suicide risk for each unit of decrease in intelligence across the whole distribution (Fig. 3).

Most of the previously cited studies established associations between adult suicide-related outcomes and cognitive and academic skills assessed at one single time point (usually in adolescence or early adulthood). However, a single assessment of cognitive skills cannot inform on whether cognitive differences were always present, or they emerge during development. To fill this gap, a recent study based on the 1958 British Birth Cohort [22] assessed academic skills at multiple time points in childhood (7 and 11 years) and adolescence (16 years). This study estimated trajectories of academic performance in both mathematics and English reading in individuals who later died by suicide and those still alive. The results, depicted in Fig. 4, showed that while males who died by suicide did not differ from participants still alive in reading scores at age 7, their reading scores had a less steep improvement up to age 16 compared to other participants still alive (a similar pattern

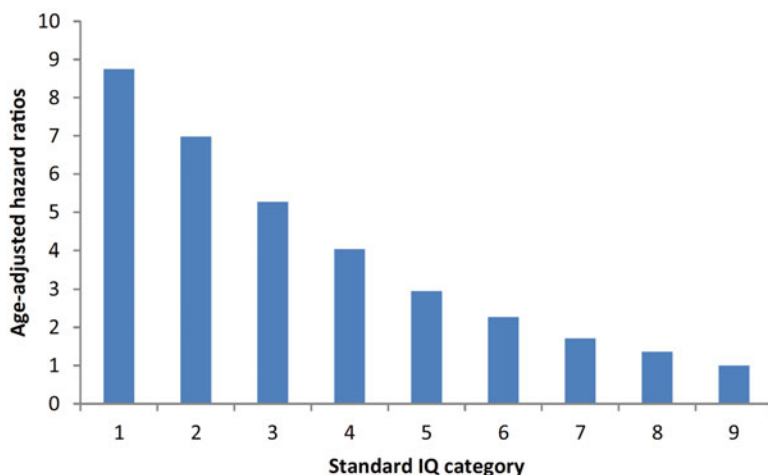


Fig. 3 Association between IQ and suicide risk in 1,109,453 conscripted men (17,736 suicides). (Note: IQ category 9 (lowest performance) is the reference category. (Reproduced with no changes from Batty et al. (2018) [29]. Licence: Creative Commons Attribution 4.0 (CC BY; <http://creativecommons.org/licenses/by/4.0/>)))

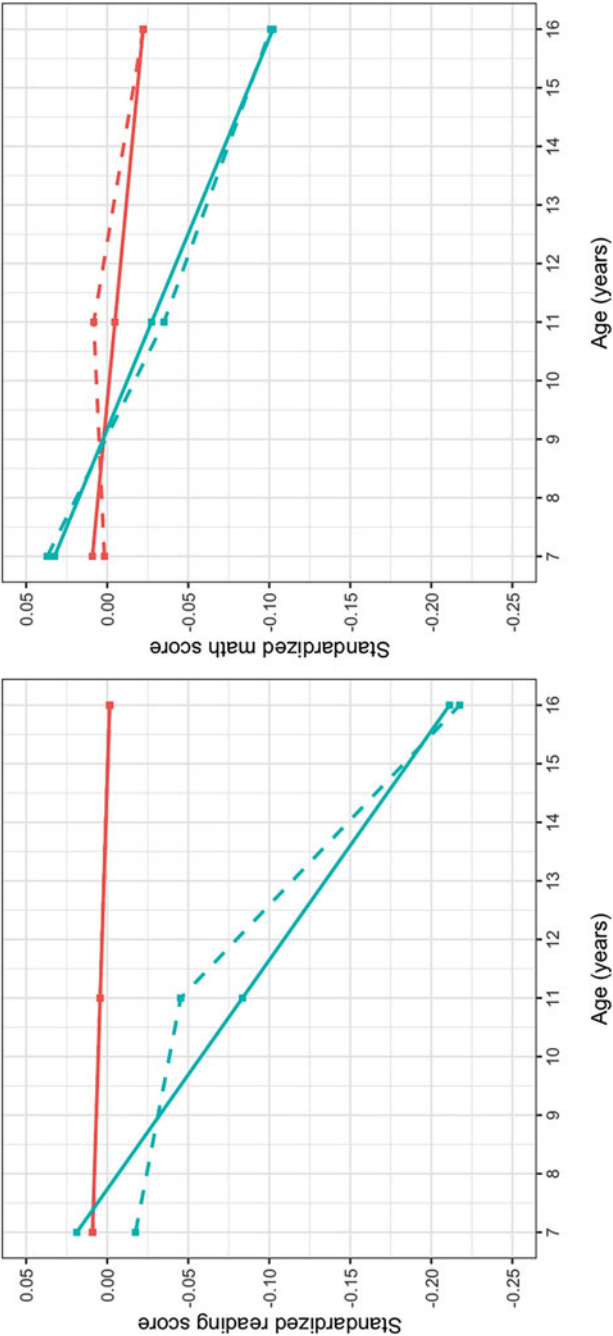


Fig. 4 Trajectories of reading and mathematics skills during childhood and adolescence for individuals who died by suicide by age 50, and individuals still alive in the 1958 British Birth Cohort. (Note: Dotted lines represent the observed values, while solid lines represent the values estimated using a growth model [22])

was observed for mathematics scores). This suggests that differences in academic skills between suicidal and nonsuicidal individuals are likely to emerge in the course of childhood and adolescence, rather than being detectable since early childhood.

While mediators that might explain associations between cognitive/academic skills and later suicide are rarely studied, several factors might contribute to these associations. First, poor capacities to solve problems have been hypothesized to play a role [29]. Indeed, people with lower cognitive skills may have poorly developed problem-solving abilities, which in turn may be a barrier to identify solutions during a crisis situation. This hypothesis is supported by evidence showing associations between problem-solving deficits and suicide attempt and the efficacy of problem-solving therapies in preventing suicide reattempt [30]. Additionally, in the abovementioned study of Swedish conscripts, it was shown that the logical (problem-solving) subscale of an IQ test exhibited the strongest association with suicide compared to the other subscales [24]. Second, the association between cognition and suicide-related outcomes might be explained by unhealthy behaviors such as smoking and low physical activity [31], which are associated with both poor cognition and suicidal risk. Third, poor cognitive skills and interruption of schooling may limit job opportunities, which may impact on adult socioeconomic position and job security, which in turn may increase suicide risk [20]. It is also worth noting that confounding factors may also explain the associations between poor cognitive skills and suicide risk. Poor cognitive skills in early childhood and adolescence are associated with less favorable socioeconomic conditions across the life span (such as availability of resources, quality of the educational environments, parental educational level, place of residence, financial stress, and single parenthood). All these factors can confound the association between cognitive skills and suicide, as they are determinants of poor mental health and suicide risk as well as cognitive skills [21, 22, 32]. The extent to which these variables explain the association between cognitive skills and suicide varies across studies. In large studies, associations are usually modestly attenuated when these confounders are taken into account [24, 25]; however, in studies with less statistical power, associations appear to be fully accounted for by these confounding factors [22].

Behavioral and Emotional Development

With the overarching aim of identifying children at higher suicidal risk later in life, several researchers investigated associations between behavioral (i.e., externalizing symptoms such as impulsive, aggressive, and conduct problem symptoms) and emotional (i.e., internalizing symptoms such as anxiety and depressive symptoms) problems and suicide-related outcomes [8, 9, 33–38]. Overall, both childhood behavioral and emotional problems have been associated with higher suicide risk in those studies. However, associations may vary according to the specific suicide-related outcomes and age. For example, while childhood and adolescent emotional problems are associated with both suicidal ideation and suicide attempt, behavioral problems and the co-occurrence (comorbidity) of both behavioral and emotional

problems seem to be only associated with suicide attempt and mortality [34, 39–41]. Additionally, studies have shown that although emotional problems make strong contributions to suicide risk throughout the life course, behavior problems are more salient predictors of suicide risk in adolescents and young adults, whereas emotional problems have a more important role at older ages [1].

Childhood impulsive-aggression and related behavioral traits, such as irritability [42], were also investigated for their associations with suicide-related outcomes [43–47]. Distinguishing among these different constructs is challenging due to their partial overlap, differences in definition, and diversity of assessment measures [48]. Of note, these constructs all describe dysregulation in mood and tendency to aggressively overreact to external stressors.

There is evidence suggesting that impulsive-aggressive traits are part of a developmental cascade that increases suicide risk, especially in younger individuals [49]. To illustrate, based on a large cohort of individuals who died by suicide, McGirr et al. showed that levels of impulsive-aggression were inversely associated with the age at which individuals died by suicide [49]. Furthermore, the contribution of impulsive-aggression to suicide risk was relatively independent from comorbid psychopathology (such as depression). Impulsive-aggression is conceptualized as being a distal and predisposing risk factor contributing to the diathesis for suicide risk (Fig. 5) [44]. In line with this conceptualization, a twin study showed that a large proportion (~50%) of genetic factors contributing to individual differences in childhood impulsive-aggression (6–12 years) also contributed to individual differences in suicide risk by age 20 years, suggesting the existence of common genetic influences underlying both impulsive-aggression and suicide risk [45].

From a developmental perspective, a series of studies conducted in the QLSCD investigated the association between repeated measures of irritability in childhood and suicidal ideation and attempt in adolescence and early adulthood [35, 36, 40, 50]. Irritability is a concept that encompasses both behavioral and emotional problems, as it includes both mood changes (becoming irritable, cranky) and behavioral manifestations (aggression against oneself, others, or objects) [51]. In the QLSCD, both aspects of irritability have been captured using four items rated by elementary school teachers at child age 6, 7, 8, 10, and 12 years: “has temper tantrums” (for the mood component) and “reacts in an aggressive manner when teased/contradicted/something is taken away from him or her” (for the behavioral component). Four developmental trajectories of irritability described the heterogeneity in the course of irritability symptoms during childhood (Fig. 6): Most children had low levels of irritability throughout childhood (75%, low trajectory); some had high levels of irritability that persisted over time (5%, persistent trajectory); others had very high symptoms of irritability in kindergarten, but that decreased during childhood to disappear at age 12 years (7%, declining trajectory); and finally, others presented few symptoms of irritability at the end of kindergarten, but which increased during childhood until adolescence (13%, rising trajectory).

Children on a persistent irritability trajectory and those on a rising irritability trajectory were more likely to report suicidal thoughts or suicide attempt in adolescence, compared to children who did not show symptoms of irritability during

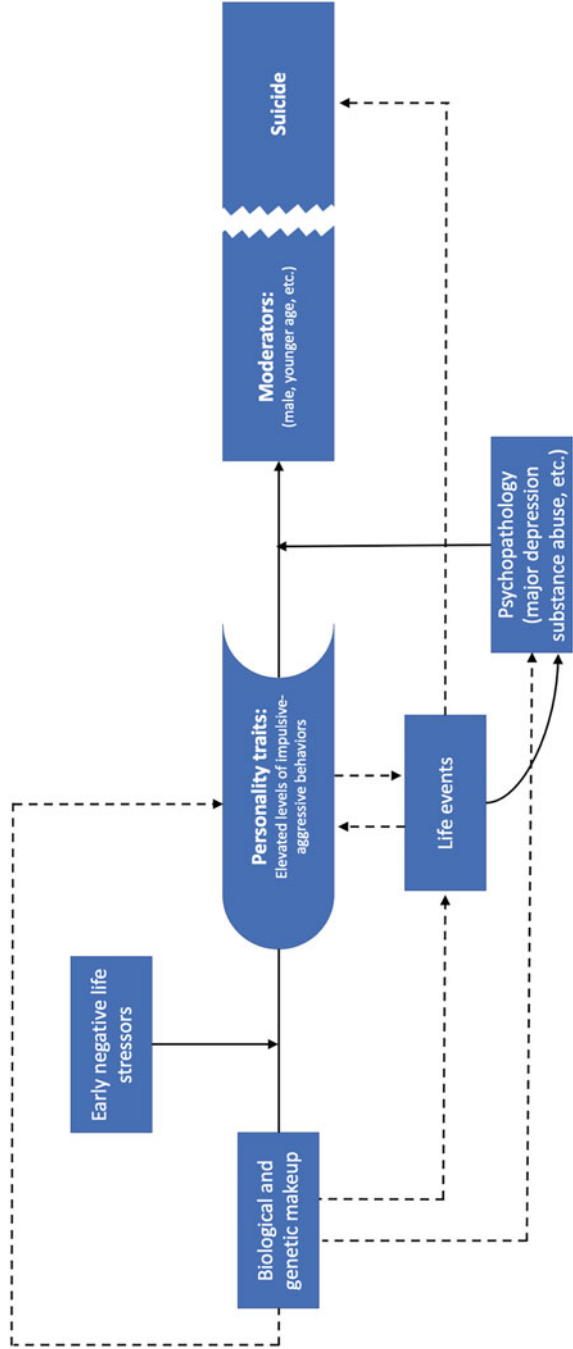


Fig. 5 Model of the hypothesized relations among risk factors for suicide. (Note: The figure reports a model of the hypothesized relations among different variables contributing to suicide risk [49])

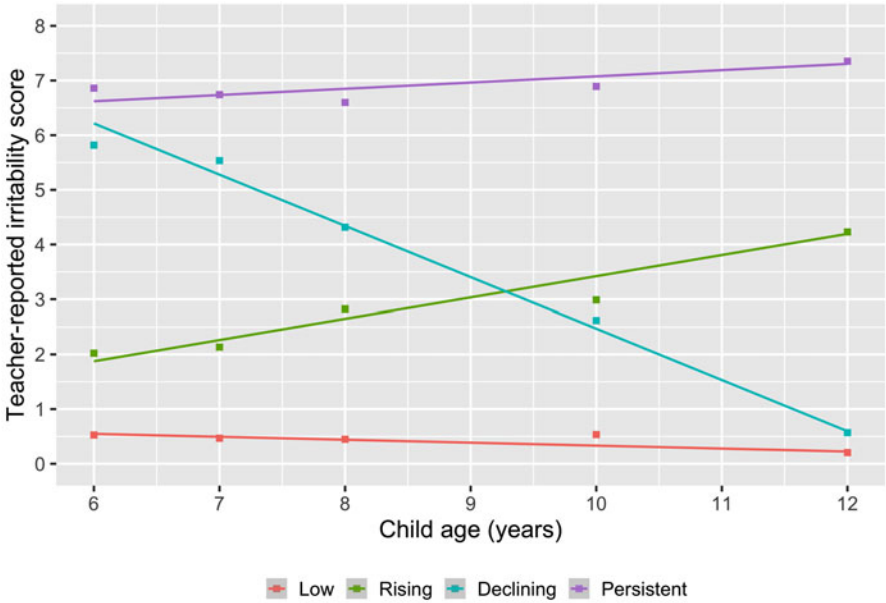


Fig. 6 Trajectories of childhood irritability in the Québec Longitudinal Study of Child Development. (Note: The figure shows the trajectories of irritability from ages 6 to 12 years of 1393 children enrolled in the Québec Longitudinal Study of Child Development [35]. Dots represent observed values, and solid lines represent trajectories as estimated by our model. (Data were compiled from the final master file of the Québec Longitudinal Study of Child Development (1998–2018), ©Gouvernement du Québec, Institut de la statistique du Québec))

childhood. Children who had high irritability symptoms in kindergarten but not afterward (declining trajectory) were not at increased suicide risk compared to nonirritable children. Interestingly, Orri et al. showed that the highest suicide risk was found for children who presented with both high irritability symptoms and high anxio-depressive symptoms in childhood: For these children, the rate of suicidal ideation and suicide attempt was twice as high as for children with only high anxio-depressive symptoms without irritability [36]. This finding, which is in line with a previous study in another Canadian cohort [52], might carry important implications for identification of children at risk for suicide. Indeed, irritability is a symptom present in many, but not all, children with depression/anxiety. Therefore, these results suggest that among children with anxio-depressive symptoms, the presence of irritability would facilitate the identification of those with a greater suicide risk.

Studies on the QLSCD also contributed to the understanding of the mechanisms explaining the association between childhood irritability and suicide risk. A better knowledge of the underlying mechanisms might be a first step to guide the development of preventive strategies for irritable children. A first study aimed to clarify whether irritability during childhood is directly associated with a higher suicide risk, or whether it is an early marker of mental health problems (depression, anxiety,

hyperactivity, and aggression/opposition) contributing to suicide risk [35]. Results indicated that for children with persistent irritability, mental health problems (especially depression) explained a substantial proportion of the suicide risk, suggesting that irritability could be an early marker of depression for these children. However, for children with rising levels of irritability during childhood, mental health problems explained only a small part of the suicide risk, suggesting that for these children irritability itself (or other unmeasured mechanisms) increases the risk of suicide. A second study investigated environmental mediators of the association between childhood irritability and adolescent suicide attempt [40], specifically focusing on two putative mediators: peer victimization and harsh parenting in early adolescence (age 13 years), both previously associated with suicide attempt [53–56]. Indeed, prior evidence suggested that irritable children are more likely to be exposed to negative interpersonal experiences, including peer victimization and harsh parenting [57–59]. Other studies also reported associations between childhood irritability and parenting styles characterized by harshness and hostility [60, 61]. Therefore, victimization and harsh parenting were plausible mediators of the association between irritability and suicide risk. In their study, Forte et al. showed that a substantial portion of the risk of attempting suicide for children following persistent and increasing irritability trajectories was explained by the increased exposure to peer victimization [40]. This finding is in line with the failure model [62], which states that children showing aggressive behaviors, such as being irritable, exhibited poorer social skills, greater rejection by peer, and less social support, which in turn put them at risk for negative outcomes such as suicidal ideation and suicide attempt. However, no evidence was found for a mediation role of harsh parenting in the association between irritability and suicide risk [40]. This finding may indicate that parenting in early adolescence plays a marginal role on suicide risk or irritable children; however, it is not possible to exclude that parenting at an early age may play a more central role, and future studies are needed to better clarify this issue.

Social and Interpersonal Development

Social development refers to the process by which children learn to interact with others around them including cooperating and communicating with others, establishing friendships and handling conflict with peers. Social development is suspected to have a profound impact on other developmental domains and on children's life experiences, including the quality of peer relationships especially within the school context. In this chapter, we focus on one aspect of social development that has received considerable attention in relation to suicide risk: peer victimization. Peer victimization is the experience among children of being the target of the aggressive behavior of other children [63]. It can include being pushed or hit, being called names, group exclusion, and cyber bullying. Bullying is a specific form of peer victimization, which is characterized by an imbalance of power between the perpetrator and the victim, as well as repetition of the acts [64]. While children from diverse cultural and geographic backgrounds are exposed to

bullying-victimization [65], it is more prevalent in children that are different from the social norms, including disabled children [66], obese children [67], and sexual minority youth [68]. Most children experience some form of bullying-victimization during childhood, and the frequency decreases with age [69, 70]. However, the experience of being bullied-victimized is highly heterogenous, varying in severity and chronicity. About 10–15% of children experience persistently high levels of peer victimization from elementary to high school [69, 70]. An important modifiable factor for children to be chronically victimized by their peers across their education is high levels of disruptive behavior before school entry [70].

It is important to understand the role of bullying-victimization in suicidal risk for several reasons. First, in the news, a number of high-profile suicides have been attributed to bullying-victimization. Second, interpersonal conflicts and relationship difficulties are often cited as key precipitant of suicide deaths in psychological autopsy studies [71], and bullying was reported in about one quarter of suicides in people younger than 20 years [72]. Third, bullying-victimization is associated with increased risk of mental disorders including depression, substance abuse, and psychotic symptoms [73] which in turn are associated with suicide [1]. Fourth, bullying-victimization is common, and reducing rates of bullying-victimization could potentially help reducing suicidal risk at the population level, if the association is causal.

Several studies have examined concurrent associations of bullying-victimization and suicide ideation and attempt. In a large survey of 134,229 adolescents around the world, bullying-victimization was associated with three times the odds of attempting suicide in 47 of the 48 countries studied [74]. A significant proportion of youth who are the victims of their peers are simultaneously bullying others. Previous research [75] including a meta-analysis of 47 cross-sectional studies found stronger associations for adolescents with the bully-victim status, as compared with those who only bully or are only victims [76]. Concerns have been raised that cybervictimization which is expressed through electronic forms of communication such as social media or texts has the potential to cause more distress than traditional bullying-victimization. Cybervictimization often co-occurred with traditional bullying-victimization, and most of the time the perpetrators were students of the same school [77]. In the QLSCD cohort, it was found that about 7–16% of adolescents between the ages of 12 and 17 years reported being cybervictimized in the past year, and for the vast majority of them it has happened only once [77]. In line with two meta-analyses [78, 79], the later study also suggested that cybervictimization (alone or when combined with face-to-face victimization) was more strongly related to suicidal ideation than traditional bullying-victimization in the short term (Fig. 7).

One concern that emerged from these cross-sectional studies is that they were unable to confirm the direction of the association. This is important because factors that are associated with increased risk of being bullied-victimized by others, such as depressive and disruptive symptoms, are also associated with suicide risk [80]. Hence, from cross-sectional studies alone it is still unclear if bullying-victimization is a risk factor for suicidal ideation and suicide attempt or whether associations merely reflect the effect of unmeasured confounders.

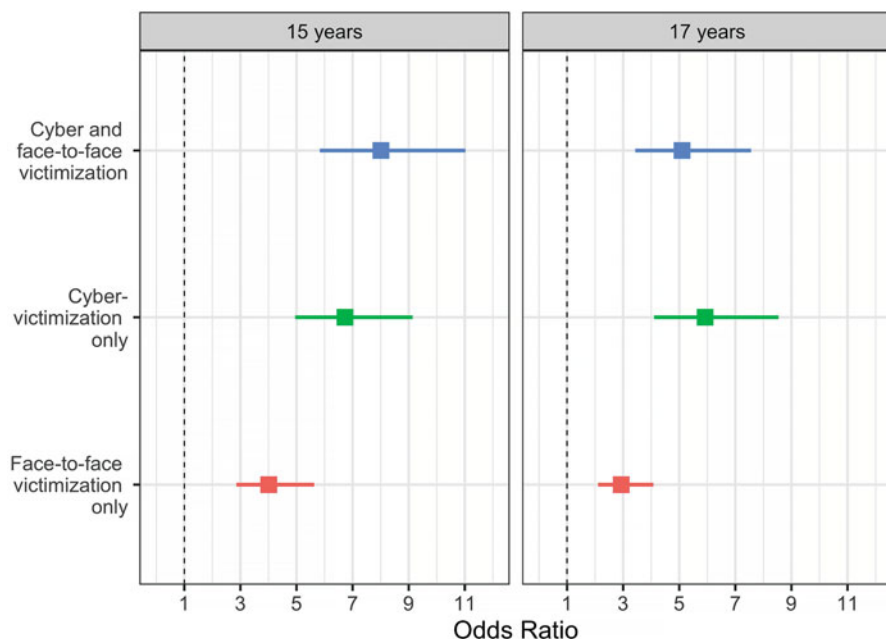


Fig. 7 Association of traditional bullying-victimization, cybervictimization, and their combination with suicidal ideation/attempt. (Note. The figure reports the odds ratios for the association between different combinations of exposure to traditional bullying-victimization and cybervictimization and suicidal ideation and/or attempt in the Québec Longitudinal Study of Child Development [77]. (Data were compiled from the final master file of the Québec Longitudinal Study of Child Development (1998–2018), ©Gouvernement du Québec, Institut de la statistique du Québec))

For obvious reasons, individuals cannot be randomly assigned to bullying-victimization groups, therefore limiting strong inferences on the effects of bullying-victimization on suicide risk. Thus, in the absence of randomized experiments, longitudinal studies with assessments of child and family characteristics, prior to bullying-victimization, are the stronger designs to assess such associations and strengthen causal inference. In one study, Geoffroy et al. (2016) found that adolescents exposed to bullying-victimization were two times more at risk of thinking about suicide and three times more likely to attempt suicide 2 years later, after accounting for baseline suicidal ideation/attempt, mental health symptoms, and family hardship [53]. In another study, the team reported an association between chronic peer victimization and later suicidal ideation that was not only independent from prior mental health symptoms, but also from concurrent depression and anxiety problems [69]. Other research suggests that the effect of bullying on suicidal ideation can last well into the adult life (for review: [81]). For example, in the 1958 British Birth Cohort, individuals who were frequently bullied in childhood were found to be at increased risk of suicidal thoughts 40 years later [82], after taking into account internalizing and externalizing symptoms in childhood and adverse experiences. To

date, a focus of research has been on suicidal ideation or on suicide attempt, with, to our knowledge, only one prospective study investigating the association between bullying and suicide mortality. In the Finish 1981 Birth Cohort Study, being the victim of bullying in childhood was associated with later suicide attempt and suicide mortality, after controlling for prior conduct problems and depression symptoms [83]. The magnitude of association was much stronger in females than males. To date, studies on the long-term effect of cybervictimization on suicidal ideation and suicide attempt are lacking. One study examining the effects of cybervictimization on suicidal ideation 2 years later, accounting for baseline suicidal ideation and related mental health symptoms, did not find cybervictimization to be associated with suicidal ideation in the long term, while face-to-face victimization was associated with suicidal ideation in the long term [77]. One possible explanation is that cybervictimization often occurs in isolation while face-to-face victimization is more chronic [69] and potentially contributes to a stronger prospective association.

Importantly, longitudinal studies with statistical adjustment cannot account for confounding factors that were not measured, including genetic vulnerabilities. One recent study based on the ALSPAC cohort found that children who were bullied-victimized by others were more likely to carry a range of genetic vulnerabilities that in turn are associated with increased risk of mental disorders and suicide [84]. Using the Environmental Risk Longitudinal Twin Study, Baldwin and colleagues (2019) used a cotwin control design to examine whether adolescents with the same genotype, individual and family vulnerabilities, but not the same exposure to bullying-victimization had different suicidal risk. Although prior vulnerabilities account for a large proportion of the bullying-victimization/suicidal risk association, victimized adolescents still showed a risk of suicidal ideation compared to nonvictimized adolescents, pointing to a causal association (Fig. 8) [85].

Taken together, these studies suggest that bullying-victimization is a risk factor for suicidal ideation and suicide attempt, but evidence for suicide mortality is lacking. Future studies are needed to test whether reducing the occurrence of bullying translates into a reduction in suicidal ideation and suicide attempt. Other strategies that do not aim directly at reducing bullying can also be beneficial. For instance, a simple intervention such as encouraging families to eat dinner together has been found to help adolescents exposed to cyberbullying to cope with their suicidal ideation [86]. In addition, a large-scale study found that bullied adolescents who exercise frequently were less likely to think about suicide than those who did not exercise [87].

Conclusion

This chapter summarized evidence on the influence of developmental factors on later suicide risk, including on suicidal ideation, suicide attempt, and suicide mortality. Overall, epidemiological evidence presented here suggests that suicide risk in adolescence and throughout adulthood has roots in the developmental period. Studies focusing on the prenatal and perinatal period suggested that early-life

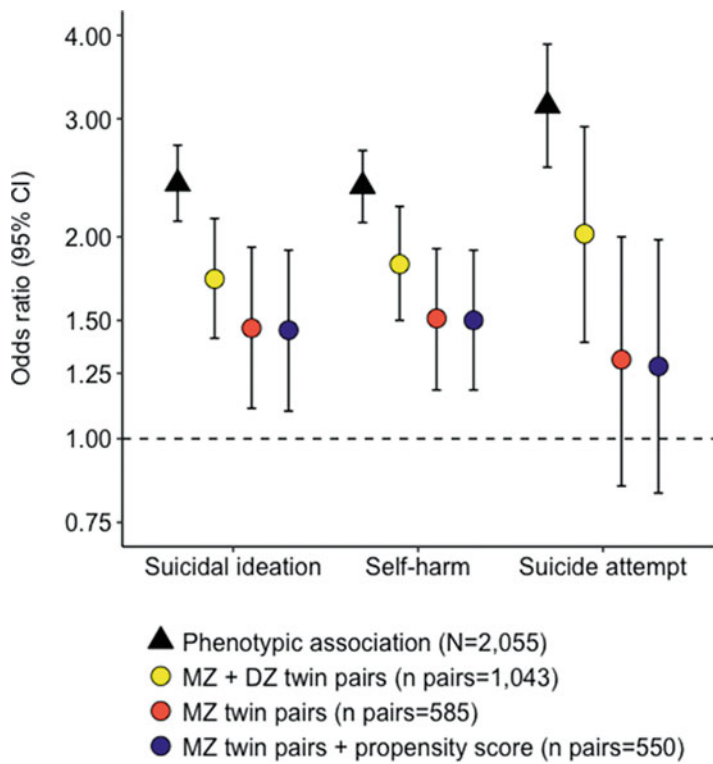


Fig. 8 Association between peer victimization and suicidal ideation, suicide attempt, and self-harm using different approaches to account for confounding factors. (Note: The figure shows the odds ratio for the association between adolescent peer victimization and suicide-related outcomes in the Environmental Risk Longitudinal Twin Study. DZ indicates dizygotic twins, while MZ indicates monozygotic twins. (Reproduced with no changes from Baldwin et al. (2019) [85]. Licence: Creative Commons Attribution 4.0 (CC BY; <http://creativecommons.org/licenses/by/4.0/>)))

characteristics are associated with increased suicide risk throughout the life span, with main influences represented by unfavorable family or socioeconomic characteristics, restricted fetal growth, and exposure to parental mental health problems. Later, in childhood and adolescence, cognitive and socioemotional factors appear to play important roles in the pathway leading to suicide. On the one hand, poorly developed cognitive skills in childhood and adolescent may have a long-lasting impact on socioeconomic status (including job security and position), which may result in exposure to more adversities in adulthood and lack of problem-solving abilities, in turn increasing suicide risk. On the other hand, behavioral and emotional problems during childhood are an important marker of vulnerability to suicide. In particular, emotional dysregulation (e.g., difficulties to regulate mood and behavioral responses when facing life stressors) and comorbidity of emotional and behavioral problems seem to play a key role in the etiology of suicide risk. Finally, interpersonal problems with peers during the school period, especially being the target of peer

victimization, can have impacts that go beyond the school period to influence later suicidal risk.

In reading the evidence we presented here, it is important to acknowledge three aspects. First, all the dimensions of development we discussed are not independent from one another. For example, poor fetal growth may influence later cognitive and behavioral development through alterations of neurodevelopment [88]. Low cognitive skills may influence how children regulate their behaviors and emotions, understand social cues during interactions, and interact with peers [89, 90]. Children with behavioral problems such as irritability may elicit negative reactions from the environment such as being excluded from the social circles or being victimized [57]. Victimized children tend to develop depressive cognitions [91]. It is therefore essential to adopt a multidimensional perspective that considers all these different aspects of child development as interdependent and mutually influencing each other.

Second, to translate these findings into public health-preventive strategies, more research is needed, particularly from long-term experimental programs in population sample [92]. However, the findings we presented suggest that routine psychosocial assessment of new mothers (e.g., by obstetricians and social workers) and of child development (e.g., by pediatricians) should be introduced to identify potential psychosocial, socioeconomic, and environmental factors that may signal higher risk for later offspring mental health problems. Such assessment may identify at-risk families and children that may benefit from interventions. For example, home-based interventions and interventions focusing on parent-child interactions show to have short- and medium-term positive effects of child mental health and cognitive development [93, 94], which can buffer later suicide risk. Evidence is also available for long-term effects of such early interventions [95]. For example, a counseling-based intervention relying on both home visits and parent groups for low birth weight and preterm children showed to be effective in improving children's cognitive development and reducing criminal behavior and socioeconomic hardship in young adulthood. The level of evidence of such intervention on the reduction of suicide risk is still low, and future long-term intervention studies should consider assessing suicidal thoughts and behavior as outcomes, alongside with other more commonly studies outcomes. It is also worth noting that all such distal interventions are a-specific in nature, as their aim is to improve different aspects of child development from the early years of life. These developmental aspects are likely to mediate any potential positive effects on suicide risk. Therefore, rigorous studies documenting the association between child developmental and suicide-related outcomes are important in order to support the hypothesis that improving in specific development areas (e.g., cognitive, behavioral, and social) can lead to a reduction of suicide risk.

Third, this chapter is not intended to be a comprehensive presentation of all developmental influences on suicide. Rather, we focused our attention on some important aspects, but we did not focus it on other equally important ones. Three aspects, in particular, have not been tackled. The first one is maltreatment (e.g., child neglect and abuse), an adverse experience often occurring in childhood which has profound impact on subsequent biopsychosocial development and suicide risk [96].

The second is alcohol and substance abuse, which have their onset in adolescence, are linked with both cognitive and behavioral modification (e.g., impulsivity), and are strong predictor of suicide [97]. The third one is physical development, and specifically puberty, which has been linked to suicide risk in previous rigorous longitudinal studies [98].

In conclusion, the findings presented in this chapter stress the importance of the developmental periods from birth to adolescence as windows for suicide prevention at the population level. Although more research is needed to translate these findings into preventive interventions, it is important to consider such factors in the current models of suicide.

Cross-References

- [Community-Based Interventions in Suicide Prevention](#)
- [Risk and Protective Factors for Suicide from a Cultural Perspective](#)
- [Suicidal Behavior from a Complex System Perspective: Individual, Dynamical, and Contextual](#)

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Part III

Social Aspects of Suicide



The Aftermath of a Suicide: Social Media Exposure and Implications for Postvention

31

Jo Bell and Chris Westoby

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Abstract

There is an urgent need to understand the effects of social media and related practices in the aftermath of a suicide. News of a death by suicide can explode like a bomb on social media, the impact of which can be felt around the world. Emerging research has shown that activity very often prompts multiple users to respond, rapidly sharing posts and ruminating publicly about the nature and reasons for the death. Knowledge about the role of online communication in the aftermath of a suicide is extremely limited, as is the impact of exposure in this way. Very little is known about the experiences and needs of those who engage in social media practices in the aftermath of a suicide: who engages in these practices; when do they emerge; how do they evolve over time; what is the impact on the immediate and wider community of users; and implications for prevention and postvention.

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In this chapter we draw upon existing and emerging literature to highlight how social media practices following a suicide loss increase exposure to suicide and have the potential to increase the risk of contagion. We reflect upon (a) the need for guidelines on safe reporting to be updated to account for the globalization of new media technologies, (b) the implications for postvention, and (c) the need for a new model for understanding the transmission of suicidal behavior via media exposure.

Keywords

Suicide · Social media · Exposure · Contagion · Prevention · Postvention

Background

In 2018, 6,507 suicides were registered in the UK [1]. It has been estimated that between 6 and 60 people in the extended social networks of those who die by suicide (friends, family, and acquaintances) are profoundly affected by each of these deaths [2, 3] and at significant risk for suicide [4, 5]. It is therefore possible to estimate between 39,042 and 390,420 people are affected each year and potentially made vulnerable to suicide. More recently, however, Cerel et al. [6] argued that the number of people exposed to each suicide death is far greater than this and more likely to be around 135 in US context at least.

We know that many of those exposed to suicide in various ways can feel stigmatized and traumatized and suffer from suicidal ideation [5, 7–9]. Research has also shown that at a time of high risk many of those who are affected use social media to express their sense of loss [10, 11]. How suicide is reported by the media and how it is talked about on social media impact suicide contagion (copycat suicide) [12, 13]. Young people in particular are susceptible to this by the words, images, and prominence of suicide stories.

Given that exposure to suicide can take many different forms, even Schiedman's [14] estimation of 6 growing to 60 [2, 3] and 135 [6] may be drastically underestimated in 2020. When taking into account exposure via social media, we propose that it is exponentially higher and far more difficult to quantify. Local news stories of suicide can now reach a global audience within days through sharing. A recent example in the UK highlights this: In December 2016 a 20-year-old man spoke of his heartache after breaking up with his girlfriend in an emotional post on his Facebook page and shortly afterwards took his own life. He ended the post by begging Facebook to not remove his post. In the days that followed, it was reported that the post went "viral": over 20,000 people viewed the letter (and Facebook page), which was shared around 11,500 times [15]. Another report suggested that over 50,000 people from different parts of the world responded to the post [16], including some negative comments prompting bereaved family members to speak out.

Sumner et al. [17] also argued that the population effects of exposure to suicide-related media are underestimated. They suggest that the range of impact from suicide

is expanding with increased connection possible through online social networking services such as Facebook. Individuals today are empowered content creators and consumers at once [17]. With this increased connectivity and self-perpetuating spread of viral news, the range of impact from a suicide expands in multiple ways, promulgating detailed and intimate information and sensationalizing how the death is seen. Local news can reach across the globe in moments; users of new media can affect people they will never know with a single comment.

At the time of writing, the userbase of Facebook alone is currently 2.7bn with an average of 338 “Friends” per person and only 3.57 degrees of separation between everyone; three quarters of Facebook users visit the site daily, and 50% visit it multiple times per day [18]. Many posts and shares reach friends of friends, again multiplying the exposure rate at a rate that is virtually instantaneous (as in the example given above). It is not difficult to imagine how rapidly the number of people exposed to suicide in this way and thus made vulnerable multiplies. This global network and algorithmic exposure to suicide via social media is difficult to quantify. No enquiry into how the information is transmitted, or the implication for suicide postvention, currently exists.

Postvention refers to support, procedures, and interventions that take place after a suicide to alleviate the distress of bereaved individuals (survivors), reduce the risk of imitative behavior (copycat suicides), and promote the recovery of the affected community. The term was first coined by Edwin Shneidman [14, 19] who noted that efforts at suicide postvention were a direct form of prevention of future suicides. In the UK, suicide postvention and care of the suicide bereaved is a NHS and public health priority: A key objective of the Suicide Prevention Strategy [4] is to “provide better information and support to those bereaved or affected by suicide.”

Cerel et al. [20] and Neimeyer et al. [21] acknowledged that understanding the impact of a suicide on social systems and individuals is now a major task for postvention research. They too recognized that those “exposed” are hardest to identify and constitute the group we know the least about. Likewise, little is known about the experiences and needs of those who engage in social media practices when someone in their social network – be it close or extended (friend of a friend) – dies by suicide.

Social media is at once open and private: it allows users to observe details of each other’s lives, but at the same time we each experience social media differently depending on our network of friends/follows (and interests, etc. which influence what appears on our feed). Much more needs to be known about the impact of exposure to suicidality on individuals in these networks, including how this medium works; why people use it; who engages in these practices in the immediate and wider community of users; when and where they emerge; and the contagion effects of social media practices.

Our research over the last 6 years has shed some light on this phenomenon. We have explored how social media use impacts surviving friends and family members in the aftermath of a suicide. We began by studying how deaths by suicide had been memorialized online, by conducting in-depth interviews with bereaved family members and friends who were using various online mediums to pay tribute – and in

many cases stay “connected” – to their lost loved ones. Our findings revealed both positive and negative effects of such practices. On the positive side, it was a means for the bereaved to transform their experiences and open up new ways of grieving and managing trauma. Participants described how they used sites (Facebook being the most common) to reach out to users in comparable circumstances of incredible shock, trauma, and sadness. Grievors had the resources to provide much-needed support for one another that lasted through the immediate aftermath of the suicide, continuing for many months, sometimes years after [8]. The sites provided an avenue of communication with deceased loved ones, highlighting clear implications for continuing bonds (staying emotionally and socially connected to the dead) and what many commentators refer to as the “continuing social presence of the dead” [10]. Negative effects included the potential for alternative narratives, increased distress, conflict, and suicide contagion [22].

In our most recent research [23], we interviewed individuals who had lost a loved one to suicide (i.e., bereaved parents, siblings, and friends) and practitioners working in various professional capacities to support those who are affected in the aftermath of a suicide. We sought to examine their experiences of media exposure (including social media and how this is used) and their perceptions of the impact of this on others in the community. In the following sections, we outline new insights from a preliminary analysis of this data which highlights how social media practices after a suicide loss increase exposure to suicide and the number of those affected. We discuss five themes in relation to existing research in the area and reflect on the impact for the immediate and wider community of users, implications for prevention and postvention, and how to target those in need of support.

Finding Out

Data from our recent interviews indicated that it is common for people to find out about a suicide via social media within hours of the event; this is consistent with findings reported by Heffel et al. [24] and Robertson et al. [25], who proposed that this was a factor suggestive of suicide contagion. For most people we spoke to, there was a race against the clock to tell everyone the “right way” in order to avoid negative impact. In the immediate aftermath of a suicide, the closely bereaved were often tasked with letting others who were close to the deceased know about the death. Once the media and social media find out, the news explodes; it is shared and commented upon, and personal messages are sent to the closely bereaved without consideration that this may be the first the viewer/recipient has heard of the death. This can be a jarring, impersonal, or even insensitive way to be exposed to suicidality and the death of someone one is potentially close to.

Heffel et al. [24] reported that one participant in their study learned about the suicide of their sibling via social media and expressed anger and regret. A participant in our study reflected on how lucky she was that her smartphone was out of battery on the day she would later find out about her brother’s suicide. Multiple messages were being sent to Louise’s phone, which would have caused her to find out about her brother’s death before her parent had the opportunity to tell her. Later, turning her

smartphone back on, Louise found that social media users had been eager to message her without considering that she might not actually know yet.

In the extract below, Louise's parent describes the speed with which the news was spreading and the panic she felt at the thought of her daughter finding out about her brother's suicide this way:

Oh my God. . . I can't cope with this. . . what if it comes out? What if the people at. . . [work] put it on Facebook or something like that? She could find out on the phone. . . all this time I'm trying to keep it off Facebook. I'd messaged. . . [other] people and. . . the Police, can you make sure that this doesn't. . . get out on Facebook because I'm worried about my daughter finding out?... within three hours, it was already buzzing round Messenger. (Cheryl)

Widespread Rumor and Speculation

It became evident that much of the information exchanged in this way was inaccurate. Widespread rumor and speculation served to fuel the exchange of messages and social media activity, further increasing awareness of the death and heightening the sense of anxiety and distress throughout the community, a finding also consistent with Robertson et al. [25]. Robertson et al. [25] argue that these electronic communications were likely to increase the risk of suicide contagion among young people through rapid sharing of information about the death facilitated by these technologies. Our interviews highlighted how, within hours of the death, activity on social media gave rise to rumor, and emotional outpourings which were shared online, as shown in this interview extract from a practitioner who worked in a postvention service supporting those affected by suicide:

The post went out and people started to panic and it got shared. . . thousands and thousands of times. . . the police got involved and they also shared it. . . It was very, very traumatic for everybody because it was so publicised. . . It got posted on social media, straightaway before any official announcement. . . [One] post had thousands and thousands of comments and different opinions on what had happened. . . different rumours and different stories. . . There was about six different versions of events of what happened. . . It was pretty chaotic to be quite honest. . . (Alison)

Mass Exposure

The example above illustrates how an exponential increase in exposure, which hits users repetitively, comes about via social media communication. Niederkrotenthaler et al. [26, 27] discuss this repetitious exposure in relation to media coverage of celebrity suicides, arguing that it increases the risk of suicidal tendencies among those who are vulnerable. Research by Scourfield et al. [28] compared social media communication in the aftermath of suicide deaths with that of road traffic accident deaths and found suicide memorial sites on Facebook generated thousands of postings. The same authors also found that suicide deaths attract more intensive attention and speculation and more elaborate writing and searching for meaning or

explanation for the death. Our data were consistent with this. The illustrative extract below from one of our interviews demonstrates how the circumstances of a suicide death garner media attention:

[Brother's death] was in the newspaper, there was like sharing articles, so the whole sharing side of it. . . was difficult because it was like my newsfeed all of a sudden became flooded with. . . my brother, my grief, my trauma. . . people. . . sharing and sharing and sharing. (Louise)

Until now, this phenomenon has only been seen when a celebrity takes their own life, and it is reported by the media, which ignites conversation among the public; now, the tendency for news of a suicide death to spread through social media allows this to happen to anyone. This celebritization adds fuel to the melee of online activity surrounding the death, which has the potential to increase contagion. Louise describes a dramatic change in the activity she witnessed on her social media following the suicide of her brother:

My newsfeed felt like a very dangerous place. . . it was hard. . . it felt a lot like swallowing poison (Louise).

She reflects that this danger was due to the death being made public through the mass exposure social media facilitates:

The fact that it was so public made it ten times worse. . . everyone was talking about it, it was just everywhere. . . Suicide is not like other deaths. . . the fact that it's suicide it's already ten times more amplified. . . because of the psychological chaos it causes. So for the public to add to that and have something to say. . . it just amplifies the chaos even more. (Louise)

Our data shows how exposure by social media reaches from those closely related to the deceased to those who are complete strangers:

One thousand one hundred and eighteen people like the page and one thousand one hundred and twenty-five people follow it. (Elizabeth)

Alison was not closely related to the deceased. Her comment here demonstrates how those in the wider community can be impacted by the suicide of a stranger:

I didn't know him, I didn't know the family, I didn't know anything about it but for the past three days I've been seeing everyone on Facebook sharing . . . it hits you in a way you can't quite explain. . . it's traumatic and it's kind of devastating to see. . . everybody in kind of the community we lived in, saw what had happened, so it did affect that wider community as well. (Alison)

When people are flooded with information about a particular suicide, vulnerable recipients can experience an increase in suicidal tendencies. It is no longer only in the reporting of a celebrity suicide that this reach occurs. The wildfire spread of such news via social media allows this phenomenon to occur with any other suicides, and more regularly.

Romanticization

Portrayal of a suicide in a way that glamorizes the tragedy or romanticizes those who have died by suicide can increase the risk of suicide contagion. Research by DeGroot [29], which looked at the ways in which deaths were memorialized online, noted the tendency for loved ones to use Facebook as a place to describe the deceased in a positive, almost romanticized way. We observed similar patterns in our data but also that this romanticization could be a factor in influencing suicide contagion, and this is what Robertson et al. [25] reported: many of those who took their own lives received attention and dedications from hundreds of other young people online which may have contributed further to the risk of contagion. Also consistent with Robertson et al. [25], a number of our participants expressed some concern over the idealization of the deceased among posts on social media, which could inadvertently contribute to the glorification of the suicide:

Making him out to sound like some sort of supernova. . . almost like godlike. (Louise)

Everybody that. . . wrote on it. . . saying what an amazing guy he was and... a fantastic man. . . making [him] into some sort of. . . like saintly figure. . . what an amazing person he was, . . . wonderful things. . . it built up his status almost. . . I think that could be dangerous for somebody who was mentally not in a good place. (Bridget)

As Bridget alludes above, the glorification of the deceased can pose a threat to vulnerable observers. The following extract demonstrates how this glorification can lead to the act of suicide itself being sensationalized and legitimized as a means of alleviating mental distress:

Suicide deaths almost becomes quite dramatic. . . it's a level of detail that sometimes gets sensationalised. . . normalisation and Facebook can. . . feed into that because these people who kill themselves are almost. . . glorified or thought very highly of and it's all that kind of acceptance that might well then lead into that contagion. . . it's like shining a light on suicide as a method of death and on the fact that this person has done it. . . almost like makes it an acceptable form of death. . . so that for me is how it's sensationalised as a method of death. (Irene)

The experiences outlined by our participants above demonstrate the danger in romanticizing suicide deaths. Suicide becomes an alluring method of escape from the mental anguish one may be suffering. These fantasies, that through suicide one becomes missed and legitimized as a great person, may influence the decisions of vulnerable individuals who encounter them, who may not otherwise have been exposed to them were it not for social media.

Negative Comments

Participants in Heffer et al.'s [24] research described being highly impacted by negative comments online in the aftermath of a suicide; this was identified as a potential contributor to suicide contagion. We found this to be consistent with our data; a single comment has the power to impact a whole community.

In this extract, Bridget reflects on how difficult it is not to dwell on a negative comment, even if it is outnumbered by positive ones:

There was an abundance of lovely comments. . . . but you don't focus on the hundred nice ones, you focus on the one that's nasty. (Bridget)

Alison observed the destructive effects of even one insensitive joke in relation to the suicide of a young person:

A boy who. . . posted a comment. . . and it caused riots, and I mean riots. . . it was very, very aggressive. . . and insensitive comments. . . they [young people] didn't have control over their emotions. (Alison)

This was one example of online discourse spilling into physical altercations.

Bridget observed aggression, conspiracy theories, and the attribution of blame being aired on the public forum; she sought to control the information in order to stem the destructive impact it would cause to others:

It almost goes into overdrive. . . they were angry . . . and wanting to put things that are not correct on there. . . it was almost like we had to become a filter for them and stop them just expressing themselves on there because it wouldn't have been appropriate. (Bridget)

These examples emphasize the need for control over the narrative. Frequently, a lack of control is displayed, with emotive and dramatic language being deployed which escalates the potential for distress:

You can't control it. . . it can come from anywhere. . . A relatively recent example where parents didn't want anything on social media but. . . . The child's friends had put lots of stuff on social media. . . . It's more than complicated. . . . You just can't control what comments are on there. . . when they are out in the open and not in closed forums. . . there's a real danger of. . . sabotage at times That's really really really difficult. . . in terms of understanding what that long term impact might be. (Peter)

One negative comment can be all it takes to catalyze fierce conflict. Louise talks about how this conflict is made a spectacle in the online community: "What an absolute shitstorm." This would be very unusual in an offline context, but our data implied it to be commonplace online:

People are playing out arguments that don't need to be seen by everybody. . . you might have hundred people looking at it, judging. . . feeling like crap because they've got into something on Facebook that they weren't expecting. (Elizabeth)

Some participants in Heffel et al.'s [24] study who were close to the deceased reported feeling angry at others for constantly posting on the deceased's Facebook page; some participants found constant reminders distressing and others questioned the sincerity of grief expressed by individuals who were not close to the deceased. They attributed this to attention seeking. Conversely, participants who

were not close reported using social media to learn about the deceased and searched the deceased's list of online friends to identify peers who might know more about the death. We found similar instances of this disconnect in expectations and norms regarding appropriate expressions of grief and shock online in our data. The disconnect in how attention-seeking behavior is construed by others can mean anger for those who see strangers comment on their loved one's death, while those who seek support through actively commenting can instead be antagonized. Either way, both are negatively impacted.

Implications for Postvention

It is now widely accepted that sensationalist forms of media coverage of suicide and suicidal behavior can trigger further suicides [30]. This phenomenon, described variously as copycat suicide, suicide contagion, imitation, or transmission, has been traced as far back as the 1700s. Known as the *Werther effect*, its name was inspired by Goethe's 1774 novel *The Sorrows of Young Werther*, in which the main protagonist in the story takes his own life due to a failed love affair. According to Phillips [31] and Stack [12], the novel was banned in several European locations and believed to be responsible for imitative suicides in Italy, Leipzig, and Copenhagen.

Suicide contagion can spread through a number of mechanisms, such as altering social norms around suicide, identification with an individual with similar characteristics or circumstances, or the implicit suggestion of suicide as a viable solution to problems. Such mechanisms are supported by social learning theory, which posits that behavior is learnt by observation of others [8, 17]. In general terms, the greater the coverage of a suicide story, the greater the chances of finding a "copycat" effect [12].

Knowledge and understanding of the Werther effect and suicide contagion have influenced the creation of guidelines for media regarding the safe and responsible reporting of suicide stories. More recently, increasing evidence has drawn attention to positive roles that media can play in suicide prevention [26]. The Papageno effect refers to the effect that mass media can have by presenting non-suicide alternatives to crises. Named after a lovelorn character from Mozart's eighteenth-century opera *The Magic Flute*, Papageno was contemplating suicide until other characters showed him a different way to resolve his problems. When Papageno fears that he has lost his love, Papagena, he prepares to kill himself. But three boys save him at the last minute by reminding him of alternatives other than dying. Neiderkrotenhaller [30] suggests that media can make a very relevant contribution to suicide prevention by maximizing reporting on how to cope with suicidality and adverse circumstances.

Media guidelines for safe and responsible reporting of suicides have been available for a number of years, including most prominently those produced by the World Health Organization internationally [32, 33] and Samaritans in the UK [34]. Generally, guidelines aim to encourage responsible reporting by reducing content that romanticizes, glorifies, or sensationalizes a death by suicide and prevent exposure to

content that might be triggering, such as overly simplistic explanations for the suicide and detailed descriptions of the method and location of death.

The need to promote responsible portrayal of suicidal behavior in England is a core part of the government's suicide prevention policy [4]. Despite this policy, and attention and campaigning to raise awareness about how media reporting can influence suicidal behavior, adherence to these guidelines is voluntary for reporters, and uptake of recommendations remain limited [17]. The media in England continue to publish sensationalist stories of suicide deaths. In some of our cases in our recent interviews, local media did not adhere to media guidelines. For example, stories about suicide deaths supplemented with invasively sourced photographs were publicized, and these were seen to accelerate social media use.

A key barrier to widespread voluntary uptake of media guidelines on responsible reporting, according to Sumner et al. [17], is that more sensational content is perceived to be more engaging to readers and this enhances publisher visibility and engagement – a point noted also by some of our participants, who reflected on the commercial motives of media conglomerates which run counter to safe and responsible reporting. According to Sumner et al. [17], no empirical information exists on actual influence of adherence to safe reporting practices on reader engagement, which could also be seen as another barrier.

Existing guidelines for managing media responses do not prompt affected communities to consider the role of communication technologies such as social media on suicide contagion. Sumner et al. [17] argue that guidelines, which were developed primarily in the era of print media, would benefit from adaptations to reflect evolving changes in media consumption behavior. This has not yet been achieved, but some inroads have been made. For example, revised guidelines have recently been published by Samaritans in the UK [34]. For the first time, these guidelines acknowledge the role of social media by advising journalists to treat social media with particular caution, suggesting it is safer not to open comments sections on suicide stories and to give careful consideration to the appropriateness of promoting stories through push notifications. It is acknowledged that sharing suicide stories on social media can increase the risk of sensationalizing a death. Samaritans have also recently published industry guidelines for sites and platforms hosting user-generated content to provide best practice principles for managing self-harm and suicide-related content online [35]. In Australia, guidelines have recently been developed by Orygen [36] to help young people communicate safely about suicide on social media. These include guidance on responsible use of social media in the aftermath of a suicide.

While these examples represent significant progress, more needs to be done to ensure that guidelines are up to date, understood, and adhered to. Historically, it has been difficult to urge the media to adhere to the guidelines, and this is an ongoing challenge. In order to counteract this, we suggest that postvention services can help manage the spread of information on social media that occurs in the wake of a report of suicide by print/news media. Our work points to important, practical ways in which postvention services can utilize our emerging understanding of the role of online communication in the aftermath of a suicide.

All postvention services should develop and implement a clear media strategy that is geared towards suicide prevention. The strategy should be underpinned by two fundamental considerations:

1. Measures to eliminate potential sources of contagion or increased distress from exposure to social media content in the aftermath of a suicide.
2. The prioritization of working with family and next of kin at the earliest opportunity.

We recommend that postvention services and other community agencies supporting those affected in the aftermath of a suicide proactively establish mechanisms to monitor social media and local media responses. Part of the strategy of working with families would be to help families write press releases and statements for the media and offer guidance in how to deal with social media and how (or whether) to memorialize the deceased online.

The immediate family have to be made aware, very quickly. . . the people affected. . . need to be careful on Facebook in the first instance. . . be prepared for. . . the blast of it. . . you have to make them aware that that sort of thing does happen. . . it's suicide itself that brings that out. (Cheryl)

Robertson et al. [25] suggested the monitoring of social networking sites by postvention services might allow detection of conversations or posts that might give cause for concern. Once identified, there needs to be an intervention to close down arguments and shield people from accusations of blame, insensitive comments, and the potential glorification of death by suicide. Our participants conveyed a strong sense that families should have control of the emerging narratives on social media. Postvention services have a role to play in helping to (re)gain this control.

In the first instance, we recommend postvention services implement a strategy that includes flooding social media with “cookie cut” statements that ask users to demonstrate respect and empathy and to pause and consider (“double think”) how their comments might impact on others before posting. This consideration for others was called for by several of our participants as a way of preventing the spread of rumor, misinformation, and the subsequent negative impact:

Make people kind of think about what they're going to post. . . respecting that person and the family at the moment... help people double think about what they're going to post. (Alison)

In addition, the Papageno effect should be considered. Reporting on how to cope with suicidality and adverse circumstances, using examples of lived experience, may be an effective component. The “cookie cut” statements could be accompanied by stories of hope and resilience in the aftermath of a suicide, highlighting a suicidal crisis as a temporary phase of despair which can be alleviated. This in turn could lead to a posting from the service to remind people they are there to help if needed. Services could also share posts that link people directly to further resources and information about suicide prevention: how and where to access appropriate support.

Although there is still lack of research evidence of protective effects [30], there is reason to be optimistic that this strategy will work. For example, Sumner et al. [17] found that closer adherence to safe-reporting practices was associated with a greater likelihood of an article being reshared, a finding that runs contrary to popular perception. Our previous work suggested the same, with details of available support services also being more likely to be shared [22].

Participants in our research instinctively used social media to raise awareness and campaign for suicide prevention in the name of their lost loved ones, which can be seen as an implementation of the Papageno effect. We saw examples of suicide-protective effects and how Facebook can be instrumental in decreasing the likelihood of suicide contagion if sites are utilized in this way [22]. It can help create a more positive legacy for the deceased and their family.

Heffel et al. [24] observed that some participants found constant reminders of the suicide distressing, suggesting it would be better to block or remove the page. DeGroot [29] recommends that site administrators take advantage of the privacy settings offered by Facebook to eliminate the presence of “emotional rubbernecks” (216). Similarly, our data found some examples of people autonomously making private groups in order to prevent unwanted, distressing, and triggering content:

Social media page. . . which is privately run. I think that’s probably the best way to keep it controlled on social media and not let it. . . get chaotic. (Alison)

More users should be aware that this control exists and know how to implement it. We recommend that postvention services offer guidance on how and when to navigate privacy settings, turn comments off, and create private groups.

Finally, postvention services can proactively campaign for clearer rules regarding page use and call for clearer processes that allow users to make complaints to social media when these rules fall short. Submitting complaints to Facebook in particular can be problematic; policies change frequently, and the legal framework around them has been difficult and patchy [37]. Experiences of our interviewees include a complaint to Facebook from a mother that her son had been memorialized without her knowledge; her complaint was met with an automatic reply referring her to Facebook’s terms and conditions. Postvention services could help navigate these processes, easing the burden from distressed families.

Conclusion

Exposure to suicide via social media increases the number of people previously estimated to be impacted by a death by suicide. Social media has overtaken traditional media in its reach and ease of access to information. Traditional media itself has been transformed by the introduction of instantaneous and interactive sharing of information created and controlled by anyone; by interacting with news information rather than passively consuming it, individuals spread the story further by sharing it and generate content by commenting on it.

Madianou and Miller [38] refer to polymedia, which is described as both a product and process; consumers of content are at the same time producers of content [17], and anyone can contribute, acting interchangeably as producers, audiences, and critics. To understand how media exposure to suicide influences and impacts on others in a “polymediated age,” it is important to take into account the many forms that media take and the many different interactions we can have with them. Therefore, as online social networks expand and the number exposed to suicide continues to grow, there comes an urgent need to understand and recognize the multiple ways in which everyone is impacted. Current understandings of the impact via media exposure fail to account for the globalization of communication made available by new technologies. Existing media guidelines also fail to account for the role of interactive digital media in suicide contagion.

In this chapter, we have highlighted that exposure to suicidal content via social media in the aftermath of a suicide can be both harmful and helpful for those affected, but the impact and effects of these practices are not yet fully understood. If we are to support those bereaved and affected by suicide who use social media, we need a thorough understanding of how this medium works; why people use it; who engages in these practices; when and where they emerge; the effect on the immediate and wider community of users; and how digital networks operate in these contexts for different communities. We have paired existing literature with some emerging findings that point to the negative impact and potential for triggering distress and contagion. Such work indicates that speculation and emotional outpourings shared online via social media can easily be misinterpreted and misreported, wrongly repeated as fact, and spread without due consideration for bereaved or vulnerable people.

Examples like these suggest a need for proactive monitoring and moderating of comments to safeguard against harmful, distressing, or triggering posts and to protect the privacy of individuals. The Papageno effect highlights potential benefits of media discourse on suicidality in contrast to the harmful Werther effects. Postvention services can play an important intervening role here by working with the bereaved to promote positive content on sites where online activity is creating negative impact. Robertson et al. [25] pointed out that the globalization of new media technologies makes the process of identifying others who may be at risk increasingly difficult. At the same time, however, we propose that the technology which causes the problem can also provide the solution. Social media presents an opportunity to reach some of those who are exposed and at risk; it provides a mechanism for postvention services to focus their efforts at critical points, delivering targeted, rapid support and helpful information to very large numbers of people.

This chapter has provided some insights into the role of online communication in the aftermath of a suicide and the impact of exposure in this way. In the world of the new media, we are all consumers and producers of media; this must be responded to with expanded efforts to educate all individuals on suicide prevention strategies. Much more research is required to further our understanding and update the media guidelines which will help reduce the risks of contagion. As the behavior by which users consume media is ever-changing, and social media brings suicide closer to all

of those in its vast userbase, suicide prevention becomes a responsibility for everyone. Suicide prevention is everyone's business.

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Jean-Pierre Soubrier

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Abstract

The relation between print media and suicide is still a major issue. There is a difference between radio and TV news because it is a document that can be read, reread, duplicated, and found anywhere privately or in public with text and pictures.

To date, suicide cartoons impacts, with often dramatic characteristics, have never been discussed.

Pictorial reports may have various effects and consequences. They can be as well:

- Informative = neutral, giving simple information
- Preventive = positive for suicide prevention and postvention
- Provocative = negative with contagious risks

Jean-Pierre Soubrier: deceased.

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This research was made from Pr. Jean Pierre Soubrier's personal experience on suicidology, also following sociopolitical turmoil occurred in France.

Keywords

Media resources and suicide · Suicide prevention media education · Mental health and media

Historical Recollections and a Current Issue

Many of us involved in suicide prevention and suicidology research have been by experience confronted with this dilemma.

The media have been accused of promoting suicide instead of preventing it.

News is mixed with a variety of sensorial information which can be very impressive and shocking.

The action is only postventional and that is, in fact, the basic question.

But is there a difference between print media and other media? Is print media's influence the same as other media?

Radio and TV are newflashes. Print media is a tangible document that can be read, reread, duplicated, and found anywhere privately or in public (offices, hotel lobbies, airports waiting rooms) with text and pictures.

Other questions are [3]:

1. Are they really responsible for increasing suicide?
2. What can be done to improve the relationship between suicidologists, health professionals, and media?
3. Can media be educational?
4. Is it a fact of modern society or not?

Many Studies Have Concluded That Media Could Be Considered Responsible for the Increase of Suicide [11, 12]

Jerry Motto, in a controlled study performed after his 1967 report on the role of the press [10], looking at the effects of a press strike in Detroit, concluded on the negative influence of media suicide. He declared: "a systematic effort is called for to eliminate emphasis in the press on the sensational details of suicide behaviours."

Later on, in 1992, David Phillips went further in his analysis and wrote: "Research suggests that one of the factors leading a distressed individual to suicide is the publicizing of model suicides in the mass media" [13].

It may be difficult or adventurous to be so clear since there are many other factors such as technical factors.

There is a difference if suicide is reported on the front page or in a headline, with or without a picture, glorifying the act or being outrageously sensational.

There is also a clear fact: Print media are frequently more interested in reporting the suicide of celebrities than noncelebrities, except perhaps in case of particularly unusual methods or in unusual circumstances.

A French suicidologist told me once that depending on whether the person is famous or considered a delinquent or rogue, the way the suicide is reported is different. The first ones are presented as having put an end to their lives, died by their own hands, or taking their own lives and the second to have committed suicide.

A rather ambivalent attitude is when print media reports collective suicide like the **Guyana massacre** in 1973 (913 deaths) [5], the Heaven's Gates members in California (39 deaths) in 1997, and the Solar Temple in France, Switzerland, and Quebec (69 deaths) in 1995, all equivocal suicides or deaths, which can be interpreted more like a mass homicide than a collective suicide. As a matter of fact, the impact on society is not clear.

Print media have, as said before, been accused to influence and create imitation and contagion of suicide.

Everybody knows what the Werther effect is [8].

Usually, the press answers or protects itself behind the "principal" shelter of free press or liberty of the press to inform the public of whatever happened with no specific obligation of control of what the news will produce or create.

Quite often, reporters follow their own fantasies, citing incomplete information recuperated during interviews and even in scientific meetings.

It may be argued that this is a deviation of the information, which alienates reflections on suicide phenomena based on ethics and science.

A former UNESCO report declared that the selection of information is based on a desire to disturb rather than to enlighten.

Therefore, a print report can have a positive influence as well as a negative one, seldom neutral, or purely informative.

An interesting study made in Turkey in 1938 by F. K. Gokay must be mentioned. It discusses the effect of a law voted in 1931, prohibiting any report of suicide in the press [2].

The study showed a decrease in the suicide rate, which appeared to be temporary, but during a period of socioeconomic turmoil from 1916 to 1936.

The author wrote: "What is the use for society to reveal the life of an individual in despair, tortured by thousand pains, and to expose him in the newspapers in a column with exaggeration and emphasis."

A summary of his conclusions could be: "It is the duty of specialist to know and take necessary measures to prevent indiscretion using preventive and educational publications. I am utterly convinced that this is not against freedom of the press. It concerns the life of a whole society."

This question of a free press reached its peak when suicide manuals were published.

Herbert Hendin, myself, and a few others have been fighting against this production of suicide books:

- In France : Suicide mode d'emploi (Suicide How to make it) Cl. Guillon. Y Le Bonniec. Editor A Moreau 1982
- In the USA : Final Exit, Derek Humphrey, Dell NYC, 1991

In 1984, I was invited to present a lecture at the French National Academy of Medicine answering this question: "Is suicide prevention still possible in France since the authorized publication of the book entitled: Suicide, how to make it – History, techniques, news?" [14–16].

At the time, in France and most other countries in the world, there were no laws able to control or prohibit those publications.

It took some time, because of a political dispute, to have at last in December 1987 a law against provocation to suicide, prohibiting publications promoting suicide.

It has been included in the French Penal Code.

It has been demonstrated how provocative this publication had been, influencing suicide rates in France. Following an exchange of correspondence with Editor T. Maltzberger in *Newslink* (1992), journal of *AAS*, about the publication of *Final Exit* in the USA, I suggested that:

"The American Association of Suicidology should not limit its action to gun control; it should address itself to book control as well."

In 1994, P. Marzuk et al. [9] compared suicide rates in New York before and after the publication of *Final Exit* in the USA and studied the methods suggested in the book.

It shows an immense increase of 30.8% of suicide by asphyxiation with plastic bags but no clear effect on the suicide rates.

Print media are certainly dramatically responsible for promoting suicide when publishing such manuals available in bookstores. They are different from manuals given to members of "dying with dignity societies."

To quote H. Hendin (1982) [4]:

They are not merely distributing "how to do it" information. They are the avant-garde of a larger attempt to seek social approval and institutionalisation for suicide.

Strangely, literature never mentions suicide cartoons. It is a rather dangerous mockery. Can anyone make a joke of such a dramatic event?

It is for some more provocative than preventive and may produce ambivalent fantasies and disturbing thoughts.

Therefore, What Can Be Done?

There Is a Need to Improve the Relationship Between Mental Health Professionals and Suicidologists with Media Professionals

In 1994, the Centers for Disease Control and Prevention (USA) first established recommendations, which are summarized as "guidelines for the reporting of suicide" [1].

Another Point

There is an ethical dilemma with the overacting media. But there may be also an ethical issue with mental health professionals giving interviews and their opinions on suicide without even having studied or knowing the case.

In 2002, in Madrid, WPA presented a declaration on ethical standards for psychiatric practice. Point 6 concerned psychiatrists addressing the media [20].

The Education of Media Is Essential. But Is It Possible?

In 2000, the World Health Organization with the international network for suicide prevention published a monograph entitled “Preventing Suicide: A Resource for Media Professionals” [19].

I had the privilege to translate it into French and to include a “translator note” where I indicate the proposal to initiate a “council of ethics for media” enabling to control, for instance, publication and interpretation of the media which unfortunately does not always fully or clearly report interviews given by mental health professionals.

I was told it was a splendid idea but impossible to put into act [7].

Last Interesting Point: “Is It a Fact of Modern Society?”

In a commentary published in the journal *Suicide and Life Threatening Behaviours* in 1996 (the Kurt Cobain Suicide Crisis), journalist Steve Knickermayer wrote:

Back in the 1950s, journalists did not report suicides in the newspaper [...] but journalists standards have changed overtime as society has changed [...]. When speaking to a reporter one should be careful about one says. One has to be especially careful when talking about life and death situations [6].

However, Reporting Suicide Can Help to Prevent Future Suicide

It is a postventional task as said in the introduction.

David Phillips also wrote in his study: “Modeling processes can lead ambivalent individuals towards suicide or towards alternatives.”

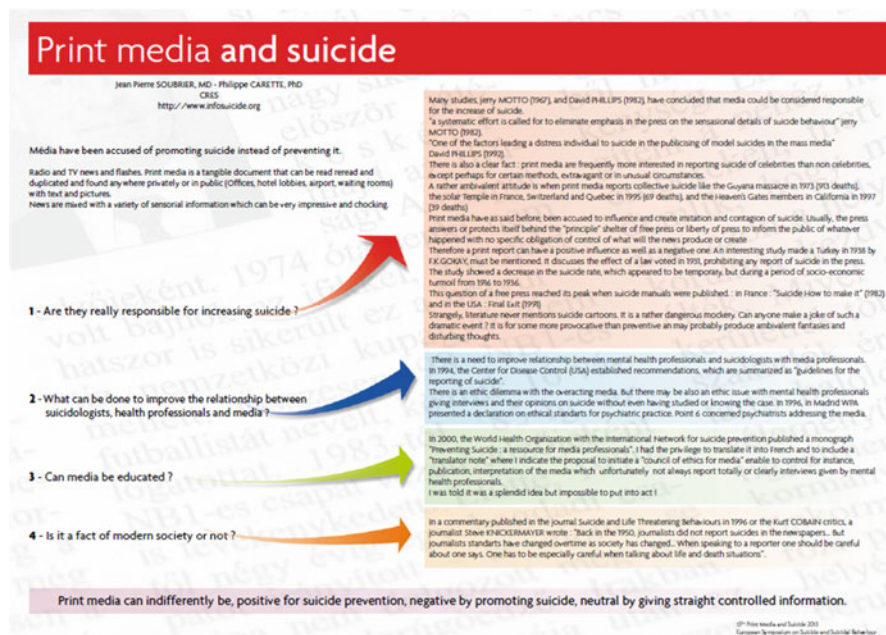
An alternative to suicide can be reported by the media. The best example was given by the suicide of Kurt Cobain when the entire media network confronted by the despair and anguish of a large number of youngsters collaborated with the suicide prevention network, not only in the area of Seattle where it happened but also all over the USA [6].

Print media are able and have to be encouraged to publish a list of resources in suicide prevention, lists of centers, and a message for a better life.

Conclusion

Print media can indifferently be:

- Positive for suicide prevention
- Negative by promoting suicide
- Neutral by giving straight controlled information [17]



Print Media and Suicide – awarded best scientific poster in 2010 at the 13th European Symposium of Suicide and Suicidal Behavior (Roma, Italy)

This poster contained various portrayals protected by copyright.

Another remark: Internet technologies can be considered as an equivalent to print media, but by providing accessibility, it adds a risk factor (cybersuicide) [18].

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Suicide Prevention in Female Sex Workers 33

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Abstract

The literature on suicidal behaviors in sex workers is still quite scarce worldwide. The few existing literature seldom focus specifically the research in suicidal behaviors, being these only one of the questions in larger studies, focused mostly in mental health or sexually transmitted diseases. This scarcity of literature is in part caused by the double stigma regarding suicidal behaviors and mental health on one hand, and sex work and sex workers on the other. In fact the stigma on sex work is what in part justifies the different regulatory models concerning sex work and therefore the different working conditions that these women live.

Nevertheless the few published studies, all seem to indicate an elevated risk of suicidal behaviors in these women, when compared to the general population in the different countries from where the studies are original.

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To the best of our knowledge this is the first effort made to propose prevention strategies specifically for sex workers.

Keywords

Sex work · Sex worker · Suicidal behavior · Suicide Prevention

Introduction

Sex workers face multiple vulnerabilities, such as pressing economic needs, substance misuse, mental health problems, victimization, lack of social support, and in some countries they also face criminalization of their work. We know now that suicide behavior is yet another vulnerability that we should take into consideration when it comes to planning some kind of intervention aimed at this vulnerable and stigmatized group.

The objectives of this chapter are, for one side, to present the different studies regarding suicidal behaviors in sex workers and on the other to propose strategies aimed to reduce the prevalence of such behaviors in this vulnerable and stigmatized group.

Suicide Prevention in Sex Workers

The research regarding suicidal behaviors in marginalized or hidden populations, of which sex workers are a part of, is an emerging field of study, but the existing literature is still quite scarce. However, there is some evidence that sex workers are a group that might have a high risk for suicidal behaviors [6, 41].

Suicidal behaviors can encompass a complex and wide variety of behaviors as well as their outcomes. In this chapter, we adopt the perspective that considers suicide attempts and self-injury behaviors, including self-cutting, self-poisoning, and other types of intentional self-harm regardless of the reasons and/or the degree of suicidal intentionality [17].

Considering that this chapter aims to discuss the prevention of suicidal behavior in sex workers, it is necessary to better clarify the different types of sex work, as this chapter will focus only on one of the types of sex work, prostitution. It's therefore important to make a distinction between prostitution and other types of sex work (which includes activities such as prostitution, pornography, striptease, erotic dances, and erotic phone calls [23]. All of these activities have in common the goal of getting some type of profit and the fact that the object of the exchange has a sexual nature [31]. This description by Oliveira shows us just how difficult it is to establish clear and unambiguous boundaries between prostitution and sex work [16]. One of the ways to overcome this difficulty is to assume both terms interdependently, assuming that the limits of sex work are vague, and can range

from erotic exposures without physical contact with the client, to unprotected and high-risk sexual relations with multiple clients [16].

For the purpose of this chapter, the definition of sex work that we will use is of a commercial exchange, in which one of the parties brings an asset with economic value, in order to obtain a sexual interaction (genital, oral, anal, or masturbatory) with the sex worker. The sex worker may or may not obtain sexual pleasure and emotional involvement during this exchange [39].

Before looking at suicidal prevention strategies in this population, it is imperative to better know the prevalence of suicidal behaviors as well as the risk factors that the literature lists. Thus, considering that one of the most common forms of categorization of the sex work goes through the workplace of these women, and considering that there is a relationship between the place where sex work is performed and the characteristics of the person who does it [33], to better understand suicidal behaviors and their risk factors around each group of women, we'll consider each one separately.

Suicidal Behaviors in Indoor Sex Workers

A study carried out with a sample of 326 sex workers in Goa [37], found that 34.9% of these women reported suicidal ideation in the last 3 months, and that 18.7% reported suicide attempts in the same period. This research proposed as risk factors episodes of violence (mainly carried out by partners), the absence of offspring, mental health problems, and a more socially isolated work environment. The latter risk factor is explained as a result of a higher prevalence of suicide behaviors in women who worked in apartments, when compared to those who did it on the streets (OR 1.13 vs 1.38) [37]. There are two aspects that should be highlighted in this investigation. On one hand, unlike most studies, this research finds a higher prevalence of suicidal behaviors in indoor settings rather than in outdoor settings. On the other hand, its authors propose as explanatory factors for these results a greater social isolation, less social support from peers, and, lastly, a lesser sense of collective identity [37].

An investigation carried out in China, among a sample of 454 indoor sex workers in Guangxi, states that 8.4% of the women interviewed reported at least one suicide attempt in the past 6 months [43]. Those results were higher than those found in other risk groups in China (for example, women between 15 and 24 years old) [43]. Within this sample, women with more years of school education and higher dissatisfaction with life had higher rates of suicidal ideation and suicide attempts.

The high prevalence of suicidal behaviors among these women, according to the authors, may be a reflection of fragile mental health, which may in turn be associated with the lack of other job opportunities, dissatisfaction with the work performed, and sexual coercion. Sexual coercion is, moreover, identified as a determining factor, both to the dissatisfaction with work and with the increase in the prevalence of suicide ideation and suicide [43].

A complementary approach is presented to us by another investigation conducted also in China, which refers to the existence of four statistically significant variables regarding suicidal ideation in sex workers, namely: dissatisfaction with life, abusive alcohol consumption, having been forced or tricked into commercial sex, and; having a stable partner [19]. Regarding suicide attempts, the statistically significant variables were related to: the existence of multiple stable partners, the existence of experiences of rape in the last 6 months, peer pressure to maintain in the sex work industry, and financial hardships.

A study conducted in Israel found a relationship between a high prevalence of occupational hazards in women who: work in brothels, are immigrants, started early in sex work, were victims of sexual abuse before the age of 18, work many hours a day, had a history of suicide attempts, and had symptoms of post-traumatic stress [7]. For these authors, suicidal behavior is just another aspect to be considered when concerning occupational risks, instead of considering that it's the risks associated with sex work that accentuate the risks of suicidal behaviors. This reversal of perspective may help to deconstruct the causal idea that suicidal behaviors are caused by sex work, thus contributing to mitigate the stigma associated with sex work.

This perspective, however, is not consensual, as we can see by the results found in a study that compares two samples of women who are drug users, in which one of the groups was constituted by sex workers. In this study they found a higher prevalence of suicide attempts, in the female sex workers [13].

An investigation developed in a rural area of India presents a disturbing perspective about indoor prostitution, since 92% of its sample reported a diagnosis of depression, and 57% had a history of suicide attempts [18], these values are quite high when compared with the results of other researches. For the authors of this investigation, exposure to episodes of violence, either in the workplace or in an intimate context, are related to a more fragile mental health [18].

In a study conducted in Zurich Switzerland, designed to assess the mental health of sex workers in that city, the authors distributed the sample into four groups, specifically: (a) Swiss born street prostitutes, (b) women working in cabarets, salons and brothels, of unspecific cultural background, (c) European foreigners working in apartments and, (d) non-European foreigners working in apartments. Among the four groups studied, it was the group of non-European foreigners who had the highest rates of victimization and the highest incidence of mental health diagnoses. Of these women, 73.3% had anxiety disorders, 46.7% were diagnosed with depression, and 40% had diagnoses of post-traumatic stress [35]. The lack of social support, as well as the legal situation in the country and therefore access to health services, appeared as determining factors in the high prevalence of psychiatric symptoms presented by non-European women who worked in indoor context.

In spite of the few studies found, there seems to be some consensus that more important than sex work itself, it seems to be the social environment, legal situation, and working conditions that have the higher impact on the rise of mental health problems and, more specifically, in suicidal behaviors. Only the investigations by Shahmanesh [37] and Rössler [35] seem to indicate a higher prevalence of suicidal behaviors in indoor sex workers, when compared with street sex workers.

Suicidal Behaviors in Street Sex Workers

Regardless of the context and the regulatory model of sex work, there is a wide range of literature that considers street sex workers, as those who occupy the lowest level in the hierarchy of sex work [4, 12, 30, 31].

Therefore it is important to know more about suicidal behavior in this group of women.

There is little research that focused only in the study of suicidal behavior in street sex workers. However, it is noteworthy the existence of literature that addresses the health of these women and that concomitantly refers to suicidal behaviors.

An example of this is the work developed by Vanwesenbeeck [42] in the Netherlands, which states that women who had traumatic experiences in childhood later presented a higher prevalence of anxious depression, as well as a higher level of aggression, both hetero-directed as well as self-directed, resulting in a higher prevalence of nightmares, distrust, and suicidal ideation.

In a sample of women undergoing methadone treatment, those who were also sex workers had higher levels of depressive symptoms and psychological distress [10]. In previous studies, the same authors had highlighted the importance of developing further investigations, in order to better understand, whether the psychological suffering presented by sex workers was a precursor or was caused by sex work, and how sex work, depression, and psychological suffering were correlated [9]. The illegal nature of sex work and the resulting stigma for sex workers has been suggested as being able to accentuate psychological suffering [11]. Therefore psychological suffering in these women may be associated with the stigma resulting from the illegal nature of sex work, in countries where sex work is illegal, thus contributing to greater psychological suffering in sex workers.

Although the existence of a myriad of psychological problems associated with sex work, such as depression, schizophrenia, or suicidal tendencies, has already been presented by several authors, that has been done without a real discussion about possible explanatory causes [12].

Focusing now on these women's suicide attempts, these appear to be quite high. According to Johnson (1992 cit in [12]), about 50% of all sex workers, at some point in their lives, made at least one suicide attempt.

Another study of qualitative nature and with the aim to analyze the relationship between suicide and sex work in adolescents shows that in their sample 76% had already at least one suicide attempts [22]. This study, focused on the emotions and feelings of these youngsters associated with their suicide attempts, highlights that at the time of the suicide attempt, these young people had mostly feelings of depression, isolation, rejection, betrayal, lack of control, and low self-esteem. For these authors, the precipitating factor that led to the attempted suicide could be a "bad job." This "bad job" could have several meanings, namely, working and not being paid, carrying out a long work or one that required too much effort, being physically or sexually assaulted, or being subjected to degrading comments. It is important to note, however, that the source of stress and emotional suffering that was at the origin of the suicide attempts in these samples was not exclusively related to their professional sphere. The relationships

maintained with their partners emerged as an equally relevant factor for this consideration. About 70% of their sample reported that the existence of problems with their partners was an important source of stress and emotional suffering [22].

A Chinese investigation with 454 sex workers found a prevalence of 8.4%, with regard to suicide attempts, in the past 6 months. This same study points out that, for the same period of time, the prevalence of suicidal ideation was of 14.2% [19]. Although the suicide rate in China is considerably higher than the Global suicide rate [32], the rates presented by this sample of sex workers are higher than those found in the general Chinese population ([19]).

Our own research, carried out in Portugal, focuses on the prevalence of suicidal behavior in street sex workers.

When regarding the prevalence of suicidal ideation, we saw that 46.15% of the interviewees presented elevated levels of suicide ideation, scoring 41 or more points in Reynolds Suicidal Ideation Questionnaire [41].

In this sample, 44.2% of the sex workers reported at least one suicide attempt, and those who reported suicide attempts, 30.4% had 3 or more attempts [41].

Our investigation seem to indicate that more than the professional sphere, it is the personal, familiar, and romantic spheres that appear to have a predominant weight for the understanding of suicidal behaviors in sex workers. Of the women of our sample, 65.2% reported that the existence of conflicts with family members was at the origin of their suicide attempts. Mental health problems, such as depression and stress (30.4%), or episodes of violence resulting from professional activity (4.3%), arise after family issues for these women [41].

If, as a group, sex workers seem to have more somatic symptoms and psychosocial problems, we should not, however, regard sex workers as an indivisible reality, since their experiences are diverse [42]. The way in which sex workers perceive their work, as well as the duration, frequency, severity, and perception of exposure to risk factors will determine the level of deterioration of their physical and emotional health [46].

Common Risk Factors

Despite the scarcity of investigations on suicidal behaviors in sex workers, we cannot avoid noticing that both suicidal behavior in women as well as the entry and maintenance of women in sex work, share a myriad of risk factors that are commonly associated with both situations. This fact led us to focus our attention on this reality, aiming at the development of strategies that allow us to reduce suicidal behaviors in these women.

With the exception of low academic qualifications [42, 45] and low income [28, 30, 31], which the literature only presents as risk factors for street sex workers, the remaining risk factors, such as the pressing economic needs [1, 4, 19]; the consumption of psychoactive substances [19, 38, 44]; the existence of mental health problems [28, 37, 42]; episodes of childhood victimization [2, 7, 38]; the physical and sexual violence by peers [5, 42, 44]; and the low social support [20, 37, 42] are transversal to the different working contexts of sex workers.

The literature on suicidal behaviors in sex workers is based on some limitations.

Firstly, they rarely focus specifically on suicidal behaviors in sex workers. They also tend to aggregate together all types of sex workers, without making any reference to their workplace, seeming not to recognize the differences between the different work contexts. For last, they only explore superficially the risk factors inherent to suicidal behaviors. The published research do not seek to understand, in depth, the history of suicidal behaviors of these women (e.g., the reasons behind an attempt, the history of suicidal behaviors in the family), that could be preponderant to outline and implement prevention strategies.

Suicidal Behavior Prevention

The few literature available, regarding suicidal behaviors in sex workers, estimate a higher prevalence of suicidal behaviors in these women when compared to the general population [13–15, 40, 41]. It has been recognized that, alongside security forces, inmates, LGBT people, and homeless, sex workers are a specifically vulnerable group regarding suicidal behaviors [36]. Thus, the prevention of suicidal behavior in these women is an important challenge for public and community health.

In our own country, although suicide behaviors in sex workers have been recognized as a problem, in the National Suicide Prevention Plan [8], there isn't to date, any project implemented with the aim to prevent suicide behaviors among sex workers.

Suicidal Behavior Prevention in Sex Workers

Despite the better knowledge about suicidal behaviors, and its prevention nowadays, it hasn't necessarily implied a decrease in the number of deaths by suicide worldwide, which shows us how complex and challenging this task is.

If the prevention of suicidal behavior is generally a herculean task, it's even more defying when aimed at especially vulnerable groups, such as sex workers.

Therefore, we propose a set of strategies, which in a concerted manner, may help to mitigate the emotional suffering of these women and consequently the prevalence of suicidal behaviors.

Training on Suicidal Behaviors to Harm Reduction Services

The contact of NGO's that develop work in the area of Harm Reduction with especially vulnerable populations provides a unique opportunity, on the one hand, for the identification of risk factors, and on the other for referral to the health services [26].

It is not intended to transform Harm Reduction services and their technicians into suicide specialists; however, a more detailed knowledge of the risk factors as well as

of the existing resources in suicide prevention and treatment, together with the privileged relationship that these technicians have with sex workers, may improve the early detection of risk of suicidal behaviors.

The resource to these NGO's and technicians to the prevention of suicidal behaviors can be achieved through the application of a short training program, focused on topics, such as:

- Epidemiological data on suicidal behavior.
- Risk factors vs protective factors.
- Information about community resources to which the sex worker can be referred to, such as:
 - Emotional support lines.
 - Primary health services.
 - Suicidal prevention consultations.

Training on Suicidal Behaviors for Sex Worker's Peers

The use of peer-to-peer interventions has been extensively used with vulnerable and hard to reach consumers of psychoactive substances or sex workers [3]. The effectiveness of Harm Reduction interventions has been advocated by several authors [25, 34].

Latkin [25] suggests that peer-led interventions will be more effective than those carried out by professionals since:

- Peers are a more reliable and influential source of information since the subjects of the intervention identify with their peers, due to a greater cultural and experiential proximity.
- Peers in their interventions use already established networks to share information and advice. Peers are also able to reach individuals who remain less receptive for professional's interventions.

Despite the literature supporting the use of peers, namely, in the harm reduction in risk of sexual behaviors and in the reduction of syringe sharing among drug users, its effectiveness in reducing the prevalence of suicidal behaviors is not yet proven. However Mann and collaborators [26] refer that this kind of intervention increases knowledge and improves attitudes toward mental health and suicide. For this reason, we believe that it would be negligent if we did not propose the use of peer training in the context of the general effort to reduce the prevalence of suicidal behaviors in sex workers.

Providing Emotional Support Services

A recent systematic review, designed to assess the impact of telephone emotional support services, found a positive impact in the reduction of the levels of suicidal ideation both in the immediate as at short term, as well as an improvement of

depressed mental states, and a positive response from callers, namely, those who suffer from a chronic health problem [21].

Although the emotional support services may have some differences between them [27], they share a common basis of anonymity and confidentiality, which allows callers to speak without any kind of social pressure or fear of moral judgment. Being sex workers, and particularly subject to moral judgment groups [29], the reservation of the identity and the anonymity assume particular relevance for them.

Emotional support services can usually be done by volunteers or trained professionals [27]. Although the effectiveness of this type of intervention is not yet completely proven, these emotional support services can inform and refer to health services that can intervene in a situation of suicidal crisis.

Referral to Health Services in Situations of Suicidal Crisis

It is widely recognized that psychiatric disorders represent an increased risk for suicidal behaviors [47], and that psychiatric disorders are estimated to be present in at least 90% of suicides [26]. Untreated or undertreated depression even after a suicide attempt is a recurrent situation, therefore treating mood disorders and other mental health problems is a central component of a suicide prevention strategy [26].

It is important to note that although many countries have a free and universal National Health Service, the characteristics of this health services, combined with specific circumstances and the individual characteristics of sex workers, makes access to health often inaccessible or difficult for sex workers due to the way the services are structured [24]. It is therefore necessary to create priority access routes for sex workers.

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Zero Suicide: The Movement to Safer Suicide Care in Health Care

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Abstract

Launched in 2011 by the US National Action Alliance for Suicide Prevention, Zero Suicide emerged as an aspirational goal designed to catalyze

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transformational change, a suicide care model with specific practices for health systems to employ, and a movement seeking to make health care settings safer and more compassionate for people with suicidal thoughts and urges. Zero Suicide fills the gaps that patients at risk for suicide often fall through by using evidence-based tools, systematic practices, training, and embedded workflows. Continuous process improvement drives this model to ensure organizations deliver quality care, routinely examine outcomes, and remain committed to fidelity. Leadership that is dedicated to suicide prevention as a core responsibility of health care is critical. Health care programs that have implemented Zero Suicide are a version of high-reliability organizations (HROs) that via relentless quality improvement and attention to detail are able to perform high-risk work in complex domains without serious accidents or catastrophic events. The realization that suicide deaths for those under care is preventable, coupled with the availability of best practices and tools to implement these strategies, means quality and effective suicide care cannot be ignored. Included in this chapter is a description of the birth of the Zero Suicide model as a roadmap for health care systems, the rationale for the components of the model, the results of early adopters of Zero Suicide, and future directions for suicide care in health care systems.

Keywords

Zero Suicide · Suicide care · Suicide prevention · Workforce development · Zero Suicide in Health Care

Introduction

The dramatic and sustained increase in rates and numbers of US suicide deaths in this century is drawing attention. Each yearly report from the Centers for Disease Control (CDC) or the Veterans Administration strengthens the narrative about increased deaths and keeps suicide in the national conversation. The “deaths of despair” analysis by Case and Deaton [7] put a spotlight on the surging death rates from overdoses, suicide, and alcohol poisoning that has reduced overall life expectancy. And most recently, the CDC reported that rates of seriously contemplating suicide have increased dramatically during the novel coronavirus pandemic [18].

During the same period, efforts to prevent suicide have also expanded dramatically in the USA and abroad. The last two decades have seen the initial publication in 2002 and later a revision in 2012 of the US National Strategy for Suicide Prevention, creation of a national suicide prevention telephone hotline, and designation of a single national crisis number – 988 – by the Federal Communications Commission. Additionally, in the last 20 years, grant programs specifically for suicide prevention and research were established at the federal level by agencies such as the Substance Abuse and Mental Health Administration (SAMHSA), National Institute of Mental Health (NIMH), Indian Health Service (IHS), and CDC, as well as the funding for a

national Suicide Prevention Resource Center (SPRC). Though this increased attention and spending over the past two decades has been substantial compared to the preceding decades, and has resulted in more compassionate and better evidence-based ways to approach the challenge of suicide, the scope and scale of organized efforts remain very small compared to the scope of the problem. To illustrate this, consider that suicide is currently the tenth leading cause of death in the USA at about 48,000 suicide deaths annually. A comparison of the US National Institutes of Health (NIH) research investments per fatality for HIV/AIDS compared to suicide finds spending of over \$100,000 per HIV death versus about \$2000 for suicide.

In this chapter, we review the development and spread of the Zero Suicide model – a systematic approach that aims for “suicide safe” care in health care systems. The Zero Suicide model emerged from the US National Strategy for Suicide Prevention in 2011 and is being implemented in whole or part throughout the world. We describe the results of early implementation and suggest opportunities for more widespread adoption of the Zero Suicide model. Broader adoption of Zero Suicide may be a key strategy to slow the increase in suicide, or even to reduce the rate, since most deaths are among people who used health care services, and Zero Suicide has been feasibly implemented while reducing deaths in a number of early efforts. Zero Suicide is at the tipping point. The realization that suicide deaths for those under care is preventable coupled with the availability of best practices and tools to implement these strategies means quality and effective suicide care cannot be ignored. Collaborative care and other models have opened the door to the recognition that the triple aim can be achieved (improving the experience of care, improving the health of populations, and reducing per capita costs of health care) by co-locating or greater intentionality in integrating medical with behavioral health providers since individual patients are complex and often multi-morbid. However, despite these advances, many health care systems have yet to prioritize suicide care. What follows is a historical record of the birth of the Zero Suicide model as a roadmap for health care systems, the rationale for the components of the model, the results of early adopters of Zero Suicide, and future directions for suicide care in health care systems.

Zero Suicide Model Emerges As Part of National Strategy for Suicide Prevention

A key part of the national infrastructure to bolster suicide prevention efforts was created in 2010 with the formation of the National Action Alliance for Suicide Prevention (Action Alliance) – a public–private partnership tasked with advancing and refining the national strategy. Over a dozen task forces were established early on by the Action Alliance to better understand and reduce suicide in critical but underdeveloped and somewhat poorly understood areas that were part of the first national strategy – public messaging, research, faith, workplace, American Indian/Alaska Native (AI/AN) communities, military, lived experience – as well as one task force tasked with critically examining suicide in the context of health care. The first national strategy omitted goals to reduce suicide in health care systems, mistakenly

assuming that health care was safe and effective for those entering with suicide risk. The Clinical Care and Interventions Task Force challenged that fallacy and aimed to examine whether health care could do better for those at risk for suicide. The task force effort revealed deficiencies in the identification and treatment of suicidal people receiving care within health care organizations and opportunities to improve that care based on emerging experience and research findings [10]:

- A great majority of people who die by suicide had recent contact with a health care program or provider – especially primary care, emergency departments, and mental health programs [42, 79] – highlighting missed opportunities to identify risk and provide relevant care.
- Health care does not systematically attend to suicide prevention: patients are not routinely or systematically screened, protocols and expectations for any kind of care that directly targets suicidal thoughts and behaviors are absent, and evidence-based practices are used inconsistently, if at all. However, the science of how to address suicide risk directly and based on evidence has improved considerably, and promising practices are now available.
- Health care professionals, including mental health professionals, are usually not trained to care for people at risk for suicide, and professional credentials do not require competence in “suicide care,” although suicidal people are sent to mental health settings. Too frequently, suicide risk provokes anxiety and avoidance in clinicians. However, promoting a culture of shared responsibility and providing quality training mitigates clinicians’ anxiety, allowing them to address suicide risk appropriately.
- A general fatalism about making a dent in the outcomes for those at risk for suicide persists. Promising approaches to suicide prevention in health care emerged in the last two decades, but they were new. Because of this, and since suicide prevention was not seen as a core health care task, they were not widely used.

The task force report states that “As major contributors to suicide prevention and intervention, public (including primary care, general medical care, emergency services and medical-surgical care) and behavioral health systems must make dramatic changes in how they perceive and address suicide” ([10], p. 8). This report highlighted the possibility that health care could and should uniquely contribute to suicide reduction in the USA, and thus new goal areas were included in the revised 2012 National Strategy: promote suicide prevention as a core component of health care services, and promote and implement effective clinical and professional practices for assessing and treating those identified as being at risk for suicidal behaviors [55].

A Set of Recommendations for Safer Care

The 2011 task force report, *Suicide Care in Systems Framework*, offered a synthesis of effective practices integrated into a roadmap for reducing suicide deaths in health care systems. The success of the US Air Force Suicide Prevention Initiative in the

late 1990s, in which the suicide rate dropped by one-third over a 6-year period [38], prompted the task force to shift its initial focus on better training for individual clinical staff to a systems approach. In 2012, David While, Harriet Bickley, Navneet Kapur, and others published research in the “Implementation of mental health service recommendations in England and Wales and suicide rates, 1997–2006.” Their findings also suggested systematic approaches that integrated evidence-based practices reduced suicides by 200 to 300 per year [80]. This research was making its impact at the very moment the task force was considering strategies for systematic, quality improvement approaches for health care systems.

A review of several health care systems, which had implemented elements of the approach revealed successes in reducing suicide attempts and deaths. In reviewing these initiatives, the task force found three critical factors common to all that led to their remarkable successes:

- **Core Values** – the belief and commitment that suicide can be eliminated in a population under care (a “boundaried population”) by improving service access and quality and through continuous quality improvement.
- **Systems Management** – taking systematic steps across systems of care to create a culture that no longer finds suicide acceptable, setting aggressive but achievable goals to eliminate suicide attempts and deaths, and organizing service delivery and support accordingly.
- **Evidence-Based Clinical Care Practices** – delivered through the system of care with a focus on productive patient-staff interactions. These methods (e.g., standardized risk stratification; evidence-based clinical interventions specific to managing suicidality, accessibility, follow-up, and engagement; and education of patients, families, and health care professionals) achieve results.

The task force offered a set of recommendations that outlined a vision for safer care. One recommendation was that organizations should take progressive steps to implement and measure progress with an ultimate goal of zero deaths among members/patients, thus laying the foundation for Zero Suicide as the call to action, as well as new nomenclature for this ambitious initiative. The Zero Suicide approach is several things: an aspirational goal designed to catalyze transformational change, a suicide care model with specific practices for health systems to employ, and a movement seeking to make health care settings safer and more compassionate for people with suicidal thoughts and urges.

The Zero Suicide Model

The Zero Suicide model operationalized the recommendations of the Action Alliance report. Many of the recommendations were based substantially on the Henry Ford Perfect Depression Care Initiative – an innovation which was at its heart a health care transformation effort [11]. Henry Ford’s Perfect Depression Care Initiative had an overall aim of rapidly achieving “ideal care,” which was defined in part

by an audacious goal to eliminate all suicides. The population served by Henry Ford Health System (HFHS) includes individuals with acute and serious mental illness whose hazard ratio suggests they are 12 times more likely to die of suicide than are those in the general population. Nevertheless, HFHS reported a 75% reduction in suicide for this population in the first 4 years of implementation and zero deaths during all of 2009. Over the period of implementation, the effort succeeded in reducing suicide deaths among a population under psychiatric care to about the level in the general population [14].

The early framers of the Action Alliance were focused not just on adopting a clinical package, but on emulating the Henry Ford approach to system transformation and change management. This meant making culture change and quality improvement core parts of the approach. Similarly, the task force report was informed by the successful suicide care effort by the Magellan Health managed care program in the Phoenix (Maricopa County) mental health system that emphasized basic training for frontline staff in working with suicidal people.

Thus, the Zero Suicide model is defined by a systemwide, organizational commitment to better suicide care in health and behavioral health care systems. The Zero Suicide model represents a culture shift away from fragmented suicide care toward a holistic and comprehensive approach to patient safety and quality improvement – the most fundamental responsibility of health care – and to the safety and support of staff, who do the demanding work of treating and caring for suicidal patients. Zero Suicide fills the gaps that patients at risk for suicide often fall through by using evidence-based tools, systematic practices, training, and embedded workflows. Continuous process improvement drives this model to ensure organizations deliver quality care, routinely examine outcomes, and remain committed to fidelity (see Fig. 1). Health care programs that have implemented Zero Suicide are a version of high-reliability organizations (HROs), that via relentless quality improvement and attention to detail are able to perform high risk work in complex domains without serious accidents or catastrophic events. Health care systems are starting to be comfortable with the language of HROs, and thus implementing safer suicide care practices is natural. Seeing suicide as a never event forces the organization to use best practices, apply continuous quality improvement, and emphasize reducing errors, while holding the system to account, not the individual.

Defining the Elements of the Zero Suicide Model

The Suicide Prevention Resource Center (SPRC) set out to operationalize the recommendations of the task force report so that it could be utilized by health care systems. This was done by better defining the model and offering guidance, tools, resources, and a robust, evolving online toolkit (Available at www.ZeroSuicide.com). Zero Suicide was framed as seven elements each emphasizing evidence for health care systems to adopt and that are to be used as a collective bundle (see Fig. 2):

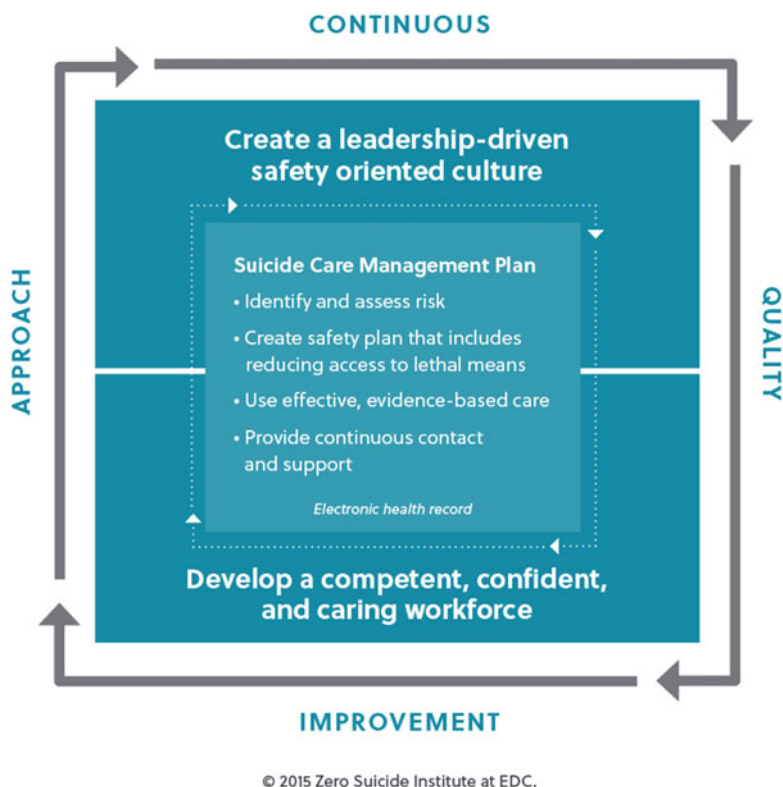


Fig. 1 Framework for elements included in the Zero Suicide model

1. **LEAD** systemwide culture change devoted to reducing suicides and acknowledge that top leadership commitment and dedicated front line champions are both necessary for success. Defining suicide prevention and effective treatment as a core responsibility of the health care system is essential and needs to be communicated to staff, to patients, and to their families. All staff play an integral role in reducing suicide with deference to the expertise one holds rather than their rank or role, while the value of incorporating those with lived experience into leadership, governance, and care processes is crucial to success.
2. **TRAIN** a competent, confident, and caring workforce. Interactions with staff are a critical part of any patient experience. This is doubly true for many suicidal individuals who have had experiences with health care providers or interventions where their needs were not met, their suicidality not reduced, and worse, where they were stigmatized or traumatized. Providers can provide hope to patients and their families that their symptoms can be alleviated, with clear explanations of how this can be achieved. Most health care providers (psychiatrists, psychologists, nurses, social workers, physicians, etc.) never received suicide-specific training in graduate or medical programs, so it is foolish to expect that they

Fig. 2 The seven elements of the Zero Suicide model



would be aware of the emerging array of evidence-based suicide care practices [10, 57, 64, 68, 74]. Health care systems should ensure staff receive the tools and training to do this work and not assume that licensure equals expertise. Interactions with patients need to be person-centered, collaborative, and careful to acknowledge the ambivalence that patients contemplating suicide risk often feel. Understanding that ambivalence – the desire to find a solution to the intense pain they feel versus the innate human desire to live – is essential for any clinician working with a patient at risk of suicide.

3. **IDENTIFY** individuals with suicide risk via comprehensive screening and assessment [67]. Well visits involve routine screening for cardiovascular health by checking blood pressure and lipid levels [32]. Screening for suicide is comparably effective at identifying individuals with elevated risk, while predicting suicide risk by considering demographic factors such as age and sex is ineffective. Therefore, the use of a standardized screening tool, administered at every visit, will help to ascertain those at risk who might not otherwise be identified. For those who screen positive, the use of a standardized risk assessment tool and risk formulation needs to be conducted to determine the course of treatment and next steps [46, 51, 60, 67, 78].
4. **ENGAGE** all individuals at risk of suicide using a suicide care management plan that includes immediate safety planning with steps to reduce means of self-harm [70–73]. Once a patient is identified as at risk, creating a collaborative safety plan and facilitating lethal means safety by reducing access – with confirmation – to the lethal means during the period of acute distress needs to follow. Additionally,

patients and their families should be provided clear communication about treatment plans and the rationale for care, educated on the clinical workflows/suicide care management plan the agency is offering that will target their thoughts of suicide, and offered hope that care can be effective and recovery is possible. Similar to screening tools, safety plans should be reviewed and updated at every visit while a client is on the high-risk pathway ([6, 24, 27, 28, 30, 37, 43, 58, 63]; Suicide Prevention Resource Center n.d.).

5. **TREAT** suicidal thoughts and behaviors directly using evidence-based treatments. Research in the last 10–15 years has emerged to suggest that suicide can be targeted directly through treatments that focus explicitly on the suicide risk, both to keep patients safe and to help them to thrive. Randomized controlled trials have found that Cognitive Therapy for Suicide Prevention (CT-SP) [5, 69], dialectical behavior therapy (DBT) [40], and the Collaborative Assessment and Management of Suicide (CAMS) [16] all reduce suicide and suicide behaviors. Even brief interventions delivered during single in-person encounters are effective in reducing suicide behaviors [20]. It is essential that clinicians apply these techniques that are known to reduce suicide, but they must be trained in these modalities.
6. **TRANSITION** individuals through care with warm hand-offs and supportive contacts. As many as 70% of people who attempt suicide never attend the first mental health appointment or go beyond one or two visits [54]. There are barriers to attending appointments – childcare, travel distance to see provider, time off work, payment – but concern about whether treatment will be effective or the provider can actually help should not be a barrier. The period after discharge from a hospital or emergency department is a high-risk time for increased suicide behaviors and deaths [37]. Physicians and others responsible for care transitions can introduce clients to mental health providers (warm handoffs), call to remind them of appointments or see that they went and will continue to go, and send them caring and supportive contacts between appointments. Automated or low-burden phone calls from medical providers reminding people of upcoming appointments, follow-up calls after surgery from care coordinators or nursing staff, or even check-ins from physicians after a complicated appointment or new diagnosis are commonplace now. They improve compliance and commitment to care and reduce barriers to follow-up appointments. The evidence [73] suggests this works to reduce suicide as well [23, 37, 43, 44, 47, 50].
7. **IMPROVE** policies and procedures through continuous quality improvement, collect and examine data routinely, and maintain fidelity to the processes you are establishing for the system. Data-driven quality improvement is essential to ensure improved patient outcomes and better care for those at risk of suicide [10, 12, 26]. Specifying all aspects of suicide care in the clinical workflow and monitored in an electronic health record will provide necessary data to identify successes and failures in care. However, continuous quality improvement can only be effectively implemented in a safety-oriented, “just” culture free of blame for individual clinicians when a patient attempts or dies by suicide, which would include supporting clinicians and staff following the suicide death of a patient. In

a Zero Suicide approach, a data-driven quality improvement approach involves assessing two main categories: 1) fidelity to the essential systems, policy, and patient care components of the Zero Suicide model, and 2) patient care outcomes that should come about when the organization implements those essential components. Outcome measures are only one component of the data collected, as these data will help you understand what ultimately happens to those in your care but do not necessarily tell you about how effective your policies, clinical workflow, and trainings have been or how to improve [8, 12, 13, 36, 62]. The screening tools and high-risk pathway should be embedded as part of the EMR/EHR accessible to all clinicians and reviewed often for fidelity to the processes established by the health care system.

As illustrated above, there is evidence for each element of this model. Early implementation efforts, which we will summarize below, also demonstrate that the full model is effective. Recent research and experience at Zero Suicide sites also confirm that not all people at risk for suicide need or will even benefit from hospitalization or crisis services. Most individuals identified with suicide risk do not need to go to the hospital and instead can be managed with intentional, quality outpatient mental health care that is tailored to their needs and risks, with safety planning at each session, monitoring/supportive contacts during any breaks in care, etc. However, many providers still over-rely on sending patients to the hospital as a result of their own inexperience, poor suicide-specific education, and/or anxiety, which only compounds patients' trauma and distrust. Thus, along with the emphasis on treating suicide risk directly with evidence-based interventions, newer models of care suggest that treatment and support of persons with suicide risk should be carried out in the least restrictive setting. Interventions should be designed – and clinicians should be sufficiently skilled – to work with the person in outpatient treatment, with an array of supports, and avoid hospitalization if possible.

A “stepped care treatment approach” has been recommended for care of individuals with suicide risk [1]. In a stepped care model for suicide prevention, patients are “offered numerous opportunities to access and engage in effective treatment, including standard in-person options as well as telephonic, interactive video, web-based, and smartphone interventions (S225).”

Stepped care has been applied to a myriad of health and behavioral health issues, including substance abuse, depression, stroke, chronic illness, and insomnia, to name just a few. Stepped care involves delivering care such that less-intensive, often less-restrictive interventions are offered to patients wherever appropriate and then “stepped up” to more intensive services as clinically indicated. Patients at risk for suicide need to be engaged in an individualized, culturally sensitive manner that takes into account their needs and preferences in order to achieve the outcomes sought.

Zero Suicide, therefore, is a robust set of suicide-specific interventions administered systematically, routinely, and with needed training that when applied consistently and with fidelity, has the potential to reduce suicide deaths for people under care. Zero Suicide can also be described as a “stretch” patient safety goal that

galvanizes cultural change in health care organizations, catalyzing leadership and providers to relentlessly pursue perfection.

Early Adopters and Outcomes

The context of rising concern about suicide, the results at HFHS, and the development of effective, feasible treatments provided fertile ground for the development and uptake of Zero Suicide following the 2011 report of the task force. This report resonated with many advocates who sought improvements in preventing suicide in health care. Two organizations quickly committed to the work of fully developing and implementing the model. Centerstone is a large multistate nonprofit providing a wide range of behavioral health care services; the Tennessee operation provided comprehensive behavioral health services, including strong crisis programs. Under the leadership of the Vice President for Crisis and Disaster Management Becky Stoll, Centerstone Tennessee (TN) committed to fully implementing the model. In New York State, the Institute for Family Health provides integrated primary care and behavioral health services (and in many locations, dental services) in the metropolitan New York City area. At the Institute, Virna Little, then senior vice president of Psychosocial Services and Community Affairs, committed to serve as a second national prototype for Zero Suicide. Dr. Little had managed an early replication of the Collaborative Care model at the Institute and was experienced at driving behavioral health program development within a health center model.

Beginning in 2012, these and several other organizations began the work of providing better suicide care, using and shaping all the elements of the emerging Zero Suicide care model. Aspects of the model were also being implemented in Texas, Kentucky, Indiana, Oklahoma, and New York and were led by state suicide prevention coordinators, local and state mental health care departments, and a few health care leaders. SPRC convened these early adopters to refine the model, share lessons learned, and summarize their implementation efforts for wide-scale dissemination via the toolkit.

At Centerstone, in a population entirely under care for behavioral health diagnoses, the baseline rate for suicide before Zero Suicide implementation was 31 people per 100,000; the suicide rate 2 years into implementation dropped to 11 per 100,000 – a reduction of about 64%. Data analysis, as well as a focus on who to count, has been invaluable to Centerstone TN in supporting quality improvement. Initially, Centerstone TN found a 64% reduction in suicide deaths from October 2012 to February 2015; however, through their continual data collection and analysis, quality improvement staff detected an increase in deaths in the 12-month period between March 2015 and February 2016. Almost half (47%) of these deaths were among patients who had not been screened as having elevated suicide risk and who were receiving only brief (15–20 min) medication checks, rather than appointments that included counseling. Clearly, brief infrequent contacts were not sufficiently protective. In response, Centerstone TN developed a two-pronged approach. First, they developed a protocol for treating patients who preferred medication-only appointments. Second,

Centerstone TN created a guide for their medical providers to help them assess in what circumstances patients would be candidates for medication-only appointments. After these strategies were implemented, suicide deaths fell by 57% from May 2016 to June 2017. Clarity and definitions around who to include in the denominator has helped Centerstone TN better focus on the impact of their suicide prevention efforts (Becky Stoll, Centerstone TN, personal communication, August 13, 2020).

The Institute for Family Health, a network of community health centers in New York, monitors adherence to its suicide care protocol. For example, after a safety-planning template was embedded into the electronic health record and training and monitoring were provided, safety plan usage by primary care providers for patients with a positive suicide screen increased from 38% to 84% over 2 years (Virna Little, Institute for Family Health, personal communication, February 22, 2016).

Riveredge Hospital, a free-standing psychiatric facility in the state of Illinois, started implementation of Zero Suicide in 2016 with a focus on care transitions as a key priority. This included implementing a “bridge appointment” that ensures patients meet with a clinician as part of the discharge planning process. They found that as of mid-2018, 90% of all patients being discharged from inpatient treatment received a “bridge appointment.” In 2017 there was a 21% decrease in the 30-day readmission rate compared to the previous year [59].

AtlantiCare Health System started Zero Suicide implementation in 2015, driven by internal data indicating only 50% of individuals discharged from the inpatient psychiatric unit attended their first scheduled outpatient follow-up appointment. To address this, a new suicide prevention protocol consisting of a bundle of interventions was developed to improve patient engagement. Their Zero Suicide initiative results demonstrated that from April 2017 through March 2018 all patients discharged from inpatient psychiatric care who participated in the protocol were offered an outpatient follow-up appointment within 48 h, and 100% of those same patients attended that appointment. Only 9% of patients who completed the protocol were rehospitalized at the inpatient psychiatric unit, compared to 22% and 30% of patients who did not complete the full protocol or declined involvement in the protocol, respectively [49].

The Chickasaw Nation Department of Health and Family Services began Zero Suicide implementation in September 2016, first starting in the emergency department and soon after expanding to all clinical settings (outpatient clinic visits, dental visits, emergency department visits, and acute and intensive care unit admissions). The department saw a number of key outcomes:

- Before Zero Suicide implementation, patients received similar care regardless of their level of suicide risk, and as a result, on average, 120–150 suicidal patients were admitted for inpatient treatment per year.
- Between December 2016 and June 2018, implementation of standardized screening, suicide risk assessment, collaborative safety planning, and follow-up care practices led to, on average, 200 diversions from admission to inpatient treatment per year.
- Cost savings estimates indicate that each inpatient admission costs approximately \$1100, and that diverting patients from inpatient care has saved over \$200,000 per year [19].

UMass Memorial Health Care system (UMMHC) has been implementing the Zero Suicide model primarily in the emergency department in a stepped approach since 2016. UMMHC found that different clinical settings required tailored approaches, as well as alignment with accreditation standards. Building screening and intervention tools in the electronic health record (EHR) helped to increase awareness and guide clinical action. Training needed to be continuous and integrated into clinical workflow. Documented screening rates are now over 90% across all emergency departments, with about 4% of patients screening positive for suicide risk. High rates of documented screening are encouraging, but true fidelity to screening can only be ascertained by direct observation, patient feedback, and improved detection.

US states also creatively and swiftly paved the road to supporting the uptake and dissemination of Zero Suicide. To support the adoption of the Zero Suicide approach in Connecticut, the Connecticut Suicide Advisory Board – the single statewide coalition for suicide prevention, intervention, and response – and the Institute of Living/Hartford Healthcare began co-chairing a monthly Connecticut Zero Suicide Learning Community (CT ZSLC) in October 2015. The CT ZSLC is an open group for health and behavioral health care staff interested in the Zero Suicide approach and its promoted evidence-based practices. CT ZSLC participants are provided with state and national resources and technical assistance, workforce peer-to-peer support, access to training resources, and encouragement to adopt the approach within their systems and promote the aspirational goal and philosophy of Zero Suicide beyond their four walls to their communities, impacting suicide statewide. To date, there are 36 member organizations, of which 28 are health or behavioral health care systems, and those 28 systems involve 49 sites. Thirty-seven of the sites are adopting evidence-based practices promoted within the Zero Suicide approach, and 19 of them are adopting the Zero Suicide approach in its entirety (Andrea Duarte, Connecticut Suicide Advisory Board, personal communication, August 26, 2020).

The Zero Suicide efforts within Texas public mental health agencies in 2013 was strengthened by support for the development of Suicide Safer Care Communities, which were envisioned as communities implementing best practices in identifying and referring individuals at risk of suicide, reducing access to lethal means, coordinating care across health care providers, and providing best practice postvention support. Training was provided as well as coalition building, awareness building, and community planning. Regional suicide prevention summits were held to educate practitioners and disseminate strategies. As a result of their Zero Suicide activities, strong continuity of care was achieved, workforce confidence increased, and fewer cases were referred for hospitalization relying instead on the outpatient providers [41].

In 2012 in Kentucky, following the release of the Action Alliance report, Kentucky's Department for Behavioral Health, Development, and Intellectual Disabilities (DBHDID) decided to look at data as a first step in enhancing the ability of Kentucky's state psychiatric hospitals and community mental health centers (CMHCs) to prevent suicide. DBHDID and the state Office of Vital Statistics negotiated a memorandum of understanding to share data monthly between the departments. This allowed DBHDID to get a more accurate picture of the suicide deaths of CMHC and state psychiatric hospital patients in Kentucky.

Using the data from the Office of Vital Statistics, DBHDID identified suicide deaths among patients who had received mental health services from a CMHC or state psychiatric hospital in the year before their death. These clients were found by matching social security numbers between the two data sources. Cross walking the DBHDID data and the Vital Statistics data revealed that from 2007 to 2013, 24–30% of people who died by suicide in Kentucky in any given year had received services from the public behavioral health system in the 12 months before their death. Among state psychiatric hospital patients, most suicide deaths occurred more than 4 months after admission. Clients served by CMHCs died by suicide at a rate of 80 per 100,000, while clients with at least one state psychiatric hospital admission died by suicide at a rate of 340 per 100,000. (The national average during this same period was 12 per 100,000). This crosswalk looked at if and when patients receiving care by the state died by suicide was trailblazing at the time and others have since followed [75].

Zero Suicide has produced good results in early implementation around the globe. St. Joseph's Health Care London is a large academic health care organization serving London, Ontario, Canada, and the surrounding region. They began implementing Zero Suicide in 2016. After assessing for organizational readiness and staff experience with providing care for patients at risk for suicide, they developed a comprehensive training plan and instituted new protocols and workflows related to treating patients at risk for suicide. St. Joseph's observed several key improvements from 2016 to 2019:

- Increase in screening rates from 0% to over 90% for individuals in the Adult Ambulatory Mental Health Care program.
- Increase in completed suicide risk assessments from 48% to 100% for individuals in the Adult Ambulatory Mental Health Care program.
- Increase in comfort levels related to discussing suicide and the destigmatization of the word *suicide* among both clinicians and those receiving care (based upon qualitative data provided by focus groups) [3].

The Gold Coast Mental Health Specialist Service in Queensland Australia began Zero Suicide implementation in 2016. With a strong focus on building a restorative just and learning culture, within 2 years the service had achieved demonstrable and positive changes [61]:

- Decrease in suicide risk stratification (without care pathways/suicide-specific plans relevant to risk level) from 88% to 11% with a shift to a more dynamic approach to risk assessment.
- A large increase in the development (and quality) of safety plans for consumers from 1% to 52%.
- Increase in addressing lethal means from 11.4% to 68.4%.
- Increase in people receiving community follow-up within 2 weeks of being discharged from the emergency department. In 2015, 13.6% of people received follow-up; in March/April 2017, 46.3% of people received follow-up. In July 2019, 45 patients out of an eligible 47 patients identified as at risk for suicide were seen within the 2 weeks (95.7%), with 74% of people seen within 48 h.

The strategy, timeline, and pattern of Zero Suicide implementation varies among health care organizations, states, and countries. Clearly adopting and embedding the entire model with fidelity takes time and is not a linear process. But the array of early adopters favorably impacting care and outcomes suggests that suicide is no longer insurmountable in health care.

Implementation Resources

As previously mentioned, in the year following the release of the task force report, the SPRC, home to the Action Alliance, launched a free website (www.ZeroSuicide.com) to support Zero Suicide diffusion and uptake by describing the aspirational and ambitious goals of Zero Suicide along with providing an implementation toolkit and resources to reach these goals. The toolkit initially focused primarily on behavioral health but has since expanded to include information for specific settings and stakeholders – AI/AN, military/veterans, emergency departments, inpatient psychiatry, primary care, youth, substance misuse, health plans, states, and others, and it continues to evolve. In addition to multiple specific tools (described below) that health care systems should use to frame and launch their initiatives, the SPRC also moderates an active online e-community (Zero Suicide listserv) where participants engage in compelling conversations across diverse topics about best practices and share organizational resources. The Zero Suicide website includes a wealth of information that describes the framework and walks those responsible for this hard work through the steps to achieve their goals. Available on the Zero Suicide website are:

- **Organizational Self-Study:** In 2012, the Kentucky state suicide prevention coordinator, Jan Ulrich, thought about how to help health care administrators understand and launch Zero Suicide. She created a checklist for them to complete about their commitment, training, and inclusion of each of the seven elements into their system's care and used it as a tool to move leadership toward change. That became the prototype for what is now called the Zero Suicide Organizational Self-Study (available digitally and downloadable), developed by the SPRC as part of the online toolkit. The Organizational Self-Study serves as a needs assessment and is designed to assess what components of the comprehensive Zero Suicide approach are currently in place at a health care system and the degree to which the components are embedded within key clinical areas. The Organizational Self-Study also helps to assess organizational and clinical area-specific strengths and opportunities for development across each component. A five-point Likert scale anchors responses across each of the domains. Leadership teams from health care systems are strongly encouraged to take the Organization Self-Study early on in their launch and to take it annually thereafter to track progress. To date, almost 500 systems have taken the Organizational Self-Study. There is a version available specifically for inpatient psychiatric settings as well.
- **Outcomes:** The state of New York used the Organizational Self-Study to examine fidelity to the Zero Suicide model across its nonhospital public mental health clinics as part of a statewide implementation effort involving about 200 clinics.

They found that the scale has satisfactory psychometric properties (e.g., internal consistency). Additionally, the New York team assessed the validity of the scale by comparing ratings with histories of suicide incidents (generally, reported attempts). The analysis showed that for each point increase in fidelity (from 1–5 on the Organizational Self-Study), clinics were 69% less likely to have a suicide incident, validating the validity of the scale, and of the Zero Suicide model. The largest effect sizes were observed for organizational practice items related to clinic quality improvement infrastructure and lethal means reduction [39].

- **Workforce Survey:** Recognizing that one component of the Zero Suicide model is a competent, confident, and well-trained workforce, regardless of role or responsibility, the Zero Suicide Workforce Survey was developed. It can be used to assess staff self-perception of their knowledge and comfort interacting with patients who may be at risk for suicide, including comfort and skill providing specific elements of care such as screening, treatment, and support during care transitions. It can also assist the implementation team in designing and prioritizing training needs. Initially developed by Task Force Co-chair David Covington as an early contribution to quickly scale up Zero Suicide efforts, the SPRC adapted and expanded its use for a variety of settings, including corrections. The Workforce Survey is intended to be administered to the organization's entire workforce with branching logic for those not involved in direct care. The organization shares a unique link with their entire staff to complete the survey anonymously regarding their perceptions of their comfort, confidence, skill, and training in providing effective suicide care. Recommendations for administering the survey and interpreting results are found on the Zero Suicide website.
- **Outcomes:** Findings from the survey suggest that the clinical workforce does not feel knowledgeable about warning signs for suicide, know organizational procedures to follow when they suspect elevated risk, and are not confident about their ability to respond. Among those *responsible for delivering treatment*, fewer than half have received training on suicide-specific, evidence-based treatment approaches [9].
- **Data Elements Worksheet:** The Data Elements Worksheet is intended to assist health and behavioral health care organizations in developing a data-driven, quality improvement approach to suicide care. The worksheet 1) reflects the top areas of measurement that behavioral health care organizations should strive for to maintain fidelity to a comprehensive suicide care model, and 2) includes a list of supplemental measures that organizations may want to consider. A data dashboard is currently in development and will be available on the Zero Suicide website in 2022 for health care systems to enter and track their data.
- **Financing Worksheets:** Resources are available that provide guidance on how to optimize workflows and billing practices to better finance the delivery of improved suicide prevention services that align with the Zero Suicide model. These resources are designed to serve as tools that health and behavioral health care organizations can use to maximize reimbursements for suicide prevention services and summarize existing reimbursement mechanisms available for delivering components of suicide care.

Zero Suicide Training

As Zero Suicide began to emerge as a viable model, SAMHSA supported training to health care systems in the form of a Zero Suicide Academy designed and delivered by SPRC. Zero Suicide Academies were held in 2014 and 2015 to support early adopters who applied to attend. During these 2-day in-person events, teams of four people from each health care system gathered to learn from Zero Suicide implementers and suicide care experts, received implementation consultation, and began strategic planning for their own Zero Suicide initiative. Participants learned how to incorporate best and promising practices into their organizations and processes that work to improve care and safety for individuals at risk of suicide. These events were well-attended and well-regarded, and health care systems and states asked that they be delivered locally.

As a result, the Zero Suicide Institute (ZSI) at the Education Development Center (EDC) was established (www.ZeroSuicideInstitute.com). EDC is a global nonprofit with almost two decades of leadership in national suicide prevention in the USA. EDC has been home to the federally funded Suicide Prevention Resource Center (SPRC) and the Injury Control Research Center for Suicide Prevention (ICRC-S), and EDC provides secretarial leadership for the Action Alliance. Therefore, ZSI was the natural evolution to support the growing demand for implementation support, training, and consultation on the Zero Suicide model. The Zero Suicide website continues to be a free, publicly available resource for anyone interested in adopting Zero Suicide, while ZSI offers fee-for-service consultation and training both in person and virtually to health care systems, health plans, states, and others as they adopt, sustain, and evaluate their efforts.

Suicide Care As a Public Health Initiative Within Health Care

Addressing suicide prevention in health care settings should follow lessons learned from other top ten health care problems, which have been addressed successfully. Cardiovascular disease (CVD) is a useful comparison because it is the largest cause of death in the USA and because rates of death have declined in the same post-2000 period in which suicide rates increased [66]. Similar to CVD (and other illnesses), suicide interventions can take place over a continuum from “upstream” prevention efforts to interventions for people at elevated risk to intensive medical treatments. Figure 3 provides examples of this model for both CVD and suicide.

The suicide prevention field, anchored in a public health model, has emphasized upstream preventive strategies, including steps like promoting economic security (thereby reducing stressors that could ultimately lead to suicide), in its plans and proposals. But this strategy has not been effectively translated into action, and rising rates of suicide have persisted. Considering CVD efforts as an analogue illustrates why.

The most robust – and effective – upstream prevention effort to reduce CVD mortality has been smoking cessation. Work on reducing smoking has been *broad*

	Upstream Health Promotion	Preventive Interventions for Those with Risk	Treatment
CVD	Prevent Smoking	ID and Manage • Hi cholesterol—statins • Hi BP—ACE inhibitor, etc.	Interventional Cardiology • Stents • Valves
Suicide	Prevent or Resolve • Trauma • Depression • Addiction	ID and Manage Suicidality • Safety planning intervention • Reduce lethal means • Caring contacts	Treat Suicidality • Ct-SP • Dialectical behavior therapy

Fig. 3 Examples of prevention, intervention, and treatment options: CVD and suicide

(e.g., messaging via advertising and labeling about health risk on every package of cigarettes), *deep* (significant tax increases on the purchase of tobacco products have increased their price dramatically), and *long* (with the first Surgeon General’s report on smoking released in 1964, and a total of 29 reports issued by the Public Health Service since 1964) [56]. These efforts have led to significant reductions in smoking and reduced deaths from CVD [35]. One study showed that reduced smoking in Massachusetts contributed to a 31% reduction in CVD mortality during this period.

Upstream prevention activities to reduce suicide are arguably much more difficult to implement than reducing a single prominent cause of death like smoking. There are many “risk factors” for suicide, and many are only distally related to suicide. For example, economic insecurity causes stress than can eventually contribute to suicidal impulses; analyses have suggested that a \$1 increase in the minimum wage would yield a 2% reduction in suicide [22]. But such an increase is, politically, very difficult to achieve, and if put in place would yield only modest reductions in suicide. Risk factors for suicide that are comparable to smoking’s impact on CVD deaths include mental illness, substance misuse, and childhood trauma. But dramatically reducing these conditions or their impact would require unprecedented changes. And perhaps most importantly, investments in suicide prevention are miniscule compared to the scope of the problem; direct federal investments to date have been well under \$100 million per year, including dedicated efforts within the Veterans Administration of comparable scope. Reducing suicide via upstream prevention activities is very desirable, but realistically very difficult to achieve at a scale that will make a difference.

For both CVD deaths and suicide, intensive interventions are effective – stents to reduce arterial blockages in the case of coronary artery blockages and DBT for intense suicidality, respectively. However, these measures do not affect population-level death rates very much since comparably few people receive them. By comparison, targeted interventions for people with established risk of CVD (e.g., elevated cholesterol or blood pressure) are used widely. Screening for risk is ubiquitous, and prescribing a statin is easy. Ioannidis [31] estimated that as many as a billion people worldwide might be taking statins by 2020. While the allure of these drugs has receded somewhat, their spread illustrates the potential impact of targeted preventive treatments. How might suicide prevention compare?

The good news is that screening for suicidality is relatively simple and can effectively focus attention on individuals with elevated risk. Also, evidence has begun to emerge on the effectiveness of simple interventions (e.g., safety planning, removing or reducing access to lethal means, “caring contacts” to people at risk). These interventions are all very feasible in ordinary health care settings; a single safety planning intervention can be conducted in 30–45 min and letters or texts can be sent as caring contacts. The challenge, however, is to change the culture of health care settings – first to make concern for suicide a central task so that screening for suicide risk is as ubiquitous as blood pressure checks for CVD risk, and second to “install” the effective brief interventions as routine parts of care.

Creating a Movement

The developers of Zero Suicide were clear that achieving widespread adoption of Zero Suicide would be challenging. Macchiavelli’s admonition about the difficulty of introducing “a new order of things” still rings true: “There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new” [45].

The challenges would be significant because suicide prevention was not an established priority for health care settings (except for a requirement by the Joint Commission [34] treating suicides of patients *within the hospital* as a “sentinel event”). Also, health professionals were not trained in detecting and managing suicidality, the outcome of suicide was not measured for health care settings, and financing was not provided. Recall that the initial National Strategy for Suicide Prevention did not include a goal on suicide prevention in health care settings; this goal was added to the revised strategy in 2012. This would be an uphill slog.

Several strategies used in promoting evidence-based mental health practices were built into the early Zero Suicide dissemination and adoption effort. In addition to the online toolkit, scores of presentations promoting Zero Suicide were given at state and national conferences and meetings, especially for mental health organizations and suicide prevention advocates where adoption would be somewhat more familiar. The leaders and spokespeople for the national Zero Suicide movement were primarily the task force co-leads, SPRC leadership, and a handful of early adopters (this list includes the authors of this chapter). They were a small, well-organized, well-connected group, doggedly committed to seeing Zero Suicide installed in health care.

Crucial support for adoption and spread came from SAMHSA, which provides only modest ongoing funding for mental health and addiction care but has active grant-making programs to support change in areas such as suicide prevention. At the time of the launch of Zero Suicide, the only significant grant program in suicide prevention was supported by the Garrett Lee Smith Memorial Act, signed into law in 2004. Soon after the initial development of Zero Suicide, SAMHSA leadership

emphasized Zero Suicide activities as one desired element of youth suicide prevention. Enacted in December 2016, the twenty-first Century Cures Act authorized grants for adult suicide prevention for the first time, and SAMHSA made implementing Zero Suicide a primary requirement of these grants. The funding and imprimatur provided by SAMHSA was a critical motivator for dissemination of the approach. The National Institute of Mental Health (NIMH) began offering Zero Suicide grants in 2016 and Indian Health Service (IHS) offered grants in 2017.

Increasing expectations for suicide prevention were established by accrediting bodies, reflecting initial steps to establish suicide prevention as a core responsibility of accredited providers (Goldstein Grumet [25]). The Council on Accreditation, which accredits counseling practices, upgraded its standards for screening, assessment, and management of suicide in 2018 [17]. The Joint Commission, the major accreditor of hospitals, signaled a greater focus on suicide prevention with a non-binding but comprehensive advisory in 2016, and then in 2019 established suicide prevention for all individuals under care for a behavioral health condition as an accreditation standard for accredited hospitals and behavioral health organizations [33]. In 2020, the Joint Commission made these standards applicable to small critical access hospitals (Goldstein [25]). In 2016, CARF International, published a Quality Practice Notice on Suicide [15], followed by incremental steps toward stronger suicide prevention practices, resulting in a 2019 assessment standard requiring programs accredited under CARF's Behavioral Health and Opioid Treatment Program Standards to conduct suicide risk screening for all persons served ages 12 and older. Just a decade ago, suicide prevention in health systems was an unsystematic effort largely emphasizing "containment" of suicidal people in psychiatric units and a modest priority for an underpowered suicide prevention field that was largely focused on an unrealistic upstream prevention agenda. By 2020, preventing suicide has become an explicit expectation for all accredited mental health providers and hospitals and a major priority for a suicide prevention field that is re-energized. But at the same time, overall rates of suicide have risen and large segments of the health care system (e.g., most primary care practices, most health plans) are not committed to the aspirational goal of eliminating suicide among people under care. There is still more to do.

An International Declaration

In 2014, nearly 30 advocates from eight countries convened in Oxford, United Kingdom, for a 2-day suicide prevention planning group as part of the International Initiative for Mental Health Leadership (IIMHL) conference and exchange. About 15 of these individuals were pioneers pursuing the Zero Suicide model within their respective countries, most notably New Zealand, the Netherlands, the United Kingdom, and the USA. Zero Suicide International summits were held subsequently in Atlanta (2015), Sydney (2017), and the Netherlands (2018). In 2019, the Rotterdam International Declaration was published, representing the work of over 100 innovators from nearly 20 countries.

Dutch psychiatrist Jan Mokkenstorm was a critical international leader in the movement, declaring in 2014 that Zero Suicide was about the bold goal that “no one die alone and in despair.” In 2017, he published “Is It Rational to Pursue Zero Suicides Among Patients in Health Care?” in *Suicide & Life-Threatening Behavior* [48]. Also in 2017, in the United Kingdom, MerseyCare NHS Foundation Trust Chief Executive Joe Rafferty was named in the Health Service Journal’s list of the top 100 most influential people in health. During that same year, in partnership with Steve Mallen, chair of the MindEd Trust, Mr. Rafferty launched the Zero Suicide Alliance, which includes 90 NHS trusts, charities, politicians, and suicide survivors. The groundbreaking alliance was announced at the Houses of Parliament and included government funding and an online training course called Save A Life.

In 2016, Kathryn Turner and the team at Gold Coast Health published a new suicide prevention strategy with a bold incorporation of the Zero Suicide model. By 2018, 11 of the 16 health regions in Queensland were following suit. Creating a “just culture” that is restorative and focused on looking forward to learn, heal, and improve is central in the Gold Coast philosophy, building off the work of Sidney Dekker’s safety culture. Supporting staff with three tiers of resources and responses also differentiates this Australian adaptation, with professional referrals, “always there” team responders to offer psychological first aid, and formal and informal supports. The Gold Coast success has been the catalyst for the uptake of the Zero Suicide model in New South Wales, the largest state in Australia. In 2018, the state government announced an investment of almost \$90 million to reduce suicides by 20% by 2023. Part of that investment is \$10.2 million to reduce suicides and attempted suicides within health services across the state using the Zero Suicide model as the foundation for systems change.

In 2017, Ian Dawe, program chief and medical director for mental health at Trillium Health Partners in Ontario, Canada, led the publication of *Strengthening Suicide Prevention in Ontario Hospitals*, which had as its top recommendation implementing the Zero Suicide model in hospitals across the province. Today, Ontario’s Project Zero is rolling out the hospital initiative and adding components of population health, targeted clinical training for community mental health (DBT, etc.), and investment in training for schools, including mindfulness. In 2018, they received \$three million in government seed money. Their team believes the interest and engagement is going to yield a significant investment, as these top leaders have led the charge and expanded it to a vision of eliminating suicide among children and youth by 2027.

Zero Suicide continues to expand globally, incorporating adaptations that are necessary and relevant to local needs and norms but nonetheless maintain at their core that suicide is preventable and that people have the right to access care that is supportive.

Integrating Lived Experience Into System Design

A 2020 Harris poll revealed the barriers that continue to exist preventing people who are thinking about suicide from seeking help: feeling like nothing will help (67%), lack of hope (63%), not knowing how to get help (55%), and embarrassment (55%) [2].

It is worth noting that this reflects a downturn from 2018 where 63% of respondents quoted embarrassment as a barrier. While the overall population is growing slightly more comfortable with talking openly about suicide, rates of suicide continue to rise, and the poll findings suggest that the lack of trust the American people have that the health care system can do anything to make them feel better is a factor. It is also extremely common that law enforcement is the first responder for individuals who reach out for help or raise concerns for others. The Treatment Advocacy Center's *Road Runners* report (2019) [76] states that 10% of law enforcement budgets is dedicated to engaging and transporting people in a mental health crisis. These barriers to immediate care that is compassionate, effective, and standardized make the work of Zero Suicide much more difficult.

Henry Ford Health System's Perfect Depression Care initiative was the result of an Institute for Healthcare Improvement grant and personal interactions with the review committee led by Dr. Donald Berwick. In 2009, Dr. Berwick wrote, "What 'Patient-Centered' Should Mean: Confessions of an Extremist," in which he described a paradigm shift in health care: "Proper incorporation [of patient centered care] into new health care designs will involve some radical, unfamiliar, and disruptive shifts in control and power, out of the hands of those who give care and into the hands of those who receive it" ([4], p.w555). Personal conversations with Dr. Berwick offer that he sees no differences in the efforts to provider safer suicide care and tackle other complex challenges, like hospital-acquired infections. Performance improvement must include a sea change in the inclusion of people who lived with the medical condition, in this case individuals who have lived with suicidality and/or survived a suicide attempt.

In 2014, the Suicide Attempt Survivors Task Force of the Action Alliance (2014) published *The Way Forward: Pathways to hope, recovery, and wellness with insights from lived experience* [53]. Later the same year, a summit on integrating the efforts of the Zero Suicide and lived experience task forces was convened in California by the Mental Health Association of San Francisco. Suffering and courage were major themes and were described as essential elements that unite and strengthen the work. Dr. Berwick's landmark article suggests shifting these efforts from token representation to "radical" inclusion may turn the tide and shift America's heart and soul on the challenge of suicide.

Future Directions: From Grants Supporting a Mental Health Initiative to Installing Suicide Care As a Core Activity of Health Systems

To date, Zero Suicide has effectively pursued an "early adopter" approach to making suicide a core priority in health care. As of 2021, there are well over 2000 health care systems in the USA "doing" Zero Suicide and more across the globe, but this self-report perspective does not provide much knowledge about the quality of implementation or the results achieved. When asked, many of these systems will describe their Zero Suicide efforts as enhanced screening protocols or the standard application

of caring contacts. These steps represent a significant improvement of practice but are not the same thing as implementing the full bundle of interventions that achieved significant results at HFHS or Centerstone. Fidelity and commitment to the seven components that make up the Zero Suicide model need to be relentlessly adhered to but are challenging to maintain. Suicide care within the current health care constellation is complex and our learning about how to identify and care for those at risk is not linear. One implementer in Australia describes this as “‘inconvenient truths’ that must be identified, reconciled and integrated into our future pathways towards reducing suicides in health care” [77].

The results of Zero Suicide implementation over the past decade present several paradoxes. On the one hand, adoption has moved more swiftly than the uptake of many other research-backed, “evidence-based programs” in mental health, such as supported employment [21] or multisystemic therapy. In the case of these and other effective practices, estimates are that only 2–10% of people who could benefit from them actually get research-proven interventions [29, 65]. Because of the combined effect of SAMHSA leadership and grants, encouragement by SPRC and suicide prevention advocates, and recent changes by accrediting bodies, improved suicide care has spread more broadly. But the precise degree of spread and fidelity of implementation are uncertain.

This challenge leads to bigger opportunities and challenges if effective suicide care is to contribute to a lowering of death rates. The opportunity is bigger because of concerns due to rising rates and because the multiple stresses associated with the global COVID-19 pandemic have led to an increased focus on mental health and suicide prevention – illustrated by the Federal Communication Commission’s designation of 988 as a single national telephone number for suicide prevention and mental health crises. The opportunity is also amplified because of recognition and concern that economic and social forces have contributed to the “diseases of despair” that have now resulted in a reduced life expectancy in the USA 4 years in a row.

The challenge is larger because making good suicide care available broadly enough to affect overall death rates requires changing practices and priorities in settings where the need for change is not yet widely recognized but where the majority of patients with suicidality are seen (e.g., primary care and emergency departments). The feasibility of providing necessary suicide care in these settings is often perceived as low, given time constraints and the often-inadequate availability of mental health personnel.

To speed up adoption in these and other settings, and using the available evidence that now exists, quality measures should be created that focus on suicide care. Payers should create value-based care payment bundles that build the critical foundations for the effective and sustainable delivery of suicide care in health systems.

Health plans and payers offer leverage to ensure that physicians use suicide care best practices, but payers need guidance and leadership in this space. As a result, in 2018, the Action Alliance (2018) released *Recommended Standard Care for People with Suicide Risk: Making Health Care Suicide Safe* [52]. The report presents specific recommendations for four settings: primary care, outpatient behavioral health care (mental and/or substance use treatment), emergency department, and

inpatient behavioral health care (hospital-level psychiatric or addiction treatment). These recommendations present feasible, practical, evidence-based actions that health care organizations can adopt immediately, actions which are drawn from the Zero Suicide model but do not equate to taking on the model in its entirety.

Genuine culture change is critical to truly impact suicide care, and that includes within higher education as well. The lack of training, and therefore competence, in the clinical workforce continues to impact how people at risk for suicide are treated both because the evidence-based practices that exist are underutilized, as well as because workforce anxiety and predilection toward seeing suicide as something that is not preventable impacts patient outcomes and engagement. Robust, current, and ongoing suicide care best practices need to be integrated into the full breadth of allied health professional graduate and residency training from social work to medicine to family practice. This needs to include an emphasis on specific safe and effective suicide care practices (screening, assessment, safety plans, caring contacts, etc.) but also on understanding restorative just culture in the context of suicide care. A handful of medical schools have chosen to embrace teaching suicide-specific strategies and the applicability of six sigma principles, but these are few and far between, with most medical students getting no more than a class or two in suicide care before launching their careers.

There must be a continued investment in research focused on brief, cost effective interventions and how to better engage people at risk for suicide, as well as on who should deliver these interventions. For people considering suicide, health care should be a sanctuary where providers and all staff make patients feel comfortable and cared for and offer reassurance that care works and their life matters.

Finally, pursuing continuous quality improvement and accurate data collection is challenging and necessary for Zero Suicide implementation, but more importantly it is essential for improving the care delivered to people at risk for suicide. There is evidence for each of the seven elements of Zero Suicide and the results thus far suggest that full-scale implementation of this model is feasible and effective. Many health care systems, once they are past the hurdle of adoption, begin grappling with how best to analyze and report on the impact of their Zero Suicide initiatives. Definitions of events and the metrics used to assess outcome can vary by organization. Continued research to refine and improve evaluation of the Zero Suicide model is necessary.

Conclusion

When implemented with fidelity, Zero Suicide is an effective approach to “suicide care” that has dramatically reduced death rates in health care organizations. The model has been widely promoted, but the full scale and integrity of implementation is uncertain. Additionally, aspects of the model, such as screening and the use of brief interventions, have also been shown to be effective and are being implemented widely with encouragement from accrediting bodies. However, this broad but uneven implementation is centered in behavioral health services and is just

beginning to see use in hospitals. The reluctance to integrate mental health care into medical settings, though still present, is beginning to wane. While there is still more to master, competence is now expected by accreditors, and movement toward this is apparent.

Evidence on the feasibility of screening for suicidality and the effectiveness of brief interventions offers the promise of changing the trajectory of suicide in primary care the way that screening for CVD (blood pressure, lipid levels) and preventive interventions (statins, diuretics) have changed CVD death rates. Primary care settings are expected to monitor CVD conditions and indeed to manage most CVD care, with cardiologists available to handle more complex care. Getting screened for CVD at every visit is routine and expected without regard to cost, stigma, or time constraints. Likewise, standard suicide prevention screening and interventions must be just as integral a part of care as we have come to expect for other medical conditions. But this “change challenge” remains difficult to overcome.

Organizations that have adopted Zero Suicide have demonstrated that the use of this bundle of practices improves care and saves lives. The Zero Suicide model represents a commitment to patient safety – the most fundamental responsibility of health care, to the families and friends of those at risk who want to know that their loved ones are safe and properly cared for, and to the safety and support of health care staff, who do the demanding work of treating and supporting suicidal patients.

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Suicide Prevention: Turning Inward for Direction

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Daniel J. Reidenberg

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Abstract

Is suicide really preventable? What is our role in suicide prevention and do we really even know what that looks like? As deaths by suicide continue to occur year after year and country by country, it is time the field of suicidology changes course. Despite financial investments in the study and understanding of suicide, treatments and interventions, awareness and education campaigns, and countless programs having been developed, none have provided us a way to significantly reduce the burden of suicide in the world on a sustained basis. It is for these reasons we must all individually and collectively look inward as we change the direction of suicide prevention.

Keywords

Risk factors · Suicide risk assessment · Suicide prevention

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Self-Disclosure: Part 1

I struggled to write this chapter. I have so many questions, but more frustration. I wondered to myself for so long if I should even proceed with the chapter. I spent countless hours asking myself how this chapter would make any sense in a book on “Suicide Risk Assessment and Prevention” including chapters written by highly reputable and notable colleagues from around the world. I wondered if I could find a way to justify that this chapter would fit into this compendium of scientifically and/or theoretically based chapters when it would not at all be about science, research or theory. Then, just days before sitting down to type out my thoughts, I was scrolling through television stations and happened to come across a physician on a news program in the USA. The interview was about the Covid-19 pandemic and the more than 200,000 lives lost in the USA as of September, 2020. I did not catch his name, but a statement he made captured my attention: “It is really hard to tell families that have lost someone that their death might have been preventable.” It was a moment that led me to decide I could write this chapter in the hope that somehow for any who chooses to read it among the far more brilliantly written chapters in this book, they too will come to the conclusion that I have: something is wrong with our approach to suicide prevention.

Is Suicide Preventable?

Recently I was asked to conduct a Grand Rounds training for a large medical center and the audience was 80% physicians and 20% nurses, notably 0% from mental health. I was specifically asked to address the audience and answer the question: if we can’t predict suicide with any accuracy, why are we trying to in the first place? In my presentation I used every spin that I could to say, “We can’t prevent every heart attack or stroke, but we still try.” My message to them, and here, is that on some level we must hold onto the belief that suicide can be prevented and that somehow we can have an impact on it being prevented. Yet, it may be time for our field to accept that not every suicide can be prevented and we may want to start finding a way to acknowledge this while still providing hope that for many we can. If we do not begin to look at this, the conversations that we have with suicide loss survivors will continue to be filled with justifications, excuses, and explanations that fall short of what reality is.

Everyone is going to die of something, but does suicide have to be on that list? If it is in fact true that suicide is a preventable death, why does the prevention of it remain so elusive to us? Is it not fair to ask ourselves if we just need to accept that there will be X number of suicides in the world each year? If we can agree on this we would at least have a baseline upon which we could assess our work at preventing suicides. In a year where we would be below the “accepted” number of suicide deaths, we “celebrate” our victory, although personally if we have one death that same year I propose we not celebrate at all. Conversely, in a year where there are more than our “accepted” number of deaths who should be held

accountable and how? If there is only one more death should it be more acceptable than if there were 1000 more deaths? How does the Zero Suicide movement factor into this? Is it just an aspirational goal or a real possibility and if it is real what has kept it from happening – anywhere? I suggest that none of this is possible, realistic, or in our near future. We are nearing the end of 2020 and to-date there has been no sustained, successful models of suicide prevention that have been implemented anywhere at scale, demonstrating a significant, long-term reductions in the burden of suicide. Further, if there were such a program, what has kept it from being the foremost effort for the rest of the world in being replicated? Regardless of fluctuations in suicide rates each year and around the world, how is this possible that we haven't made the progress in prevention of suicide that so many of us have been searching for over?

What brought you to the field and study of suicide may have been an interest in the brain or the environment. It could have been an interest in psychology and human behavior. It might have resulted from a personal experience of your own facing the darkness of death by suicide or the loss of a loved one in your life. Something drew you to this work and keeps you here. All of the many possible reasons that you came to this field might also be the things that keep you engaged in it as well and, in part, that is because we are not there yet. Despite all of our advances and understanding, the reality is that I do not know one person that can assuredly tell me that they can prevent all suicides. In fact, among virtually all that I know, the closest and most frequent thing that I hear is that “we believe we can prevent suicide” and “if we use evidence-based treatment we can prevent suicides.” I also frequently hear from colleagues “we can't prevent all suicides, but most.” And yet, most of us tell people all of the time that we can prevent suicide. Just look at a few publicly available statements to this effect:

- Suicide is a serious public health problem; however, *suicides are preventable* with timely, evidence-based, and often low-cost interventions. (<https://www.who.int/news-room/fact-sheets/detail/suicide>. (Retrieved Sept. 26, 2020, emphasis added).
- Suicide is a major public health concern. Suicide is complicated and tragic, but *it is often preventable*. Knowing the warning signs for suicide and how to get help can help save lives. (<https://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml#:~:text=Suicide%20is%20a%20major%20public,help%20can%20help%20save%20lives>. (Retrieved Sept. 26, 2020, emphasis added).
- *Suicide is preventable*. Knowing the risk factors and recognizing the warning signs for suicide can help prevent suicide. (<https://www.psychiatry.org/patients-families/suicide-prevention>. (Retrieved Sept. 26, 2020, emphasis added).
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[com/article/lifestyle/health/suicide-causes-signs-prevention-awareness-counseling-6460322](https://doi.org/10.1007/978-1-4939-9646-0_322), emphasis added).

I have also said to myself and often hear colleagues claim: “It is impossible to measure prevention, so we don’t know how many lives we have saved (prevented) from suicide.” We say it publicly, in writing, in training and we hold onto the belief that we can prevent suicide, yet, tragically and with all humility on the line, in my opinion the reality is that we are failing. We are failing the estimated 800,000 who die each year to suicide. We are failing their families, their communities, and ourselves. It is because of this I believe now is the time we must turn inward to move forward; but first a note on the challenge of risk factors.

Is There Any Value in Suicide Risk Factors

Despite highly reputable evidence to the contrary (see below), our field continues to rely on assessment and use of risk factors as part of our attempt at suicide prediction. While true most clinician and research studies on the topic will suggest it is only a part of a more comprehensive approach to suicide prevention, I have to wonder if it should be at all. Yet, our continued reliance on suicide risk assessment is incorporated into the title of this book!

Case Example 1 Maria is a 17-year-old, female that has been dating her boyfriend for just over 1 year. She is an A to A/B student in high school where she is involved in several extracurricular activities, including having a leading role in an upcoming school musical. Maria has no history of mental illness or substance use, she has no known history of family mental illness or substance use. Maria’s parents were high school sweethearts and have been married for almost 30 years. She has one brother that is 2 years younger than she is. Maria has a strong Christian faith, is actively involved in her faith community and a peer youth leader at her church. Maria has plans to go to college and study biology and theater.

Case Example 2 Nate is a 26-year-old single male. He has never been married and is intermittently involved in a relationship with the mother of his daughter. They recently learned she is pregnant with their second child. Nate does not live with the mother or his daughter. Nate did not finish high school. He is currently working for a medical technology company grinding wires that are used in brain surgery. Nate has a long history of mental health and substance use problems. He was diagnosed with ADHD and oppositional defiant disorder as a child. He was diagnosed with depression and intermittent explosive disorder in his early 20s and he has been using alcohol and drugs since he was 12. Nate also has a significant family history of mental illness and substance use including his mother who has been depressed for many years and both drinks alcohol to intoxication weekly and abuses prescription drugs. Nate’s dad recently passed away following an overdose of methamphetamine. His parents divorced when he was 10 years of age and he has two younger siblings

both with mental and chemical health problems. Nate has a long history of legal problems including a recent second DWI and a recent arrest for possession of methamphetamine.

Do you think that either Maria or Nate have no risk, low risk, moderate risk, high risk, or imminent risk? Given this book is about suicide risk assessment, I feel confident in assuming that 99% of those reading this chapter will assess Nate as being at least moderate risk and more likely at high risk, while also assuming Maria would be assessed to have no or low risk. Why is this? As stated earlier, despite research telling us to do otherwise, as a field we look at risk factors as both a contributing factor in assessment as well as an indicator of level of risk (i.e., the more risk factors the more risk). Here are just a few of the more recent and prominent examples of studies on risk factors.

Large et al. [1] from Australia conducted a meta-analysis of longitudinal cohort studies of suicide risk assessment of psychiatric patients who had made multiple suicide attempts reviewed in 37 published studies. They found that 95% of high-risk patients will *not* die by suicide at all and that 50% of patient suicides came from the lower risk categories concluding: “The strength of suicide risk categorizations based on the presence of multiple risk factors does not greatly exceed the association between individual suicide risk factors and suicide. A statistically strong and reliable method to usefully distinguish patients with a high-risk of suicide remains elusive.”

In the highly reputable journal, “The British Journal of Psychiatry,” Chan et al. [2] looked at predicting suicide following self-harm, an often claimed increased risk factor for suicide. In a meta-analysis of 12 studies on risk factors and 7 studies on risk scales, 4 risk factors emerged. They concluded: “The four risk factors that emerged, although of interest, are unlikely to be of much practical use because they are comparatively common in clinical populations. No scales have sufficient evidence to support their use. The use of these scales, or an overreliance on the identification of risk factors in clinical practice, may provide false reassurance and is, therefore, potentially dangerous.”

Finally, the Franklin et al. [3] study on risk factors provided a glaring view of this major problem in our field. In this study, a meta-analysis of 50 years of research on risk factors for suicidal thoughts and behaviors that has been cited over 1000 times, the authors found “Across odds ratio, hazard ratio, and diagnostic accuracy analyses, prediction was only slightly better than chance for all outcomes” and that “the predictive ability has not improved across 50 years of research (p. 1).” With all of the progress that we have made, our ability to prevent suicide is still no better than chance and it has not improved in a half century. It should, therefore, not be a surprise that both of these cases are real and today Nate is doing very well while Maria died by suicide 1 h after receiving a call from her boyfriend that he was ending their relationship.

The authors cited above looked at the work of many contributing authors to this field and seen throughout this book and shared the less than positive results. Publishing these results took courage. They made some bold statements, especially when so much of the field looks for suicide risk factors as a means of identifying those most likely at risk of dying by suicide. I have often wondered what it was like

for these authors when they first saw the results of the study and more, what would they write about it? I applaud them for their bravery and, while I have not asked any of them, I would suspect that one if not more of them had some thought and belief, but definitely some hope, that their study and statements would change our field. Yet, to-date, 4 years after the publication of their work, millions of lives have been lost, countless more have come close in attempts, innumerable numbers more have thought about suicide, and we still look at the long list of risk factors as somehow helpful in our assessment of who might die by suicide. If there is a nearly universal belief that suicide is preventable, why does the world continue to see so many deaths by suicide each year? These authors faced themselves in the mirror and we all need to do the same.

Turning Inward: Because We Have To

Not unlike many of you, I have been frustrated by our lack of progress in suicide prevention. I think that we must do something different, and soon, or we will continue to see the same problem for years to come: there will be more and more deaths by suicide. In fact, I would posit that if we do not stop, take a step backward and reflect, it will be difficult for us to see a different future, one in which suicide prevention is not just a noble career and life choice, but rather a reality that keeps people from dying at their own hands. For this to happen we will need to BOTH individually and collectively step away from our work and current beliefs about suicide and suicide prevention. It will require us to be introspective, not unlike what we ask of patients in psychotherapy. For the field of the study of suicide, much needs to be done but it must begin by looking in the mirror. By looking at ourselves and what we are doing, we can begin to figure out what it is that must change for there to be a different outcome.

I had the unfortunate but not unique moment to be sitting with an oncologist who gave us the news that it was stage 4 cancer with a life expectancy of 6 months to 3 years, most likely 15 months. Sadly and tragically for me and my family, he was right in his prediction – to the day. It was literally 15 months, *to the day*, from when we first met that he told us the news. Was it luck or has oncology come that far is not my point here. He knew what the outcome was going to be. He accepted it and while he did all that he could to provide comfort and care in those 15 months, the bottom line is that oncologists work against the clock of life accepting at all times that the disease is going to prevail. While true that something else might happen in the intervening months or years for some patients (e.g., car accident, stroke), at some point the disease will result in the person's death. Try as they do to prevent this and delay it, reality is also at play and oncologists live this every moment of their days. In several conversations with this oncologist it became clear to me that their field has come so much further than our field. Yes this is because literally billions of dollars more are funneled into cancer research, prevention, and treatment, but that is not what I am thinking about here. Rather, they have found ways to both communicate externally about the realities of the disease and death, while also internally accepting

the hard truth that they cannot prevent all of their patients from dying. I would argue that, after many of these conversations, it is clear to me that oncologists have looked in the mirror to be able to keep doing their jobs.

Should we too as suicidologists? Can we honestly be engaged in suicide prevention if we accept that not all suicides are going to be preventable? What should we tell families, friends, coworkers, and others about suicide prevention, or to families who have just lost someone to suicide? Do we tell them that suicide is preventable? I guarantee you they will see that online and they will hear it in the days ahead for them as they grieve not anything unlike the publicly available statements earlier in this chapter. How do we explain that “most suicides are preventable” but their loved one’s was not? If we chose not to say that suicide is preventable, how do we educate the public, no less other professionals, that suicide is preventable? Again, this is why we need to turn inward for direction.

What Does It Mean to Turn Inward for Direction?

It means admitting we do not have the answers, nor are as far as we would like to be. It means that we have to accept responsibility for our part of getting us to this moment, the good and the bad of that. It means accepting that our passion and even our expertise, whatever that may be, is not working. Turning inward means we have to be willing to tell ourselves that for whatever reason(s), no matter what our contribution to the field and the world we have had, be it large or small, long or recent, the goal remains clear but the path to achieving the goal elusive.

Turning inward means we stop and take the time to reflect on what other fields of study have done, accomplished, and overcome. That we try to discern if and what might apply to us in the study of suicide and prevention. It means we accept what makes this field different, and similar, to others. After all, our brain and our body are connected regardless of the disease or externally/environmental impacts, so it behooves us to try and learn from what other diseases have learned. What about “but there is no time to look inward, we have to keep moving forward.” I understand that belief and have battled with it myself. “If this program does not work, we will create another one.” The problem with this thinking is that we tend to not look at what did not work and why, but rather we continue to try new things. That would be fine if something worked, but let’s say we were trying to bring more light into a room so we decide to paint a wall and we thought using a brush would be best. We start and realize it is a lot of work and taking us too long, so we transition to using a roller. Now we have saved some time, but we are still doing the same thing. This seems good until we realize that we have only changed the applicator, the result is still we are painting. In our effort to speed up the process we move to a sprayer to get the job done more quickly. Highly efficient, same outcome. This all results in our wall being painted and upon completion of it in our pride and sense of accomplishment, we suddenly realize that it wasn’t really painting that the wall needed, but rather it was that the wall needed to come down for us to see that no matter what color or how bright it was that we painted the wall, without taking the wall down we were still

inside a room with four walls. To let the sunlight in we would need to open the wall. Ultimately, we needed to take a step back before we could move forward to see the light.

Self-Disclosure Part 2: Looking in the Mirror What I Saw?

It is hard to look at yourself. Each time you do you hope to see things the way you expect them to be, even the way you want them to be. You watch how things change over time. You learn how to ignore things that you can't do anything about and you accept that what you can change may not be quick or easy. Looking in the mirror is a first step toward seeing what we need to. As I did this, I saw things that I did not like.

A lack of answers. A lack of understanding. A lack of a real plan or strategy. Waste. Hundreds of millions of dollars in waste. A travesty in misleading the public, failure in training, and lost time. I see competition that is getting worse, not better nor moving us to more lives saved. I see a 180 degree swing from careful caution about the use of those with lived experience in research, awareness, education, etc., to full-on, complete, and driving-the-field-force by the lived experience voice. We support and stand behind someone with lived experience that creates a movement (e.g., Amy Bleuel) only to have her die by the same movement she has tried to stop, and yet we continue to endorse her vision of a semicolon as a symbol of hope. I see the wheel being recreated only using a different name. I see an entire field that lacks a definition (who is a suicidologist, how do you become one, what standards or ethics must you adhere to in order to be one).

I also saw my role in this that did not make me happy. I have continued to raise funds to create programs that have not turned the tide on suicide. I have talked with countless families and had to apologize for not knowing why their loved one died. I have spoken to and trained thousands of people to look for risk factors, warning signs that are all based on a 12-month span of time rather than a week prior to a death, how media influences contagion, and that evidence-based treatment exists for suicide prevention all the time knowing one painful fact: they are still dying. I have heard many people say that I saved their life or that of a loved one, while at the same time seeing even more people say that after hearing someone who attempted suicide and survived tell their story it saved their lives. Countless times over I have seen, heard, and read people say that they are alive today because of hearing a story from someone with no education, training, or expertise in suicide prevention or mental health. How can this be and if all it takes is someone with lived experience to tell their story, what are all of us doing?

The angst that I felt as I looked at my role in this was palpable and left me wondering if I was in the right career. Do I run and if so in what direction should I go? Can I be honest about this with my colleagues, after all many are disclosing their histories of challenges and we are supporting others in coming forward with their stories, but would this be okay to bring to light? Admitting and accepting what I saw was hard. I feared disclosing this to anyone and I questioned my more than 20 years of work in suicide prevention and 30 years in mental health. However, I knew that if

I could accept there has to be things unknown before they are known much less understood AND that I possibly could have a small piece in others looking at their role in this, maybe collectively we could all get to the next place, that place we need to be to save more lives.

What Is This Going to Do for me?

I have never been one much for using quotes of others, but this one seemed to fit too well not to use here: “Success is not final, failure is not fatal: it is the courage to continue that counts.” Winston S. Churchill.

After countless hours of looking inward, even around if I had the courage to write this chapter, I have decided to continue. I have decided that there is much for me and for this field to hope for, because I believe it can be different. By taking different steps in my work, I have hope that it will have a positive impact on others. Not unlike those with lived experience that we have heard tell us to support all those with sharing their voice because it will help us do our work better, I too hope that sharing this will encourage others to stop and reflect on what we are doing as a field and what we are doing individually. In a Crisis Editorial (Reidenberg, 2018 [4]) that I wrote: “I worry that in our field, SILOS are often Self-Interests that Limit Outcomes. It would be beneficial if we could take a new strategy and collectively focus all of our efforts around thinking, acting, and being CLEAR – Coordinated, Long-term, Effective, Accountable, and Resourced – in our approach to suicide prevention. The next time you want to try a new approach, ask yourself, “Am I in a SILO or am I CLEAR to proceed?”

I also hope that we can find new ways to see suicide prevention outside of risk factors and the challenges with suicide risk assessment. None of us can accurately predict who will die by suicide and who will not. We know that if we put two of us in a room with someone we will likely come out of it with vastly different views as to that person’s risk, if any. Thus, we might need to move away from a strong focus on trying to conduct suicide risk assessments – no matter how comprehensive – and accept we just can’t know if they will die or not, especially based on what or how many risk factors might be present. Instead, we might want to focus on trying to help them to live and how they can go about living as well as possible in whatever time that they have left, be it days, months, or years. I fully and wholeheartedly believe that when people are doing well in life, they are not dying by suicide. Maybe we should refocus our efforts in that direction, helping them to find purpose, meaning, and well-being. The oncologist said to us that when someone has cancer we want them to live their life just as they want to. They should do whatever they want however they can in and around their pain or recovery. I am not advocating that we can just do this in suicide prevention and hope that people do not take their lives, but I am purposing that we look at our work in new ways that help us be more honest with the realities we are faced with, the limitations that exist in our field, and in ways that focus less on the things that are not working and more on the things we believe can (e.g., protective factors and to some degree warning signs).

In all of my years in clinical and professional practice I have worked with amazing, talented, smart, compassionate, and caring people. I have watched them use “tried and true” practices as they tried to determine if someone was at risk of harm to themselves or others. By far, most of the time the person did not go onto attempt and fewer died by suicide. As much as I would love for that to be the outcome because of their work, it is hard to know definitively what kept all of those people alive. I believe we all need to do everything that we can to help save lives, no matter what that is. No tests, no checklists, no scales. No calling in a specialist, no straight admission to a mental health unit. It could be as simple as sitting with someone and letting them know that you care, because until we have figured out how to prevent suicide, compassion might just be the best tool in our toolbox.

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Life Skills Dynamic Meditation for Suicide Prevention

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Pandit Devjyoti Sharma

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Abstract

More than one hundred thousand persons are dying by suicides every year in India. According to the World Health Organization and International Association for Suicide Prevention (IASP), suicide is preventable. Due to social stigma attached with the mental illness in India, suicide prevention awareness campaign is a very difficult task. Indian people are religious minded; therefore, life skills

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dynamic meditation gatekeeper training has been developed in the Kachchh district of India, and people participated voluntarily without hesitation and trained for the ten life skills recommended by the World Health Organization with meditation techniques, warning signs of suicide and intervention techniques.

Keywords

Suicide prevention · Life skills · Meditation

Introduction

Life skills dynamic meditation is a conscious awareness of life skills, which are essential for coping with negative aspects of stress in any circumstances, and involves goal-orientated thoughts and behaviours with needful change in the negative attitude and lifestyle for the purpose of peace and happiness by physical, mental, social and spiritual development, through obtaining knowledge of cognitive distortion, defence mechanisms of mind and mental illness, including anxiety, depression, warning signs of suicide, etc., and learning physical exercises, meditation, relaxation techniques and yoga.

Life Skills Dynamic Meditation

In the present chapter life skills dyanmic meditation gatekeeper training for suicide prevention, I am going to explain life skills dynamic meditation process in brief, which has four components: (1) life, (2) skills, (3) dynamic and (4) meditation, with gatekeeper training for suicide prevention. Here, what is life is the very important question, which should be understood first. According to me life is a sum of whole experiences in psychophysiosocial and spiritual plane. The spiritual aspect of life is the most important part of human life, which gives meaning of life with its unique purpose. Since long life has been discussed through religion by the saints, philosophy by the philosophers and biology by the scientists, each person has its own way to define his or her life based on their unique development of personality, normal value, social norms and spiritual experiences obtained through their cultural and religious practices. So, description of what is life is beyond the scope of this present article, but, in short, the point or centre, where all psychological experiences of the mind, physiological experiences of the body, social experiences of the society and spiritual experiences (which are cultivated with personal effort through religious practice) meet to form whole undivided unique experience and, thus, the experienter of this wholeness, is known as the true self of the person (this true self is also known as the soul of the person). Aristotle said that the whole is greater than the sum of its parts. The self is an individual person as the object of its own reflective consciousness; therefore, yourself represents the interacting system of psychological, biological, social and spiritual mechanisms. At the neural and physical level, psychological

concepts refer to the pattern of firing that occupied in the groups of neurons (neuronal circuits). At the physiological level, personality and body make-up are affected by genetics and epigenetics (which depends on neurotransmitters and hormones). At the social level, the person's self-concepts and behaviours depend on the social interactions. Cognitive distortions and intense emotions leading to impulsive behaviours with aggressiveness destroy the social relationship, resulting in family conflicts, divorces, physical violence and crime. At the spiritual level, the person finds a positive way of life, in which he or she seeks to connect to their true nature or to the Divine for having a sense of peace, happiness and purpose in their life, through practising yoga meditation or other spiritual procedures. This is necessary to understand differences between religions and spirituality. Spirituality and religion seem to be the same things, but they are quite different. The specific set of well-organized beliefs and practices done by the people in a specific community and culture is called religion, while spirituality refers to individual practice, leading to peace, happiness and purpose and meaning of life for individual self, and connection with others without any set spiritual values. All religions are helpful for the development of spirituality as the ultimate goal of humankind, but being religious doesn't automatically make a person spiritual or vice versa. Spirituality can be used as a way of coping with environmental changes or uncertainty, like war, epidemic, disasters, etc., as well as personal problems.

Every person wants to be a part of a peaceful happy society and community. Life skills dynamic meditation changes how each person, acting as a single individual, treats others. During the sixth century, Lao Tzu was a Chinese philosopher and author of the Tao-te-Ching, the founder of philosophical Taoism and a deity in religious Taoism. Peace is a concept of societal harmony without aggressiveness, hostility and violence. The following is the quote about peace by Lao Tzu (sometimes also known as Laoze): 3

If there is to be peace in the world,
There must be peace in the nations.
If there is to be peace in the nations,
There must be peace in the cities.
If there is to be peace in the cities,
There must be peace between neighbours.
If there is to be peace between neighbours,
There must be peace in the home.
If there is to be peace in the home,
There must be peace in the heart.

In other words, if we have peace in our hearts, we will certainly build better relationships with others, and by doing so, we all may lead peacefully, healthy and happy life.

In Indian culture shanti path means the path to peace, which is derived from the Sanskrit word "shanti" meaning peace and path meaning the course or direction one is moving. Shanti path is also known as peace mantra, which is a very popular mantra among Indian people. Mantra refers to a word, sound or phrase repeated to

aid concentration in a meditation or prayer. A mantra is given to a trainee meditator when his/her teacher initiates him or her.

Om Sarve Bhavantu Sukhinah
Sarve Santu Niramayah
Sarve Bhadrani Pasyanti ma Kaschitduhkha Bhagbhavete
Om Shanti Shanti Shanti (In Sankrit)

The meaning of the abovesaid peace mantra is that “May all sentient beings be at peace, may no one suffer from illness, May all see what is auspicious, may no one suffer. Om peace, peace, peace. . .”

Long since human beings are thriving for peaceful healthy life, which is a cornerstone for happiness. To have a peaceful happy life, one has to cultivate life skills. Here, skill means the ability to do something well; in other words, skill is the expertise or talent needed in order to do a specific task or job. It is a specific type of work or activity that requires special training and knowledge, which means that skill denotes an ability to do an activity or job well, especially because you have practised it. It is an ability that needs regular practice with patience and positive attitude; therefore, it is a learned ability or capacity for doing a task in an effective manner. Skills concerned with happiness and healthy and peaceful life are known as life skills. Life skills are the means to realize the full potential of individuals. According to the World Health Organization (WHO), life skills are the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life.

Psychosocial competence is a person's ability to deal effectively with the demands and challenges of daily routine life. Psychosocial competence is a person's ability to maintain a state of mental well-being and to demonstrate this in adaptive and positive behaviour while interacting with others, his or her culture and environment. Where health problems are related to behaviour and where the behaviour is related to an inability to deal effectively with stresses and pressures in life, the promotion of psychosocial competence is necessary. Psychosocial competence has an important role for the promotion of health in terms of physical, mental and social well-being. The direct interventions for the promotion of psychosocial competencies are those which enhance the person's coping resources and personal and social competencies. In school-based programmes for children and adolescents, this can be done by the teaching of life skills in a supportive learning environment. Life skills teaching promotes the learning of abilities that contribute to positive health behaviour, positive interpersonal relationship and mental well-being. Ideally, this learning should occur at a young age, before negative patterns of behaviour and interaction have become established. Life skills programmes can be developed for all ages of children and adolescents in school. Experience gained in countries where life skills programmes have been developed suggests 6–16 years as an important age range for life skills learning. Life skills are innumerable, and the nature and definition of life skills are likely to differ across cultures and settings. The World Health Organization has recommended ten core life skills, which are listed below:

1. Self-awareness
2. Empathy
3. Critical thinking
4. Creative thinking
5. Decision-making
6. Problem-solving
7. Effective communication
8. Interpersonal relationship
9. Coping with emotions
10. Coping with stress

Self-Awareness

Self-awareness includes recognition of the self, and identifying strengths and weaknesses helps us to recognize when we are stressed. The capacity to understand and care about other people's needs, desires and feelings is known as empathy. Critical thinking is the ability to recognize information and experiences in an objective manner. Creative thinking is a novel way of doing things that generates new ideas. Decision-making helps us to take appropriate decisions. Problems-solving helps us to deal constructively with problems faced in our lives. Effective communication is the ability to express ourselves verbally and non-verbally. Interpersonal relationships denote the ability to make and keep friendly relationships, to maintain good relationships with family members and also to end relationships constructively in a positive way. Coping with stress and emotions refers to the positive coping mechanisms. Coping means to invest own conscious effort to solve personal and interpersonal problems in order to try to master, minimize or tolerate stress and conflict. The psychological coping mechanisms are known as coping strategies or coping skills. The term generally refers to adaptive (constructive) coping strategies, that is, strategies which reduce stress and control emotional contents of thoughts with intelligence. In contrast, other coping strategies may be called as maladaptive, if they increase stress.

Recognition of one's own psychological state containing feelings, behaviour and personal characteristic traits is known as self-awareness, where one takes oneself as an object of attention with awareness. According to the World Health Organization, "Self-awareness includes our recognition of ourselves, our character, strength, weakness, desire and dislikes. It can help us to recognize when we are stressed or feel under pressure. It is often a prerequisite for effective communication, interpersonal relationship and developing empathy for others."

Self-awareness is a refined cognitive process to understand "who we are," which is a prime focus in the meditation and yoga practice in India. Self-awareness allows self-control by understanding what should and what should not be done. In this way self-awareness process makes people competent to recognize their own limitations. Such people express their opinion clearly without doubt and conflict. According to Duval and Wicklund (1972), "you are not your thoughts, but the entity observing your thoughts; you are the thinker, separate and apart from your thoughts." Unhappiness

is due to imbalance between the perceived self and the real or ideal self. Misperceptions of self leads to discontentment and sadness. It is noteworthy that every person perceived oneself in three aspects as the perceived self, the real self and the ideal self. Perceived self is how a person assesses himself/herself and how he/she thinks others view him/her. The perceived self is the way we see that part of ourselves, but it is not real, therefore leading to misperception of self. In other words, real self is the way we would like to be. Your real self is who you actually are, while your ideal self is the person you want to be. Learning from your life experiences, your role models and social demands all together coordinates ideal self. Carl Rogers was a humanistic psychologist, who believed that every person could achieve their goals and desires in life; when, or rather if, they did so, self-actualization took place. Humans have one basic motive: the tendency to self-actualize, i.e. to fulfil one's potential and achieve the highest level of "human being" we can. In other words, self-actualization occurs when a person's ideal self (i.e., who they would like to be) is congruent with their actual behaviour (self-image). Self-image is the way you think about and view yourself. With a positive self-image, we recognize and own our assets and potentials while being realistic about our liabilities and limitations. With a negative self-image, we focus on our faults and weaknesses, imperfections and failure. Because self-actualization involves a strong sense of purpose and self-awareness, it can be a challenging goal to achieve. In short self-awareness is the capacity for introspection and how your actions, thoughts or emotions do or don't align with your internal standard.

Self-awareness means knowing your values, personality, needs, habits, emotions, strengths, weaknesses, etc. Key areas for self-awareness include characteristic traits of our personality, personal values, habits and emotions and the psychological needs that drive our behaviours. Personality is defined as the characteristic sets of cognitions, emotions and behaviour patterns that develop from biological patterns that develop from biological and environmental factors. We can find situations in which we will adjust, and we can avoid other stressful situations through self-awareness process. We focus on our personal values too much by neglecting other responsibilities, e.g., if our priority is business, then we lose insight of our other priorities connected with daily responsibility of our family, friends, workshop, exercise, etc. A habit is a routine of behaviour that is repeated regularly subconsciously. Habit means a recurrent unconscious behaviour pattern acquired through frequent repetition, which may be good or bad, e.g., brushing teeth every morning is a good habit and addiction is a bad habit. According to the European Journal of Social Psychology (2009 study), it takes 18–254 days for a person to form a new habit, and it takes 66 days (more than 2 months) for a new behaviour to become automatic. A book *Psycho-Cybernetics* published in 1960 by Dr. Maxwell Maltz described that it requires a minimum of about 21 days for an old mental image to dissolve and new one to gel. It takes 21 days to fully form a new habit, as 21 days is the time required for new neuropathways to be fully formed in your brain. Brain circuits take engrams (memory traces) and produce neuron connections and neuropathways, only if they are fired for 21 days in a row. This means that our brain does not accept new data for a change of habit unless it is repeated each day for 21 days (without missing a day). This 21-day trail is not limited to good habits – you can use it to break bad habits such as procrastination, binge eating, sleeping late, smoking, biting nails or spending too much on social media.

Self-awareness helps us to evaluate our psychological needs to know which needs exert the strongest influence on our own behaviour to understand how they affect our interpersonal relationships, e.g., people who have a high need for status are attracted to seek high-status positions within their organizations. Such people need costly cars and other things that symbolize their status. Such needs cause motivation, and unsatisfied needs cause anger, frustration and depression. Maslow's hierarchy of needs is a motivational theory comprising five basic human needs, such as physiological needs, safety needs, belongingness and love needs, esteem needs and self-actualization.

Self-awareness of emotional state is one of the five aspects of the emotional intelligence; understanding your own feelings, what causes them and how they impact your thoughts, behaviour, decisions and performance is emotional self-awareness, which is the ability to recognize and understand one's own emotions.

Self-awareness is a self-reflection process where we can understand who I am and what I stand for, so we can objectively evaluate our thoughts, feelings and actions. Know what he or she wants and why. Self-awareness is the foundation to developing your emotional intelligence and the key to open the door of success. An interesting way of developing self-awareness is to use SWOT. SWOT analysis is a strategic planning technique used to help a person or organization identify strengths, weaknesses, opportunities and threats related to business competition or project planning. SWOT is an acronym that stands for strengths, weaknesses, opportunities and threats. SWOT analysis is a framework for identifying and analysing the internal and external factors that can have an impact on the viability of a person, place, product or project. In other words, SWOT analysis focuses on the internal and external environments, examining strengths and weaknesses in the internal environment and opportunities and threats in the external environment. After SWOT analysis a person actively promotes the identified strengths, minimizes weaknesses through proper planning, uses the opportunities before it goes and minimizes threats before they arise.

Empathy

Empathy is the ability to understand and accept others by putting oneself in the other person's place or situation and to understand what he or she is going through and experiencing the emotions, ideas or opinions of that person. In other words, empathy is an awareness of other's feelings, needs and concerns. Empathy is a key element of emotional intelligence. Sympathy is a "feeling for" someone, but empathy goes far beyond sympathy. Empathy is "feeling with" that person. Empathy is a skill that can be developed. There are three types of empathy:

- (a) Cognitive empathy: It is understanding other person's thoughts and emotions, in a very rational rather than emotional sense.
- (b) Emotional empathy: It is catching someone else's feelings, so that you literally feel them too.
- (c) Compassionate empathy: It is understanding someone's feelings and taking appropriate action to help. Compassion recognizes the "me" in "you."

Differences between sympathy and empathy are as follows:

Sympathy	Empathy
1. Evaluating or judging	1. Non-judgemental
2. It is a shared feeling of sorrow, pity or compassion for another person, e.g., when a family member of someone died, you may share a feeling of sadness with him or her, but you might not have empathy for his/her situation if you have not experience or cannot imagine experiencing a death in the family	2. It is much stronger than sympathy because after putting yourself in the place of another and understand his or her feeling with the process of identification, e.g., without empathy a person may fail to understand why another person is feeling sad or angry over a situation. If he or she cannot imagine themselves in that person's place
3. Less active while listening	3. More active while listening

When a person consistently lacks the capacity to sympathize or empathize, i.e., the ability to understand other's problems, then such person is known as narcissistic or in other cases psychopathic. On the other hand, some people are too much empathetic and can eventually be overwhelmed by the negative feelings they receive from other people. Both sympathy and empathy imply caring of other person, but with empathy, the caring expanded by feeling the other person's emotions. It is noteworthy according to Robert Bolton's people skills the empathic person feels the other people's anger, fear, disgust, bewilderment or love "as if" it were his own feeling, but he does not lose the "as if" nature of his own involvement. In yoga psychotherapy process, empathy is a psychological strategy that helps caregivers to offer support to patients suffering from strong emotions. Children learn empathy from watching our behaviours towards family members and others and from experiencing our empathy towards them. When parents empathize with their children, they develop trust and feel secure attachments with their parents. These secure attachments are prerequisite for their desire to adopt parent's values and to model parent's behaviour and therefore to developing their empathy to others.

Critical Thinking

Critical thinking is the ability to analyse information and experiences in an objective manner to form judgement for improvement. Critical thinking is also called critical analysis, which means making clear rational judgement. According to the National Council for Excellence "Critical thinking is an intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action." People who think critically consistently attempt to like rationally, reasonably and empathically. The following are the major components of critical thinking:

- Reflection
- Acquisition of information

- Analysis
- Creativity
- Decision-making
- Commitment
- Structure arguments
- Debate

Much of our thoughts is biased, distorted, partial, uninformed or prejudiced. The quality of what we build, produce or make provides quality of our life, which depends on the quality of our thought; therefore, by identifying and challenging our cognitive distortions, excellence in thought can be cultivated. Critical thinking is self-directed, self-disciplined, self-monitored and self-corrective thinking. Critical thinking is a specific type of thought making procedure about any subject, content of information, or problem, where quality of thinking is improved by analysing, assessing and reconstructing it skilfully. To think critically, one must learn skills that build upon each other. Only by concentrating on and practising these basic skills can mastery of critical thinking be cultivated. To analyse thinking, one should identify its purpose and ask questions about different aspects of the topic: what, how, when, why, and what if, as well as its information, interferences, assumptions, implications, main concepts and point of view. To assess thinking, one should check it for clarity, accuracy, precision, relevance, logic and significance.

The following are the five stages of the process of creativity:

- (a) Preparation stage: It is the idea of preparation, where you gather materials and conduct research that could provide an innovative idea. Here, your brain uses past experiences and knowledge from its memory bank to generate original ideas.
- (b) Incubation stage: All the information obtained in the preparation stage suddenly goes back in the subconscious level of the mind. You are not consciously trying to work on your idea, e.g., you get the idea of writing a book and you start writing, but after sometime you just leave it to the side for days, weeks or months or sometimes even years. How long incubation stage will take can't be predicted. During this stage, your story or problem is incubating in the back of your mind.
- (c) Illumination or insight stage: It is the idea of the "aha" moment, the "eureka" moment. The mental light bulb clicks on, when all gathered material spontaneously comes together to provide the solution to your problem.
- (d) Evaluation stage: Here, you consider the validity of your idea and weight it against alternative options. You reflect back at your initial concept or problem. This stage provides time for self-criticism and reflection, e.g., you ask yourself, "is this a novel idea, or is it that is just rehashed and has been done before?" You also ask your friends about their idea to know what they think about it. You reflect to say, "my ideas have merit and I am going to work on them."
- (e) Verification stage: It is the final stage of the creative process, where you are actually doing the work. This is where Thomas Edison said that "Genius is one percent inspiration and 99 percent perspiration"; your creative product might be a physical object, an advertising campaign, a song, a book, a theory, an architectural design or a martial art – any item that you have created. Now, you finalize your design, bring

your ideas to life and share it with the world. This is also known as the elaboration stage.

We face problems and situations in our daily routine life and respond automatically; we forget to evaluate them for better solutions, and as a result our decisions are affected by our emotions or other external influences. We build our cognitive thinking based on previous similar situations or experiences. Therefore, critical thinking tends to build a rational mindful process, which prevents jumping directly to the judgement. The following six steps are recommended to achieve critical thinking:

- (a) Knowledge/information: Questions should be asked to acquire knowledge about the problem, e.g., what is the problem and why do we need to solve it? By asking such questions, we can obtain a deep understanding about the problem. If there is no actual problem, then there is no need to go through the other steps of critical thinking.
- (b) Comprehension/understanding: Comprehension means understanding what you have heard, seen or read. The data is collected about the situation and the facts concerned with the problem. You make the new knowledge that you have acquired with your own efforts by relating it to what you already know. After comprehension a person can explain what he or she has heard or read into their own words.
- (c) Application usage: After knowing what information you have and what you have comprehended, you carry on specific tasks to apply for situation.
- (d) Analysis: Here, the situation is analysed to identify the strong and weak points and the challenges faced while solving the problem.
- (e) Evaluation/synthesis: Here, you form a decision whether you can give or withhold belief to tackle the problem and whether or not to take a specific action. In this step, you are ready to appraise all the concerned information and analysis to decide the future mode of action towards problem-solving of the comprehended situation for better useful results.
- (f) Creating/taking action: The results obtained through the above steps should be transferred into action. If the decision involves a specific project, a plan of action should be implanted, which indicates that the solution is developed, adopted and delivered as planned.



In short critical thinking involves the following information:

Information – Can you remember the information?



Comprehension – Can you explain ideas or concepts?



Application – Can you use the information in a new way?



Analysis – Can you distinguish between the different parts?



Evaluation – Can you justify a stand or decision?



Creating – Can you create new product or point of view?

The following are the well-known strategies used to develop critical thinking among the students:

- (a) The teacher gives homework for writing assignments, which allows the students to think deeply about their task.
- (b) The students are allowed to explain after studying the matter, and the teacher acts as a facilitator promoting learning, which is known as conference-style learning.
- (c) Having some kind of ambiguity allows students to think critically.
- (d) Asking questions like what you have learned from today's lesson develops critical thinking in the students. It is known as classroom assessment technique used by the teacher.
- (e) The students are allowed for a discussion or present a case study in the classroom and think their way to conclusion.

Creative Thinking

Creative thinking means thinking outside the box; therefore, creative thinking is the ability or skill to imagine something new and meaningful. It is not the ability to create out of nothing but the ability to generate new ideas by combining, changing or reapplying existing ideas. Creative thinking when used to face challenges in daily routine life is known as a life skill. Creative thinking means finding solutions beyond our usual way of reacting to a problem, are based on our past experiences. Creative thinking is the ability to see a problem from a new perspective. It helps us to discover new and better ways of problem-solving. Creative thinking is a necessary prerequisite needed for the development of self-growth and self-actualization. Creative thinking can

be developed either by an unstructured process such as brainstorming (the process for developing unique solutions and ideas through spontaneous and freewheeling group discussion, where participants are motivated to think deeply and suggest all their ideas without hesitation) or by a structured process such as lateral thinking (a systematic process of thinking that leads to logical solutions from completely different angles).

Critical thinking and creative thinking are both different in many aspects. Creative thinking is a way of looking at problems or situations from a new perspective to create something new or original, while critical thinking is the logical, sequential disciplined process of rationalization, analysis, evaluation and interpretation of the information gathered from observation, experience or communication for developing informed judgement and decision. The following are the main differences between critical thinking and creative thinking:

Critical thinking	Creative thinking
1. Critical thinking is a process to assess worth or validity of something that already exists	1. Creative thinking is a process to create something new generative
2. Analytic	2. Intuitive
3. Logical	3. Right-brain function
4. Left-brain function	4. Imaginative
5. Sequential	5. Subjective
6. Objective	6. Non-judgemental/suspended judgement
7. Judgement	7. Visual
8. Verbal	8. Lateral
9. Vertical	9. Fantasy based
10. Reality based	10. Achieved by disregarding accepted principles
11. Achieved by applying accepted principles	11. Pattern seekers
12. Pattern users	12. Hypothesis forming
13. Hypothesis testing	13. Divergent
14. Conversant	14. Open-ended problem-solving
15. Close ended	

Decision-Making

Decision-making is regarded as the cognitive process, which leads to the selection of a course of action or belief among several alternatives. After gathering all information about relevant alternatives, a person can make an appropriate choice; therefore, decision-making is a choice of what to do and what not to do.

First of all, accept the problem, and define it by taking enough time to think rationally. If needed, take advice from family members, friends and others who are concerned with you. List all the advices for understanding them with consideration of family values and ethics. Find other alternatives for consideration, and choose the best by considering the possible effect. Now, you can make the decision for action. If needed, modify your decision or accept the responsibility.

The following are the seven steps to effective decision-making:

1. Identify the decision: Ask yourself why you need to make a decision. What is the nature of the decision?

2. Gather relevant information: You can get internal information through a process of self-assessment and external information available from other people, books and other sources. Collect concerned information before you make a decision.
3. Identify the alternative ways through imagination and other information.
4. Imagine possible impacts of each alternative, and place them according to your priority.
5. Select or choose the best alternative for yourself.
6. Take action to implement the alternative you choose.
7. Review your decision and its consequences: Imagine the possible consequences of your decision, and evaluate whether or not it has resolved the need you identified in step 1. If your decision does not meet your identified need, you can proceed to making a new decision to meet your identified need. For example, you may need to gather more information or explore additional alternatives.



Decision-making is the cognitive process of choosing between two or more models of actions as a solution exactly needed for the problem-solving.

Problem-Solving

A problem happens when an obstacle appears, which makes it difficult to achieve a desired goal, purpose or objective. Such problems when unattended can lead to stress and other mental illness, like anxiety disorder, depression, etc. Problem-solving makes a person to deal constructively with their problems in life, and in this way it enables them to convert their problems into opportunities. In our daily routine life, several problems arise due to a situation, person or thing that needs attention and needs to deal with or solved. When problems arise, we get uncomfortable and run away, or we blame someone. We don't need to solve our problems with right answers here. Problem-solving helps us to get the right solutions for our problems. Problem-solving

is the act of defining a problem, identifying and selecting alternatives for a solution and implementing a solution. Problem-solving process involves the following steps:

1. Identify the problem.
2. Problem analysis: Explore information and create ideas through brainstorming.
3. Choose the best idea.
4. Build and test the idea.
5. Evaluate the results for future consequences.
6. Generate possible solutions.
7. Solution analysis.
8. Solution implementation: Develop at least three alternative plans of action, and set date for implementation of the best plan, which you have chosen.
9. Learning phase: Monitor outcomes of your action, and carry on the problem-solving process if needed.



Steps of problem-solving

Effective Communication

Your innovative ideas fail, if you fail to communicate your ideas effectively in a way that inspires people to accept you with your ideas. Effective communication is about understanding the emotions and intentions behind the information sent and received. We communicate with others and transmit our thoughts and emotions to them by speech, writing, signals and behaviour, so that our message is received successfully by the receiver and understood what the speakers truly mean. Therefore, every interpersonal communication involves senders and receivers to exchange information through a medium. A channel or system of communication is a medium in the effective communication process. The plural form of medium is media, which is also called communication channel or in simple language we call it channel, which transmits message or information between a speaker or writer (the sender) and an audience or reader (the receiver). The media range from individual speech, writing and body language to newspapers, radio, television and the Internet, which represents a form of mass communication. The exchange of views and ideas with expression of emotions, such as anger, disgust, fear, love, compassion, joy, etc., is nothing but communication. A sender is a person who speaks, and a receiver is a person who listens to the speaker. Effective communication is nothing but the exchange of views and ideas with an emotional expression by the sender in an appropriate way, understandable by the receiver. In other sense, effective communication is a process of exchanging ideas, thoughts, information and knowledge, in such a way that the purpose or intention is fulfilled in the best possible manner; therefore, just delivering the message is not enough: it must meet the purpose of the sender. Effective communication is about understanding the emotions and intentions behind the message and to know what the sender really means. If the body language of the sender is not matching with his/her statement, then the receiver doesn't believe in the sender's statement. Much of any message is communicated non-verbally.

Non-verbal communication includes eye contact, posture, body movement, face expression, tone and pitch of the voice and physiological changes that suddenly occur as a result of fight or flight response of stress due to adrenaline rush into the body as a result of negative emotions of anger, fear and low level of confidence. However, an awareness of both negative and positive emotions is necessary for the development of effective communication. This understanding of our own and other's emotional state is known as emotional intelligence. Effective communication does not mean forcing your opinions on others and winning an argument, but effective communication always begins with understanding the other person by allowing him/her respectfully to talk freely, so that the other person feels heard and understood. We often forget to listen to others and jump to conclusions between the communications, therefore neglecting the motive of the message. It is very common to see that while communicating with others, we often focus on what we should say rather than patiently listening to others. However, effective communication means less talking and more listening. Actively listening means understanding the emotions the speaker wants to convey with the words.

The following are the common barriers of effective communication:

- (A) Lack of focus: When you are multitasking and distracting your mind by frequently checking your mobile phone, wandering in daydreaming or thinking what you are going to say next, then you miss the non-verbal components in the conversation, making your communication process weak. Multitasking doesn't allow you to communicate effectively. Therefore, for making your communication effective, you need to avoid distractions of your mind by switching off your mobile phone and stay focus on the present movement.
- (B) Inconsistent body language: Body language should reinforce what is said during communication. Non-verbal communication should not contradict your statement, which you have delivered in your speech in front of the audience. If your statement does not match your body language, then your listener will think that you are not honest with your statement, and they will not believe you.
- (C) Negative body language: During communication a stage comes when you disagree with what's being said and you suddenly response by avoiding eye contact or crossing your arms, which put the person on the defensive mood. For effective communication be aware of your negative body language (e.g., tapping your feet), and control it to avoid sending negative signals.
- (D) Out of control emotions: You feel emotionally overwhelmed during stress; therefore, you misunderstand other people and misread them through your distorted perception and send confusing non-verbal signals through your negative body language and irrational behaviour, which are not socially accepted. Before communicating to others, you should learn to manage your stress to avoid misinterpretation of situation and conflict. Practise deep breathing exercise to learn to calm down quickly during the communication period. An aggressive person can be cool down by listening in an attentive way and making the person feel understood and valued. When such person feels heard and understood, he/she opens his/her heart to build a relationship with you. A person's feeling is expressed through emotional behaviours, e.g., when a person who feel angry shout at you, here, your engaged listening rather than your rational arguments will help him/her to calm down. During arguments you may say something for which you will regret later. Many times we felt stressed during a disagreement with our life partners, children, friends or co-workers and said or did something we later regretted. After learning stress management, we can respond rationally and also help them to calm down quickly.
- (E) An inappropriate medium when used for communicating a message will act as a barrier to effective communication.

Interpersonal Relationship

Interpersonal skills are social skills that you need and use to communicate and interact with your family, friends, customers, co-workers, romantic partners and other people to develop effective interpersonal relationships. A strong bond between

two or more people refers to interpersonal relationship, which can be developed between a man and a woman, father and son, seller and customer, boss and workers, etc. The persons in an interpersonal relationship should have common goals with more or less similar interests and think on the same line; therefore, people having similar backgrounds develop interpersonal relationship more easily. A sense of respecting each other's views and opinions, trust, loyalty and commitment is an essential prerequisite for the development of interpersonal relationship to avoid conflicts and misunderstandings, without any personal bias or prejudice; accepting others as they are with their strength and weakness is necessary for developing interpersonal relationship. Having positive interpersonal relationship with your life partner, customers, friends, co-workers, children, parents and other people has been found to improve your psychological health and well-being. Poor interpersonal relationships have been associated with stress and affect mental health adversely. That is why it is important to have positive people around you, who provide you with support, comfort and joy. It is also necessary to avoid negative people because they don't like to develop, and this is why they want to discourage you from developing as well. The people around us form our personalities and value systems with a core belief, and they provide us with purpose and direction.

According to psychologist George Levinger, there are five stages of interpersonal relationships as follows:

Stage 1 (acceptance): We meet many people but feel attractions towards those who are beautiful, supportive and honest.

Stage 2 (build-up): By revealing our personal likes and dislikes, we become more and more independent; therefore, whenever two people are involved in an interpersonal relationship, they show increased level of trust and comfort with each other. During the build-up stage, an adviser role is possible to influence the decisions and actions of a co-worker and client. People involved in the build-up stage not only act as a co-worker but also as a friend. In the build-up stage, you have to know the other person personally and use your influence sparingly and positively. Engaging in abuse of the privileges of your friendship can quickly lead to its degradation or dissolution (i.e., stage 4, deterioration).

Stage 3 (continuation): First of all, people get together and build up relationship; then, they enter to the continuation stage by making long-term commitments and maintain relationships with family, friend and customers. In the continuation stage, there is a feeling of trust and commitment to the relationship and a corresponding increase in the amount of influence both people can exercise. This is where you will reap the benefits of better communication, improved productivity and an increased satisfaction with work. Increased effort is needed to maintain the relationship, and this increased effort comes with the increased trust and influence. It is noteworthy that without maintaining effort, the relationship starts deteriorating (i.e., stage 4, deterioration), leading to a return to the acceptance stage (stage 1) or termination stage (stage 5).

Stage 4 (deterioration): Many relationships decay due to several factors. It is a necessary phase because no one works in the same job forever and circumstances

frequently lead to a change in the frequency of contact. Without paying special effort and attention to its maintenance, the relationship can revert back to the acceptance stage (stage 1) in the personal relationship continuum.

Stage 5 (ending): The relationship ends when partners agree to separate or one leaves. It is extremely unlikely that you will remain in contact with everyone you meet throughout your entire professional career, and so termination will be a natural step in many of your workplace relationships. It is important to understand the stage of the relationships you are in. If you want to sustain them, act to prevent deterioration by paying special effort and attention to the maintenance of the relationship through get-together in parties, meeting and social functions. If you are too busy, then maintain the relationship by using social media. If you want to end your relationship, then get through the deterioration as soon as possible.

Successful interpersonal relationships get to the continuation stage (stage 3) in the personal relationship continuum. They may last until death do us apart. Some relationships are maintained for a limited time only. There are some interpersonal relationships with neighbours, friends of friends and others you interact with on a semi-regular basis, where relationship doesn't progress beyond the acquaintance stage (stage 1). These are known as secondary interpersonal relationships. Here, you may exchange "hellos" and "how are you."

Relationships require effort, and no relationship is 100% perfect; therefore, conflict happens. When conflict arises, both sides have to work to maintain a positive connection through maintaining clear and open communication by talking and listening, which will form a strong bond and resolve conflicts.

You have to maintain the following relationship habits:

- (a) Be honest and trustworthy because, without trust, there is no relationship.
- (b) Listen to each other.
- (c) Respect each other.
- (d) Be slow to judge.

You can improve your interpersonal skills by developing your awareness of how you interact with others and practising your skills.

Coping with Emotions

Coping with emotions means healthy ways to cope with negative emotions generated by the feelings of sadness, anger, frustration, fear, loneliness, anxiety or low self-esteem. Learning to deal with these emotions in a positive way makes your life healthy and happy. The following are methods to calm yourself down when you are feeling overwhelming emotional challenge:

1. When your body becomes tense due to stress and you are charged with negative emotions, then, first of all, let your pent-up negative emotions released physically

through walking for a long distance, screaming in front of a mirror, punching into a pillow, squeezing a stress ball, playing outdoor games, crying, singing, dancing, etc.

2. You can also express your negative emotions through involving yourself in creative works, e.g., drawing, writing a diary, writing a poem, making a scrapbook, playing musical instruments and knitting. Studies have shown that repetitive actions involved in crafts like knitting, crochet and needlework can release stress and induce a state of deep relaxation, similar to that we experience during well-known relaxation practices, like yoga and meditation. Those who have learned knitting are expected to experience a lower heart rate, lower blood pressure and reduced cortisol level. The repetitive activities of knitting have been shown to activate the parasympathetic nervous system, which quiets the fight or flight response of stress, so people feel calmer, quieter and more relaxed.
3. You can express your negative feelings and thoughts by talking with someone you trust like family, friends and counsellor.
4. Relaxation coping strategies help our mind and body to refocus by practising deep breathing technique, yoga, meditation and muscle relaxation process.
5. You can calm yourself down by doing make-up, listening music, having a hot water bath or cuddling a pet, pillow or toy.
6. Powerful negative emotions are too difficult to express in other ways; in such circumstances, try to distract your mind by watching a movie or TV, looking at funny videos, calling friends by phone, doing something you enjoy and learning new things. Here, distraction of your mind is keeping yourself busy to take your mind off the issue.
7. Emotions play a key part in your reactions towards events or situations created by other people in this world. When you are in tune with your emotions, you have access to important knowledge that helps with self-care, interpersonal relationship, decision-making and day-to-day interactions. Uncontrolled emotional responses spoil interpersonal relationships. Any emotion, whether it is positive or negative, can intensify to a point where it becomes difficult to control; therefore, one should learn to control any excess of emotions. Coping with emotions means recognizing emotions within us and others and being aware of how emotions influence behaviour. We should be able to respond to emotions appropriately in a socially accepted way. Intense emotions like anger, fear or sadness can have negative consequences on our health, if we do not respond appropriately; therefore, it is crucial to learn to control and express our anger, fear or sadness in a constructive manner, which is known as emotional intelligence. Emotional intelligence is the ability to recognize emotions not only inside yourself but also inside of others. The following are four noteworthy terms concerning emotional intelligence:
 - (a) **Self-awareness:** It refers to understanding and noticing your emotions.
 - (b) **Self-control:** It refers to the ability to control your own emotions.
 - (c) **Empathy:** It refers to understanding the emotions of others.
 - (d) **Social skills:** It refers to the ability to influence the emotions of others.

Through emotional intelligence, emotional stability refers to a person's ability to remain calm in daily life circumstances when faced with pressure or stress. An emotionally unstable person faces an increased risk of reacting with violent or harmful behaviours when provoked.

Whether it's a chaotic work environment or family problem, we all have those moments when we feel emotionally out of control. Actually, our minds feel what we decide they feel. With the presence of mind in the present moment and a bit of practice, being emotionally stable is achievable in any circumstances.

Emotional stability starts with you; you need to learn to control the way you feel and not let people control it for you.

Controlling your emotions is a skill that takes practice, awareness and a lot of discipline and self-control, but it can be done.

Suicide Prevention in India

In India suicide is the most common cause in both the age groups of 15–29 years and 30–44 years. Mental health awareness campaign for suicide prevention is a very difficult task due to increased level of stigma attached with mental health issues, particularly in India. After a several years of field experiences, life skills dynamic meditation gatekeeper training for suicide prevention has been developed in the Kachchh district of the Gujarat State in India, where sociocultural background of the Indian people has been considered. Life skills dynamic meditation training seminars and workshops have been organized in several places of India with good public participation. In India, there is a lack of effective life skills training in schools and colleges. In India, adults who have not been provided Life Skills training opportunities, now they have been provided with life skills dynamic meditation training for suicide prevention, where ten core life skills recommended by the World Health Organization along with meditation, deep breathing pranayama technique, yoga postures, warning signs of suicide and methods of timely interventions have been included.

Life skills dynamic meditation is a conscious awareness of life skills, which are essential for coping with negative aspects of stress in any circumstances, and involves goal-orientated thoughts and behaviours with needful change in the negative attitude and lifestyle for the purpose of peace and happiness by physical, mental, social and spiritual development, through obtaining knowledge of cognitive distortion, defence mechanisms of mind and mental illness (e.g., anxiety, depression, warning signs of suicide, etc.) and learning physical exercises, meditation, relaxation techniques and yoga.

What Is Stress?

Stress is our body's normal psychological and physical response to the challenge or threat.

Stress is built up when external pressure or demand of the situation exceeds personal resources, e.g., lack of time to prepare for interview, lack of money and lack of support of family members and friends. Stress is built up when external pressure exceeds the resources.

$$\text{STRESS} = \text{PRESSURE} > \text{RESOURCE}$$

You cannot control the outer world (which depends on time, money, family and friend's help), but you can control your inner attitude. When we consider our attitude in the list of personal resources which you can control in every circumstance, then we find that

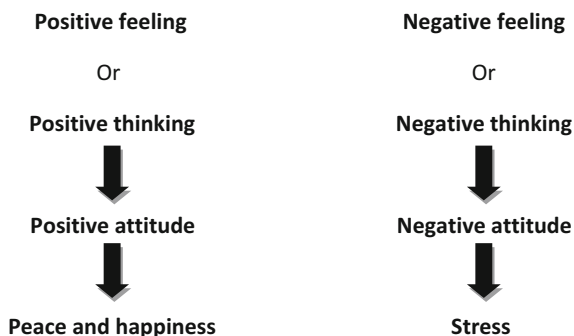
$$\text{STRESS} = \text{PRESSURE} > \text{ATTITUDE}$$

Now, considering this formula which we have obtained, in other words we can define stress as losing touch with the power of attitude. If we change the attitude from negative to positive, then we find that stress is decreased or controlled.

$$\text{STRESS} = \text{PRESSURE} < \text{ATTITUDE}$$

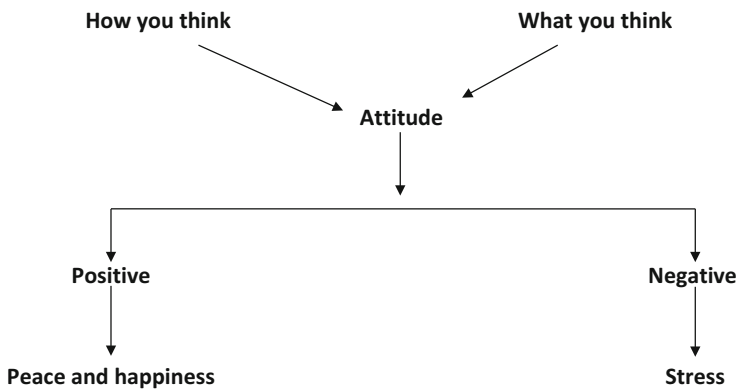
What Is Attitude?

A feeling or a way of thinking that affects behaviour is called attitude.



Attitude is the way you think and feel about something.

How you think and what you think build your attitude. If you think in a positive way, then your positive attitude leads to peace and happiness in your life, but if you have negative thoughts running inside your head, then your negative attitude will create stress that may lead to anxiety, depression and sadness.



What Is Dynamic?

Literally, dynamic means positive in attitude and full of energy and new ideas of a person.

Most stressful situations benefit from a calm, rational, controlled and socially sensitive approach.

Calm mind keeps the fight or flight response of stress under control. Consciously creating a calm mind is a dynamic process. Therefore, coping with stressful situation with consciously focusing your attention to create a calm mind is known as dynamic calm mind. Your dynamic calm mind uses your energy wisely and does not waste your energy through fight or flight response of stress.

The acute stress response is a physiological reaction of the body in the presence of danger, which is also known as fight or flight response of stress. Our ancient ancestors had faced danger of the forest with their fight or flight response. In stressful circumstances the sympathetic nervous system of the body gets activated to release adrenaline and noradrenaline from the stimulated adrenal gland, resulting in increase in heartbeats, breathing rate and blood pressure. When the danger has passed, the body returns to the pre-arousal levels within 20–60 min. Fight or flight response can be triggered due to both real physical dangers and imaginary psychological threats. Fight or flight response plays a critical role for survival in the life-threatening situations. Understanding of fight or flight response helps us to cope better with irrational fear and anger.

When your mind is devoid of fear or anger, then only your mind is fully clear from the past or future and only you can focus your mind very easily and naturally on your present moment to solve your daily life problems positively. But when the fear or guilt of the past and worry of the future make your mind cloudy, then you cannot focus your mind on the present moment.

What Is Meditation?

We can define meditation in several ways. One way is through sitting quietly by closing eyes with turning attention inward by focusing awareness on thought, image, conscious breathing is known as meditation.

The conscious practice of awareness about daily life activities mindfully is known as meditation. Meditation refers to any conscious activity that keeps the attention focused peacefully on the present moment. Meditation refers to know what I am feeling inside and how we react on events outside and understanding who I am.

Meditation may also be done in an active way, e.g., Buddhist monks involve awareness in their day-to-day activities as a form of mind training.

These are different ways of meditation, depending on the different teachers and traditions, but all types of meditation involve silent observation of non-judgemental thoughts without interpretation. Life skills dynamic meditation includes techniques designed to promote relaxation, build internal energy (prana), remove fear and develop compassion, forgiveness, generosity, love and patience. In meditation the choice of focusing your mind in something needful depends on you. When you make a conscious choice to focus your attention on something purposeful in the present moment, then only you become aware. So, awareness is needed to become witness of your thoughts.

Life skills dynamic meditation training involves the following:

- (A) Lifestyle change: In life skills dynamic meditation training, positive lifestyle changes are recommended for appropriate diet and exercise, including anger, conflict and time management.
 - Eating healthy food: Eating three times a day is recommended. Unhealthy food habits should be stopped, including substance abuse (stop smoking, alcohol, tobacco chewing, drugs, etc.).
Note: People drink permitted amount of alcohol in Western countries according to their cultural norms.
 - Exercise: Exercising up to 50 min daily is recommended.
 - Eight glasses of water: Drinking at least 2 l of water (8 glasses) daily is recommended.
 - Taking a relaxing break for a short period every day.
 - Effective time management.
 - Effective conflict management.
 - Effective anger management.
- (B) Positive attitude.
- (C) Self-affirmation.
- (D) Relaxation techniques.
- (E) Rhythmic muscular contraction wave generation (RMC wave generation) for 15 min.
- (F) Physical activities: Warm-up exercise and yogasana.
- (G) Breathing exercise (pranayama, kapalabhati)

- (H) Mental activity: Meditation and obtaining knowledge about cognitive distortions, defence mechanisms of mind, mental illness (e.g., anxiety, depression, warning signs of suicide, etc.) and neurotransmitters of the brain.
- (I) Life skills recommended by the World Health Organization.

What Is Depression?

Depression (major depressive disorder) affects how you feel, the way you think and how you act. Depression is the most common serious mental illness and, if left untreated, can lead to suicide. Feeling sad or having a depressed mood, loss of interest, change in appetite and sleeping pattern for the period of at least 2 weeks or more indicate symptoms of depression. Depressed people can feel hopelessness and worthlessness with difficulty in thinking, concentration or making decisions. He/she may be preoccupied with the thoughts of death or suicide. Depression can affect any one, and timely intervention can prevent suicide. Depression is treatable. Any person having above symptoms should be referred to a psychiatrist for the treatment. About 80–90% of people affected by depression generally respond well to treatment, and almost all depressed patients get some relief from their troublesome symptoms.

If people are in trouble time in their life fails to manage their stress level timely, then they feel pervasive sad mood, which may continue for two weeks or more leading to depression. If depression is not recognized timely, then lack of timely intervention may lead to suicide.

People should understand that suicide is preventable. Suicide is intentionally taking one's own life. But by recognizing the following warning signs of suicide, people can actively intervene to prevent suicide:

What Are the Warning Signs of Suicide?

Educating yourself about the warning signs of suicide and how to intervene actively to help someone who is hurting himself or herself can be the first priority for saving the suicidal person's life. Early detection of warning signs can lead to a mental health professional help and can save a life; therefore, suicidal warning signs should be taken very seriously. There isn't really any typical pattern of behaviour for someone who is suicidal, but you may easily observe and understand the following warning signs and intervene timely to prevent suicide:

1. Talking of dying or threatens to kill himself or herself
2. Previous suicidal attempts
3. Family history of suicide or suicidal attempt
4. Talking about feeling of hopelessness, helplessness and worthlessness
5. Showing increased anger and aggression and unable to control impulsive behaviour
6. Expressing strong feeling of guilt and shame

7. Preparing a will
 8. Making arrangements for pets
 9. Unusual spending, giving away possessions
 10. Social withdrawal and isolation
 11. Saying goodbye to all
 12. Showing risky activities without thinking
 13. Talking about not having a purpose or a reason to live
 14. Sad mood
 15. Gathering lethal means
 16. Change in appetite and sleep patterns, particularly decreased sleep
 17. Unusual mood swings
 18. Reliving past stressful experiences (Post Traumatic Stress Disorder (PTSD))
 19. Having increased smoking, alcohol or drug abuse
-

What Can you Do if Someone Seems Suicidal?

- Do not leave the person alone.
- If you suspect someone is suicidal, talk to that person privately, actively listen without judgement and be compassionate.
- Ask them directly if he or she is considering suicide because according to the World Health Organization mentioning suicide or discussing it is not going to push anyone over the edge and make them take action.
- Remove potential means of self-harm, including knives, ropes, petrol, pesticides, firearms, etc.
- Take him or her to mental health professionals.
- Contact local suicide prevention helpline.
- If the person is taking psychiatric treatment, help that person to contact his or her therapist for guidance and help.



Complex Trauma and Suicide: An Integrative Interpersonal Approach

37

Kayleigh N. Watters, Jessica T. Sklar, Sloane R. M. Rickman, and Matthew M. Yalch

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Abstract

Complex trauma is a term used to describe traumatic experiences that are chronic, repetitive, and invasive (e.g., domestic violence, captivity, torture). Complex trauma is associated with more pernicious psychosocial outcomes than other forms of traumatic experience (e.g., natural disasters, isolated assaults). Perhaps the most serious of these outcomes include thoughts about, attempts at, and completion of suicide. Theorists have long considered suicide to be an essentially interpersonal act, with fundamentally interpersonal causes and consequences. Similarly, what makes complex trauma *complex* is the interpersonal nature of it, the layering of perpetrations by other people, and interpersonal meanings made in the aftermath of these perpetrations. Although there are numerous parallels in the literatures on complex trauma and suicide with respect to interpersonal factors, these parallels have not yet been made explicit or articulated within an integrative interpersonal framework. In this chapter we will bridge this gap by defining and

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overviewing the research on complex trauma, discussing interpersonal approaches to understanding suicide, and providing an integration of the complex trauma and suicide literatures within an integrative interpersonal framework. Based on this integration, we will also highlight directions for future research and potential implications for clinical intervention.

Keywords

Complex Trauma · Interpersonal Theory · Suicide

Suicide is a common problem in the aftermath of experiencing trauma, but not all forms of trauma are equally likely to result in suicide. One especially pernicious form of trauma is complex trauma, traumatic experiences that are chronic, repetitive, and invasive (e.g., domestic violence, captivity, torture). Complex trauma is associated with more adverse psychosocial outcomes compared to other forms of trauma, the most serious of which is suicide. One reason for the link between complex trauma and suicide may be that both complex trauma and suicide share underlying interpersonal dynamics. However, thus far there has been little work laying this out explicitly.

The Interpersonal Theory of Suicide

Toward an Interpersonal Understanding of Suicide

Suicide has been a persistent problem throughout history and across cultures [19]. Accordingly, there have been numerous approaches to understanding suicide, each approaching the issue from a different perspective. Perhaps the earliest theory of suicide was sociological and conceptualized suicide as the result of improper integration or regulation of a person within society [14]. In this view, suicide is the result of someone being too integrated into society (altruistic suicide) or not integrated enough (egoistic suicide) or being too regulated by society (fatalistic suicide) or not regulated enough (anomic suicide). Later theories of suicide emphasized the influence of psychological factors on suicide. One such factor is psychological pain, and many have suggested that suicide is an effort to escape profound psychological pain [25, 27]. Another factor is hopelessness. Specifically, it may not be that discrete forms of dysfunction (e.g., psychological pain, one's role in society) lead a person to end their life, but rather the belief that they are unable to change this dysfunction [3].

Recent efforts to understand suicide have involved integrating both social and psychological factors. Perhaps the most common example of this is the interpersonal theory of suicide [19, 21, 31]. In this view, the combination of two factors lead a person to suicide, thwarted belongingness (the inability to connect with other people) and perceived burdensomeness (the belief that one is a drain on others). Thwarted belongingness corresponds to egoistic suicide in that both involve

detachment from other people. Perceived burdensomeness is in many ways an extension of hopelessness, with a person feeling not only unable to improve his or her own situation, but also feeling as if their inability affects others adversely. In this model, profound psychological pain of the type that leads to suicide is often a consequence of one or both these factors: a person feels bad because they are simultaneously detached from people, believes they are a burden on them, and feels helpless to change this [19].

Research on the Interpersonal Theory of Suicide

There is empirical support for the interpersonal theory of suicide. Meta-analytic research suggests that perceived burdensomeness and thwarted belongingness predict both suicidal ideation and suicide attempts [12]. There is also evidence that these two dimensions interact with each other to have a multiplicative effect on suicide (for review see Ma et al. [24]). For example, high perceived burdensomeness and thwarted belongingness multiply the effects of each other to predict higher suicidality over and above the independent effects of both [30]. Furthermore, thwarted belongingness and perceived burdensomeness interact with acquired capability for suicide (i.e., the ability to kill oneself vs. the desire to do so; see Ribeiro and Joiner [26]) such that higher levels of all three predict suicide attempt over and above independent effects [20].

Evidence for the interpersonal theory of suicide is well established and continues to contribute meaningfully to research on and intervention with suicidality. However, despite research on this model considering potentially traumatic events (e.g., [30]) and samples that have high rates of both trauma and suicidal behavior (e.g., military personnel; see Joiner et al. [20]), there has been little work applying an interpersonal understanding of suicide to the context of trauma. This is especially true in the case of complex trauma, which may be especially predictive of suicide.

Complex Trauma and Suicide

Trauma and Complex Trauma

Trauma refers to an event that challenges a person's fundamental beliefs about the world, others, and themselves ([18, 35]). Trauma is common, with a majority of people endorsing one or more potentially traumatic events over the course of their lives [16]. Although most people who experience such events do not suffer adverse consequences, effects of trauma can be debilitating for others. Research suggests that trauma is associated not only with posttraumatic stress disorder (PTSD; the prototypical outcome of trauma exposure), but also with symptoms of depression, anxiety, and dissociation [7, 15, 29]. Though potentially harmful, not all forms of trauma are equally injurious.

Complex trauma refers to those traumatic experiences that are chronic, repetitive, and entail an intimate, interpersonal perpetration [10, 35–37]. Examples of complex trauma include child abuse, domestic violence, and sexual abuse. For example, child abuse often occurs for a prolonged period of time throughout childhood and is often perpetrated by a trusted person. The continuous and interpersonally intimate aspects of complex trauma make exposure to it more psychologically injurious than more time-limited, less interpersonal forms of trauma (e.g., natural disasters, traffic accidents). For example, symptoms of PTSD and depression in the aftermath of complex traumas are often more severe than symptoms following “simple” (e.g., single event) traumas [10, 13]. Also unlike other forms of trauma, complex trauma is associated with alterations in personality such as reduced ability to regulate affect and inhibit impulses [10, 38, 39]. The problems resulting from complex trauma may thus leave the complex trauma survivor with an inability to cope, which can sometimes be lethal.

Complex Trauma and Suicide

Perhaps the most devastating problem associated with complex trauma is suicide [11, 37]. There are two primary ways by which complex trauma may lead to suicide. First, suicide may be a means of escaping the symptoms associated with complex trauma. For example, symptoms of PTSD and depression are common among and cause distress for people who experience complex trauma, who may attempt suicide to relieve their distress [9, 37]. This is consistent with research suggesting that symptoms of PTSD and depression are associated with suicide [5, 32, 37].

A second way in which complex trauma may be associated with suicide is more direct. Complex trauma is associated with affect dysregulation and impulsivity, each of which may increase suicide risk in and of themselves [5, 23]. For example, people with severe difficulty regulating their affect may resort to suicide and other self-destructive behaviors in an attempt to regain control of themselves [40]. High levels of impulsivity may lead a person to attempt suicide in an effort to solve problems without considering other, less permanent solutions [17]. However, although there is research on the link between complex trauma and suicide, this research is not yet well integrated with the interpersonal dynamics of suicide.

An Integrative Interpersonal Approach to Complex Trauma and Suicide

Interpersonal Theory

Both complex trauma and suicide are interpersonal in nature [28]. Interpersonal theory explains these interactions in terms of two dimensions: warmth is the tendency to be connected with others (versus coldness the tendency to withdraw from others); dominance is the tendency to be assertive and self-assured with respect to others

(versus submissiveness the tendency to be docile and let others take the lead; [6, 22, 33]). The degree to which one person behaves warmly and/or dominantly with another person sometimes also influences how that other person behaves in response. We can predict people's behavior using the principle of complementarity, the idea that one person's behavior follows naturally from the interaction they just had with another person (see [22, 41]). Complementarity works in two ways: people behave comparably in terms of warmth (e.g., if I am nice to you, you will be nice to me, in roughly equal measure) and contrast each other in terms of dominance (e.g., if one person leads [dominant], the other person follows [submissive]). Complementarity with respect to warmth and dominance works in concert with each other. For example, blowing a kiss (warm-dominant) may elicit blushing (warm-submissive), and yelling angrily (cold-dominant) may elicit cowering (cold-submissive).

Interpersonal theorists have developed a way of mapping interpersonal behaviors graphically using a tool called the Interpersonal Circumplex (IPC; Fig. 1; [42]). The IPC is a circle with warmth on the horizontal axis and dominance on the vertical axis. The farther away from the center of the circle the more extreme a behavior is. For example, along the warmth axis just to the right of the IPC's vertex would be a smile, further to the right would be a hug, and even further to the right would be a kiss (see Fig. 2). We can also use the IPC to depict combinations of warmth and dominance. To use an example on the cold side of the IPC, in the upper left quadrant close to the vertex would be a frown, further up and to the left would be a verbal insult, and at even further up and left would be physical assault (see Fig. 2). We can use the IPC

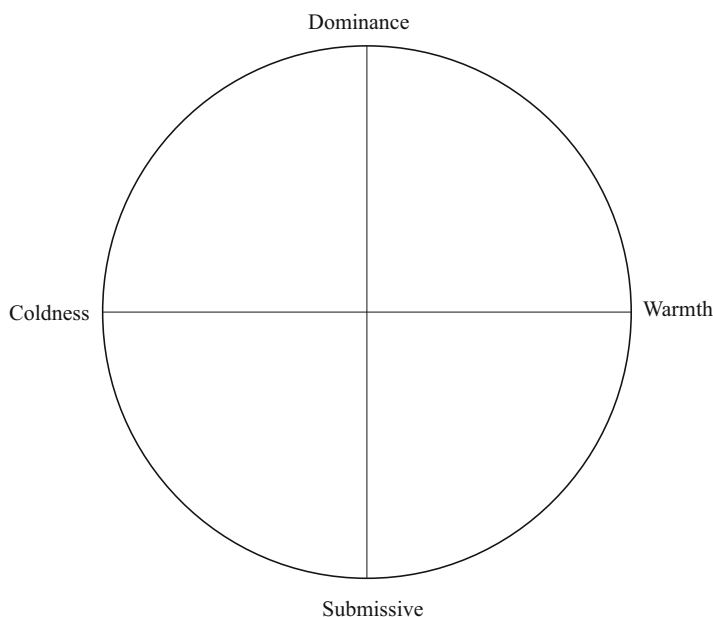


Fig. 1 The interpersonal circumplex (IPC)

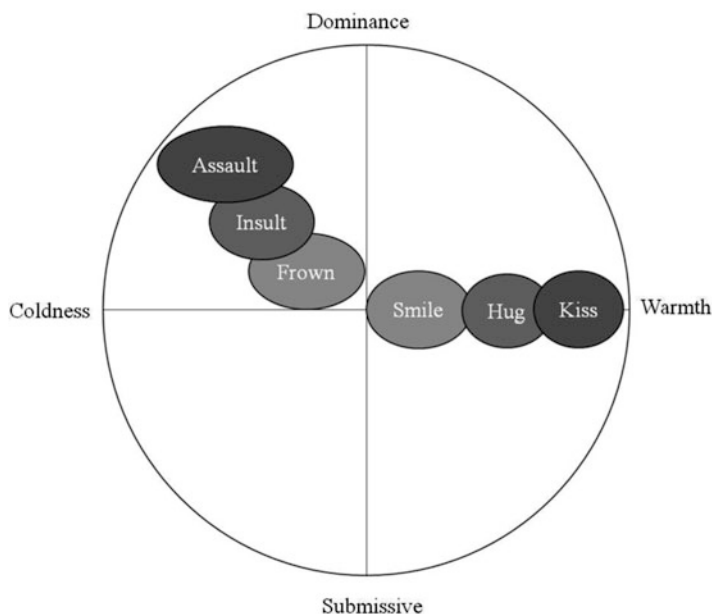


Fig. 2 Example behaviors depicted graphically on the IPC

and other tools of interpersonal theory to understand a range of behaviors that happens between two or more people.

Interpersonal Dynamics of Complex Trauma and Suicide

We can understand both complex trauma and suicide in terms of interpersonal dynamics using the IPC. Complex trauma is inherently cold in that it involves a detachment from others and dominant in that it involves an overpowering of another person's agency. For example, domestic violence is an aggressive behavior (dominant) that alienates victims from themselves and their intimate partners (cold). We could thus think about domestic violence and other forms of complex trauma as being in the cold-dominant area of the IPC. In contrast, suicide is the result of thwarted belongingness (cold) and perceived burdensomeness (submissive). We would thus think about suicide as being in the cold-submissive area of the IPC (see Fig. 3).

We can understand the dynamics between complex trauma and suicide using the principle of complementarity. Because complex trauma is cold and dominant, the complementary response to it is cold and submissive. Indeed, this is the case for many common psychological sequelae of trauma in general (e.g., symptoms of PTSD and depression, which are cold and submissive; for review see Yalch and Burkman [35]). However, complex trauma is chronic, repetitive, and otherwise more severe than other forms of trauma, and correspondingly pulls for a more extreme response. The behavior

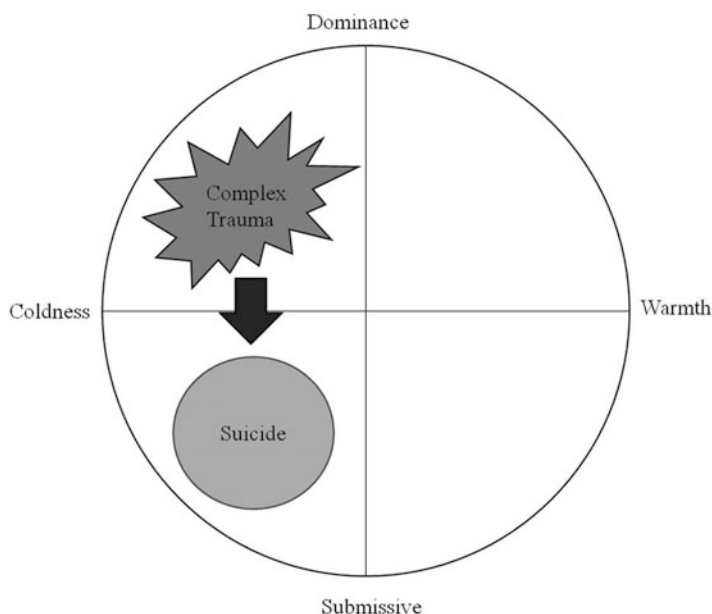


Fig. 3 Complex trauma and suicide depicted graphically on the IPC

that is at the extreme of cold submissiveness is suicide. In effect, suicide is complementary to complex trauma – and the more severe or repeated complex trauma is, the more at risk for suicide a person may become (see Fig. 3).

Discussion

In this chapter, we reviewed the research on suicide and complex trauma, provided an overview of an integrative interpersonal approach to clinical case conceptualization, and applied this approach to the dynamic association between suicide and complex trauma. Future work can build on this to extend research on suicide and complex trauma and to intervene with survivors of complex trauma at risk for suicide.

The integrated interpersonal approach to understanding the link between suicide and complex trauma has a number of implications for future research. For example, although we conceptualize complex trauma as a cold-dominant experience (and suicide as a cold-submissive behavior), we did not examine this empirically. Future research could thus build upon the framework we propose in this chapter by examining how the experience of complex trauma and suicide “project” quantitatively across the IPC. Although it would be valuable to examine the interpersonal projection of both complex trauma and suicide independently, it would perhaps be of even more value to examine how trauma and suicide relate to each other dynamically over time. Future research could also address this.

There may also be implications for working clinically with survivors of complex trauma at risk for suicide. Clinical intervention with trauma survivors often begins with an assessment of the traumatic experience(s) and symptoms that develop in the aftermath of these experiences [8]. However, given the interpersonal nature of both complex trauma and suicide, assessment of interpersonal style (e.g., one's characteristic way of relating to others, the strengths and problems one has in these relations, how one would like to relate to others) might also be valuable. Specifically, assessment of interpersonal style may provide an indication of whether a client struggles with interpersonal connectedness and or efficacy (or their inverse, thwarted belongingness and perceived burdensomeness), thus providing targets for intervention in addition to discrete symptoms and behaviors.

Assessment of interpersonal style may also inform the process of treating complex survivors. Indeed, several contemporary approaches to psychotherapy [2, 4] begin with an interpersonal assessment so as to inform the therapist how to interact with the patient most effectively. In these approaches, it is useful to complement the patient early in treatment in order to build trust and clinical rapport, but contrast with the patient's interpersonal style later in treatment to pull them (via the principle of complementarity) to try new and adaptive behaviors. For example, in working with a complex trauma survivor who by virtue of their cold and submissive interpersonal profile is at high risk of suicide, a therapist might begin treatment by adopting an approach that is directive and not overly warm, thus providing a safe and familiar environment for the patient. Over time, as trust between patient and therapist grows, the therapist may behave more warmly toward the patient, pulling the patient to being more connected in response (thus reducing a sense of thwarted belongingness). Still later in treatment, the therapist could progressively adopt a less directive and more collaborative approach to therapy, allowing the patient to experiment and feel more comfortable with their sense of autonomy (thereby reducing perceptions of helplessness and burdensomeness). Although this interpersonal approach was developed in the context of treating interpersonal problems characteristic of personality disorders, recent work has shown its efficacy in work with trauma survivors [39]. Future research should examine how this might play out in practice with survivors of complex trauma.

There are a number of limitations to the literature, which suggests directions for future research. One limitation is that although we describe complex trauma as a uniformly cold-dominant experience, the reality may be more nuanced. Namely, some manifestations of complex trauma may be cold but not dominant (e.g., physical and emotional neglect) and others may have more complicated interpersonal signatures (e.g., sexual abuse, which uses intimate connection [an otherwise warm experience] as a means of subduing and aggressing against another person [which is cold-dominant]). The different forms complex trauma take may in turn project differently across the IPC and thus may contribute in different ways to suicide. Similarly, suicide may also be more complicated from an interpersonal perspective. For example, wishing oneself were dead may be more submissive than actively attempting to end one's life (and different methods of ending one's life are likely more aggressive than others; e.g., shooting oneself vs. overdosing on pills). Empirical and theoretical efforts can clarify these issues further.

In this chapter, we overview and synthesize the theoretical and empirical literature on complex trauma and suicide within an integrated interpersonal framework. Future research can further refine these insights, with the ultimate goal to improve clinical practice for survivors of complex trauma at risk for suicide.

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Suicide and Suicidal Ideation During the COVID-19 Pandemic

38

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Abstract

There is growing evidence that the effects of the COVID-19 pandemic have extended well beyond those who have been infected or bereaved by COVID-19. However, the extent of the effects remains unknown. The public health measures put in place in countries around the world to mitigate the spread of the virus have led to significant disruption to people's lives. In particular, the implementation of lockdown measures which have included restrictions on movement, social gatherings and the closing of all nonessential retail and hospitality, have impacted upon people's sense of isolation and uncertainty [1]. As many of these factors may also be associated with suicidal ideation and suicidal behaviors, in this chapter we review the evidence from before and during the pandemic to better understand the mental health impact of COVID-19.

Keywords

Suicide · Suicidal ideation · COVID-19 · Mental health

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There is growing evidence that the effects of the COVID-19 pandemic have extended well beyond those who have been infected or bereaved by COVID-19. However, the extent of the effects remains unknown. The public health measures put in place in countries around the world to mitigate the spread of the virus have led to significant disruption to people's lives. In particular, the implementation of lockdown measures which have included restrictions on movement, social gatherings and the closing of all nonessential retail and hospitality, have impacted upon people's sense of isolation and uncertainty [1]. As many of these factors may also be associated with suicidal ideation and suicidal behaviors, in this chapter we review the evidence from before and during the pandemic to better understand the mental health impact of COVID-19.

Previous Evidence from Infectious Disease-Related Public Health Emergencies

Suicidal behavior is one of the most challenging human phenomena to understand. Despite the best scientific efforts to date to understand and predict suicidal behavior, our capacity to forecast its occurrence remains no better than chance [2]. This is, in part, due to its complexity which can be expressed across different levels of analysis spanning the biological, psychological, cultural, and social domains [3]; with the factors within each of these domains influencing each other as a complex system [4]. Indeed, besides the risk associated with the individual level (biological and psychological), the occurrence of suicidal behavior is also affected by issues at community and societal levels, such as unemployment [5], wars [6], inappropriate media reporting [7], natural disasters [8] to name a few. Fully recognizing that suicide risk can be affected by wider societal factors is important as it allows governments and public agencies to plan social, economic, and health policies for suicide prevention, potentially protecting more vulnerable lives.

At the start of the COVID-19 pandemic, concerns about a potential increase in suicidal behaviors and suicide deaths were raised, given the multidimensional impact of the pandemic on the lives of billions of people globally [9]. In light of such concerns, it seems pertinent to investigate what could be learned from previous epidemics/pandemics (infectious disease-related public health emergencies) and their impact on suicidal behavior, self-harm, and suicide. Such questions were addressed in a comprehensive systematic review of the available scientific literature conducted at the beginning of the COVID-19 pandemic by Zortea and colleagues [10]. This review yielded eight primary studies published between 1992 and 2017 and synthesized the evidence on the effects of epidemics that occurred from 1889 to 2016. These epidemics comprised the Great Influenza Epidemic [6], the Russian influenza [11], Severe Acute Respiratory Syndrome (SARS) [12–15], and the Ebola virus disease [16]. The findings indicated a potential association between exposure to infectious disease-related public health emergencies and suicidal behavior, although the authors highlighted the need for caution in the interpretation of the

findings given that many of the studies included in the review were of low methodological quality.

A number of potential mechanisms were identified to explain the relationship between exposure to epidemics and suicide-related outcomes [10]. These included depressive symptoms, anxiety disorders, posttraumatic stress disorder (PTSD), helplessness, fear, unresolved anger, guilt, worthlessness, sleep problems, self-stigma, feelings of entrapment and burdensomeness, substance misuse, loneliness, social isolation, disconnectedness, disruption of everyday routines, unemployment, financial strain/insecurity, domestic violence, and child neglect/abuse. According to the studies in the review, such factors may emerge due to the radical disruptions caused by the pandemic and the typical responses by governments following the occurrence of these events. Gaining insights into the pathways from public health emergencies to suicidal thoughts and behaviors seems to be particularly important to plan interventions that mitigate the increased suicide risk.

However, there was a clear paucity of evidence on the epidemics-suicide relationship. Many critical gaps were identified [10], such as:

- the short- and long-term effects of the association between COVID-19 and suicide-related outcomes;
- the need for monitoring the trajectory of any observed changes;
- the impact on particular populations who are at elevated risk of suicide;
- the association between exposure to the virus, hospitalization, and suicide risk;
- the population-attributable risk of suicide outcomes that arises from factors unique to pandemics including social distancing, mass exposure to a virus with neuropsychiatric health sequelae, in contrast to more general ongoing risk factors such as psychiatric disorders;
- the effect of medical illness and access to means;
- the effectiveness of different suicide-specific population-level interventions;
- the examination of new ways of delivering interventions online;
- the investigation of mechanisms that drive changes in suicide-related outcomes if these occur.

Some of these concerns and research priorities were also raised in several editorials in the early phase of the pandemic [9, 17–20] with the recognition that suicide prevention mitigations should be put in place, given the urgent and pressing needs caused by the potential multifaceted effects of the pandemic [18].

What Do We Know About the Suicide Rates During the Pandemic?

It is too early to tell what the medium and long-term effects of COVID-19 on suicide risk will be. But it is likely that the COVID-19 pandemic and the associated social restrictions will have a long-term detrimental impact upon the mental health and well-being of some groups of people. Given the increasing frequency of multiple risk factors for suicide, such as loneliness, financial strain, and uncertainty, it is

understandable that there have been widespread concerns that COVID-19 could increase rates of suicide [17, 21, 22].

However, reassuringly the data from the early phase of the pandemic suggest that, in most countries (for which there are data), suicide rates have not increased [23]. For instance, UK data from 2020 indicates that there has not been a marked increase in suicide rates post-lockdown in England and Wales [24]. Indeed, the rate of suicide deaths in 2020 for England and Wales were 10.0/100,000 compared to 11.0/100,000 during 2019 [25].

A large international study conducted by Pirkis and colleagues [26], under the auspices of the International COVID-19 Suicide Prevention Research Collaboration, investigated rates of suicide in the early stages of the pandemic, and including available data from 21 countries around the world (16 of which were high-income countries and the remaining five upper-middle-income countries). Real-time data up to July 2020 was analyzed and compared to pre-pandemic suicide rates; with the observed suicide data compared to the expected rates based on the underlying time-based trends. Controlling for seasonal and time trends, the authors found that during the early months of the COVID-19 pandemic there were often no changes, or some decreases, in rates of suicide deaths recorded by these countries. Despite this finding, the authors recommend remaining vigilant as the longer-term mental health and economic effects of the pandemic develop. A notable limitation to the study is the inclusion of only high and upper-middle income countries, as data from lower-income countries was not available, although early evidence from some areas in India suggest an initial decline in suicide rates during the lockdown period [27].

For the most part, the early evidence from Pirkis et al. [26] present a more positive picture than anticipated in terms of the rates of suicide during the early stages of the pandemic. Indeed, a living systemic review synthesizing the global COVID-19 research literature on self-harm and suicidal behavior throughout the pandemic [23] has also reported similar findings. Overall, the literature to date indicates that there has not been a consistent rise in suicidal behavior during the pandemic, although there is evidence of adverse economic effects and a rise in levels of distress in the community. Additionally, there has been evidence of a reduction in presentations to hospital for self-harm and self-poisoning during the early stages of the pandemic (e.g., Refs. [28, 29]). Although it is important to highlight that an increase post-lockdown has been reported [29], and the authors suggest that people who have self-harmed may not have sought medical attention in the hospital setting due to the pandemic.

However, data from some countries such as Japan suggest that it is still too early to observe the full impact of the pandemic on suicidal behavior. For instance, the first cases of COVID-19 were recorded in Japan during January 2020; as a result the onset of COVID-19 may have been earlier in Japan than in other countries [30]. Indeed, at the beginning of the pandemic Japan recorded a decrease in the rates of suicide, however, suicide rates have since risen to higher than pre-pandemic levels [26, 30, 31]. Additionally, the data from Japan have indicated that increases in suicide rates were more pronounced in young people (children and adolescents) and young women [30, 31].

Although there has been a rapid expansion of studies reporting on the impact of COVID-19 on suicidal behavior, many of these only provide an overview of population-level suicide rates during the pandemic [47]. It is important to note that the studies identifying groups within particular populations who may be at increased risk of suicide are sparse [23]. For example, there has been some research into suicide risk among those who have contracted COVID-19; however, specific research into other groups who have been directly impacted by COVID-19, such as frontline workers or those bereaved by COVID-19, is required [23]. John and colleagues [23] also highlight that the majority of the COVID-19 research has been conducted in higher income countries; this dearth in research in low- and middle-income countries needs to be addressed. More generally, we need to improve the recording and reporting of suicide data and ensure that as close to real-time data as possible are collected and made available.

It is also important to consider that during crises such as the COVID-19 pandemic there can be increases in factors which offer individuals protection against suicide risk, such as an increased sense of community and cohesion [10, 21, 22, 26, 32] – and these factors may explain why the suicide rates have not increased for the most part. Additionally, local and national mental health organizations may have increased the accessibility and visibility of support provisions for those in need. Moving forward, we need to investigate the factors that may moderate suicide risk, along with evaluating the suicide prevention strategies that have been put in place to mitigate risk in the context of the COVID-19 pandemic [23, 26].

As noted above, not only is it anticipated that there will be a lasting impact from exposure to the virus itself, or anxiety about exposure, but also from the public health measures in place in countries across the world to attempt to mitigate the spread of the virus [48]. Indeed, the impact of the pandemic on global economies is a particular concern, as rates of suicide have been shown to increase during recessions, and the impact of recessions are often felt by groups who are most at risk of suicide [33]. The COVID-19 pandemic may have a longer-term psychological impact, and caution is urged as trends from previous crises suggest that a decrease in suicide rates at the time of the crisis is commonly seen [21]. It is ultimately too soon to tell the extent of the impact COVID-19 pandemic on suicide rates and the situation needs monitored closely [23, 26].

What Do We Know About Suicidal Ideation During the Pandemic?

Although the focus thus far has been on suicide rates, it is also important to look at other indicators of suicide risk such as non-fatal suicide attempts, self-harm, and suicidal ideation. Indeed, at the start of the pandemic, the need to focus on the monitoring of suicidal ideation and self-harm during the pandemic was identified as an important research priority in a mental health science position paper [17, 48].

At around the same time as this position paper was published in 2020, we started the UK COVID-19 Mental Health and Wellbeing (UK COVID-MH) study, with data collection being in March 2020. The aim of this study was to track the mental health

and well-being of a representative sample of adults living in the UK [34]. The study was conducted online, and comprised measures assessing various aspects of mental health, including suicidal ideation and behaviors. Findings from the initial three waves, covering the first 6 weeks of the pandemic, suggested that, despite being high, some mental health indicators improved (after an initial shock). For example, there was some evidence that anxiety symptoms and feelings of defeat and entrapment improved over the first three waves of the study (from March to May 2020). In contrast, suicidal ideation increased during this time, such that by wave 3 nearly 1 in 10 (9.8%) respondents reported thinking of suicide at least once in the past week, compared to 8.2% at wave 1 [34]. Although it is not possible to know why suicidal thoughts increased while other mental health outcomes decreased, it may indicate a lagged effect or an uncertainty about the future. Of particular concern was the evidence that suicidal thoughts were significantly higher in young people, those from more socially disadvantaged backgrounds and those with preexisting mental health problems.

Evidence from waves 4 to 7 of the study [35] suggests that rates of suicidal ideation in adults in general remained relatively stable after the initial increase (between waves 1 and 3), at just over 10% of the sample, and did not appear to be significantly impacted by the increase or decrease of COVID-19 restrictions. However, it is notable that suicidal ideation did not return to the rates reported at wave 1. By contrast, as restrictions increased at wave 6 and another national lockdown was imposed just before wave 7, rates of depressive symptoms, loneliness, defeat, and entrapment increased. These factors are all associated with suicide risk, in particular defeat and entrapment are key components of the Integrated Motivational-Volitional Model (IMV) of Suicidal Behaviour [36], suggesting the need to remain vigilant.

A significant limitation of much of the mental health research conducted during the pandemic has been the lack of pre-pandemic data, therefore it is difficult to draw firm conclusions about the mental health effects. However, a recent meta-analysis has brought together the preliminary research (up to November 2020) on the prevalence of suicidal thoughts and behaviors during the COVID-19 pandemic [37]. This analysis of 54 global studies compared pre-pandemic event rates of suicidal outcomes with those from during the pandemic, with results suggesting that the event rates for suicidal ideation (10.81%), suicide attempts (4.68%), and self-harm (9.63%) increased during the COVID-19 pandemic.

Despite the mantra, heard frequently during the early part of the pandemic, that “we’re all in it together,” evidence suggests that particular groups appear to be at higher risk of suicidal ideation. For example, in their meta-analysis, Dubé et al. [37] found that younger people, women, and individuals from democratic countries were most likely to report higher levels of suicidal ideation. This is consistent with findings from the UK COVID-MH study [35], for example, by wave 7, one-fifth (20.2%) of young adults (aged 18–29 years) reported suicidal thoughts within the last week, compared to 11.0% of 30–59 year olds and 2.5% of 60+ year olds. Additionally, women, those from lower socioeconomic groups and respondents with a preexisting mental health condition consistently reported poorer mental health at each wave. Indeed, evidence suggests that psychiatric patients reported higher

suicidal thoughts during the pandemic and lockdown than matched controls with no psychiatric history [38].

Other groups that may be at risk of more severe impact from the pandemic include those working at the frontline. Evidence from healthcare workers in Spain at the height of the first wave of the COVID-19 pandemic suggests that suicidal thoughts and behaviors were elevated, with risk factors for elevated stress including a perceived lack of coordination, communication, and personnel at work, as well as financial stress [39]. Furthermore, in a sample of doctors in the US suicidal ideation was associated with frequency of being on-call, burnout, and younger age [40]. Another group who may be at elevated risk are those with a disability, with evidence that adults with any disability were significantly more likely to report current depressive symptoms, frequent mental distress, and suicidal ideation [41]. Additionally, pre-pandemic, ethnic minority groups often experienced mental health inequalities so they are at risk of negative mental health outcomes, including suicidal ideation during the pandemic [42].

As suggested above, it is important to consider which factors are potentially increasing risk for suicide, and, where possible, these factors should be targeted through interventions to mitigate the risk of longer-term mental health issues. Arguably, the circumstances of the lockdowns and restrictions have created a unique situation, whereby the effects of known risk factors for suicidal ideation are intensified. In particular, the pandemic has required that people interact less, and this may increase the likelihood that people feel lonely and isolated, as we found in wave 7 (which was during a lockdown) of the UK COVID-MH study [35]. Moreover, evidence from the USA suggests that loneliness may be uniquely associated with suicidal ideation during the pandemic [43]. A further study conducted in Brazil found that while loneliness was associated with suicidal ideation, other variables related to restrictions, such as living alone, not leaving home, and the number of days of social distancing, were not risk factors for suicidal ideation [44]. Consequently, these authors suggest that interventions to reduce suicidal ideation should focus upon the subjective feeling of loneliness.

Box 1 Steps to Mitigate Suicide Risk from the Aftermath of COVID-19 Pandemic

1. Efforts to prevent and mitigate the negative effects of mass unemployment and economic hardship
2. Actions to minimize the long-term damage to the career prospects of young people
3. Timely access to high quality, evidence-based mental health treatment and suicide prevention interventions
4. Public health and media messaging emphasizing healthy coping, emotional resilience, and avoiding presentations of suicide as a common/rational strategy or inevitable
5. Efforts to promote social cohesion with particular attention to places and times where societal divisions and/or discord may be emerging [32]

It is also useful to consider the protective factors that may help to buffer against the negative effects of the pandemic. For example, Knowles et al. [45] found that the stresses associated with suicidal ideation during the pandemic included food insecurity, relationship problems, redundancy, and financial problems; however, low hopelessness and high resilience acted to buffer the relationship between COVID-19 stress and suicidal thoughts. Finally, another recent study suggests that greater levels of social support were inversely associated with suicidal ideation during the pandemic [46]. Therefore, targeting such factors in interventions may help to mitigate against the enduring impacts of the COVID-19 pandemic.

Next Steps and Conclusions: Mitigating Suicide Risk

It is clear that the pandemic's impact upon the mental health of populations is complex, as indicated by the mixed findings. For example, there is evidence of an increase in suicidal ideation [37] yet there has thus far been no consistent increase in suicide rates [26]. Sinyor and colleagues [32], in a recent position piece, have suggested that the pandemic has affected both protective and risk factors, creating a multifaceted situation whereby increased hardship and isolation are intertwined for some people with having more family time and a feeling of collective experience. Indeed, they have proposed a number of steps that governments and societies can take to help mitigate harm and prevent suicides in the late stages and aftermath of the pandemic, which are highlighted in Box 1. In particular, there is a need to focus upon particular groups within society that may be at elevated risk for poor mental health, and suicide, due to the pandemic. As highlighted already, this includes young people, women, ethnic minorities, healthcare workers, people living in poverty, and those with disabilities, health or mental health problems.

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Abstract

A number of epidemiological reports have documented an association between population density of the area of residence and risk of dying by suicide. Most

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studies found that decreasing levels of population density were accompanied by increasing rates of suicide among males. This inverse relationship has been found to be temporally stable over the past 30 years and generally unrelated to age. This finding seems to be at odds with the reports of greater prevalence of psychopathology in urban settings and points to possible mediating factors such as economic disadvantage, access to health care, availability of firearms, and social isolation. Among females, however, no consistent relationship between population density and suicide has been reported, thus suggesting that males might be more sensitive to the negative effects of risk factors operating in the context of lower population density. The widening gap between urban and rural suicide rates at a time of increasing availability of means for social distance communication brings attention to the need of investigating the influence of social networks on suicide risk. A better understanding of mediators and mechanisms underlying the relationship between population density and suicide may help identify relevant risk and protective factors for the development of more targeted preventive interventions.

Keywords

Suicide · Population density · Sex · Mortality

Introduction

The relationship between population density (often also referred to as urbanization level or urbanicity) and suicide risk has been the object of investigation for years, in different countries and within a variety of geographic areas and sociocultural contexts [1–5]. Understanding this relationship can be of interest from both theoretical and practical perspectives. It can help identify specific risk or protective factors and understand the mechanisms underlying suicide, thus leading to the development of more specific preventive intervention.

As typical for a complex behavior like suicide, with many risk and protective factors, each contributing a small portion to the variance, the identification of mediators and mechanisms underlying epidemiological associations is methodologically challenging due to the many correlates and potential confounders interacting with each other both between and within countries [6, 7]. The influence of multiple risk and protective factors interacting within different cultural and socioeconomic contexts is reflected in the large variance in suicide rate in the world [8].

One of the most striking social phenomena has been the persisting trend of humans to aggregate into areas with increasingly dense population. About 55% of the population in the world currently live in urban settings, with an accelerating trend that is expected to continue, so that, by 2025, about two-thirds of the world's population is projected to live in urban settings [9]. Urbanization can provide more opportunities for employment, interpersonal interaction, and socioeconomic advancement, together with greater access to health and education services, but can

also have adverse implications for health, including mental health, due to factors associated to overpopulation, environmental pollution, crime, substance abuse, reduced exposure to sunlight, and lack of social support [10, 11]. Thus, the level of population density is clearly relevant to human health and well-being, and consequently to understanding suicide risk.

Even though the concept of urbanization goes beyond that of mere population density, and properly refers to the dynamic process of population shifting within a country toward more densely populated areas, in epidemiological studies it is often defined and measured in terms of population density. The statistical office of the European Union (EUROSTAT) distinguishes *densely populated areas* (also referred to as cities or large urban area), *intermediate density areas* (alternative name: towns and suburbs or small urban area), and *thinly populated areas* (also referred to as “rural”) [42]. Thus, for the purposes of this review, the terms population density, urbanization, and urbanicity are used interchangeably.

Many are the factors at the individual level that can moderate suicide risk. Male sex, hopelessness, mental disorders, alcoholism, drug abuse, stressful events, financial problems, and interpersonal difficulties are some of these factors [12–14]. Socioeconomic contextual factors, such as unemployment, poverty, and homelessness, can also increase the risk of suicide [15]. A number of these factors relevant to suicide risk can vary with population density. On one side, living in highly populated areas is usually associated, especially in economically developed countries, with higher employment rate and income and a greater availability of health services, all factors that should decrease suicide risk. On the other side, life in urban areas has often to contend with more environmental pollution, lower access to green spaces and sunlight, reduced opportunities to open-air physical activity, and easier access to substances of abuse, factors that can increase stress and suicide risk [16, 17].

Higher levels of urbanization have been associated with greater risk of suffering from psychopathology such as schizophrenia, eating disorders, and substance abuse, at least in the more economically developed countries [18–20], all factors that can increase suicide rate. In fact, mental disorders are generally associated with increased risk of all-cause mortality and suicide [21]. Based on these data, a higher risk of suicide should be expected in more urbanized areas. However, a number of studies found higher suicide rates in less urbanized areas [3, 5, 22]. It should be noted that the studies that examined the association between urbanization and psychopathology relevant to suicide risk have yielded inconsistent findings that prevent definitive generalizations. Thus, no consistent association has been shown between urbanization and depression or anxiety, which are important risk factors for suicide [23, 24], and there is heterogeneity in the association between higher urbanicity and psychosis risk, which, in Europe, was found in some countries, such as the United Kingdom and the Netherlands, but not in others, such as France, Spain, or Italy [25]. These apparent inconsistencies exemplify the difficulty of demonstrating a generalizable signal of association between complex phenomena such as urbanicity and psychopathology.

There is evidence that being socially connected is linked to better physical and mental health, and a decreased mortality rate [16]. Lower social cohesion and social isolation are recognized risk factors for general mortality and suicide [26, 27]. While

greater population density increases the opportunity for physical interpersonal contact and interaction, the type and quality of social interactions in urban setting differ from those in suburban or rural settings [28]. The modalities of social contacts and interaction have undergone a profound transformation in the last 20 years, with increasing reliance on remote communication technology, web-based platform, and social networks. The growing availability and use of remote communication in the world should in theory attenuate the relevance of actual population density for human interaction as people living in less urbanized areas have generally access to means for remote social interaction as those living in more populated areas.

Evaluation of the possible role of population density is best done by contrasting suicide rates across areas of different population density within broadly homogeneous cultural and socioeconomic contexts, typically in the same country. This approach attenuates but does not eliminate the heterogeneity of contextual factors because marked disparities between geographic areas can exist within the same country, and especially in large countries, such as the United States, Russia, and China. The dichotomy urban–rural considers the two extreme levels of population density so that any comparison is likely influenced by the marked differences in economic development, income, and sociocultural characteristics. More informative can be studies examining suicide rates along a gradient of population density, including areas with high, intermediate, and low density. These analyses could inform on the issue of whether living in close physical proximity with other people may influence suicide risk. Moreover, as a widening gap in suicide mortality rate between rural and metropolitan areas has been observed in some countries such as the United States [29], examining time trends could provide insight into the relevant mechanism underlying the relationship between population density and suicide risk.

The literature on suicide and urbanization is vast. Using a selective review approach, this chapter aims to synthesize and discuss the main findings on the association between population density and suicide risk. The main questions being addressed are [1] Is there an association between different levels of population density and incidence of suicide? [30] Does sex or age moderate the association? [31] Have there been changes in the association over the years? (4) What are the possible mechanisms underlying an association between population density and suicide? [21] What are the implications for prevention and further research?

Population Density and Suicide: What Is the Evidence of a Link?

In the United States, higher suicide rates have been reported in less densely populated areas [3, 22, 32]. In these studies, the country administrative areas (counties) were classified based on a multiple-level population density scheme, including 6–10 categories, from large central metropolitan areas (with a population of at least one million people and including a principal city), large fringe metro (with at least one million people, but without a principal city), medium metro (with at least 250,000 but less than one million people), small metro (with at least 50,000 but less than 250,000 people), micropolitan (with at least 10,000 but less than 50,000 people), and nonmetro (not part of any of the previous categories) [3]. This type of

epidemiological approach allows the relationship between population density and suicide rate to be examined along a gradient of intensity.

Analyses of data from other English-speaking countries (the United Kingdom, Australia, and Canada) in addition to the United States also found higher suicide risk in less densely populated areas, with a widening rural–urban discrepancy [1, 4, 31, 33, 34]. Higher rural suicide rates have been reported in a number of countries from different geographic regions and with different socioeconomic and cultural characteristics, such as China [2, 35, 36], Japan [37], Austria [38], and Italy [5, 39]. In China, a 10-year prospective study in a sample of about half a million people from urban and rural areas across the country found significantly higher rates in rural settings (adjusted hazard ratio: 2.6) [36]. The suicide rate has significantly decreased in China during the past three decades, from 20.9/10,000 in 1990 to 7.2 in 2017 [40]. This decline has accompanied a massive process of internal migration from rural to urban areas, in addition to other important factors such as a major economic development and increase in personal income. In Japan, males living in less populated areas were at higher risk of dying of suicide [37]. In Austria, examination of nationwide registries from 1970 to 2005 found a consistent increase in suicide rate with decreasing population density among males [38]. Likewise, in Belarus, the incidence of suicide was greater in less populated areas in the 1990–2005 period [41].

In the Italian population, the relationship between three different degrees of population density (high, intermediate, and thin, based on EUROSTAT definition) and the incidence of suicide incidence was examined [5, 42]. In the period 2010–2016, while no statistically significant differences in the all-cause mortality by degree of population density were observed in either sex, males had a significantly higher suicide rate if living in thinly (13.25 per 100,000) or intermediate (11.79 per 100,000) populated areas compared with living in densely populated areas (10.07 per 100,000). Within each geographical macroregion of the country, the highest suicide rates were consistently found in the thinly populated areas [5].

There are, however, discordant reports. In the Netherlands, one study, after adjusting for the differences in population demographics and socioeconomic characteristics, found no statistically significant association between urbanization level and suicide rates [43], whereas another study that controlled for social fragmentation and deprivation reported greater suicide risk in less urban areas [44]. In Denmark, suicide risk was higher in more urbanized areas in the period 1981–1997, but, when controlling for socioeconomic and psychiatric variables, it was higher among males living in less densely populated areas [48]. In Scotland, suicide rates were higher in the areas with the highest or the lowest population density compared to the intermediate density area, with a U-shaped distribution curve, over the period 1981–1999 [45].

Has the Relationship Between Population Density and Suicide Changed Over Time?

In the United States, suicide rates have been consistently higher in rural settings (average 39.0 per 100,000) compared with 31.4 per 100,000 in the general population [46]. The higher incidence of suicide in less densely populated areas has been

documented at least since the 1970s, with a trend toward widening of the gap [49]. This trend has paralleled a widening gap in life expectancy disparity between rural and urban settings [32], and is due to a steeper increase in suicide rate in medium metro, small metro, and nonmetro areas since 2007 [3]. A widening gap has also been reported in Australia over the period 1979–2003 [4], and in Austria, from 1970 to 2005 [38].

Some data are suggestive of a possible historical reversal of the direction of the association between population density and suicide rate. In New Zealand, suicide rates were higher in urban than rural areas in 1980–1982, but not anymore by the late 1990s, due to increasing rates in rural areas [47].

In Italy, a recent study that analyzed trends over the 1985–2016 period found higher male suicide rates in thinly populated areas compared with more densely populated areas for the entire period of observation [5]. Until the mid-1990s, suicide rates in densely and intermediate populated areas mostly overlapped; afterward, suicide rate was statistically significantly lower in the densely populated areas than in the thinly populated areas every year from 1994 until 2016. Suicide rates in the intermediate populated areas were statistically significantly lower than in the thinly populated areas each year for the period 2000–2015 [5].

Taken together, these studies show a significant between-country variability in time trends of suicide risk by population density, but with most data documenting a higher suicide risk in less populated settings during the last 50 years, with some studies showing a widening discrepancy in recent years.

Are There Differences by Sex?

In the United States, after adjusting for age, ethnicity, and divorce rate, it was found that males, but not females, living in rural areas had twice the risk of dying of suicide than those living in the most densely populated areas [32]. A subsequent study, for the years 2001–2005, reported higher rates in less urbanized areas for both sexes [22].

Some studies from other countries found higher suicide incidence in less populated areas in both males and females, in Austria [38], China [35], and Taiwan. In Australia, a study reported higher female suicide rate in urban than rural settings in the period 1991–1996 [35], while another study found higher rural rates for the male population only in the years 1997–2000 [31]. In Japan, higher rates were found in rural areas but only in males [37].

In Italy, consistently higher suicide rates with decreasing level of population density were detected in males, but not in females [5] (Fig. 1). Among females, there was an overall significant reduction in suicide rates from 1985 to 2007, with a similar trend in all the levels of population density. Up to the mid-1990s, the densely populated areas had the highest suicide rates, while afterward the three population density groups mostly overlapped. In this study, there was also variability in the relationship between population density and female suicide within the country's geographic macroregions, where lower population density was associated with

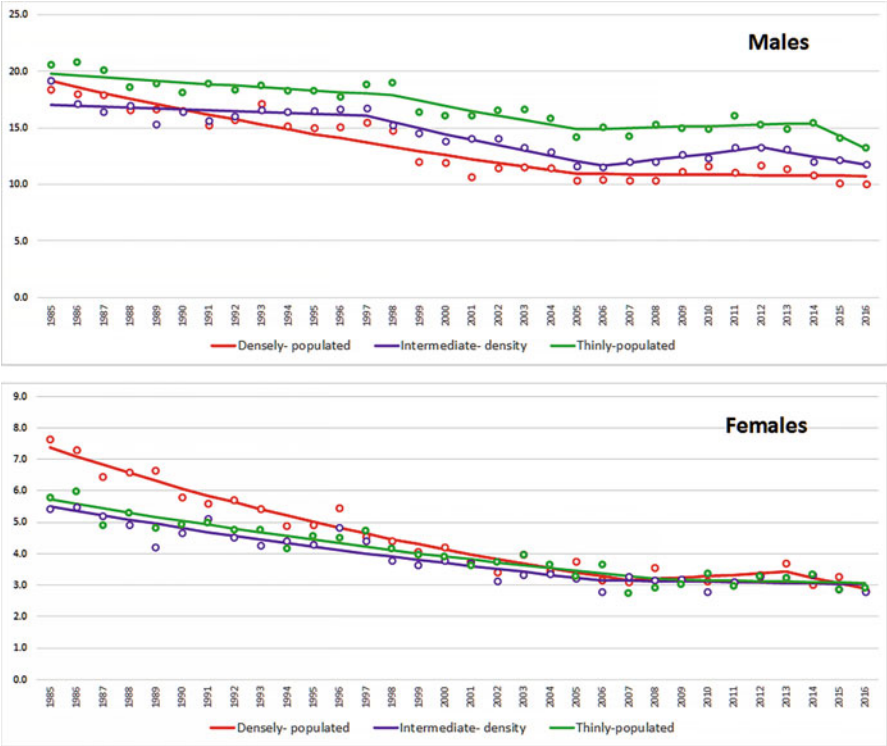


Fig. 1 Standardized suicide rates per 100,000 inhabitants (circles) and estimated trends (lines), Italy, years 1985–2016. (From [5])

higher suicide rates in the south, but lower rates in the northeast. Another study, which examined suicide among Italian youth aged 10–25 years over the period 1981–2016, found that male suicide rates were higher in rural areas, while female suicide rates were higher in metropolitan areas [39].

Considering the available evidence, the higher incidence of suicide in less densely populated areas is more evident for male suicides, while female suicide rates have shown an inconsistent relationship with population density.

Are There Age Effects?

In males, higher suicide rates in less populated areas have been found in adolescents, young and middle-aged adults, and the elderly, in a number of countries, including the United States, the United Kingdom, Denmark, and Italy [22, 39, 46, 48, 49]. In Japan, males aged under 60 years tended to have a higher suicide risk compared to urban ones, while for males aged 60 or older a distinct rural–urban difference in suicide risk was not found [37]. In Italy, suicide rates were higher in the thinly

populated areas compared with the densely populated areas across the life span, in 2016. Intermediate populated areas had suicide rates overlapping or slightly higher compared to the densely populated areas until 30–34 years of age, with differences widening afterward [5].

In females, the reports are less consistent. Some found that 15–24-year-old females had higher suicide rates in less populated areas in England and Wales, in the years 1981–1997 [34]. But others reported lower suicide risk in rural settings for females aged 25–34 years in Australia [4]. In Japan, among females under 39 years of age a significant association between suicide risk and rurality was not observed, while for females aged 40 and older, the association followed a U-shaped curve [37].

Race and Ethnicity

In the United States, in the years 2001–2015, higher suicide rates were observed in less densely populated areas among the white, American Indian, and Hispanic population, but not among African Americans, whose suicide rate was consistently higher in urban areas, except for the years 2004–2006 [22]. These data suggest that urban settings present risk factors that are specific to African Americans, possibly related to sociocultural variables.

Possible Mediators

Identifying the factors and mechanisms underlying an association between population density and suicide risk is extremely difficult given the presence of multiple potential confounders. The population living in areas with different density often differs not only in demographics and socioeconomic characteristics, but also with respect to factors such as cultural values, access to various suicide modalities, prevalence of psychopathology, substance abuse, availability of health and mental health services, rate of divorce, social cohesion, and social capital [3].

Many disparities in all-cause mortality can be explained by differences in socioeconomic level, and in this respect living in urban settings in an economically developed country offers advantages over life in rural settings [43, 50]. The socioeconomic level of an area is associated with the suicide rates of the residents [30]. The relevance of economic factors is supported by data showing that, in the United States over the period 1999–2017, the difference in suicide rate between less and more densely populated areas widened starting in 2007 with the economic recession [3].

However, some studies in the United Kingdom and Australia found that socioeconomic status accounted only in part for the urban–rural discrepancy in suicide risk [34, 51]. Moreover, explanations based on socioeconomic or services disadvantages may not be applicable to suburban settings, which have a level of population density intermediate between urban and rural. The finding of a gradient of increasing

suicide risk with decreasing levels of population density calls for other explanations besides mere socioeconomic factors.

Other relevant factors likely to contribute to the discrepancy are less access to mental health services and, in recent years, more severe opioid misuse/abuse epidemic in rural areas of the United States [52]. Urban areas have in general higher prevalence of psychiatric disorders, including schizophrenia, psychosis, depression, and eating disorders [53, 54]. It is, however, possible that suffering from psychiatric disorders entails a greater risk of suicide for people living in thinly populated areas because of comorbidities and/or reduced access to health-care services [55]. Cultural differences between rural and urban areas and stressors related to the farming may contribute to differences in suicide incidence, possibly influencing the attitude towards accessing mental health services and accepting help [56, 57]. In Australia, a nationwide study over the period 1997–2000 found that men with mental disorders living in less densely populated areas were less likely to seek treatment than those living in more urban areas [31].

But differences in suicide risk by population density were found also in countries like Italy with a universal national health-care system providing medical services to the entire population regardless of income. Furthermore, the increasing use of telemedicine should have attenuated the urban–rural gaps, whereas recent data indicate a widening [22].

Some mediators may be more relevant to some countries, but less to others. Thus, easier access to lethal means of suicide, such as firearms in the United States, contributes to the higher suicide risk in rural areas [22, 52, 58, 59], but may be less relevant to European countries where availability of firearms is low. Differences in suicide methods by population density have been documented in several studies from different countries [60]. In Italy, where firearm ownership is restricted and uniformly regulated, hanging was the method most commonly used by males in all the three different population density levels, but firearm suicide was more common in less populated areas [5]. Attesting to the considerable diversity in suicide characteristics across the world, a nationwide study in Taiwan for the years 1997–2003 found that suicides in more urbanized areas were more likely to occur by violent means (i.e., hanging, drowning, firearms, piercing, or jumping from high places) than by poisoning [61].

Social deprivation and isolation are important factors to consider as potential mediators of the suicide rate differences by population density [62]. Residents in thinly populated areas that are geographically distant from metropolitan areas have a more restricted choice of in-person social contacts. While the use of Internet-based technology enabling long-distance interpersonal connection and interaction has greatly expanded in the last decades, the gap in suicide rates between rural and urban areas has widened. This trend suggests that virtual communication may not compensate for opportunities for in-person interaction. The possible influence of social networks on suicide risk is complex as it depends on the characteristics of each particular network and the subjective experience of the individual participant [63, 67]. Based on context and circumstances, participation in social networks may result in benefits or further risks for suicidal behavior.

To the list of potential mediators, population self-selection could theoretically be added for consideration and investigation as it cannot be excluded that the population living in less densely populated areas, due to birth, life circumstances, or personal choice, might carry greater risk factors for suicide than residents in urban settings. At this time, no single factor can fully explain the relation population density–suicide risk, although several are likely to contribute to the variance.

Implications for Prevention

The available data suggest that males living in areas with low population density should be a special focus of suicide prevention, and that preventive interventions need to target the particular risk factors that have been found to be associated with suicide risk in these areas, such as access to health care and mental health services, firearm availability, socioeconomic disadvantage, and social isolation [52]. Telemedicine is especially relevant to providing access to care in less populated communities. In particular, means to correct social isolation and address the negative impact that economic distress could be helpful. Reducing isolation by enhancing direct in-person interaction rather than distance virtual communication may be worth considering. Improving social connectedness, civic opportunities, and health insurance coverage, as well as limiting access to lethal means, could have a positive impact on suicide rates across the rural–urban continuum [64].

Further Research

The persistent trend of the world population to concentrate on increasing more populated areas makes the relationship between population density and suicide risk especially timely and public health relevance. The stark difference by sex in this relationship is intriguing. Males may be more sensitive to the negative effects of socioeconomic distress, but socioeconomic disparities do not fully account for the higher suicide rates in less densely populated areas, including nonrural suburban areas of intermediate density, compared with urban areas. Greater availability of firearms or agricultural toxic products, like in other countries, may account for higher suicide risk in rural areas in some countries [52, 65], but not in others. A better understanding of why males are apparently more sensitive to risk factors associated with lower population density can contribute to elucidating suicide mechanisms and inform prevention.

It may be worthy of exploration whether living in a context with higher opportunity for direct human contact, as distinct from indirect contact through technology, is per se relevant to attenuating suicide risk. Opportunities for direct human contact can be expected to be greater in more densely populated areas, and it has been reported that the mere presence of other people does influence human behavior, even though this may result in a tendency to accept more risk [66].

The data from the Italian population suggest that factors other than availability of lethal suicide methods are at play. These might be related to differences in social contact characteristics in areas of different population density. A better understanding of the characteristics of social relationships at the individual level may be relevant to evaluating suicide risk in contexts of different population density [63, 67].

Conclusions

A gradient of lowering the risk of suicide with increasing levels of population density was found in the male, but not the female, population. This association has been documented for the past several decades, with a widening gap between urban and rural areas in more recent years. The striking sex difference and the presence of several potential mediators warrant further investigation for informing the development of more effective preventive interventions.

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Part IV

Suicide in Different Cultures



Lakshmi Vijayakumar and Madhumitha Balaji

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Abstract

Suicide rates are high in South Asia, especially in women and young people. Potential risk factors for suicide in women include: gender inequality and violence; poor marital and family relationships; childlessness; and depressive

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disorders. Potential risk factors for suicide in young people include: aspirational disappointments; addictions to smartphones, games, and social media; bullying; and alcohol and drug use. However, the evidence regarding these factors is weak, and more rigorous studies are needed to investigate the strength and nature of associations between these factors and suicide. Only some South Asian countries have national suicide prevention strategies, and efforts at suicide prevention in most countries are mainly limited to crisis helplines by NGOs. There is need for implementing evidence-based population level health interventions to reduce suicide, in combination with interventions for suicidal persons, and for these initiatives to be implemented as a collaborative effort involving multiple sectors, for example, the Government, educational institutions, health services, NGOs, media, and the community.

Keywords

Suicide · Suicide prevention · South Asia · Young people · Women

Introduction

Suicide is a significant public health problem worldwide. According to the WHO [94], over 700,000 people die by suicide every year. Suicidal deaths account for 1.4% of all deaths across the globe, making it the 15th most common cause of mortality [95]. Globally, the majority of suicides occur in low-and-middle-income countries (77%) [94]. Suicide is the fourth leading cause of death in young people aged 15–29 years for both sexes [94].

Asian countries account for over 60% of the global suicides, and suicide rates in Asia are higher than those in the West by 30% [14]. Suicides in South Asian countries are of particular concern. A scoping review [31] found that the average suicide rate across six South Asian countries (Afghanistan, Bangladesh, India, Nepal, Pakistan, and Sri Lanka) was 25.2 – over twice the rate of the global average at 9 [94] – with studies in specific populations within these countries being even higher than national estimates. Some South Asian nations, such as India and Sri Lanka, have high rates of suicide in the world [94]; India, for example, is home to one-third of all female suicides, and one-fourth of all male suicides globally [29]. Epidemiological trends in South Asian countries are quite unlike those seen in the West, and include: high rates of suicide in women [31, 86]; more suicides in rural rather than urban areas [25, 65, 98]; pesticide poisoning, hanging, and self-immolation as lethal methods [97]; and lower prevalence of mental disorders in suicide [14, 85]. Despite the high suicide rates and unique trends in this region however, there has been less focus on South Asia when compared to the USA, Europe, or even other parts of Asia, in part because of the lack of rigorous data from many countries in this part of the world [31]. In this chapter we review suicide data from the eight South Asian countries (India, Pakistan, Bangladesh, Sri Lanka, Nepal, Afghanistan, Bhutan, and Maldives), focusing specifically on suicides in young

people and in women, with the purpose of informing directions for future research and suicide prevention efforts in this region.

Epidemiology of Suicide in South Asia: A Brief Overview

Table 1 shows the suicide rates reported for each South Asian country, using data from three sources – the WHO [96]; the scoping review [31]; official data (police records or national surveillance systems). As seen from the table, data from official sources are absent from four of the countries – Pakistan, Bangladesh, Afghanistan, and Maldives. Suicide rates across countries vary, with the lowest figures being reported in Pakistan, Afghanistan, and Maldives, and the highest reported in India, Sri Lanka, and Bangladesh. Different sources – while confirming general trends – report different estimates; for example, the rates for India, Sri Lanka, and Nepal as reported by the review are higher than the official estimates for these countries. These differences may reflect under-reporting of suicides, and/or differences in methods of data collection; in general, the countries with the more rigorous surveillance systems (such as India and Sri Lanka) report higher suicide rates [31].

Suicide rates are generally higher in urban communities in the West, but in Asia, they are higher in rural communities. In India, for example, the suicide rate in rural

Table 1 Suicide rates in South Asia

Country	WHO estimates ^a	Jordans et al. review estimates ^b	Official estimates ^c
India	16.5	28.8	11.3 (2020), NCRB [57] 22.0 (2010), Patel et al. [65]
Pakistan	3.1	3.6	–
Bangladesh	6.1	58.3	–
Sri Lanka	14.2	25.7	15.0 (2015), Whittall et al. [93] 18.5 (2011), Knipe et al. [39] 19.6 (2009), de Silva et al. [16] 24.1 (2005), Thalagala et al. [81]
Nepal	9.6	8.6	4.7 (2009), Pradhan et al. [69] 7.0 (2001), Sharma [79]
Afghanistan	6.4	–	–
Bhutan	11.6	–	13.0 (2013), Lhadon [46]
Maldives	2.7	–	–

All rates are by 100,000 populations. Data contain estimates after 2000

^aWHO [96]. Global health observatory 2016. Age standardized suicide rates, all ages

^bJordans et al. [31]. Mean suicide estimates (to be interpreted cautiously because of within and between country variations in quality, number, and methods used in studies)

^cPublications and reports based on national surveillance data or Police records. The latest estimates (by source) are reported

communities is twice that of urban [65]. Poisoning and hanging are the two most commonly used means of suicide across the South Asian region, followed by drowning and firearms [31]. In India, Sri Lanka, and Afghanistan, self-immolation is also common in women (Box 1). Although mental disorders are an established risk factor for suicide in South Asia (as with other countries), equal or more importance is given to the role of socioeconomic determinants and cultural factors, such as poverty, illiteracy, gender disadvantages, and violence [14, 38, 88]. Other risk factors include history of self-harm, family history of suicide, alcohol use, and access to lethal means [87].

Box 1 Self-immolation: A Socio-cultural Phenomenon

Women whose repeated cries of help and attempts to escape oppression and violence have been continually ignored, resort to burning themselves as a final effort to escape intolerable situations, or to communicate extreme emotional distress and frustration. Many acts occur in broad daylight, and in front of others, usually husbands and in-laws, indicating that there may be an element of revenge—an attempt to shame and humiliate those considered responsible for suffering.

Self-immolation has historical precedence in South Asia. “*Sati*” (fifteenth to eighteenth century), a ritual by which widows cremated themselves following the death of their husbands was widely practised in North-western India. This was initially a voluntary act, regarded as a sign of devotion by wives, but was later forcibly enforced on widows who were considered a burden to society. Another, similar practice was “*Jauhar*” (fourteenth century), where Rajput women killed themselves by self-immolation to avoid being captured and molested by Muslim soldiers invading their land. This was prevalent during the Hindu-Muslim wars, and considered as the last stand in battle and a heroic sacrifice by these women. Self-immolation was also common among people of the “*charans*” caste (living in the Indian State of Rajasthan), who would immolate themselves when their demands of honor were unmet; they believed that by doing so, they would bring the wrath of God on the offenders. At times, the act has been used as a form of political protest. For example, in India, students self-immolated in response to the introduction of Hindi as an official language (1965) and caste-based reservation in government jobs (1990), and in Sri Lanka, a Buddhist monk protested in a similar manner to “the alleged slaughter of cattle practised by Muslims (2013)”

The act also has religious undertones. In Hinduism, and some Buddhism elements, self-immolation is considered an acceptable sacrifice of the body. The word “*sati*” is derived from the name of the Hindu Goddess Sati, who immolated herself because she was unable to bear her father’s treatment of her husband, Lord Shiva. The Buddhist scripture “*Lotus Sutra*” speaks of the Buddhist King, Bodhisattva, who burnt himself as a way of offering to

(continued)

Box 1 (continued)

Buddha, and another, "*Lokapannatti*" speaks of how King Ashoka (an Indian emperor) "wrapped his body in cotton and had his body soaked in oil prior to burning himself." Islam prohibits self-immolation; however, it continues to be seen among Muslim women as a response to the extreme suffering that many undergo with respect to forced marriages, polygamy, or violence. These facts explain why the practice is common among Indian, Sri Lankan, and Afghan women.

Women and Young People as Vulnerable Groups in South Asia

According to WHO data [96] suicide rates in men are higher than those in women, in all countries except Bangladesh (Table 2). The differences are most pronounced in Sri Lanka, and Afghanistan, where the male-to-female ratios are over 3:1. In India, Pakistan, Nepal, Bhutan, and Maldives however, the male-to-female ratios are more equal. This is quite unlike the West, where men are at least thrice as likely as women to die of suicide.

Suicide rates in 15–29-year-olds tend to be high in South Asia, and in many countries in this region, they are higher than national aggregates (Table 2). Suicide is, in fact, the second leading cause of death in both young men and women [94], and suicides in young people account for 40–60% of all suicides in these countries [65, 77]. Young women are especially vulnerable; as seen from Table 2, their suicide rates are higher than those for young men, in four out of the eight countries – India, Pakistan, Bangladesh, and Nepal. In Bangladesh for example, the figure is over twice as high. The rates of suicide for young women in these countries range from 14.5–31 – these are over five times higher than the rates of suicide in women of the same age group from Western countries such as the UK or the USA [94]. National surveillance studies from specific countries confirm WHO findings; for example, a nationwide study in India [65] found that young women between 15 and 29 years of age are between three and six times more likely to die by suicide than young women of the same age group in the West. In comparison, young men are only 1.5 times more likely to die than their Western counterparts. In all of South Asia (and indeed globally), suicide is a leading cause of death in young women between 15 and 19 years of age [94], and in South Asian countries such as India and Nepal, it is the leading or second leading cause of death among women between 15 and 29 years of age [29, 69].

There is a dearth of rigorous case-control studies from South Asia regarding risk factors for suicide in women and young people. However, there have been several cross-sectional, qualitative, and other studies on suicidal outcomes, as well as gray literature, which indicate potential factors. We discuss these in the following sections of this chapter.

Table 2 Suicide rates by age and gender (WHO [96]. Global health observatory 2016)

Country	A. Suicide rates (all ages)			B. Suicide rates (15–29 years)		
	Overall	Rate in men	Rate in women	Overall	Rate in men	Rate in women
India	16.5	18.5	14.5	26.7	22.8	31.0
Pakistan	3.1	3.0	3.1	5.2	4.2	6.3
Bangladesh	6.1	5.5	6.7	9.9	5.2	14.7
Sri Lanka	14.2	23.3	6.2	18.4	26.5	10.7
Nepal	9.6	11.4	8.0	14.0	13.5	14.5
Afghanistan	6.4	10.6	2.1	8.4	13.3	3.0
Bhutan	11.6	13.8	8.9	11.7	14.1	9.3
Maldives	2.7	3.6	1.6	2.6	3.2	1.8

Potential Risk Factors for Suicide in South Asian Women

Gender Inequality and Violence

South Asian countries have some of the highest rates of child, early and forced marriages in the world. Bangladesh is in the list of the top 20 countries globally; nearly 60% of Bangladeshi girls aged 20–24 years are married before the age of 18; and 22% are married before the age of 15. In Afghanistan, 57% of women are married before they are 16 years old, and 22% are married before the age of 15 years; similarly, in India and Nepal, 47% and 37% of women between 20 and 24 years are married before they are 18 years of age, respectively, with 18% and 10% married before they are 15. Often, these young girls are pressured into these marriages. In Afghanistan for example, up to 80% of all marriages in women are coerced [83]. Early and forced marriages have been linked to suicide in such cultures. A study of self-immolation in Afghan women revealed that a third had had a forced or child marriage [50], and marriage at young ages was associated with a sixfold increased risk of suicidal behavior in India [49].

Practices while “arranging” such marriages have also been linked to suicide. In Afghanistan, young girls are married into other families in exchange for other girls (“*badal*”), or to make peace with a family with whom there has been some dispute (*bad*). A study from Afghanistan found that 18% of self-immolators had been victims of such practices [50]. “*Dowry*” – a tradition which involves gifts being given to the bridegroom’s family by the bride’s family – is widely practiced in South Asian countries and has led to suicides in young brides and wives who are harassed by their in-laws and husbands when their expectations are not met or when payments are not made on time [6, 7, 42].

Studies show that between 20% and 90% of South Asian women have experienced at least one form of violence in their family [4, 20, 23, 43, 44, 66, 82, 92]. Such violence can lead to suicidal behavior. In a cross-sectional study of women in Pakistan, suicidal ideation was strongly associated with both physical (OR 4.41) and

sexual violence (OR = 4.39) [5], and in Bangladesh, women who reported suicidal ideation were far more likely to have experienced severe physical violence from their spouses over the last 12 months, than those who did not (OR = 4.10 for rural women, 2.23 for urban) [58]. In India, domestic violence – verbal, physical, or sexual – was strongly associated with both suicide attempts (OR = 4.12 for verbal, 6.6 for physical and 7.21 for sexual violence) and suicide (OR = 6.82) [15, 24] and in Nepal, 61% of women who had died by suicide had experienced physical abuse in the last 3 months [25]. Associations between suicidal behavior and experiences of violence have also been reported in Sri Lanka and Maldives [13, 20].

A close look at the larger social context can help understand these findings. South Asian countries (as many other Asian countries) are traditionally characterized by family systems, with duties toward the family taking precedence over priorities of specific individuals [48]. This is especially true of young women from lower socioeconomic strata or rural areas – who generally form the bottom rung of the family's social and patriarchal order [18, 48, 66]. Decisions are often made for these women by others in the family who know better; this is especially seen in “arranged marriages,” where the choice of a partner is made by elders in the family, and women have little say in the matter [28, 71]. In some cultures, “good” men are considered rare, and it is thought best to get girls married to such men when opportunities come their way [18]. Marriage is seen as the ultimate protection for women, and marrying girls off young is often a way to ward off premarital sexual activity, sexual violence, and unintended pregnancies [18]. Poverty exacerbates these problems. Female children are often considered a financial burden, and for very poor families struggling to survive, getting them married is a way to reduce this burden, as well as secure their future [82]. Sometimes parents marry their daughters when they are young, to avoid paying huge dowries; in parts of Bangladesh for example, when a girl becomes 18 years old, she is considered “unmarriageable,” and the “amount for dowry rises” [18]. Gender norms also play a significant role. Boys are generally brought up to believe that they are the “boss,” and that their responsibilities lie with earning and providing for their family, while girls are taught to be “good wives and mothers above everything else,” “to find a good husband, be good wives, have children, and be happy” [13, 18, 30, 82]. Failure of women to conform to these norms can lead to threats or violence [27, 75]. Alcohol use by a family member has also been associated with violence; for example, in a study in Sri Lanka, 76% of husbands who had abused women consumed alcohol regularly [41]. Low literacy in women and social norms that prevent them from having employment only encourage them to remain within unhappy marriages as dependents [27, 33, 34, 60, 64, 66, 88]. Furthermore, there is pressure on a woman to stay married even when she is in an abusive relationship, because of the normalization of such behaviors, fear of violence or retaliation, and the stigma attached to divorce [24, 27, 60, 70, 71]. By Islamic law, the father is the natural guardian of his child after he/she is 7 years of age, which may motivate many Pakistani women to stay in problematic relationships [72]. Women who tend to rebel against their status quo are often blamed; a study of key informants in Afghanistan found that they viewed violence toward women, and

the resulting self-immolation as a provoked consequence of their demand for increased rights. [50].

Times are changing, with more opportunities for paid work and economic independence available to women [48, 81]. However, studies reveal that these changes bring their own problems. In Sri Lanka, the employment of young girls as maids and in textile factories resulted in quarrels with relatives who were worried about the implications of this increased freedom on behaviors toward men and sex [48]. In India, independent decision making and premarital sex in young women was associated with suicidal behavior, most likely due to these behaviors clashing with traditional patriarchal systems [68]. Older, employed women may also face challenges in balancing demands at work and caring for their homes and children. There is however a need for further investigation regarding these factors, and the role they play in suicide.

Poor Marital and Family Relationships

Problems in family relationships have been associated with suicide among women in many South Asian countries. In Pakistan, “domestic problems” were observed in 73.4% of suicides in women [35]; in Bangladesh, 45.7% of female suicides were attributable to “quarrels and serious tensions” [1]; and in India, “torture by in-laws” was the most common reason for self-immolation in married women (found in 32.1%) [9]. More women than men tend to report such tensions in connection to suicidal behavior. In one study in India, the main reason given by men for their suicide attempt was financial problems (52.1%), whereas women cited “domestic quarrels” (59.6%) [91], and in a study in Pakistan, more women (79%) than men (57%) attempted suicide due to relationship difficulties [34]. Marital relationships may be particularly relevant. Unlike the West, where being single, divorced, or widowed has been associated with increased risk of suicide, a large proportion of women who attempt or die by suicide in South Asia tend to be married [35, 50, 57, 99], indicating that quality of marital relationships may be a more relevant factor than marital status itself. In one study in Pakistan for example, 80% of suicidal women had had conflict with their husband [60], and in India, “marriage related life events” was found in 46.4% of women, but only 20% of men [32]. In a study in Nepal where interpersonal problems were found as a contributing factor in 65% of women, problems with husbands topped the list (35%) [69]. The evidence is only indicative however; the strength of association between relationship difficulties and suicide in women needs to be investigated further, and there is much we do not know about the nature of these difficulties, and their relative importance with other factors.

Childlessness

Childlessness has been cited as a reason for some female suicides. One study in Bangladesh showed that 6% of women had died by suicide because of

childlessness [1], and a qualitative study with women experiencing infertility in Pakistan revealed suicidal ideation to be one of the psychological consequences [74]. This relationship could in part be because of the serious psychological and social consequences of infertility for South Asian women. Often, there is pressure on women to have children soon after their marriage, and the inability of a couple to have a child is usually blamed on the woman [9, 34, 55, 74]. Some women are unable to conceive experience feelings of failure and believe that “without a child, a woman’s life has no meaning” [63]. Others face ridicule and ostracization by their family and society. In Bangladesh for example, a woman without a child is often called “opoa” (“a woman with bad luck”) [1], and studies in India and Pakistan indicate that many childless women are “taunted by in-laws” [9] and excluded from social functions like weddings [74]. Some women even face violence – in India, 70% of infertile women in one study had been physically abused by their husbands [84]. The relationship between childlessness and suicide however needs more robust investigation.

Depressive Disorders

The prevalence of depressive disorders in South Asia is nearly 4%, and these disorders contribute to nearly 578 DALYs per 100,000 populations [61]. Depressive disorders are a risk factor for both attempted suicide and death by suicide in South Asian countries (found in anywhere between 2% to 50% of cases) [2]. The role they play in female suicides specifically is as yet unclear, as there have been no gender-specific studies that can provide estimates; however, given that women have the highest burden of depressive disorders in all countries in South Asia [61], it is likely that these disorders play a key role in their suicides.

Potential Risk Factors for Suicide in South Asian Youth

Aspirational Disappointments

Young people have dreams and aspirations, and the shame of failing to achieve these can lead to suicide. The large number of student suicides in Asian countries is a reflection of this. In India, 12,526 (8.2%) students died by suicide in 2020 alone [57]. In one study in Nepal, academic failures constituted 15.8% of suicides in people below 21 years of age [53], and in Pakistan, an analysis of media reports showed that 23.6% of student suicides were due to “failure in exams” [78]. Unrealistic expectations from parents have also been a factor. In the above study [78], 11.8% of students had been scolded by their parents about their academic performance, and in another study, Pakistani medical students who reported suicidal ideation were more likely to have had “demanding parents” than those without ideation (OR = 2.36) [62]. Disappointments in romantic relationships can also lead to suicidal behavior. In the Pakistan study [62], those with suicidal ideation were more likely to have had a

relationship breakup than those without [OR = 2.09], and “disappointment and frustration” due to “love affairs” has been cited in some studies as the leading cause of suicide in young people in Sri Lanka [8, 76].

Asian countries have faced rapid industrialization, globalization, and modernization in the recent years, and this may be contributing to these suicides. This is in part because such developments carry with them, the burden of higher expectations regarding success; owing to the rapid nature of the changes however, such expectations are often “out of step” with the institutional and social infrastructures, and are thus bound to disappoint [10, 45]. Migration is an example of this. Young people leave for cities in search of better job prospects only to find themselves underqualified for these jobs, and consequently unemployed, or employed in less prosperous work. In both rural and urban areas, globalization has fueled aspirations for high living; however, insufficient means to meet these increased aspirations; increased social expenditure and costs of living; intense pressure to get into top universities with limited seats and high cut offs; heavy competition for job vacancies; privatization of work and schooling; expectations from families and peers; and performance-related work and academic stress have resulted in economic and social insecurity, dissatisfaction, and unemployment [10, 11]. Independent living, which has weakened existing joint family systems that had previously provided stability and comfort, may have made things worse [73, 81]. Modernization has also widened the generational gap between young people and their families, and their aspirations are thus frequently at odds with social expectations [45]. This is seen in the disapproval and objections that families express regarding young people’s choices of romantic partners; in the face of these objections, many desperate couples have resorted to suicide. There is little scientific understanding however, as to connections between these various factors, and how they interact to lead to suicide.

“Modern” Addictions: The Role of Smartphones, Gaming, and Social Media

It is estimated that about one in four young people globally are addicted to their phones, and that up to 30% are addicted to online gaming [52, 80]. Such addictions involve being excessively preoccupied with, and spending time and money on phones and games; neglecting academic, work, or social functioning; and so on. Studies from Southeast Asia and the West indicate that these addictions and the resulting conflicts with family and friends can lead to suicidal behaviors [37, 40]. This association needs to be studied in detail in South Asian countries.

Similarly, Internet and social media use have also been linked to suicidal behaviors [26, 56], though there is little information on this from South Asia. In India, reports indicate that these variables may be contributing to suicide by enabling access to information on suicide and suicide communities; encouraging new social aspirations (and their associated disappointments); and exposing people to experiences of cyberbullying.

Bullying

Studies from South Asian countries indicate that between 10% and 60% of school and university going students experience bullying [3, 12, 59]. These experiences are positively associated with suicidal behavior. One study in Nepal [59] found that those bullied were more likely to report a suicide attempt than others (OR = 1.99), and a study in Bangladesh found that experiences of bullying posed higher risks to suicidal behavior (ARR = 1.88) [36]. In some South Asian countries, “ragging” is almost a tradition in universities, a form of entertainment where seniors tend to humiliate the juniors by physically or verbally abusing them, or harassing them in some other manner. A study in Pakistan showed that medical students who had experienced suicidal ideation were more likely to have experienced such “ragging” than those who did not (OR = 2.50) [62]. There is little information on experiences of bullying outside educational institutions, and how these impact suicide.

Alcohol and Drug Use

Studies of school and college-going adolescents indicate associations between substance use and suicidal behavior. In Nepal, alcohol consumption and cigarette use were positively associated with suicide attempts in 14–19-year-olds (OR = 3.660, OR = 2.50, respectively); similarly, in Bangladesh, alcohol and drug use were associated with higher risk of suicide attempts in 11–18-year-olds (and ARR = 1.84, ARR = 1.93, respectively) [21, 36]. Similar findings were seen in Bhutan [17]. Studies on medical students in colleges in Pakistan and Nepal show significantly higher odds of suicidal ideation in those using substances (OR = 28.54 and OR = 9.1, respectively) [52, 62]. There are limited community-based studies on young people; one survey in Goa, India, showed that both alcohol and tobacco use in the last 3 months were significantly correlated with suicide attempts in 16–24-year-olds (OR = 2.7, 2.3, respectively) [68].

Suicide Prevention

Three factors hinder suicide prevention in South Asian countries. The first is the lack of accurate and actionable data about time, extent, and characteristics of suicides and suicide attempts which is critical to developing appropriate suicide prevention and intervention strategies. Under-reporting of suicides is a common feature as high-quality civil registration systems are lacking in most countries. Only the Governments of India and Sri Lanka produce annual reports on suicide, and only Bhutan has introduced a national suicide registry. The second obstacle is the criminalization of suicides and suicide attempts, which increases stigma, and reduces help-seeking behavior and the political and public will to address the problem of suicide prevention. Suicidal behaviors are offenses in Pakistan, Afghanistan, Bangladesh, and Maldives; attempted suicide is not a punishable offense in Bhutan, Nepal, and Sri

Lanka. In India, the Indian Penal Code (IPC) 309 which criminalizes attempted suicide persists, but it has been made redundant with the passage of the Mental Health Care Bill in 2017. The third stumbling block is inadequate human and economic resources for addressing mental health problems. As an example, India has a population of 1.3 billion but only about 9000 psychiatrists, and the mental health work force in Bangladesh is 1.17 per 100,000 population [96]. A majority of South Asian countries continue to grapple with infectious diseases, malnutrition, maternal and infant mortality, and thus, mental health and subsequently suicide prevention are accorded low priority.

Crisis Helplines

The enormity of the problem coupled with the paucity of resources and services has led to the emergence of NGOs in the field of suicide prevention in South Asia. Almost all the countries have emergency help lines for mental health crisis, which include crisis lines to suicidal persons, for example, UMANG in Pakistan and Trans cultural Psychosocial Organisation (TPO) in Nepal. Nepal also has a suicide prevention helpline run by Patan hospital. India and Sri Lanka have a number of dedicated suicide prevention helplines spread over different regions of the country.

Suicide Intervention Studies

There are few good quality studies on suicide intervention in South Asia.

Sri Lanka and India took part in the WHO SUPRE-MISS study [19] involving persons presenting with suicide attempts in the emergency department of tertiary hospitals. Attempters were randomly allocated for Treatment As Usual (TAU) or Brief Intervention and Contact (BIC). In India, 680 persons who attempted suicide were followed up for 18 months. Suicide and suicide attempts were significantly lower in the BIC group (Suicides OR = 35.4, CI 18.4–78.2, Attempts OR = 17.3, CI 10.8–29.7) [89].

A mobile phone psychotherapy for persons who were admitted with suicide attempts in Sri Lanka showed significant reduction in suicidal ideation [47].

It is known that reduction of access to means of suicide is an effective suicide prevention strategy. Ingestion of pesticide is a common method of suicide in South Asia. A large cluster Randomized Controlled Trial (RCT) of household lockers storage for pesticide was conducted in Sri Lanka, but the study did not show effectiveness of the intervention [67]. However, banning of highly hazardous pesticides has resulted in significant reduction of pesticide suicides in many countries including Sri Lanka and Bangladesh [22].

In India, a feasibility study of storing pesticides in a central place (Central storage of pesticides) was found to reduce suicides and suicide attempts [90]. However, a large-scale RCT is needed to confirm the efficacy of the intervention.

National Suicide Prevention Strategy

Sri Lanka, Afghanistan, and Bhutan have developed a national suicide prevention policy.

Bhutan has formulated a 5-year plan (2018–2023) for suicide prevention. The key components are to develop and support systems and structure, develop community capacity, develop and improve health services to care for suicidal persons, improve access to suicide prevention services, and provide support for people in crisis. The action plan also emphasizes school programs and reducing access to pesticides. Afghanistan also developed a 5-year plan (2018–2022); key targets include involving stakeholders and coordinating inter-sectoral collaborations, providing after care for persons who attempt suicide and their families, improving health services for persons with mental illness, promoting safe practices for suicide reporting by the media, reducing access to means, and gathering information about suicide rates, determinants, and evidence-based interventions. Sri Lanka formulated a National Policy and Action Plan on prevention of suicide as early as 1997. However, the current status is unclear.

Bangladesh is on the threshold of releasing the National Mental Health strategic plan 2020–2030. One of the major objectives is stated to be to reduce suicide and suicide attempts by designing a National suicide prevention program. India has formed a task force to develop a national plan. Members have submitted the proposal to the Ministry of Health and Family Welfare for ratification.

Future Directions

Suicide rates are high in South Asia, but there is a dearth of rigorous data on risk factors; much of the data is on suicidal ideations and attempts, and most of the evidence is restricted to small sample or cross-sectional studies and gray literature, with few high-quality case-control studies. Data quality varies across countries; much of the information comes from India, Sri Lanka, Nepal, and Pakistan, and there is almost no data from Maldives. There is an urgent need across countries for research studies investigating the socio-cultural determinants unique to South Asia, and for this data to then be incorporated into suicide prevention programs. There is particularly a need for research on the role of gender norms, and the influence of rapidly changing societies on women and young people respectively.

The Sustainable Development Goals (SDG) indicator 3.4 states, “By 2030 reduce by one-third, premature mortality from Non-Communicable Diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing.” Indicator 3.4.2 pertains to the suicide mortality rate. This objective cannot be achieved if suicides in South Asia are not reduced. Hence, all the South Asian countries are challenged to not only improve their suicide surveillance and research, but also to reduce the suicide rates. This can only be achieved by multisectoral collaboration that involves not only health sector but also persons in education, employment, social welfare, judiciary, media, etc. Implementing evidence-based public health interventions to reduce suicide such as restricting access to and availability of pesticides, reducing alcohol availability

and consumption, crisis helplines, and sensible reporting of suicide in the media should be coupled with identifying and providing interventions to suicidal persons by the health services, helplines, NGOs, and the community. These suicide prevention components need to be nested in many of the existing welfare programs, for them to have effect on whole populations. Specific interventions for vulnerable groups like students, young people, young women, refugees, and farmers also need to be included; they must target education, economic independence and empowerment needs of young women, and equip young people with interpersonal and problem-solving techniques for resolving intergenerational and other relationship difficulties and aspirational disappointments. Digital penetration is substantial, particularly in young people, and digital interventions can be utilized as a cost-effective and scalable approach in preventing youth suicides in South Asia. There is also the need for greater political will and the allocation of more financial resources; the WHO report [95] for example states that national suicide prevention strategies are essential for elevating suicide prevention on the political agenda, and signals the importance of commitment from governments to addressing the public health problem of suicide.

Suicide prevention should not merely be a traditional exercise in the health sector but become a social objective in South Asia.

Summary

Box 2 Take Away Messages

- Suicide rates are high in South Asia, especially in women and young people.
- There is little robust evidence about the risk factors for suicide in young people in South Asia.
- Gender inequality in women and aspirational disappointments in the context of rapidly changing societies in young people are likely to play an important role in suicides; future research should focus on uncovering the strength and nature of these associations.
- There is an urgent need for widespread and intersectoral implementation of evidence-based strategies for suicide prevention, and the development of national strategies for suicide prevention, particularly those targeting women and young people.

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Cultural Considerations in Suicide Research and Practice 41

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Abstract

With escalating rates since 1999, suicide has been identified as a major public health crisis in the United States (USA). Despite data indicating the influence of multiple cultural factors on an individual's risk and resilience for suicide, most suicide prevention trainings and risk assessments used in the prevention and management of suicide do not incorporate a culturally informed approach. Failure to integrate cultural factors in suicide prevention and management not only demonstrates a notable gap in the literature regarding the standard of care for

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at-risk individuals but also raises an ethical (and potential legal dilemma) affecting both mental health and medical fields. This chapter aims to review a culturally informed suicide framework for mental health and medical professionals with updates from the most recent developments in the literature. Additionally, this review will be supported by a comprehensive rationale for the importance of integrating cultural components into training and risk assessments intended to inform suicide prevention and management.

Keywords

Suicide · Risk assessments · Culture · Prevention · Mental health

Introduction

The World Health Organization [47] reported a decrease in suicide rates from the years 2000 to 2016, with a 16% and 20% decrease in global suicide rates for men and women, respectively. Nonetheless, suicide continues to be a major public crisis with the WHO's (2019) "World Health Statistics 2019: Monitoring Health for The SDGs, Sustainable Development Goals" report attributing at least 800,000 reported deaths to suicide in the year 2016 alone. Furthermore, despite this global decreasing trend in suicide rates, recently published national suicide statistics from the Centers for Disease Control and Prevention [9] and the National Institute of Mental Health [36] indicate the opposite is occurring in the USA. Suicide rates have been increasing for the past decade making suicide the tenth primary cause of death (COD) in the USA. Although social scientists have increased their efforts globally to advance the suicidology field by improving suicide assessment and prevention practices, there is no doubt that suicide represents a major public health crisis across the world and especially in the USA.

Updated Suicide Statistics and Influence of Culture

Suicide: A Major Public Health Concern

Worldwide, deaths by suicide have a great emotional impact on the loved ones left behind by the victim [9, 36]. This emotional impact is particularly high among the survivors of young suicide victims – for whom suicide is the second main COD in the USA. Suicide also has a significant economic impact on communities internationally [9, 36]. In the USA, the cost of fatal injuries adds up to an estimated 214 billion dollar financial loss with suicide accounting for about 24% of this debt [9, 36]. With suicide making such a significant contribution to financial loss from fatal injuries in the USA alone, suicide's total economic impact worldwide – including costs related to attempts – may exceed 50 billions of dollars in debt.

Additionally, research indicates that suicide claims the lives of about one million people every year throughout the globe [47]. Though suicide is the tenth primary COD in the USA, this ranking fluctuates when breaking down population statistics further by demographic and cultural factors, meaning that certain cultural groups are at a significantly high risk for suicide [9, 36]. In order to understand how culture contributes to this international public health crisis by influencing level and imminence of suicide risk, it is important to review which populations appear to be at the highest risk for suicide according to the recent updates in suicide statistics [9, 36, 47].

Ethnic and Racial Suicide Statistics Through the Lens of a US Versus International Comparison

Although US suicide statistics from the CDC (2018) and NIMH (2019) generally concur with the WHO's (2019) international data, there are a few noteworthy discrepancies. One major difference is that the WHO (2019) reported that European men over the age of 64 living in high-income countries are at the greatest risk for death by suicide. However, updated US statistics diverge in that non-Hispanic American Indian and Alaskan native (AI/AN) men – not European-American men – are at the highest risk for suicide in the USA [9, 36]. This change differs as well from previous US data, given that outdated CDC statistics during 2009 (as cited in [7]) found older European American men to be at the highest risk for suicide. Similarly, non-Hispanic AI/AN women are also at the highest risk for suicide in the USA [9, 36], which deviates from global statistics suggesting that Southeast Asian women living in lower-middle-income countries have higher suicide rates [47].

Another significant change in the updated national suicide statistics involve the representation of Hispanic versus non-Hispanic individuals in the breakdown of suicide rates by racial group [9, 36]. This differs from the WHO's (2019) presentation of global suicide data, as the organization did not specifically report Hispanic or Latin American suicide rates. Although these rates may have been included in the suicide data for the WHO Region of the Americas (AMR), the WHO's (2019) only significant mention of statistics pertaining to Latin America and the Caribbean (LAC) was related to pregnancy rates. This particular discrepancy is noteworthy given that previous reports of national suicide rates also failed to highlight data specific to US Hispanic populations [8]. As the term “Hispanic” represents an ethnic – not a racial – cultural identity, race-related suicide data seldom take into account the inclusion of Hispanic individuals (or Latin American individuals, for that matter). However, overlooking such a significant portion of the US population is concerning and poses a disservice to both the Hispanic and Latin American communities as well as the field of science, because individuals identifying as “Hispanic or Latino” comprise at least 18% of the population in the USA alone [42].

Moreover, despite men of European descent over the age of 65 having the greatest suicide rates in comparison to the general global population, updated statistics show

that people between 18 and 25 years of age are most at risk for suicidal thoughts and attempts in the USA [9, 36]. These findings, along with the US statistics showing that suicide is one of the leading CODs among 10- to 34-year-olds, indicate that younger individuals are also at a high risk for suicide. Similarly, updated statistics indicate that people who are of mixed race or multicultural heritage are at greater risk for suicidal behavior (e.g., suicidal ideation, suicide attempts) in comparison to single-race groups within the USA [9, 36]. These findings suggesting intersecting ethnic and subethnic identities may have a higher impact than race alone on level and imminence of suicide risk.

Suicide Through a Culturally Informed Lens: What Are the Issues?

Updated suicide statistics indicate that culture's impact on the level and imminence of suicide risk is much greater when accounting for intersecting cultural identities. It is important to keep in mind that all individuals identify with multiple cultural identities. Thus, utilizing a culturally informed approach allows interdisciplinary academics and practitioners to become better educated on how between-group and within-group cultural differences impact the suicidology field by informing future research directions and improving prevention efforts across diverse populations. Viewing suicide through a cultural lens also informs the subfield of suicide assessment by increasing culturally responsive research efforts that set the foundation for the development of cultural models of suicide as well as culturally responsive suicide assessments. However, though recent updates in statistics attempt to shine a brighter light on the influence culture has on the field of suicidology, it appears that the progress made on examining suicide through a culturally informed lens remains limited.

For example, suicide death data and reporting indicate several notable gaps in attention to specific cultural subgroups. Suicide death rates in the USA and internationally do not include data on gender and sexual minority individuals [9, 36, 47]. In addition, the sole inclusion of Hispanic individuals in US suicide data without distinct representation of Latin American populations excludes many Latin American ethnic and subethnic groups who do not speak Spanish (e.g., Brazilians, Guyanese, Tzeltal). Although the terms "Hispanic" and "Latin American" are frequently used interchangeably, these two demographic terminologies refer to distinct cultural identities [18]. Hispanic refers to a person whose native language is Spanish, while Latin American is someone whose home country is within the region of Latin America [18]. Despite the possibility to identify as both Hispanic and Latin American, these two cultural identities are not synonyms of each other, nor are they interchangeable [18].

It should be clear that cultural inclusion is not sufficiently comprehensive, nor is it synonymous to cultural integration. It is important to know and understand nuances in demographic terminologies to comprehend how certain cultural risk and resiliency factors impact different minority groups [10, 49]. This knowledge is fundamental to develop the skills necessary to identify which culture-specific factors may be related

to increased or decreased levels of risk in suicidal patients when providing culturally informed mental health services. As a case example, consider a US-born teenage Latin American girl with first-generation Mexican immigrant parents, presenting with symptoms of depression. Without a deeper understanding of how this patient's identities interact and/or correlate to suicide risk, it would be very difficult to accurately estimate her level of suicide risk based on this information alone. Given that research shows that non-Hispanic AI/AN and White populations have statistically higher rates of suicide in the USA and that individuals aged 65 years and above generally have higher suicide rates as well [9, 36], one might assess this patient to be in demographic group with potentially low levels of suicide risk. However, research also shows that adolescent Latin American females are at a higher risk for suicide in comparison to same-age peers, particularly when experiencing family dysfunction brought on by acculturative stress [26, 37]. These data indicate that this Latina teenager may instead be in a demographic group with higher levels of suicide risk.

Extant research also points to the importance of accounting for other examples of culture-specific factors that influence suicide risk across minority groups which include, but are not limited to, shame, which is considered to be a highly influential factor regarding suicide risk among Asian American individuals [45]; active duty or Veteran status, particularly in soldiers exposed to combat and/or sexual trauma [33]; and feeling disconnected from one's community or traditions, which is frequently reported by Native American suicidal patients [23]. Additional research and applied guidance are needed to inform the incorporation of such cultural factors into suicide prevention practice.

The Murky Waters of Epidemiology Rates

Gaps in the integration of culture into the suicide literature can be traced to how suicide death data is collected in the first place. Epidemiological rates of suicide refer to the statistical data that is primarily collected by epidemiologists from coroners' reports, police reports, and medical records regarding deaths by suicide and demographic information of suicide victims. As early as in the 1980s, researchers have recognized that epidemiology rates provide invaluable information regarding frequency and severity of suicidal behaviors among diverse populations [21]. Epidemiology rates also help social scientists to examine how certain biopsychosocial factors either increase or decrease (i.e., protect against) risk for suicide [21]. However, issues in suicide data collection due to limited documentation availability and limited background knowledge on cultural differences may contribute to the lack of cultural integration issue within the field of suicidology through misclassification of death and misidentification of cultural identity.

Misclassification of Death

As Eisenberg stated in 1984, epidemiology rates are vulnerable to a lot of "noise" that may further lead to underestimation and underreporting errors of suicide statistics. One of the major factors that contribute to this noise in epidemiology rates is the

misclassification of COD in victims of fatal injuries. Eisenberg [21] and other researchers have pointed out in the literature that classifying a death as a suicide is not simple [32], particularly in ambiguous cases such as poisoning via overdose and “suicide by cop.” Consequently, intentional deaths by suicide may be ruled accidental – and vice versa – without proper documentation (e.g., medical records, historical information), testimony, or physical evidence. In light of this, research suggests that true suicide rates are likely significantly higher than the reported number of deaths by suicide worldwide [32]. Although advancements have been made in the scientific tools and methodology utilized to collect and analyze epidemiological rates of suicide, these scientific advancements are only effective in improving the accuracy of suicide rates if the demographic data of culturally diverse populations are accurate and reliable to begin with [32]. This noteworthy dilemma brings us to a more fundamental contributing factor that not only creates noise in suicide epidemiology rates but further contributes to misclassification of deaths by suicide.

Misidentification of Cultural Identity

As Liu et al. [32] stated, the effectiveness of epidemiological models used to prevent or reduce misclassification of suicide deaths is contingent upon the reliability of demographic data. However, it was pointed out earlier in this chapter that the reliability of demographic data is compromised by the shortcomings of cultural inclusion without proper integration. Thus, misidentification of cultural identity is yet another major factor that creates noise in the epidemiological rates of suicide [20, 21]. Misidentifying someone’s cultural background and identities can lead to underestimation of suicide rates due to misclassification of COD [20, 21].

Particularly when it comes to suicide victims who are biracial or of multicultural descent, research finds that misidentification of racial/ethnic identity is common and may ultimately depress the rates of reported deaths by suicide [20, 21]. Misidentifying someone’s cultural background can not only create noise in epidemiology rates but it may also impact the reliability of disseminated suicide data informing the development of culturally responsive suicide assessment training and treatment.

Differentiating Between Types of Suicide

Another factor that speaks to how insufficient integration of cultural factors may create ripple effects disturbing the reliability of existing suicide research is the rationale for why people choose to die by suicide or attempt in the first place. Previously, researchers considered suicide to be a predominantly mental health issue given that at least 90% of individuals who commit suicide either had a mental health diagnosis or met criteria for a diagnosable psychiatric disorder [5]. However, a study by J. Chu et al. [12] found that individuals who attempt suicide may have varying reasons to do so based on their cultural background – meaning that there may be multiple subtypes of suicide that are based on the cultural beliefs and social norms of diverse minority groups [12]. Per these findings, learning how to

differentiate between types of suicide and understanding how culture impacts a person's motivation (or lack thereof) to engage in suicidal behavior are pivotal to assessing and managing suicide risk through a culturally informed lens.

Psychiatric Versus Nonpsychiatric Suicide

According to J. Chu et al. [12], utilization of a culturally informed lens suggests that psychiatric distress may not be the sole, main driver of suicidal behavior among certain populations. To explore this possibility further, J. Chu et al. [12] categorized the factors influencing the rationale behind the suicidal behaviors/attitudes within a participant sample of 191 Asian Americans. Using a person-centered structural equation modeling approach (i.e., latent class analysis; LCA), they were able to categorize the influencing factors into two distinct suicide subtypes: psychiatric and nonpsychiatric [12]. The psychiatric subtype of suicide refers to the classic perspective that individuals' suicidal behaviors and attitudes are influenced predominantly by mental health-related factors, such as symptoms of depression, hopelessness, and substance use [12]. On the other hand, J. Chu et al. [12] described the nonpsychiatric subtype of suicide as representing a more unorthodox explanation for why someone may opt to attempt or commit suicide. Per J. Chu et al. [12], participants whose suicidal behaviors and attitudes were categorized within the nonpsychiatric subtype were predominantly motivated by nonmental health reasons influenced by sociocultural factors (e.g., discrimination, family dysfunction, acculturative stress) and health issues (e.g., terminal or chronic medical conditions, low quality of life).

Interestingly, the findings of this study indicated that 52% of the Asian American sample were categorized within the nonpsychiatric subtype of suicide [12]. Though these findings have not yet been replicated across multiple minority groups, their generalizability could have serious systemic implications as there could be a significant number of individuals who are actively suicidal yet are ineligible for health insurance coverage or accessibility to treatment due to the absence of a qualifying mental health diagnosis. These findings also have clinical implications as they highlight the inadequacy of conducting suicide assessment and prevention practices without cultural responsiveness. Future suicidology research should explore the concept of suicide subtypes across multicultural samples and integrate the findings into existing suicide prevention efforts and training.

Gaps in Culturally Responsive Suicide Training

Another gap in the need for holistic integration of culture into the suicide field lies in the insufficiencies in suicide prevention training programs. With regard to suicide-related training overall, research shows that among a group of licensed psychologists – primary experts trusted to study and treat sensitive suicide risk issues – only a portion (~70–80%) reports receiving formal training in suicide risk assessment (SRA) and prevention [5, 14]. Furthermore, a systematic review by

Boukouvalas et al. [6] and a needs assessment survey of US pediatric residency programs by Schoen et al. [39] demonstrated similar trends within medical providers (often the first line of care for suicidal patients) and other mental health professionals (e.g., social workers) rating their own preparation to assess for and manage suicide risk as inadequate. Graves et al. [25] attributed, at least partially, these gaps in suicide training among the mental health and medical fields to the inconsistent policies that dictate the benchmarks of suicide prevention training requirements at the state level.

These training gaps are particularly notable in the areas of culture and diversity. For example, a majority (62%) of licensed psychologists who reported receiving suicide training report receiving minimal or no training in culturally responsive suicide prevention practice [14]. According to J. Chu et al. [14], out of the estimated 38% of licensed psychologists who reported being trained in culturally responsive SRA, only between 5% and 10% reported receiving their training during graduate coursework and clinical rotations while 40% sought cultural SRA training on-the-fly when needed. These findings could be attributed to how traditional suicide training programs are developed – based on past research studies without sufficient attention to cultural data, research, and recommendations.

Impact of Training Gaps

These gaps in suicide training (and specifically culturally responsive suicide training) yield several ramifications for suicide practice. First, literature indicates that mental health providers inconsistently assess for suicide risk and tend to gloss over suicide questions when conducting risk assessments due to their own personal discomfort or biases about the topic [5]. These inconsistencies in suicide assessment can lead to missed or undetected suicide risk, which further perpetuate the cycle of ‘noisy’ suicide epidemiology rates in underestimation and under-reporting errors in suicide data [5]. Some have attributed this phenomenon of inconsistent suicide assessment to insufficient SRA training during graduate school [5].

Underdetected suicide risk may also occur within the medical setting, among medical providers and first-responders who also are frequently responsible for conducting suicide risk assessments and immediate crisis stabilization on suicidal patients [1, 5, 43]. Though suicidal patients are more likely to seek medical help than mental health services in the weeks, and even months, prior to seriously attempting suicide or completing suicide [1, 5, 43], most of them do so without being properly diagnosed or treated for a mental illness [1].

Second, the lack of cultural integration in traditional suicide training programs not only creates a gap between the suicidology field and cross-cultural research but also creates generalizability concerns [10, 30, 31]. Although many researchers have focused on exploring the role that cultural background and sociocultural factors play with regard to suicide risk ([30, 31]; as cited in [10]), traditional suicide prevention efforts as well as widely used and validated suicide assessment screeners and measures seldom directly address or integrate these sociocultural factors. This lack of cultural integration in traditional suicide prevention efforts contributes to the exclusion of many minority communities from the suicide literature. Consequently,

many traditional suicide assessment and prevention efforts lack generalizability to a plethora of minority groups due to noninclusion of cultural sensitivity and limited availability of resources in non-English languages.

Culturally Responsive Suicide Prevention Practice

With rising suicide rates across the USA and variation across different cultural groups (e.g., older Asian American women, gender and sexual minorities, transitional-aged Asian American women, African American, and Latino adolescents) [9, 20, 36], there has been a growing body of research examining suicide and diversity that substantiates cultural differences in the expression, behaviors, correlates, and nature of suicide [31].

Yet, there remains a dearth of studies on cultural minority groups in the existing suicidology literature, along with a lack of corresponding theories regarding culture and suicide [30]. Few existing studies have attempted to systematically synthesize findings from individual suicide studies on a range of minority groups [10]. Existing suicidology research on culture seldom extracts common findings among studies on sexual minority and racial minority groups [10] and generally, fails to account for intersectionality [46]. As a result, many widely used suicide assessment tools lack empirical support for their applicability to cultural minority populations [11, 29]. Conversely, suicide-related constructs such as depression have often been used to extrapolate suicide findings to cultural minority groups [10].

Traditional Models of Suicide and Cultural Responsivity

In the suicidology literature, researchers have acknowledged that there is a general lack of a common or “gold standard” theoretical framework of suicide [5, 28, 29]. Thus, there is not a single, agreed-upon definition of what constitutes suicidal behavior [5, 28, 29]. Nevertheless, there are several commonalities that can be observed across all traditional models of suicide.

Cognitive/Cognitive Behavioral Models

For example, cognitive behavioral theories on hopelessness posit that negative thinking patterns lead to hopelessness, which plays a central role in how people are “drawn to the idea of suicide” as the only way out of their problems ([4], p. 190; [3]). These theories gave way to Wenzel and Beck’s [44] Cognitive Model of Suicidal Behavior, which proposes that people have dispositional vulnerability factors that, when coupled with stress and maladaptive thinking (e.g., hopelessness), increase their likelihood to engage in suicidal acts. These dispositional vulnerability factors include “(a) impulsivity and related constructs, (b) problem solving deficits, (c) an overgeneral memory style, (d) a trait-like maladaptive cognitive style, and (e) personality” ([44], p. 191).

Psychodynamic Models

On the other hand, psychodynamic theorists propose that individuals develop suicidal ideation when they experience increased self-awareness of their personal shortcomings or self-perceived inadequacies [2, 40]. Per these theorists, this type of increased self-awareness leads to feelings of shame, guilt, and anger that individuals avoid by distancing themselves from their negative emotions through developing defense mechanisms such as denial and self-isolation [2, 40]. As a result, individuals further escalate their desire to escape their psychological pain by seriously contemplating suicide as a solution that puts an end to their pain [2, 40].

Interpersonal Models

Other models are informed by theoretical frameworks such as Joiner's (2005) Interpersonal-Psychological Theory of Suicidal Behavior (IPTS; as cited by C. Chu et al. [13]). IPTS was derived from Joiner et al.'s (1999) general assessment framework, and it posits that desire for suicide is preceded by three major contributing factors: thwarted belongingness (i.e., feeling isolated or disconnected from social environment), perceived burdensomeness (i.e., feeling like a burden to loved ones or fellow community members), and an acquired capability to commit suicide (which extends beyond mere access to means; [27]). This model concurs with past research in that individuals are more likely to contemplate suicide when they experience hopelessness, shame, and impulsivity [13, 27]. IPTS was updated in 2015 by C. Chu and colleagues who categorized risk for suicide by targeting the following empirically based suicide risk factors: history of suicidal behavior; current suicide ideation, intent, attempt, and/or plan; and access to means.

Limitations of Traditional Models

Although this list of traditional models of suicide is not an exhaustive one, this list is still representative of the lack of consensus in the suicidology field on the theoretical explanations of suicidal behavior. Despite the lack of consensus, there are several commonalities across these models of suicide. All three models attempt to explain how maladaptive thinking patterns and negative self-perceptions contribute to the decision of attempting suicide. They also generally agree that certain factors such as hopelessness, impulsivity, and negative emotions (e.g., anger, shame) increase the likelihood that an individual may seriously contemplate suicide as an option to end their psychological pain or perceived problematic situation. Unfortunately, these models also share a few commonalities that represent shortcomings of traditional suicide models.

Population Norms

One shortcoming shared by traditional suicide models is that they were predominantly originally developed for and/or normed on White populations [10, 29]. For example, neither the theoretical papers on psychodynamic models of suicide [2, 40]

nor the articles on IPTS [13, 27] mention culture or minority groups. Though the cognitive behavioral theories on hopelessness were tested on a population sample that included 37.7% Black participants (along with 62.3% White participants), other minorities were not represented [3].

“Classic” Versus Cultural Factors

Second, it should be noted that the traditional models do not directly address cultural factors within their suicide frameworks. Traditional models target factors that generally increase suicide risk in the overall population regardless of cultural identity – referred to as “classic” suicide risk factors by J. Chu et al. [16], which include past and current history of suicidal behavior, depression, hopelessness, impulsivity, and substance use, among others. In contrast, the traditional models do not include empirically derived cultural risk factors of suicide such as ethnicity [9–11, 36], age [7–9, 36], gender identity [41], sexual orientation [22], and multiple intersecting cultural identities [38]. Though recent studies on IPTS have identified one of its factors as linked to suicidal ideation in some cultural minority groups, no traditional model of suicide addresses culture-specific risk and protective factors such as “familismo” – which refers to family connectedness and is a significant protective factor within Latin American communities [26, 37].

Language Availability

A third major shortcoming of traditional models is that a majority of suicide assessment and other prevention resources derived from these frameworks are only available in English [29]. A 2018 systematic analysis by Kreuze and Lamis [29] found that few SRAs were translated and normed on cultural minorities and most were either unavailable in non-English languages or translated into a very limited selection of languages. Additionally, research suggests that many language-adapted assessments are only literally translated and improperly validated due to the use of inexperienced translators, translators who are not bicultural, and non-native speakers of the target language [34].

The Cultural Theory and Model of Suicide

To address existing gaps in the suicidology and diversity literature, J. Chu et al. [10] developed the Cultural Theory and Model of Suicide – a comprehensive theoretical effort that systematically incorporates cultural factors into a suicide risk framework. The Cultural Theory and Model of Suicide was originally developed using an inductive approach where a comprehensive literature review of 144 publications dating from 1991 to 2011 was conducted on the largest cultural minority populations in the USA to examine cultural-specific risk factors on suicidal behaviors [10]. The four major cultural minorities groups recruited were African Americans, Asian Americans, Latin Americans, and sexual minorities (LGBTQ) [10]. This team of researchers extracted and classified themes from the empirical findings resulting

from this literature review and found that 95% of the findings were accounted for by four common cultural categories of suicide risk [10].

These four major categories are cultural sanctions, minority stress, social discord, and idioms of distress [10]. The researchers describe cultural sanctions as the acceptability of shame around life events preceding suicide risk and the acceptability of suicide as an option. Minority stress encompasses different types of stress experienced with cultural minorities due to their social position or identity including distressing experiences of discrimination or systemic inequities and for racial minorities, the process of acculturation. Social discord includes conflict, alienation, or lack of integration within the family, among friends, or the community at large. Idioms of distress captures the cultural variations in the expression of suicidal behaviors and symptoms, likelihood of communicating suicidality, and preferred suicide methods. Additionally, this framework is rooted upon three theoretical principles: the first posits that culture can impact expressions of suicidality; the second principle theorizes that culture influences the kinds of stressors that underlie suicidal behavior; finally, the development of suicidal tendency, threshold tolerance of psychological pain, and resulting suicidal behavior is affected by the cultural meanings of the stressors and suicide [10, 17].

Updates

The Cultural Theory and Model of Suicide has since been expanded to reflect an ecological perspective and encompass community factors [46] that can be a barrier to access or affect use of community suicide prevention resources and reflect systemic issues as well as community responses [48]. Specifically, Yang et al. [48] found two categories of community factors: culture can affect the use of community suicide prevention resources and culture can affect inclination to express suicidal ideation. Although the Cultural Theory and Model of Suicide addresses culture as an influential factor of idioms of distress or how individuals express suicidality, Yang et al. [48] expand upon this by explaining that culture also takes a part in whether an individual is willing to even disclose their suicidal ideation or behavior. For example, in certain cultural minority groups, it is not socially acceptable to reveal yourself to others or “air your dirty laundry.” Thus, culture can not only affect **how** a person may experience or express symptoms of suicidality but it can also affect **if** a person chooses to disclose their symptoms at all.

It is also important to include the interpersonal constructs of the IPTS as applied to cultural minority groups, within the social discord construct of the Cultural Theory and Model of Suicide. More recently, the literature has shown promising developments, with some empirical studies showing the relevance of the Interpersonal-Psychological Theory of Suicidal Behavior (IPTS) applied with cultural minorities, along with its compatibility with intersectionality where certain cultural minority identities may amplify the influence of the three main components of this model [35]. For example, studies have found that perceived burdensomeness significantly and uniquely predicted suicidal ideation (not behavior) among older adults [19], Mexican American women [24], and Bhutanese refugees [35].

The Cultural Assessment of Risk for Suicide (CARS)

As a response to a lack of a culturally sensitive suicide assessment measure that systematically incorporates cultural variation, J. Chu et al. [11] developed a measure based on this cultural theory and model of suicide [10]. The Cultural Assessment of Risk for Suicide (CARS) is a 39-item, self-report questionnaire that aims to measure the four culturally specific suicide constructs and is normed on a racially diverse sample of 950 individuals consisting of 31.4% Asian American, 19.1% Latin Americans, and 5.8% African Americans [11]. Sexual minority status was also represented in this sample which was composed of 1.3% transgendered individuals and where 22.4% of the subjects identified with a nonheterosexual orientation.

The four constructs are measured using eight subscales: cultural sanctions was measured with one subscale; minority stress was measured across three subscales on sexual minority stress, acculturative stress, and nonspecific minority stress; social discord was measured with two subscales including family discord and social support; and idioms of distress also comprised of two subscales including emotional/somatic and suicidal actions [11].

The CARS showed excellent internal consistency with a Cronbach's alpha of 0.90 [11]. The CARS exhibited good convergent validity as reflected by the moderate to strong correlations with suicide-related constructs including the Suicidal Ideation Scale ($r = 0.60$, $p < 0.001$), the Beck Hopelessness Scale ($r = 0.61$, $p < 0.001$), and the Beck Depression Inventory ($r = 0.46$, $p < 0.001$) [11]. Discriminant validity was also good as evidenced by the ability of the total CARS score to significantly differentiate between individuals who had and did not have a history of suicide attempts ($H = 138.52$, $p < 0.001$; [11]). Data showed that the CARS is able to predict suicidal history beyond an individual's cultural identity suggesting that this instrument may capture information not provided by mainstream suicide risk assessments. Moreover, the CARS was normed on a general population, which can allow this assessment to function as a screening tool.

In recent studies, the strength of cultural factors in predicting suicide behavior was examined, and the CARS was found to add unique predictive value to suicide attempts beyond classic suicide risk factors such as depression, hopelessness, and reasons for living [16, 17]. Additionally, researchers have begun to examine the pathways by which cultural factors exact their influence on suicidal behavior [17]. Finally, a brief version of the CARS, a 14-item, 8-factor CARS screener (CARS-S), was recently developed to allow for wider applicability in real-world settings where time constraints often occur [15].

While the CARS has begun to address the dearth of suicide risk assessment instruments with diverse cultural minority representation [29], future research will benefit from development of non-English versions of the CARS to increase access to suicide risk prevention resources. Further studies may also test the CARS on a wider range of cultural minority groups – particularly the Native American population who has shown substantially elevated suicide rates [9, 36]. Additionally, future research is needed to further validate the CARS-S with clinical populations in inpatient and outpatient settings.

Conclusions and Recommendations

Despite recent advances in the science and theory of culture and suicide, the field of suicidology continues to face recurring challenges pertaining to the limited generalizability of suicide prevention efforts for cultural minorities and limited integration of culture into suicide outreach and practice [10, 29, 31]. This generalizability issue poses a threat to culturally responsive administration of assessments and interventions. The current chapter reviewed how the lack of sufficient cultural inclusion across disciplines contributing to the field of suicidology – such as epidemiology, psychology, and even medicine – creates a worldwide impact on public health, national as well as international economy, and education in health care (particularly at the graduate training level). This chapter also reviewed cultural constructs, principles, and recent updates for the Cultural Theory and Model of Suicide that can be used as a foundation for cultural integration and adaptations of existing and future suicide prevention and management efforts.

In order to improve the quality and expand upon the generalizability of suicide prevention practice, the following recommendations are made based on the reviewed literature on culturally responsive suicide risk assessment and management. First, it is imperative that, when screening a client or patient for potential or suspected suicide risk, the client/patient is screened in their preferred language. As explained in this chapter, language barriers pose significant challenges for individuals residing in the USA who do not speak English as a first or preferred language. Often, bilingual as well as bicultural health-care professionals (HCPs) or resources may not be available to screen a client/patient in their preferred language. Nonetheless, interpreter services may be requested as an alternative to ensure that the client/patient receives mental health services in their preferred language. Doing so may help reduce language-related issues such as the client/patient experiencing discomfort as a result of feeling like they do not have the “right words” to express their emotions or mental state in English. Additionally, if a suicide risk screener or questionnaire is used to assess for or monitor suicide risk, properly translated and normed materials should be used whenever available.

Second, trained mental health professionals conducting a suicide risk assessment or providing treatment for suicide prevention should always make sure to inquire about the cultural identities with which their client/patient identifies. Though many mental health professionals frequently ask about race/ethnicity, age, and biological sex, it can be easy to forget to ask about other cultural identities that may not be so visible. As previously discussed in this chapter, gender identity, sexual orientation, and even military history are all cultural identities that may significantly influence the level of suicide risk. Each of these identities may be related to specific cultural risk and protective factors, and they may even be in conflict with each other, further increasing their influence on suicide risk level. Therefore, culturally responsive suicide prevention practice should emphasize the inclusion of all cultural identities that may be salient to an individual, particularly those identities that are hard to see. As an example, the CARS measure discussed in this chapter would be a good tool for a

HCP to add to their repertoire of suicide prevention resources, as it is the only known SRA that directly targets culture-specific risk factors. Even though the first edition of the CARS is currently only available in English, other versions are currently in development – including a revised version and a Spanish version.

Third, HCPs wishing to approach the practice of suicide prevention through a culturally informed lens would benefit from aspiring to achieve cultural humility or responsivity as opposed to cultural competence. Though many graduate training programs in health care highlight cultural competence as part of the knowledge, skills, and attitudes (KSAs) students must learn in their professional development, the concept of cultural competence is somewhat flawed. For a person to become competent in culture, the said person would have to achieve a certain level of expertise in all cultural identities. Considering the vast number of cultural and subcultural identities that exists, true competence in the study of culture as a whole would be practically unattainable for a single person. Thus, culturally informed suicide prevention practice benefits from trained HCPs that are humble about the cross-cultural services that they are **and are not** prepared to provide, as well as benefits from trained HCPs that are responsive to the culture-specific needs of their individual clients/patients. When offering culturally responsive suicide risk assessment and management services, it is essential that HCPs do not assume how the client's or patient's cultural background influences their experience and/or expression of suicide symptoms. In contrast, it is most helpful when HCPs approach this intersectionality from a standpoint of genuine curiosity instead and allow their clients/patients to be the true experts on their own cultural identities.

As for future research directions, new studies should focus on expanding translation and cross-cultural validation efforts in order to increase the availability of suicide prevention resources in non-English languages. Future suicide studies should also aim to improve – not just the quantity but – the quality of language-adapted materials pertaining to suicide prevention. Meaning, researchers should increase their efforts to develop more comprehensive cultural adaptations of SRAs that address bicultural relevance issues within the field of suicidology and not just focus on the bilingual clarity of the translated content. Moreover, epidemiology and other multidisciplinary studies of suicide should also emphasize the importance of implementing data collection protocols that reflect the correct identification of the participants' cultural background information. Overall, the overarching goals for future research are to improve the quality of suicide rates, expand the efforts of culturally informed suicide prevention training across health-care fields (i.e., psychology, social work, medicine), and increase the development of culturally responsive suicide prevention strategies.

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The Roles of Culture, Race, and Ethnicity in Suicide

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Abstract

Though suicide is one of the leading causes of death throughout the world, rates of suicide vary internationally on the basis of culture and ethnicity. In an effort to better understand suicidality, this chapter explores its phenomenology across different racial/ethnic groups in the United States. Additional variables that are considered include gender, age, social integration, and mental health, to name a few factors that have been shown to influence the onset of suicidality. This chapter includes a discussion of risk and protective factors through a culture-based lens, with commentary on the role of religiosity, individualism vs. collectivism, as well as other cultural and historical factors. As suicide remains challenging to accurately predict, it is imperative to explore the relation between variables that may uniquely affect individuals based on their cultural and ethnic identity. Hopefully, through exploring the interplay of these cultural factors, behavioral health professionals can design and evaluate more efficacious preventative intervention programs that are culture-specific.

Keywords

Suicide · Culture · Ethnicity · Race · Prevention

Introduction

Suicide is one of the leading causes of death worldwide. Annually, approximately 800,000 people die by suicide. Internationally, 78% of completed suicides occur in low- and middle-income countries where 84% of the global population resides. Rates of suicide vary, though global mortality rates range between 0.5% in Africa and 1.9% in Southeast Asia, with a global average mortality rate of 1.4%. In 2016, suicide was the 18th leading cause of death internationally. It is estimated that by 2020 suicide deaths will have increased to 1.53 million annually [6]. However, epidemiological data has not yet been published in a year that was characterized by unprecedented hardship due to the pandemic and international political unrest.

Though suicide is a leading cause of death across the life span, it is the second leading cause of premature mortality in individuals between the ages of 15–29 and the third leading cause of death among individuals between the ages of 15–44 years old [29]. In total, more young people die by suicide, though relative rates of suicide increase substantially among the elderly, with this demographic up to eight times more likely to die by suicide [29]. However, rates of suicide across the life span vary by country based on cultural and socioeconomic variables. For example, in low-income countries, young people have higher rates of suicide. Income may be a significant factor in predicting suicide rates in countries such as the United States where there is greater socioeconomic inequality. Additionally, environmental variables also present risk with emerging literature, suggesting that air pollution is correlated with suicide [5]. This variable may have particular ramifications for

countries with higher rates of industrialization and poverty given greater potential exposure to air pollution among the poor.

Gender plays a substantial role in suicide risk. Though women are more likely to experience suicidal thoughts or attempt suicide [70], men are 1.8 times more likely to complete suicide than women globally. However, similar to suicide rates on the basis of age, male-to-female ratios of completed suicide vary by country on the basis of regional differences in culture, socioeconomic factors, as well as other variables. For example, numerous countries in Asia such as China and Bangladesh have especially high rates of suicide for women. In comparison, men were much more likely to complete suicide in various Caribbean countries such as Belize and Jamaica. Differences in cultural expectations for gender roles may in part explain this divergence in suicide rates between men and women across different countries.

Interestingly, typical suicide methods vary internationally by region. In Africa, Asia, and Europe, hanging is the most common method of suicide [2]. In comparison, firearms are the most lethal method (89.6% of suicidal acts with a firearm resulted in death), followed by drowning (56.4%) and hanging (52.7%), in the United States [16]. Methods are likely to vary on the basis of means that are available as firearms are illegal or more difficult to access in much of the world outside of the United States.

On the basis of evident differences in patterns of suicide across the world, the role of culture bears importance. There is emerging evidence to suggest that suicidality may be related to attitudes about the acceptability of suicide in a given culture [60]. Current literature suggests that at the individual level attitudes regarding the acceptability of suicide predict suicidal behavior. Notably, these same attitudes in a given country are linked to rates of suicide [60]. However, this line of research is still novel and the correlates of higher suicide rates in relation to culture are still under exploration. That being said, self-expressionism and education level are significant predictors of suicide acceptability, whereas religiosity, marital/familial integration, including being married and having children, as well as cultural survivalist attitudes, are protective factors.

Beyond culture, race and ethnicity influence suicidal behavior. For example, in the United States, African American adolescents and young adults are less likely to engage in high-risk suicidal behavior than Caucasians. However, Asians and Pacific Islanders are far more likely than Caucasians to engage in high-risk suicidal behavior [23]. It is hypothesized that differences in cultural attitudes and values make explain differences between individuals of different races and ethnicities. For example, there is more negative social stigma related to suicide in the African American community. A complicating variable is that rates of suicide in the African American community may be underreported. Higher rates of suicidal behavior among Asian American youth may correspond with findings that they are less likely to receive or seek professional health even in spite of mental health difficulties.

Research suggests that racial/ethnic minorities are less likely to receive mental health treatment across settings in comparison to Caucasian peers. An additional stressor that may contribute to suicidality among ethnic minorities is acculturative stress, which may be particularly relevant for immigrants. Additionally, it was found

that the experience of racial discrimination among African American adolescents was predictive of depressive symptoms, which may in turn lead to suicidality. That being said, positive racial identity can serve as a protective factor as it is been shown to be predictive of better psychological outcomes even among African American youth who experienced racial discrimination.

In exploring the etiology and epidemiology of suicide, mental illness is a significant predictor of suicide. Individuals with a mental health diagnosis are over 10 times more likely to complete and attempt suicide than individuals in the general population [6]. The acuity of the mental illness also plays a substantial role, with individuals who have received inpatient treatment 10 times more likely to complete suicide than individuals who have only needed outpatient services [6]. Moreover, disorders that introduce the highest risk for suicide include depression, substance-use-related disorders, schizophrenia, and personality disorders. While mental illness clearly introduces pronounced risk, physical illness also elevates suicide rates, particularly among individuals with cancer, HIV, chronic illnesses such as multiple sclerosis, and health conditions such as post-stroke conditions.

Social integration is also closely related to suicide risk. Interpersonal conflict and social isolation have been linked to suicidal behavior. Research suggests that belongingness, perceived social support, and living alone are predictors of suicide attempts (You et al. 2011). Further, family problems and relationship distress are contributing factors [26].

Though there are clearly numerous risk factors for suicidal behavior, notable protective factors include strong social support, reasons for living, and strong problem-solving skills, hope, as well as moral objections to suicide [65]. Religiosity is often cited as a protective factor, though findings are somewhat inconsistent. That is, the intersection of cultural and religious values and facets of identity may influence the extent to which religion is protective. Restriction of means is also crucial in preventing against suicide, and thus, it may be crucial to limit means that are lethal in the home. Lastly, social support serves to enhance belongingness, as well as a desire to not hurt loved ones through suicidal behavior. A form of social support can come through service engagement by means of therapy or other service providers. Therefore, it is crucial to reduce barriers to effective care in the prevention of suicide, particularly among racial/ethnic minority that have been marginalized and have historically received limited access to care.

Social and cultural factors play a substantial role in the risk for suicide. One of these social dimensions, collectivism vs. individualism, has been explored in an effort to understand and mitigate suicide risk. Individualism typically emphasizes free will, autonomy, and personal uniqueness, whereas collectivism stresses group relationships interdependence, and relatedness.

Discourse on individualism as a risk factor for suicide has been ongoing since Émile Durkheim's seminal text, *Suicide*. In his book, Durkheim explicated how values associated with "excessive individuation" put individuals at increased risk due to a lack of social support and connection [21]. In spite of his theories related to suicidality, findings are more complex than his postulations.

Generally, suicide rates are higher in more individualistic societies with evidence to suggest that collectivistic values are associated with less lifetime suicidal ideation [24]. However, research is mixed for rates of suicidal ideation in the past year. Interestingly, high and low levels of individualism are associated with risk for suicide within a 12-month period. An additional complicating factor is that while a country may overall endorse cultural norms that reflect a specific location on the individualism-collectivism spectrum, individuals may differ in terms of their personal values. This cultural clash may explain variance in suicidal behavior, even in nations with similar values on the spectrum. For example in traditionally collectivistic countries in Asia and the Middle East, patterns of suicidal behavior diverged. Individuals low in individualism in Middle Eastern countries were at greater risk of suicide, whereas high individualism in Asian countries exacerbated rates of suicide [24]. While these countries may share numerous values related to social structures, there are likely confounding variables that complicate the relation between suicidal behavior and individualism vs. collectivism. Thus, risk for suicide may be context-dependent, rather than universal [24].

Geography is another variable that may be considered in relation to suicidal behavior, with evidence to suggest that geographical location has a meaningful effect on suicidality based on a variety of factors. For example, greater sunlight exposure has been linked to higher suicide rates [1]. While there is contradictory evidence related to weather, higher-than-average temperatures are associated with increased suicide risk [19]. Altitude has been also linked to suicide, with individuals in elevated regions at increased risk for suicide. Further, population density plays a role in suicidal behavior, with higher rates of suicide in less dense regions [30]. Emerging literature suggests that greater air pollution in a given region is associated with suicidality [35]. Though these are just a few of many factors, the interplay of these variables across regions throughout the world introduces further complexity to predicting risk for suicide.

Though it would be challenging to outline an exhaustive list of social factors that are implicated in suicide risk, there are evidently specific variables that are cardinal in its epidemiology. Across age groups, familial structure plays a substantial role, with higher divorce rates linked to elevated risk of suicide [48]. Bereavement among women is more commonly associated with suicide, though men who commit suicide are more likely to have never been married. Generally, living alone is a risk factor across demographics, perhaps because it increases social isolation. Higher birth rates of a country diminish risk for suicidality because of the protective link between child and parent relationships. However, certain variables have mixed findings with women's participation in the workforce inconclusive in terms of whether it is a risk or protective factor [48].

Historical forces also serve to influence rates of suicide across the globe. Examples of such forces include war, terrorist attacks, natural disasters, economic crises, and epidemics. Pertaining to war, it has been postulated that type of event decreases rates of suicide [21]. However, results are often inconclusive and may vary across demographics. For example, in a study during World War II in Scotland, while the national average of suicide for men and women decreased,

rates increased among young men. Higher rates among young men may relate to the disproportionate effects war has on individuals who go into combat as well as subsequent access to firearms. Related to terrorist attacks, evidence suggests that suicide rates temporarily decrease in the location of the attack, though longer-term effects do not continue [58]. In regard to natural disasters, suicidal behavior tends to escalate after the event, which has been documented after Hurricane Maria in Puerto Rico and even more notably after Hurricane Katrina. In particular, economic crises have often been associated with increased rates of suicide. Examples of such events include the Great Depression as well as the Asian economic crisis in 1999. Lastly, epidemics/pandemics have also been studied in relation to suicidality. Unfortunately, there is limited data on the Spanish Influenza Pandemic of 1918, but available statistics show that it did correspond with elevated suicide rates. Similarly, the severe acute respiratory syndrome (SARS) epidemic had marked escalation in suicide and was ultimately deemed a mental health crisis in Hong Kong. In our current historical moment of the COVID-19 pandemic, it has been predicted that we are likely in the midst of another mental health catastrophe that results in a notable rate of deaths by suicide. Contributing factors include economic instability, increased rates of domestic violence, and alcohol use, as well as the profound impact the pandemic has had on essential workers in health care.

Evidence for the Link Between Suicidality and SES

Social conditions have long been identified as a risk factor for psychopathology, with particular attention given to the role of socioeconomic status. Socioeconomic status refers to the social standing or class of an individual, often indexed by a variety of factors, including income, education, and occupational status. Lower socioeconomic status has been associated with higher risk of developing a plethora of psychological disorders, with increasing attention given to the higher risk for suicidal behaviors and death by suicide in particular [10]. Evidence supporting the association between socioeconomic status and suicidality has been found using a diverse array of methodologies, including population-based studies, correlational studies, and longitudinal analyses using census data.

At an aggregate level, countries with lower per capita income report a relatively higher frequency of completed suicides compared to countries with higher per capita income. Even among nations that are relatively higher in socioeconomic means, however, an association between socioeconomic factors and suicidality is observed. In the United States, for example, lower income was found to be associated with higher suicidal ideation [47]. In line with this, a systematic review of European studies found evidence of an association between socioeconomic disadvantage and suicidal behaviors [10]. Many studies have relied on historical data to retroactively identify overlap in time periods of economic strife and suicidality. For example, time periods characterized by recessions evidenced greater rates of suicide compared to

those characterized by economic expansion. In terms of longitudinal support for this association, Näher et al. [50] used census data in Germany and revealed district-level increases in suicides following increases in employment and decreases in income. Similarly, an increase in suicide rates was found after an economic recession in Greece. Pooling data from 1997 to 2010 across the United States, Phillips and Nugent [56] found that higher rates of unemployment were associated with increased rates of suicide for both men and women. Thus, a robust body of methodologically diverse empirical evidence supports the role of socioeconomic disadvantage as a risk factor for suicidality.

Demographic Moderators of the Link Between Suicidality and SES

Attempts to add nuance to these findings by identifying demographic differences have revealed mixed results. For example, some work has found that the association between socioeconomic disadvantage and suicidality is worse or exists only among men compared to women (e.g., [10]), whereas other studies have found that this association exists across gender [56]. Attempts to identify risks associated with racial group membership reveal similarly mixed findings. Consistent with known racial differences in risk for suicidality, McMillan et al. [47] found that the income and suicidality relation was particularly strong for non-Hispanic Whites compared to other racial and ethnic groups. In line with this finding, within-racial group comparisons have revealed that White victims of suicide are more likely to live in lower-income areas, whereas Black victims are not [57]. As noted by Assari et al. [4], there is some evidence that indices of socioeconomic status (e.g., education) may be more protective for White versus Black individuals.

One important consideration for interpreting these racial difference findings is that relative, rather than absolute, socioeconomic disadvantage may be particularly important for racially marginalized groups. For example, Burr et al. [9] found that the risk for Black men's suicide was higher in regions characterized by higher-income inequalities between Black and White groups. This is consistent with evidence that subjective social rank, more so than an objective indicator of social rank, was associated with the greatest risk for suicidality [69]. In addition to differences in the magnitude of these associations based on race, there is some evidence pointing to the possibility of different mechanisms based on race. For example, Kubrin and Wadsworth [37] found that for Black individuals concentrated socioeconomic disadvantage was only indirectly associated with suicidality through the effect of increased gun availability. For White individuals, however, there was a direct effect of concentrated socioeconomic disadvantage that was not mediated by higher gun availability. These mixed demographic findings highlight the need to better understand the processes through which socioeconomic status may confer suicidality risk. Thus, a better understanding of the role of demographic factors requires contextualizing the socioeconomic status and suicidality relation within broader theories of suicide.

Possible Mediators of Suicidality and SES Relation

Sociological, economic, and interpersonal theories of suicide may elucidate mechanisms through which socioeconomic status is associated with suicidality. Building on Durkheim's [21] foundational theory of social integration, Gibbs and Martin's [28] theory of status integration highlights the discord that can result from the integration of different societal roles. Applied to the income and suicidality relation, economic hardship creates conditions in which individuals occupy simultaneous statuses that are conflicting (e.g., providing for a family and experiencing unemployment). Thus, suicidality results from the discord of not being able to integrate these statuses. Economic theories of suicide posit the degree to which the perceived benefits of living outweigh the economic costs of being alive. Thus, an increase in economic despair may lead individuals to perceive suicide as a more desirable choice. Although less explicitly than in economic theories of suicide, psychological theories of suicide also highlight the role of economic factors.

In the interpersonal theory of suicide [67], perceived burdensomeness is implicated as an important causal factor in the development of suicidality. Unemployment, in particular, is highlighted as a contributing factor to perceived burdensomeness to the degree to which it increases one's sense of being a liability. In particular, in the context of experiencing severe mental illness, the sense of burdenness may be particularly elevated in ways that increase the risk for suicidality. Thus, higher reliance on other individuals as well as social systems for economic resources may increase the sense of perceived burdensomeness. Socioeconomic factors may also contribute to the other major components of this interpersonal theory, thwarted belongingness, which includes social isolation. More specifically, experiencing socioeconomic disadvantage may increase the risk for social isolation through factors such as internalized shame and reduced opportunity for social contact. Thus, various aspects of socioeconomic disadvantage may contribute to suicidality indirectly by increasing risk for perceived burdensomeness and thwarted belongingness.

Suicide among Racial and Ethnic Groups

White Americans

Historically, White Americans have been at elevated risk of completing suicide in the United States. While the average rate of suicide across race/ethnicity was 14.2 per 100,000 in 2018, it was 18.0 per 100,000 for White Americans. For White Americans, suicide rates are steady throughout the life span though they peak during the middle age [12]. Specific to young adults, White individuals are more likely to report suicidal ideation than counterparts of other ethnic groups, though they are not more likely to make an attempt [46]. Risk factors for suicide among White young adults include identifying as a sexual minority, having received a diagnosis of depression, engaging in substance abuse, and having a friend who completed suicide [46]. Among adults without controlling for age, risk factors include heavy alcohol use, living alone, and using mental health.

In comparison to White women, White men are at an elevated risk of suicide with it being the eighth leading cause of death among them across all age groups. They are more likely to use firearms to make an attempt [44]. Thus, a greater prevalence of suicide among White Americans may in part relate to the lethality of firearms and the frequency of their use as a method for White men. In comparison to Black and African Americans, White Americans are less likely to endorse protective factors such as hope, intrinsic religiosity, and participation in religious services, which may contribute to elevated rates of suicide among this demographic. Conversely, higher educational attainment may be associated with diminished suicide rates among White Americans compared with Black and African Americans [4].

Black/African American

Black and African Americans have typically had lower suicide rates than other racial/ethnic demographics. In 2018, 7.2 per 100,000 Black or African Americans died by suicide. In spite of a suicide rate lower than the national average across racial/ethnic groups, the prevalence of suicide is increasing among Black and African Americans. Specifically, the prevalence of suicide is peaking during adolescence and young adulthood, with Black children between the ages of 5 and 11 at greatest risk [8]. Research suggests that African American men are more likely to die by suicide, though African American women are more likely to make an attempt [3]. However, rates of completed suicide among Black and African women have been increasing [17], with low income linked to suicidal behavior among this demographic.

Risk factors that may contribute to the increased incidence of suicide among Black and African American youth include depression, delinquent behavior, poor familial support, and substance abuse. Though less-researched, bullying, social media, and LGBTQ+ identity may also contribute to the prevalence of suicide among Black and African American youth [49]. Among adults, risk for suicide among Black and African Americans often relates to poverty, and psychosocial difficulties such as interpersonal violence, substance abuse, daily hassles, and psychiatric disorders. However, compared with other racial/ethnic groups, acceptability of suicide may be a protective factor as it is less socially acceptable in the Black and African American community. Acceptability of suicide among Black and African Americans may also correspond with the role of religiosity in their community, which serves as an additional protective factor, along with the presence of familial/social support.

Asian Americans

Although suicide rates among Asian Americans are lower than the national average across races/ethnicities [17] at 6.42 per 100,000 [12], suicide was the tenth leading cause of death for this demographic in 2013 [31]. While suicide may be less prevalent among Asian Americans compared to other ethnic groups, it is a

heterogeneous community with many individuals who come from countries such as Japan where there are elevated rates of suicide. Thus, it is important to consider cultural differences among Asian Americans because suicide rates differ substantially on the basis of nationality. For example, while Indian and Filipino women have low rates of suicide (1.5 and 1.8 per 100,000, respectively), Korean and Japanese women display higher rates (8.1 and 5.0 per 100,000, respectively). However, only a few studies have explored differences in suicidal behavior between Asian American ethnic groups [38].

Immigrant status is another important variable in exploring risk for suicide as a large proportion of the Asian American community is foreign-born. On the basis of immigration status and gender, US-born Asian American women were most at risk for suicidal behaviors [20]. Additional risk factors for suicidal behavior among Asian Americans include interpersonal factors such as a history of discrimination, family conflict, and low acculturation. In terms of access to care, Asian Americans are less likely to receive outpatient treatment for severe suicidal ideation than White Americans, which may in part relate to culture-specific reluctance to seek help. However, Asian Americans have numerous protective factors such as increased social support and connectedness, as well as familial obligation and a desire to not bring shame to their family.

Native Hawaiian/Pacific Islander

There is a paucity of research specific to Native Hawaiians and Pacific Islanders (NHPI) as this category is often lumped into the broader category of Asian American and Pacific Islanders in surveys on public health data [22, 61]. Based on available data, suicide was the 11th leading cause of death in Hawaii in 2002 (9.6 per 100,000) (2002). Notably, NHPI youth are at elevated risk for suicide in comparison to non-Hispanic White Americans [61]. Rates of suicidality decrease among the middle-aged and elderly among indigenous people across the Pacific [27]. Perhaps due to important social roles ascribed to older individuals among NHPI, there is no spike in suicidality among the elderly that is seen in other American ethnic groups. When considering age and sex, NHPI males between the ages of 15–25 are most at risk for suicide. Elevated risk for suicide among NHPI youth corresponded with greater familial conflict, domestic violence, being sexually active, and sexual activity with both sexes [22]. Further, hopelessness is a prominent feature among Hawaiian youth with a history of suicide attempts. It is hypothesized that hopelessness may be related to the intergenerational trauma of NHPI resulting from colonization.

American Indian/Alaska Native

Compared to other ethnic groups, rates of suicide are especially high among American Indians/Alaska Natives (AI/AN) and have been steadily increasing [12]. As of 2018, AI/AN had the highest rate of suicide at 22.1 per 100,000 [12]. Youth are

at particular risk of completing suicide among AI/AN with over a third of suicides occurring among individuals between 10 and 24 years old. In particular, male youth are at elevated risk for suicide. Similar to White individuals, AI/AN often use firearms as a method to complete suicide, which is a particularly lethal means. Elevated rates of suicide among AI/AN individuals may also relate to the prevalence of this demographic living in rural areas where there is limited access to mental health care [12].

Currently, there is limited epidemiological data that explains the alarmingly high rate of suicide among AI/AN individuals in spite of the fact that it is the eighth leading cause of death for this demographic. However, available literature suggests that substance use, psychiatric disorders, and cultural identity are risk factors. Such facets of cultural identity that have been studied as risk factors for AI/AN suicide include experiences with discrimination, acculturative stress, historical trauma, financial difficulty, and experiences of microaggressions [64]. Across tribes, lower integration of one's tribe, as well as more exposure to Western modernization, has been associated with higher rates of suicide. Protective factors among AI/AN include spirituality, social support, as well as opportunities for enhanced hope and optimism.

Suicidality and the Latinx Community

The Latinx community represents the largest minority in the United States, totaling 60.6 million in 2019 and comprising 18% of the total US population [66]. Despite consistent historical trends of lower rates of suicidal ideation, attempts, and deaths relative to other racial and ethnic minorities, the rate of suicide in the Latinx community has been steadily increasing since 2000 and now ranks as one of the highest age-adjusted rates among US minorities at 7.4 per 100,000. This is relative to an overall age-adjusted rate in the United States of 14.2 per 100,000, and as a subpopulation, second only to American Indians and Alaskan Natives [13]. However, despite the epidemiological warning signs regarding the increased prevalence of suicidal behavior in the Latinx community and the burgeoning population size of this minority within the United States, there is a significant dearth of research on the specific sociocultural risk and protective factors, with few longitudinal studies and even fewer culturally competent assessments and interventions.

Demographics

In 2017, suicide was the ninth leading cause of death in the Latinx community, with estimates of lifetime prevalence of suicidal ideation and attempts at 11.35% and 5.11%, respectively [7]. Data from the Substance Abuse and Mental Health Services Administration (SAMHSA) estimates a near 100% increase in reports of suicidal ideation over the last 10 years, among both young people and adults over the age of 25 [62]. The rise in suicidal behavior is primarily attributable to Latinx females, specifically young adults. From 2000 to 2015, the Center for Disease Control and

Prevention (CDC) estimates that while the suicide rate for Latinx males remained relatively stable, the rate among Latinx women increased by 50% during the same time frame, with a near 100% increase among young adult women [12]. In addition to concerning numbers of Latinx women, Latinx youth have demonstrated increased risk compared to their non-Latinx counterparts. In 2017, 8.2% of Latinx youth endorsed attempting suicide, relative to 6.1% of their non-Latinx counterparts. Furthermore, 16.4% of Latinx youth reported seriously considering attempting suicide and 13.5% reported making a plan [34]. As previously emphasized, the higher prevalence of ideation and attempts is particularly elevated among Latinx adolescent females [59]. Latinx youth who identify as LGBTQ are at even greater risk, with a meta-analysis revealing that sexual minority Latinx youth are almost four times more likely to have attempted suicide than their nonsexual minority Latinx youth counterparts [18].

Sociocultural Factors

Historically speaking, the Latinx community has consistently puzzled epidemiologists by demonstrating improved morbidity and mortality outcomes, including suicidality, relative to the overall US population and other minority groups despite facing significant socioeconomic hardship and discrimination. The phenomenon has been termed the “Latinx Health Paradox,” and although emerging data on rising suicide rates in this community may reduce the significance of this historical trend, it raises the question as to what cultural or ethnically-based protective factors may be deterring suicidality in the Latinx community [11].

Increasing amounts of literature demonstrate that self-identification as Latinx, and the accompanying ethnic identity and cultural values, very likely plays a protective role against suicidal behavior. Ethnic identity, or the perceived belonging to a particular ethnic or cultural group, has been demonstrated to be protective toward other types of psychopathology, such as depression and substance use [51]. Latinx ethnic identity is specifically associated with several domains that have been associated with a reduced risk for suicidal behavior, such as religiosity and familism (i.e., the placement of family needs before those of the individual) [25]. Oquendo et al. conducted a survey of Latinx individuals and found that overall participants reported more perceived survival and coping ability, responsibility to family, and moral objection to suicide – often due to religious beliefs – relative to non-Latinx individuals [52].

Also in support of this, Chang et al. showed that a higher-order ethnic identity was negatively related to suicide risk in the Latinx community. When considering suicide variables as outlined in the Interpersonal Theory of Suicide, such as thwarted belongingness and perceived burdensomeness, Latinx identity likely contributes to a unique division of weight relative to the general population [67]. It is theorized that the importance of family in Latinx culture is protective against the experience of thwarted belongingness, and thus suicidal behavior. It is known that measures of family connectedness, particularly the parent–child bond, are protective against

suicide risk in Latinx individuals, possibly through the manner in which this factor ameliorates thwarted belongingness. This is further compounded by research that shows that Latinx students who do endorse low belonging and commitment to ethnic identity scored very highly on hopelessness scales, a variable known to be associated with higher suicide risk [14].

Taken together, this data suggests that given the protective nature of preserved Latinx identity in ameliorating thwarted belongingness, perceived burdensomeness may be a more significant factor. In support of this theory, Hill and Pettit [32] demonstrated that perceived burdensomeness mediated the relationship between vulnerability factors and suicide, not thwarted belongingness. Of note, both micro-aggressions and racial rejection have been associated with perceived burdensomeness, offering further explanation for why perceived burdensomeness is more significant to the Latinx community relative to thwarted belonging. Generally speaking, discrimination faced by Latinx individuals is associated with an increased rate of suicidal ideation and attempts among all age groups, including a three times increase in the odds of suicide attempts in Latinx young adults [55].

Similar to the protective nature of Latinx identity, loss of this identity has been linked to increasing risk of suicidal behavior. Assimilation, acculturation, and the gradual diminishing of Latinx identity in favor of majority culture have all been linked to increasing risk of suicide. Factors such as foreign-born vs. US-born and age at migration, both of which are markers of time spent in the United States, represent significant factors in Latinx suicidality, although the exact effect of each is still being studied and is complicated by the heterogeneous nature of the Latinx community (such as varying nationalities and regional ethnic/cultural traditions). Foreign-born individuals, across various national cohorts, have lower rates of suicide than US-born Latinx individuals. Similarly, for foreign-born individuals, the younger the age of migration the more closely the rate of suicide resembles that of a US-born Latinx [7]. As an example, Mexican natives who have never migrated to the United States and do not have family members or close ties to the United States have considerably lower rates of suicidal behavior than their Mexican counterparts who have migrated to the United States or have family members in the United States [7].

Although some conflicting data exists demonstrating a higher rate of suicide in foreign-born individuals, Wadsworth and Kubrin [68] have suggested that a higher rate of suicide occurs in foreign-born individuals when the individual migrates to is small, low-density Latinx community, as opposed to those who migrate to the United States and reside in areas with high Latinx immigrant concentration [68]. This data not only underscores the significance of ecological context in estimating suicide risk, but further suggests an association between time spent in the United States, acculturation, and suicidality.

Other variables related to acculturation such as greater English-language proficiency and smaller Latinx community have also been associated with an increased lifetime risk of suicidal ideation and attempts [55]. Immigrant generation status serves as a useful marker related to acculturation, and significant research demonstrates that later generations are at increased risk for suicidal behavior relative to

their first-generation counterparts. Second-generation youth are almost three times more likely to attempt suicide than first-generation youth [54]. Overall, acculturation into mainstream culture is associated with the stress of decreased ethnic identity, greater family conflict, and a lower sense of belonging – all variables that have been associated with increased suicidal ideation among Latinxs [25]. Maintaining cultural identity, however, may ameliorate the perception of alienation, isolation, and community disorganization among Latinx individuals, thereby reducing suicidality [68].

In a rapidly growing minority population, suicidal behavior is steadily increasing and yet there is still limited culturally relevant suicide research for this population and a considerable gap in knowledge. Furthermore, the burgeoning numbers currently reported by young adults will contribute to a generation at an even higher risk of suicide in midlife, when suicide rates often spike again. To adequately reduce risk in this population, it is insufficient to assess monolithic suicide risk factors. Suicide risk assessments should include both traditional suicide risk factors and culturally relevant risk factors. Interventions must also consider the unique nature of the Latinx identity in delivering effective care. For example, family-based interventions would likely be helpful to Latinx individuals, as well as interventions promoting cultural engagement. Overall, more research is needed at each stage to ultimately provide a better understanding of the sociocultural risk and protective factors (with attention to the variability in nationalities and ethnic/cultural traditions), more tailored assessments, and interventions that are specific to the population.

Culturally Competent Suicide Assessment and Intervention

Many recognize that suicidality is a complex construct that should be approached from multiple perspectives, including but not limited to psychological, cognitive, theological, sociopolitical, and supernatural perspectives. All of these constructs exist under and are determined by culture. Culture, a set of norms, beliefs, and customs associated with a particular social group, provides a special kind of insight for clinicians who are conducting suicide risk assessments and interventions for culturally diverse clients; namely, due to the fact that suicidality (the meaning of suicide, frequency of suicide, age distribution of suicide, suicide ideation, suicide attempts, and the methods used to carry out suicide) vary cross-culturally. Kleinman [36] coined the term “category fallacy,” or the mistake of imposing Western categorization of behaviors on to other cultural groups. Committing the mistake of category fallacy, although easily made if one is not mindful, comes at a high price. Failure to consider cultural differences in suicidality may result in an improper evaluation of a culturally diverse client’s suicidal profile, which might ultimately interfere with alleviating symptoms or preventing a client’s untimely death. An increasing amount of mental health practitioners recognize the impact that culture has on the expression of suicidality, yet the gap between research and practice on this topic still remains. The aim of this chapter is to evaluate the importance of culturally

competent suicide risk assessments and prepare mental health practitioners to consider how culture influences the development and expression of suicidality in culturally diverse patients.

Cultural Meanings of Suicide

Cultural meanings of suicide – how a cultural group defines suicide and what they consider acceptable to motivate suicide – play a significant role in how individuals within a particular cultural group go on to consider suicidality. The cultural meaning of suicide, among other factors, may determine the extent to which suicide is or is not pathologized.

Addressing the cultural meaning of suicide helps with understanding the etiology of suicide cross-culturally and provides a deeper understanding of how culturally diverse individuals understand suicidality. Moreover, many researchers have noted a potential link between suicide risk profiles and cultural meanings of suicide (if suicide is deemed acceptable and/or accessible). Historically, research has focused on evaluating the link between risk factors and ethnically diverse groups, while ignoring cultural meanings of suicide. It is strongly recommended that clinicians consider an individual's cultural perception of suicidality so as to gain a holistic view of client's risk of engaging in suicidal behaviors.

Various scholars have examined a number of cultures that differ in how they conceptualize suicide compared to Western culture. Lester [42] notes that the Native American tribe, Mohave, believes that a fetus that is positioned transversely within its mother's womb (leading to the death of the fetus and the mother) has intended to die by suicide as well as murder its mother. Western medical practitioners would not view a stillbirth such as this as suicide. Moreover, in Papua New Guinea, women who died by suicide are recognized as having imposed social sanctions [43]. For example, a woman who died by suicide after being rejected by her fiancé would result in a social sanction on the family that rejected her and would have been regarded as a political statement by rejecting powerlessness and instead taking a stance of power.

Frequency of Suicidal Ideation across Cultural Groups

Historically, rates of suicidal behaviors vary widely across cultures. Scholars have reason to suggest that the relative frequency of an individual's motive to engage in suicidal behavior may depend on the individual's cultural identity [43]. In a recent study, Chu et al. [15] examined ethnic group difference in cultural meaning of suicide between Latinx participants, Asian American participants, and Caucasian participants and found that compared to the Latinx participants, the Caucasian, and Asian American participants endorsed a higher frequency of suicidal ideation and motive for suicide. More research needs to be conducted to

further understand the influence that culture has on the frequency of suicidality cross-culturally.

Method of Facilitating Suicide

According to Chu, suicide methods differ based on a specific cultural group's acceptance and accessibility to a certain method [15]. In the United States, firearms are among the most common means of suicide death for men and whites, whereas suicide by hanging is the most common in the Asian American culture [53]. Methods to attempt suicide are also shown to differ based on gender. Specifically, males are more likely to use firearms and women are more likely to overdose on substances [40]. Research is still needed to further understand the implications associated with the influence that culture has on suicidal methods.

Risk and Protective Factors

Cultural research suggests that suicidal risk factors are consistent with culturally driven beliefs and motives for suicidality [15]. For example, study results indicate that when assessing suicide risk factors with Caucasian and Asian American clients, clinicians should be mindful of factors related to self-perception, including hopelessness and helplessness. Lamis and Lester [39] also identified hopelessness as a prominent risk factor for suicidality in African American women and depression for European American women. Moreover, research indicates that Caucasian and Asian American groups are more likely to attribute suicidal ideation to maladaptive cognitions (i.e., hopelessness) compared to the Latinx group, who had a higher rate of attributing SI to distress associated with social status [15]. According to Humensky et al. [33], Latinas are disproportionately impacted by socioeconomic disenfranchisement that can result in chronic psychological distress and substance misuse, making Latinas especially vulnerable to suicidal behaviors.

Reporting of Suicide and Help-Seeking Behavior

Lower rates of suicide among some cultural groups may indicate misclassification of causes of death. Literature suggests that suicide deaths may be underreported among ethnic minorities as a result of shame and stigma, which are commonly associated with mental illness and suicidality. For instance, the ratio of “underdetermined intent” or “unintentional” poisonings and drownings is higher in African Americans compared to Caucasians – a cultural group that has a history of not utilizing mental health services due to distrust and medical trauma. Moreover, the stigma associated with mental illness might deter Asian American families from reporting suicide deaths in order to prevent familial shame [15]. More research is needed to understand

how stigma reduction efforts might impact the reporting of suicide in ethnically diverse groups.

Summary and Conclusions

Suicide is among the preventable leading causes of death among individuals across racial and ethnic groups. There may be differences in rates of suicidal ideation, attempts, and deaths based on various cultural factors, such as acculturation and religion, which need to be addressed using culturally informed and adapted interventions. Although individuals may realize the need to seek mental health services if they have suicidal thoughts or attempt suicide, over one third will not reach out for help. Moreover, individuals in racial and ethnic minorities are even less likely to seek professional help, which contributes to a heightened risk of suicide. Additionally, many current prevention and intervention approaches have been tested on and designed for predominantly Caucasian individuals, which limits their utility in terms of mitigating suicide risk across racial/ethnic groups. Given many underserved individuals are most in need of efficacious treatment, it bears importance to design targeted treatments that are culture-specific and flexible based on these individual differences. Finally, in order to improve suicide risk detection and decrease stigma, there is an imminent need to engage in comprehensive outreach and education effort informed by culture, improve the initial assessment of symptoms and suicide risk, and deliver culturally sensitive and culture-specific treatments among high-risk populations.

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Suicide Among Indigenous Populations Within the United States

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Abstract

The effects of suicide among the Indigenous population within the United States are particularly adverse, with significantly high rates of ideation, attempts, and completion. This chapter will discuss contributing factors for the increased risk, including community factors (e.g., lack of resources, stigma) and individual factors (e.g., identity, substance use, unemployment), as well as cultural protective factors such as collectivism, tradition, and resilience. Suicide prevention and treatment strategies targeted for this population will be outlined, including a best practice model for training and certification.

Keywords

Indigenous · Indian Country · Suicide · Suicide Prevention · Resilience

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Background

Indigenous communities maintain an enrichment of culture, tradition, and spiritual practice. The ancestral language of many communities continues to be conserved and taught among the many generations living on and off sacred lands. According to the National Congress of American Indians (NCAI) (2020), the *Indian Country* consists of 574 federally recognized tribes with 229 located within Alaska and others with locations across 35 states. There are also several Indigenous communities that are state recognized. Alternatively, tribes may be found on reservations, territories, villages, bands, nations, or pueblos. Expressions of tribal sovereignty and self-governance are unique to Indigenous populations in which tribal nations have the “inherent power to govern, protect and enhance the health, safety, and welfare” of their people and resources ([21], p. 23).

As sovereign entities of the United States, Indigenous governments have a linked relationship at the federal and state levels of government. Within the United States Constitution, the federal government has an obligation to protect tribal self-governance, lands, assets, resources, and treaty rights and adhere to federal law. Therefore, federal funding for indigenous communities is quite significant. Listed are the federal agencies that provide funding for Indian Country [22]:

- Department of the Interior: Bureau of Indian Affairs, Bureau of Education, Indian Health Services
- Department of Health and Human Services, Administration of Children and Families, Department of Education
- Department of Justice: Office of Justice Programs, State and Local Law Enforcement, Office of Violence Against Women, Community Oriented Policing Services
- Housing and Urban Development: Indian Housing Block Grant, Indian Community Development Block Grant

Overall, budget appropriations for the fiscal year 2021 project the majority of funding for Indian Country will represent at least 0.19% of the total federal budget. In 2003, the United States Commission on Civil Rights (US Commission on Civil Rights) evaluated the budgets of major federal agencies funding Indian Country and indicated that funding for services was “disproportionately lower than funding for services to other populations ([27], p. 5).” In 2018, the US Commission on Civil Rights suggested that federal funding remains low and the federal government continues to fail in its obligation to support the Indigenous population. The lack thereof of funding creates a service gap and may have detrimental effects on individuals and communities.

Indigenous governments can directly manage appropriated behavioral health funds for their prospective tribes. However, the Indian Health Service is responsible for providing comprehensive health care to all Indigenous individuals who belong to a federally recognized tribe, including mental and behavioral health services [17]. Research on behavioral health services and outcomes has been widely present

within Indigenous communities, and consensus of the literature suggests that improvement to the spectrum of needs is critical, for instance, the integration and navigation of behavioral services with primary care, culturally competent workforce, culturally adaptive programs, and securing of necessary reimbursement for services [28, 32].

Current Issues

As many marginalized populations encounter social, economic, and racial inequalities and injustices, it is pertinent to acknowledge the issues and suffering that impact Indian Country. Listed below are a few significant issues [18, 21]:

- Renaming of mascots that appropriate Indigenous peoples and culture
- Protection of the Mashpee Wampanoag Tribe's reservation land
- Protests and construction of the Dakota Access Pipeline
- Missing and murdered Indigenous women and children
- Exploitation of natural resources
- Preservation of language and culture
- Impoverishment and unemployment
- Poor health care

In many Indigenous peoples' perspectives, current events may have a way of reinforcing past experiences, such as resiliency and trauma (e.g., intergenerational trauma, complex trauma, or historical trauma). Resiliency is defined as flexibly adapting from negative emotional and physiological experiences and mostly having the ability to recover from the outcomes [31]. Resiliency as a construct is believed to be multifaceted, as studies have found that individuals and groups persevere from negative experiences [11, 31]. In parallel, trauma may create emotional and psychological injury from a history of individual and group trauma and may contribute to psychological distress, unresolved grief, and traumatic responses [3, 4]. The effects of trauma among Indigenous communities may include changes in traditional ways of parenting, family structure, and interpersonal dynamics. According to the American Psychiatric Association (2017), trauma among the Indigenous population has been linked to higher rates of mental health issues, for instance, substance use, posttraumatic stress disorder, attachment disorder, and suicide. Though correlation does not equal causation, continued acts of dehumanization to the Indigenous population may impact the rates of mental health.

Suicide Within Indian Country

Mental health disparities within tribal communities include generational trauma, cultural distress, access to care, poverty, substance use, impulsivity, domestic violence, mental health stigma, and suicide (US Department of Health and

Human Services [USDHHS] [32]). Suicide may often be the result of psychological distress, a trend that is high within Indian Country [9]. Suicide among the Indigenous population has been significantly higher when compared to any other race and ethnic group in the United States [20]. In 2016, Indigenous suicide rates were 21 per 100,000 indigenous individuals, compared to white individuals with a rate of 18 (Suicide Prevention Resource Center [SPRC] [26]). Significantly, the risk of suicide was highest among Indigenous individuals, both women and men, 15–44 years of age with a peak age range of 20–24 years of age [9, 26]. Suicide was the second leading cause of death for those 15–34 years old and the eighth cause of death for the population (Center for Disease Control [CDC] [6]).

Risk Factors

Individual and community factors play into why this population is uniquely vulnerable to suicidal thoughts and behaviors. This includes such factors as substance use, intergenerational trauma, and socioeconomic conditions, among others.

When looking at individual risk factors for suicide, the previous history of suicide attempts is considerable in influence. Individuals in this population who had attempted suicide in the past are 20–50 times more likely to attempt suicide again compared to peers who have never attempted suicide [24]. Having a mental health disorder also increases the risk of suicide. Specifically, depressive and PTSD symptomology were found to have the strongest relationship with suicide [1]. Past physical or sexual abuse and feelings of alienation from one's community were also strongly related to suicidal thoughts and behavior [16]. Age trends in this population show that the highest risk time is in youth and decreases with age past this developmental period [1]. Indigenous youth are at an extremely high-risk of suicide as well as other dangerous behaviors, such as substance use.

Substance use, cigarette smoking, and family histories of substance use have a strong relationship with suicidal ideation, attempts, and death by suicide in indigenous populations living on reservations [1]. Alcohol use is a predictor of risky behavior, including suicide attempts [30]. Grossman et al. [16] stated that intoxication plays an important role during a suicide attempt. They found that the use of hard liquor, chronic, and acute ethanol intoxication was found to be a high-risk factor of a suicide attempt. Subica and Wu [25] found that indigenous adolescents who had recently used alcohol were twice as likely to have a suicide plan compared to those who had not used alcohol. They also found that cigarette use had similar results in this population.

Risk factors that pertain to the community as a whole should also be considered in this population. The cluster effect is a particularly salient factor in indigenous communities. The grief burden of peer and family deaths, along with mimicking the effects of another person's suicide, can create a devastating cycle [29]. A friend or family member attempting suicide or dying by suicide has been shown to increase suicidal ideation, attempts, and death by suicide among their loved ones [1, 16]. The lack of physical and mental health resources can take

its toll on both urban and rural Indigenous people. Despite 60% of American Indians living in urban settings, the Indian Health Service directs only 2% of its funds to cities [33].

Individuals have reported experiencing stigma within their community following a suicide attempt and seeking treatment [29]. They have also described experiencing others minimize the significance of their suicidal ideation or attempt. Intergenerational trauma and the legacy of colonization in this population have been hypothesized to influence the level of psychological disorders and lack of reaching out for professional help [1]. These influences have affected community and personal identity, tribal structures, religious practices, and communication styles. When resources are available, indigenous community members may not access mental health services due to stigma. Grossman et al. [16] found that some indigenous individuals did not use these services because they viewed mental health treatment as an instigator of white cultural values and norms.

The nature of Indigenous communities may also maintain the stigma towards mental health. It may be more difficult to reach out for mental health help in small close-knit communities due to concerns about confidentiality [16]. Differences have been found between tribes and geographic settings. Indigenous people who have spent the majority of their lives in urban settings were found to have decreased rates of suicidal ideation compared to those who spent the majority of their lives in a reservation setting. Yet, no difference in rates of suicide attempts was found [1]. A study that examined the Southwest, Northern Plains, and Pueblo Tribes found differences in risk factors of suicidality [23]. Being a part of a single-parent household was the most salient risk factor in the Southwest Tribe. For the North Plains Tribe, having low self-esteem and depressive symptoms was most associated with suicidal ideation. Lastly, a friend attempting suicide, depressive symptoms, and low perceived social support had the strongest relationship for suicidal ideation in the Pueblo tribe.

Decreased socioeconomic conditions in one's community have been shown to lead to adverse physical and mental health outcomes, including suicidality [1]. Studies have shown that poverty increases the likelihood of both suicide and homicide in the indigenous population [15]. Poverty, with a lack of employment or educational opportunities within Indigenous communities, may create feelings of disenfranchisement and hopelessness.

Protective Factors

The protective effects of Indigenous cultures are unique. Many communities emphasize that culture and healing reflect one's connectedness to tradition, values, beliefs, community, and the balance of physical, mental, emotional, and spiritual elements [19, 34]. Research on cultural identity has shown significant impacts within indigenous populations in relation to self-worth, continuity, and purpose [34]. There is also literature suggesting low suicide rates and cultural

well-being associate well with community empowerment, family togetherness, and embracement of culture [35]. Wexler [34] also describes culture as an “important variable that influences how people approach, interpret, and respond to difficulty” (p. 75).

From the existing literature, many authors reflect on the tragedy of youth suicides in Indian Country. Many cite issues such as historical trauma, mental health stigma, limited resources, and cultural expectations. However, there is a lack of perception and culture in the narrative within the literature. Wexler [34] asked, “how does one’s understanding of culture mediate their response to hardship?” (p. 75). In Wexler’s [34] article, he analyzes narratives from three generations of Inupiaq (Alaskan Native). In a collection of narratives, elders shared cultural grounding as a way of managing and overcoming hardship. For instance, elders spoke of culture as their linkage to family, tradition, community, and purpose following a traumatic past of acculturation and Western assimilation. Wexler [34] reported that adults spoke of cultural oppression as a vital issue and speaking up for their rights to regain what their culture and tribe have lost. Interestingly, youth issues were not centered on historical trauma or racism but focused on issues of suicidality, interpersonal relations (e.g., family, friends), substance use, physical altercations, and the possibility of being removed from the home. Furthermore, youth reported a struggle with engaging in cultural activities and education, mostly due to the prioritization of western culture rather than their own [34].

As suicide rates become a growing concern, specifically among Indigenous youth, communities continue to address risk factors associated with suicidality. For instance, Wexler et al. [35] discuss how many Indigenous communities experience cultural and community misalignment (e.g., social discord, culture loss, and collective suffering). This literature is congruent with Chu et al.’s [8] cultural model of suicide theoretical principles of how “culture affects the types of stressors that lead to suicide,” how “cultural meanings associated with stressors and suicide affect the development of suicidal tendencies,” and how culture influences suicidality expressions (p. 25). For instance, several tribal communities report stressors related to historical trauma, cultural loss, family, and community system disruptions [35]. Additionally, the discussion of youth issues stated in the Inupiaq narratives has affected the development of suicidal tendencies as suicide may be an “enacted consequence or social obligation” (p. 800). Respectively, it is pertinent that culture is seen as a significant factor in understanding how Indigenous tribes respond to distress and suicidality.

Clinical Implications

This section highlights the essential knowledge and skills that clinicians may find helpful when providing Indigenous peoples’ services.

Cultural-Driven Initiatives

Research and implementation of suicide prevention, intervention, and postvention services have been widely present in Indian Country. Indigenous communities have culturally driven many of those interventions. Though funding is limited, Indigenous communities have taken active roles in voicing ways to utilize funding opportunities from agencies such as the Indian Health Service, Center for Disease Control and Prevention, National Institute of Health, and the Substance Abuse and Mental Health Services Administration [13, 28]. Researchers and clinicians can support and advocate, alongside Indigenous peoples, to develop programs that meet the communities cultural needs.

Cultural Competency and Cultural Humility

Recruitment and retainment of behavioral health providers have been a historical challenge for many health facilities within Indian Country. When providers were available, there was a concern about access to culturally competent services [2]. The lack of culturally competent or appropriate interventions may create adverse psychological outcomes and reinforce the stigma about mental health and decrease help-seeking behaviors. Therefore, it is encouraged that clinicians strive to understand, appreciate, and interact with people from cultures or belief systems different from one's own [10]. Clinicians entering Indigenous communities already have the privilege of having been educated in a specialty field. There are several narratives of Indigenous people indicating they, the patient, will listen to providers because of their level of education and expertise. Thus, ethically it is crucial that clinicians stay informed of how the components of culture may impact patient care.

Similarly, cultural humility offers clinicians the opportunity to self-reflect and build awareness of another's culture, while also self-examining their beliefs and cultural identities [37]. What this may look like within Indigenous communities is the clinician's incorporation of an individual's cultural practice into treatment planning. For example, clinicians may consult with traditional/spiritual healers to ensure that a patient receives services that meet their needs.

Youth

Indigenous youth is a subpopulation that has been hit particularly hard in terms of suicide rates and cluster effects [14]. The unique cultural and developmental factors in this population should be considered when developing a plan in order to prevent suicide. A commonly used prevention strategy is training community members that interact with youth, such as teachers, family members, and spiritual healers. They are trained with the knowledge of how to identify risk factors in youth, the skills of

preventative interventions, and attitude of decreased stigma. Capp, Deane, and Lambert [5] found that increased knowledge about the available resources within the community was a key factor that increased confidence in being able to use the skills.

Postvention is a clinical intervention used to prevent the cluster effects of suicide and is particularly critical for this population. A psychological autopsy, combined with appropriate grief practices, gives the community further information on possible prevention methods with space to properly cope with the recent loss [12]. A psychological autopsy consists of interviews with the deceased's friends and family and a review of their clinical records. The information gathered typically includes demographics, details surrounding the death, history of suicide and asks of aggression, their usual reactions to distress, interpersonal relationships, substance use history, level of cultural and community integration, as well as other details. It is recommended that a psychological autopsy is done by both mental health providers and community leaders. Effective postvention responses for Indigenous youth from the school and community have been shown to prevent cluster effects, but the research in this area is still limited [14].

Ethics

When reflecting on the ethics of suicide prevention in the Indigenous population, the framework of knowledge, skills, and attitudes can be useful. Knowledge of evidence-based practices and cultural competency as a clinician is the foundation. Research on evidence-based practices for suicide prevention in this population is limited; therefore, further studies should be done so that clinicians can use best practices. Regarding skills, clinicians should reflect on if they are working within their expertise and when to ask for support. Lastly, clinicians should reflect on their attitudes for both suicide and the indigenous population they are working with. How one speaks about suicide may increase stigma and reduce the likelihood of seeking help [7]. Reflexivity, defined as taking apart the normalized professional routines and attitudes, has been shown to be helpful for clinicians [36]. This includes being conscious of how one's history, background, and biases may impact clinical work.

Discussion

Indigenous communities maintain a robust history and culture. While they preserve the right to self-govern and uphold the power to protect and care for their community, Indigenous governments are continuously linked to the US state and federal government. This relationship was originally established to uphold the federal government's obligation to protect tribal lands, rights, and funding. However, the majority of funding allocated for Indian Country represents approximately 0.19% of the total federal budget (US Commission on Civil Rights). This extreme lack of

funding creates and maintains a large gap in the services needed to support individuals and communities of the Indigenous population, such as mental health care.

Researchers and clinicians have continuously called for the need to improve the integration of mental health care within the Indian Health Service. Yet, it is pertinent that the integration of behavioral health services is culturally competent and informed in order to meet the unique needs and backgrounds of Indigenous populations. For instance, this approach must be rooted in the resiliency of this population throughout intergenerational and historical trauma. The effects of these traumas have led to pervasive psychological distress and devastating outcomes, such as alarmingly high rates of suicidality among Indigenous peoples.

Both individual and community risk factors influence the vulnerability of suicidality within Indigenous communities. Individual risk factors may include the previous history of suicidality, presence of a mental health disorder, experiences of abuse, isolation, substance abuse, and age cohort differences. Yet, community risk factors include elements such as contagion effect, grief burden, lack of resources, socioeconomic conditions, intergenerational trauma, and stigma. All of these factors contribute to psychological distress and high rates of suicidality, while perpetuating a resistance to seeking help from mental healthcare professionals. This creates and maintains a harmful cycle and pattern, which is damaging to the community as a whole.

As previously highlighted, Indigenous culture is exceptionally unique. While Indigenous communities have faced generations of trauma and currently face the tragedy of high suicide rates, facets of their culture serve as remarkable protective factors against psychological distress and suicide. These factors are rooted in connectedness with one's community and values, as well as the balance of physical, psychological, and spiritual dynamics. Cultural well-being, empowerment, togetherness, self-worth, and purpose also serve as protective factors against suicidality among Indigenous populations. These unique, culturally informed protective factors should be applied in future clinical work and research aimed at reducing suicidality in Indigenous communities.

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Abstract

Crisis counseling and intervention approaches aimed to address suicide risk in specific cultural populations are varied. As Western psychology and methods have long dominated both practice and academic literature, less research interest was focused on indigenous approaches to suicide prevention. But preventing suicide is not a one size fits all, as the crisis precipitating a suicidal event occurs within a context. Crisis counseling techniques based on Western theories and the associated suicide prevention practices according to the Western psychiatric model may not be the best fit for the crisis of suicide in all parts of the world. It is unrealistic and ineffective to use just one approach when attempting to prevent suicide among differing populations. Indigenous prevention methods rooted in the cultural context are gaining attention and provide a different lens to expand the understanding of suicidal crises. This chapter will discuss crisis counseling and suicide prevention efforts across the globe with emphasis on indigenous approaches and cultural adaptations to the standard Western model of suicide prevention.

Keywords

Suicide prevention · Indigenous approaches · Cultural adaptation

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Cultural Adaptation for Suicide Prevention

“Do you think I shouldn’t be a counselor anymore? Should I choose a new profession?” The questions came after a workshop on counseling skills and suicide prevention on college campuses. The young woman was a counselor tasked with helping distressed students and had just told the story of student who committed suicide after only two counseling sessions. The counselor felt the shame of the student’s death and her inability to save him. She had never told anyone about her feelings of failure and self-doubt. The death had occurred 4 years prior to the workshop, and the counselor had been holding the secret shame that it was her fault the student had died. She had come to the workshop hoping to get more tools, hoping for the right tools to use in a suicidal crisis. Although the workshop was in China and attended entirely by Chinese counselors, the material presented was centered on Western psychology.

Much has been written about counselor confidence and the link between feelings of self-efficacy in counseling and greater competence in the provision of therapy [8, 35]. Counselor self-efficacy is the strong belief that one can effectively counsel a client [4]. Counseling a distressed person through a suicidal crisis requires not only strong therapeutic skills but the hope and belief in a positive outcome. In addition, a client in active crisis leans more heavily on a counselor and the counselor’s confidence in the resolution of the crisis. Crisis counseling techniques based on Western theories and the associated suicide prevention practices according to the psychiatric model may not be the best fit for the crisis of suicide in all parts of the world. This chapter will discuss crisis counseling and suicide prevention efforts across the globe with emphasis on indigenous approaches and cultural adaptations to the standard Western model of suicide prevention.

Crisis counseling differs from general counseling practice in that it is focused on the immediate care of the recipient during a time of extreme stress or trauma. While other forms of counseling may extend over a period of time and have a variety of foci, crisis counseling has the singular aim of supporting a person through a critical event. Much of the research regarding crisis counseling is centralized in Western psychology with fewer studies including a cultural perspective. However, crises occur within a cultural context, and the counseling praxis to aid a distressed person should be mindful of the cultural implications. Crisis counseling research that has noted culture had been primarily cross-cultural in nature [15, 45].

Dykeman [15] explains how the symptoms of crisis may differ across cultures, but the goal of the intervention is ultimately to reduce the level of stress of the person in crisis. Due to the critical time element of crisis intervention, too often cultural factors may be ignored, and this can be problematic if the intervener and person in distress come from different cultures. Dykeman warns of the importance of interveners knowing their own cultural bias and assumptions plus working to demonstrate acceptance and appreciation of cultural differences. Cautions from Dykeman [15] can also be applied to the use of Western approaches to counseling in a foreign environment, even if the counselor and distressed person are both natives. If the sociocultural context is ignored in the application of crisis counseling or in the

choice of suicide prevention techniques, even by someone familiar with the culture, the outcome may not be effective.

Hofstede's [20] influential research on cultural dimensions sparked an industry of exploring how one's culture impacts all of life ([7]; Kirkman, Lowe, & [27, 50]). It stands to reason these same cultural values which influence family life, education, business, etc. might also impact the significance of death and the decision to end one's life. Rudmin, Ferrada-Noli, and Skolbekken [46] reported that 25% of the variance in suicide rates across 33 countries could be explained by cultural values. If cultural values may be intertwined with a person's suicidal risk, shouldn't they also be included in an approach to prevent suicide?

Crisis counseling and intervention approaches aimed to address suicide risk in specific cultural populations are varied. Much of the extant literature regarding various approaches is descriptive in nature with far fewer evidence-based studies. As Western psychology and methods have long dominated both practice and academic literature, less research interest has focused on indigenous approaches to suicide prevention. The crisis counseling and suicide prevention practices aimed to serve the indigenous groups in Australia, Canada, and New Zealand have received the most attention [6, 24, 30].

Lopes, Lindeman, Taylor, and Grant [34] evaluated the effectiveness of a training workshop created to educate participants regarding suicide in Central Australian indigenous communities. The workshop included indigenous beliefs about suicide and warning signs, plus indigenous art and music. The workshop content was specifically created to be culturally appropriate and focus on the relevant societal pressures of the indigenous community. Results indicated the program was helpful in increasing the participants' knowledge and understanding of suicide. In addition, their findings showed an increased level of confidence in discussing suicide.

Tighe and McKay [51] also investigated a suicide prevention program for an indigenous population in Australia using the platform of sport. The program included training members of a football club in suicide prevention to become peer educators. The football club members were respected sportsmen in the community and served as role models. The peer educators led 41 sports-related activities to increase awareness of suicide during a 1-year period. The aim of the activities was to prevent suicide by focusing on education and positive change. By utilizing sports figures that were also a part of the indigenous community, the program targeted a population who would traditionally not reach out for help.

Another indigenous Australian approach presented by Shand et al. [47] describes a self-help phone and tablet application (app) called iBobbly, codesigned by Aboriginal and Torres Strait Islander people for the reduction of suicide ideation. While the approach has elements rooted in Western methods, cultural adaptations were made to contextualize its use with local populations. The app uses cognitive behavioral therapy, acceptance and commitment therapy, and dialectical behavioral therapy to aid the user in addressing difficult emotions and includes values embedded within indigenous culture. The app was designed to be a low-cost intervention made accessible to those of lower literacy using animations, graphics, images, and minimal text. In addition, once downloaded the app does not require the use of the Internet.

Isaacs and Sutton [23] describe an Aboriginal youth suicide prevention program in rural Victoria. The program's aim is to increase self-esteem, build resilience, and focus on strengths while helping participants to explore their past and present in hopes of shaping a brighter future. In addition, the program was developed with embedded cultural values and includes an early intervention response to help community members who are identified as being in distress and a postvention support plan to care for those who have attempted suicide as well as supporting family survivors of suicide.

In common among numerous indigenous approaches is an emphasis on the sociological factors that may drive suicide. While suicide among Western populations is likely to be associated with mental illness [54], in non-Western populations, societal stressors may be a larger contributor. Therefore, indigenous approaches which incorporate sociological and psychological factors are likely to be most effective.

Morris and Crooks [36] focused on the structural and cultural factors needed to understand and prevent suicide with the Inuit populations in Canada. They give an overview of Inuit-specific approaches, developed for and by Inuit communities, and attribute the rise in Inuit suicide to colonialization and its aftereffects. The programs take a strengths-based approach to suicide prevention focusing on building resilience, teaching traditional skills to Inuit youth, and working to develop a positive cultural identity. They describe the benefits of elder involvement with youth and the community to increase pride in being Inuit as key to suicide prevention efforts.

Morris and Crooks [36] described some of the creative approaches to suicide prevention that have been developed or adapted to fit Inuit priorities. Land-based programs were described that involve Inuit youth being brought out onto the tundra to learn traditional skills. They also described circus projects, video projects, and hip hop that was incorporated into traditional drumming and dancing. The programs were designed to not only prevent suicide but to engage the community in building cultural and mental wellness as a whole.

Pollock, Healey, Jong, Valcour, and Mulay [40] note the challenges of evaluating and tracking suicide prevention efforts among indigenous populations in Canada. While consistent with Morris and Crooks [36] in acknowledging multiple indigenous-focused programs to reduce and prevent suicide, Pollock et al. [40] warn of a lack of coordination between these programs and a deficiency of monitoring outcomes. They highlight a need for more comprehensive suicide surveillance data which would include indigenous identifiers. By not including ethnic origin within the national suicide database, the Canadian government does not accurately know how many indigenous people die by suicide each year or if efforts to prevent suicide among First Nations, Inuit, and Métis populations are working.

A lack of coordination in suicide prevention efforts and absence of national surveillance are also common among many developing countries. In the African region, Osafo, Asante, and Akotia [38] give an excellent overview of suicide prevention efforts, but note most of the countries in the region have no national strategy. They underscore the lack of training for suicide assessment and intervention for general health practitioners, and note that in over half of the countries within the

region, suicide is not an option to certify cause of death. The authors suggest intergovernmental-led top-down strategies need to be partnered with bottom-up approaches led by suicide workers and researchers to build a wraparound network of support targeting at-risk individuals and groups [38].

Osafo, Akotia, Hjelmeland, and Knizek [37] investigated the cultural meaning of suicide in Ghana. They found evidence for a “life crisis perspective” of suicide more fitting than the biomedical perspective common in Western suicidology. From their research, suicide is an act of despair and a reaction to stressful life circumstances. Osafo et al. [37] also noted that when suicide was viewed in this contextualized manner, empathy and understanding increased among community leaders and health professionals. While attempted suicide is criminalized in Ghana and much of the African region, humanizing the sufferer and viewing the context of the crisis may lead to more effective prevention efforts.

Research by Bantjes, Swartz, and Cembali [3] involved interviewing practitioners of traditional African medicine in South Africa to better understand suicide in the region and investigate prevention efforts. These traditional healers reported encountering suicidal individuals frequently and felt confident in their ability to help people in crisis. However, they believed Western medicine and prevention efforts were not fully adequate to alleviate suffering. Factors contributing to suicide according to the traditional healers in this study were cultural discontinuity, ancestral disconnect, emotional trauma, witchcraft, bad genes, and emotional sickness.

Bantjes et al. [3] described multiple intervention practices used by traditional healers in South Africa. Instead of a standardized treatment for use in crisis, they chose interventions individually suited to each person. However typical interventions involved sitting and listening, giving spiritual advice, traditional rituals to connect with ancestors, and prescribing traditional herbal medicines. According to Bantjes et al., traditional healers are guided by spirits and ancestors; however, the authors noted the understanding of suicide and methods used to prevent it were not entirely incongruent with biomedical approaches of Western scientific literature. The importance of prevention efforts was acknowledged by traditional healers because according to indigenous belief, ancestors would reject the spirit of person who dies by suicide [3].

Beliefs surrounding the acceptability of suicide differ among cultural groups, and prevention efforts adapted to work within those beliefs are likely to be the most successful. In Japan, suicide is more acceptable and may be seen as justifiable or honorable [25], while in Pakistan, suicide and self-harm are illegal [22]. Both the Japanese sufferer and Pakistani sufferer may not seek help, but for very different reasons. A study conducted in Japan found prevention strategies were more acceptable if they did not intervene in a person’s free will to die by suicide [49]. A study conducted in Pakistan found using a culturally adapted form of cognitive behavioral therapy (CBT) was more effective in reducing suicide ideation than standard psychiatric care among a group of post-suicide attempters [22]. Adaptations to CBT included using examples from Islamic teachings, local stories and images, culturally acceptable idioms, and increased family involvement. By incorporating both cultural adaptations and evidence-based CBT, Husain et al. [22] describe a cohesive approach to suicide prevention.

In India where suicide *was* considered illegal, prevention efforts were hampered by stigma of help seeking [41]. Since the decriminalization of suicide, efforts are now underway to provide culturally adapted prevention strategies to at-risk groups in India. Pathare et al. [39] investigated the implementation and effectiveness of a three-pronged approach to suicide prevention in a rural Western India. The SPIRIT Integrated Suicide Prevention Programme involves a school-based component for adolescents that was adapted to the Indian context and local language. The second component of the SPIRIT Programme is the safe storage of pesticides within the community, as suicide by ingestion of pesticides accounts for a large percentage of self-inflicted death in India. SPIRIT's third component is community health worker training. While the suicide prevention training was originally developed for medical personnel, adaptations were made to fit non-specialized health workers in the rural setting to train them in identifying, supporting, and/or referring people at risk for suicide. The three integrated interventions described by Pathare et al. [39] were culturally adapted to the target population and potentially could serve as a model for other communities.

Restriction of means and safe storage of pesticides are also a method used to reduce suicide in Hong Kong, Mainland China, and Taiwan and throughout South-east Asia [9, 53]. Following a 3-year phased ban of pesticides in Sri Lanka, Knipe et al. [28] found pesticide suicide mortality was reduced by 50%. A review by Reifels et al. [43] indicated a reduction of suicide by ingestion of poison in some areas, but they highlighted the need for larger-scale studies to truly understand the efficacy of means restriction.

Attempted suicide remains a criminal offense in some areas within the Asian region, and the stigma of emotional suffering and help seeking may impact prevention efforts. After a review of the prevention efforts in the Southeast Asian region, Vijayakumar et al. [53] suggest a need for more research directed toward understanding and quantifying suicidal behaviors in this area. The authors note the high rates of suicide in the region, yet the prevalence of depression is lower compared with Western countries. Also unclear from the recent Vijayakumar et al. review is if the prevention efforts in the region reflect cultural adaptation or follow a Western methodology; however, the authors note the need for increased culturally specific interventions.

Ambrose [1] noted counselors in Beijing had received education in the Western biomedical perspective exclusively and stated the counselors acknowledged a need for therapeutic methods in suicide prevention that were contextualized for the Chinese culture. In discussing how they intervened with suicidal individuals, the counselors indicated they made little to no cultural adaptations from the Western methods they had been taught. While hospitalization and/or medication is ultimately what they had been trained to facilitate, the counselors believed many suicidal individuals in China are not depressed and instead are reacting to negative life events. The counselors listed several psychological stressors they believed were contributing to the individual's crisis: academic pressure, romantic problems, and difficulty with family. Although the counselors came from 18 different institutions across Northern China, their procedures for counseling people at risk for suicide

were virtually identical [1]. Results of the study indicate the Western methods currently being used for crisis counseling in China may be insufficient for meeting the needs of suicidal individuals. Ambrose suggests researchers and counselors continue working toward the development of contextualized methods of suicide prevention for the Chinese population.

Kuo, Hsu, and Lai [32] describe an indigenous approach to crisis counseling in Taiwan, where counseling is rare and there is heavy stigma surrounding suicide. Included in the approach are five cultural themes: acknowledgement of the hierarchy in Taiwanese/Chinese culture, importance of relationship, centrality of collective familism, indigenous grief response, and face-saving communication. The qualitative project described working in the aftermath of suicide and highlighted the necessity of cultural sensitivity to be most effective.

Lai, Law, Shum, Ip, and Yip [32] also conducted research in the aftermath of suicide and found a reduction in suicide rate following the use of a community-based approach in Hong Kong. While they also noted the stigma of suicide remains high in the Chinese culture, they made strides to increase public awareness and sensitivity about self-injury issues in a culturally informed manner. In a creative approach to sidestep resistance to talking about suicide, they incorporated public talks at a seasonal botanical event and merged them with a botanical theme. Cultural adaptations included framing the messages to the community on “improving body and mind wellness” instead of “suicide prevention” (pg.168).

It is important to note that culturally informed suicide prevention techniques are necessary not only when adapting Western methods in a non-Western region but within the Western world if interacting with suicidal individuals from diverse cultures. In the United States, there are numerous initiatives for suicide prevention: a national suicide prevention strategy, multiple nongovernmental organizations (NGOs) focused on suicide prevention, and state and federal programs, along with a National Registry of Evidence-Based Programs and Practices (NREPP) to centralize effective research efforts [48]. However, cultural adaptation to suicide prevention strategies targeting specific ethnocultural populations in the United States remains scarce.

Within the United States, research targeting Native Alaskan and Native Hawaiian cultures have gained momentum [5, 13, 17, 42]. Rasmus et al. [42] describe the focus change that occurred when they were researching suicide prevention in Alaska, from one of developing a prevention program *for* the community to researching, supporting, and enhancing the existing healing resources *of* the community. Their “toolbox” of intervention consists of 36 culturally grounded modules developed by and with the Yup’ik people which promote reasons for life. Consistent with a Yup’ik worldview, the modules which are intended for use with at-risk youth focus more on environmental stressors than internal dispositions. The overarching goal of the modules is to give youth a toolbox of protective factors by increasing connection to their community [42].

Another approach to prevent suicide among Alaska Native youth is described in Barnett et al. [5]. Youth “culture camps” provide elders an opportunity to share cultural knowledge and stories and teach traditional skills while giving wellness

practitioners a platform to teach about suicide prevention, alcohol abuse, and other common factors associated with suicide in indigenous communities. Their results show positive outcomes related to wellness and reduced suicide risk. They suggest culture camps are a way to increase connections with peers and elders and an important part of revitalizing tribal populations.

Trout, McEachern, Mullany, White, and Wexler [52] also focused their research on indigenous youth in rural Alaska and describe nine “learning circles” aimed to promote conversations among community members in an effort to reduce suicide. Each learning circle includes prayer, a speech from community elders, a review of the participant-developed agreements for group interactions, a presentation of research regarding suicide, a small group discussion, and storytelling. The circle time is closed in prayer and frequently a shared meal. Trout et al. describe the program as one that addresses the complex history of colonization in Alaska and the need to empower traditional communities, which common Western approaches to suicide prevention do not include.

The history of colonization also is a factor in the research by Chung-Do et al. [13] who sought to uncover the cultural needs of Hawai’i’s rural communities to improve ongoing suicide prevention efforts. They note the warning signs of suicide may differ in Hawai’i, and the continued distrust of outsiders is likely to hinder prevention, especially prevention using traditional Western methods. Their work detailed four themes which emerged from focus groups conducted with community leaders and community trainers: Need for relationship building before suicide prevention training, trainers from outside the community must first learn cultural protocols and get to know the community, prevention programs should incorporate local examples, and training programs should include hands-on experiential activities [13].

Goebert et al. [17] give a review of other culturally informed approaches to suicide prevention, intervention, and postvention for Native Hawaiian youth. They cite the important cultural values which guide the indigenous approaches: *aloha*, *ola*, *mālama*, and *pilina*. The first value, *aloha*, refers to unconditional love and giving without expectation with compassion and empathy. The second value, *ola*, translates to “life” and refers to a spiritual connection between others and the life force (*mana*) which connects all animate and inanimate things. The third value, *mālama*, can be translated to mean tend, attend, care for, and show reverence. The fourth value, *pilina*, refers to relationships and connectivity (pg. 334). According to the authors, these four values are embedded in the efforts to promote hope, help, and healing for youth suicide prevention and require community-based commitment. They stress the importance of indigenization to suicide prevention efforts that also integrate scientific principles for maximum effectiveness [17].

The high rate of suicide among American Indian youth has prompted research to develop programs specific for these populations [14, 18, 33]. Cwik et al. [14] describes a culturally based intervention developed in partnership with the elders of the White Mountain Apache Tribe. Noting the importance of preserving culture and bestowing the traditions to the youth, an intervention curriculum was created using a ground-up approach relying heavily on input from the elder community. In this intergenerational approach to suicide prevention, Tribal Elders teach

school-aged youth via the monthly curriculum in which respect, identity, spirituality, self-esteem/self-worth, endurance, gender roles, Apache history, importance of education, health and fitness, relationships and the clan system, discipline, communication, and Native language are taught throughout the year-long program [14].

While the prior mentioned participatory action research by Cwik et al. [14] created a unique approach to suicide prevention, Le and Gobert [33] modified an existing mindfulness-based approach by translating and adapting it to provide a better cultural fit for the American Indian population in the United States. They note that the skills gained from developing mindfulness are cohesive with the spiritual practices of American Indians and therefore might be more effective than the Western psychiatric model. In addition, they suggest that a mindfulness-based approach may bring less stigma than other suicide prevention strategies that focus on mental illness. Although Le and Gobert's was a small pilot study, their results indicate it is an acceptable and translatable intervention for American Indian youth.

Mindfulness was also a component of Kohrt, Lincoln, and Brambila's [29] case study in which dialectical behavior therapy (DBT) was modified and culturally adapted to align with the Navajo beliefs of an adolescent female. While the treatment took place inside a psychiatric facility and followed some Western suicide prevention procedures, the authors note DBT was chosen because of the ease of adapting it to Navajo worldviews and healing practices. Kohrt et al. describe a Navajo healing tradition that includes self-awareness and self-discipline, which they suggest is similar to DBT's focus on mindfulness. Adaptions included doing treatment outside to incorporate nature, holding crystals while meditating, and drinking a familiar tea made from bitters. The authors note that culturally adapted DBT is a good fit for Navajo populations, but this may not be the case with all tribal groups.

In addition to Native and indigenous groups, other ethnocultural populations in the United States may benefit from cultural adaptations to suicide prevention strategies. Zhang et al. [57] investigated a culturally informed intervention, the Grady Nia Project (Nia), intended for African American women with a history of intimate partner violence and suicide attempt. The authors discuss the difficulty for African Americans in seeking help when distressed as this violates a cultural norm. The empowerment-based program, which uses psychoeducation in a group format, was developed to fit more cohesively with the intrapersonal, social-situational, and environmental-contextual needs of African American women. Nia is a Kwanza term for purpose, which is what the Afrocentric ten-session experience is to provide. Results indicated increased essential well-being, with reduced suicide ideation and depressive symptoms compared to treatment as usual [57].

Robinson et al. [44] note African American youth also face difficulty receiving help that is culturally tailored for the specific stressors they face and highlight the need for culturally grounded suicide prevention efforts for this subgroup. Their study involved cultural adaptations to an established stress reduction course that was originally developed for suburban Euro-American adolescents. Adaptations were made in eight areas: (1) language (names and language were changed to include common vernacular of African American youth); (2) persons (the differences between the facilitators and participants were openly discussed); (3) metaphors

(European cartoons were replaced with African American drawings and icons); (4) content (African American heritage, culture, and values were highlighted); (5) concepts (teachings incorporated common African American beliefs); (6) goals (aims were altered to be culturally congruent); (7) methods (trainings were strategic to include collaboration to overcome stressors common to African American youth); and (8) context (discussions were geared toward the social milieu, including community violence, racism, and poverty) [44].

Results of the Robinson et al. [44] study indicate reduced risk of suicide for African American adolescents when given coping tools for stress that are culturally appropriate for their context. Due to the stigma of suicide and help seeking among many ethnic minority groups in the United States, creative programs such as the one described in Robinson et al. should be considered for diverse populations who may otherwise not receive appropriate care.

Asian Americans are less likely to seek help when distressed and more likely to hide suicide ideation [11]. In a study designed to investigate hidden suicide ideation or intent (HSI) as a cultural phenomenon, Chu et al. [11] surveyed actively suicidal Asian Americans for cultural risk factors that may influence their decision to seek help. The authors discuss minority stress, which includes discrimination, acculturative stress, and social disadvantages. These culturally relevant suicide risk factors may be overlooked in traditional suicide prevention programs. Chu et al. found HSI may be more common among Asian Americans and those with HSI had greater severity of distress. The results of Chu et al. indicate the need for culturally informed suicide prevention approaches that incorporate awareness of specific risk factors and uncover hidden ideation. Relying on Western models of suicide prevention and expecting non-Western populations in the United States to benefit from them is unrealistic and ineffective.

Choi, Rogers, and Werth [10] suggest cultural adaptations for increasing efficacy in counseling Asian Americans and warn the traditional constructs of Western mental health practice may inhibit therapeutic growth in Asian American youth. Citing the cultural value of collectivism, they suggest Asian American youth would expect extended family to be involved in their care, but note the shame and stigma of suicide may prohibit them reaching out. Yang et al. [56] found that people in the Lao community had inadequate and inappropriate services for suicide prevention according to their cultural values and risk factors. By incorporating important cultural values into prevention efforts and recognizing cultural risk factors, suicide prevention strategies can become more effective for ethnic minorities in the United States.

In an investigation into the risk factors for Latinx youth, Ford-Paz, Reinhard, Kuebbeler, Contreras, and Sánchez [16] found social alienation, acculturative stress and biculturalism, discrimination, stigma regarding help seeking, and familial pressure to stay silent about suffering may contribute to increased suicidality. Their community-based participatory research was used to develop a culturally informed intervention for depression and suicide in Latinx youth. The multipronged, strengths-based program they suggest would be delivered by non-mental health

professionals to increase acceptability in the community and include cultural enrichment activities.

Another community-based program, Life is Precious (LIP) described in Humensky, Coronel, Gil, Mazzula, and Lewis-Fernández [21], was developed as an after-school program for Latina adolescents at risk for suicide. LIP was delivered as an adjuvant strategy alongside traditional mental health treatment. Suicide ideation, depressive symptoms, anger, and posttraumatic stress were reduced, and no participant attempted or completed suicide while enrolled in the year-long program, although it is unclear if the results can be attributed to the LIP program or the existing mental health treatment. An unexpected finding in Humensky et al. was family adaptability showed a slight decrease. The authors explained one reason for this might be the focus on acculturation issues which may have increased the participants' awareness of how traditional family roles conflict with mainstream US cultures.

Familismo, the cultural value of strong family loyalty, is an important factor when considering ways to reduce suicide in the Latinx population. Kennard et al. [26] created a culturally tailored adaptation of best practices for suicide prevention with Latinx youth which included feedback from suicidal youth and their parents. Their research focused first on uncovering needs and barriers to care and then the development of cultural adaptations. The 8-week program they describe includes groups for teens and parents, potlucks, and a family history project to foster parent-child communication and celebrate Latinx culture and heritage [26].

Suicide prevention is not a one size fits all. While some strategies certainly overlap, the cultural context of the distressed person cannot be ignored. Some warn that the focus on mental illness and a biological base for suicidal behavior eclipses the view of the very factors that might have contributed to the suicidal crisis [19]. Western psychiatric models will only go so far and in some instances may be counterproductive for use with non-Western populations. Uncovering the cultural antecedents to suicidal risk may be challenging and difficult to quantify [2], but the advances gained when the focus is on the whole person and his or her environment are noteworthy. Indigenous approaches to suicide prevention and cultural adaptations to fit the target population are increasing across the globe. Research demonstrating the efficacy of these approaches is also growing, and with it is the hope that suicide will diminish.

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Culturally Adaptive Suicide Assessment Utilizing Resilience and Reasons For Living

45

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Abstract

Standard approaches to suicide risk assessment tend to include a systematic review of risk, means restriction, and crisis management, focusing on negative emotional states, negative personality traits, and interpersonal difficulties. While these are important pieces of information, suicide risk assessment does not typically consider the risk and protective factors unique to the individual's cultural identity. Bearing in mind an individual's cultural identity may provide important insights into the attributes and attitudes that enable individuals to not only survive chronic challenging life circumstances but to thrive despite these challenges. Integrating resilience and reasons for living with standard suicide risk assessment provides a deeper understanding of the protective factors related to the individual's cultural identity and facilitates a culturally adaptive approach to assessment and treatment.

Keywords

Culture · Suicide · Resilience · Assessment · Reasons for living

Introduction

Suicide is the tenth leading cause of death in the United States, with 31% of the increase in overall suicide rates from 2001 to 2017 [1]. The rate of suicide varies across age, race/ethnicity, gender, sexual orientation, and cultural groups [2]. Suicide is the second leading cause of death for people between 10 and 34, the fourth leading cause among people between 35 and 54 years, and the eighth leading cause among people of age between 55 and 64 years [3]. In the United States, while the completed suicide rates are highest among white men [4], the suicide rate by population is much higher in minority groups [4]. Suicide rates are variable among different ethnic groups with Americans who identify as Asian and Pacific Islanders are around half as likely to die by suicide as the national average, while American Indians and Alaska Natives have the highest rates of suicide among ethnic groups [4]. The rate of suicide among ethnic and cultural minority groups is alarming; however, it is difficult to establish accurate rates and suicide is believed to be even more prevalent among these groups than what is reflected in the data. For example, studies of suicide prevalence among LGBTQ individuals have presented a range of findings, reporting that LGBTQ individuals are anywhere from twice [5] as likely, to six times [6] as likely as heterosexual individuals to attempt suicide.

The American Psychological Association [7] recommends that mental health providers ought to be aware of their own cultural biases, be mindful of the cultural identity of the person being treated, and use appropriate skills to incorporate cultural factors into a treatment plan. In line with this recommendation, it is important to understand not only the cultural variations in suicide risk and how cultural differences can create barriers to care, but how cultural factors can be protective against

psychological distress and suicide. Eurocentric clinical assessment alone may not be sufficient to facilitate a culturally informed suicide risk assessment; so a multifaceted approach may be particularly advantageous for truly effective suicide prevention. Cultural patterns of suicidality are complicated and may be overlooked by conventional assessment, therefore, implementing evidence-based culturally sensitive suicide risk assessments can enhance the clinician's ability to correctly identify suicide risk and provide culturally appropriate treatment options. A brief overview of conventional assessment is provided, followed by a review a few culturally sensitive suicide assessment instruments and suggestions are made for how resilience and reasons for living can be used to gain important culturally relevant information to supplement existing suicide assessment.

Culturally Adaptive Suicide Assessment

Culturally flexible suicide risk assessment can foster a strong and trusting relationship, build acknowledgment and acceptance of the individual's values, and promote open conversation on culture between a mental health provider and the individual [8]. Risk factors in isolation are rarely useful in predicting suicide risk, so it is critical to collect all relevant pieces of information [9]. A competent suicide risk assessment encompasses the careful considerations of culture-specific risk and protective factors and perceptions toward suicide acceptability [2]. It is based on values, norms, cultural identities, practices, customs, linguistic needs and preferences, and the strengths of the community to which the individual belongs. Suicide risk clearly varies as a function of age, gender, ethnicity, sexual orientation, and demographics and should be taken into account when assessing suicide risk [9]. Furthermore, for various groups of individuals, risk factors common in the general population and those unique to the subgroup may contribute to suicidal behavior [9].

Overview of the Conventional Suicide Assessment

Suicide risk assessments aims to identify and classify whether individuals are at high, moderate, or low risk of engaging in suicidal behaviors, and is the primary resource for risk stratification and providing aftercare or intervention [10]. The typical suicide risk assessment framework includes evaluating risk factors, warning signs, and the individual's psychosocial stressors [11]. Based on this framework, providers are able to follow an efficient template for suicide risk assessment to ensure that they have covered and documented these significant areas. It can then be said that suicide risk assessment is a process of systematic evaluation, intervention, and re-assessment [12]. The successful evaluation of suicide risk is dependent upon the availability of risk assessment tools, and the identification of long-term suicide risk factors, and short-term warning signs. Comprehensive suicide risk assessment is vital to not only the identification of risk, but effective treatment planning and re-assessment. With continued advancements in research and its clinical application,

a great variety of tools and approaches have been adapted to assess and address suicide risk with greater confidence. Yet, the assessment, management, and treatment of suicidal individuals remains one of the most significant challenges in clinical practice. While several scales for suicide risk assessments and risk stratification exist, they have been known to lead to false positive and false negative results and provide an inappropriate sense of certainty [10]. Subsequently, experts in this field of mental health have consistently concluded that none of the scales can effectively predict suicide [13]. Before providing suggestions for alternative means of assessment, a brief overview of conventional measures and limitations are provided.

Commonly Used Suicide Risk Assessments

The table below presents a list of commonly utilized suicide risk assessment tools acquired from various pieces of literature. The first column summarizes some of the widely used suicide assessments, the second column provides a definition and description of the suicide assessments, and the third column explains the various tools, measures, and constructs of each suicide assessment.

Tool	Description	Use
Beck Scale for Suicide Ideation (SSI)	Measures individuals ‘current attitude, behavior, and plans of committing suicide on a 19-item rating scale. It takes account of both active and passive suicidal thoughts and preparation.	A 19-item scale that measures the intensity of SI; each item is graded on a 3-point Likert scale (0 for low suicidal power to 2 for high suicidal intensity). The total scores ranges from 0 to 38 [13].
Columbia-Suicide Severity Rating Scale (C-SSRS)	Developed in 2007, the Columbia-Suicide Severity Rating Scale (C-SSRS) helps evaluate the imminent risk of suicide by quantifying the severity of an individual’s SI and behavior and is used for acute care [14].	The Columbia-Suicide Severity Rating Scale (C-SSRS) focuses on four significant constructs, which are rated by the patient: severity of SI, the intensity of SI, suicide behavior, and lethality [13]. It is based on Columbia protocol, which includes: 1. Asking questions (if /when they have suicidal thoughts? Actions taken to prepare for suicide, and if someone/ themselves has stopped the attempt) 2. Determining next steps (setting criteria/threshold after assessment, and decision about hospitalization, referrals, counseling other services as needed) [14].

(continued)

Tool	Description	Use
Suicidal Behaviors Questionnaire-Revised	Suicidal Behaviors Questionnaire-Revised (SBQ-14) assess 14 suicidal behavior on 34 items depending upon respondent’s presence or absence of current, past, or expected suicidal behaviors [15].	The SBQ-14 measure five domains including past suicidal ideation, future suicidal ideation, past suicide threats, future suicide attempts, and the likelihood of dying in a future suicide attempt [15].
The Chronological Assessment of Suicide Events, or the CASE Approach	Assess an individual’s risk of suicide by interviewing techniques.	Uses four consecutive time frames to focus on individuals’ suicidal thoughts and behaviors to reduce the omission of essential information. The clinician interviews a patient about the current suicide events (past 48 h), recent suicide events (previous 2 months), past suicide events (back in time before 2 months ago), and immediate suicide events (during the interview itself) in chronological order [13].
Suicide Assessment Five-Step Evaluation & Triage (SAFE-T) ¹⁶	Known for its five phases of assessment to address patient’s level of suicide risk and recommends effective interventions.	It has five steps: Step 1: Identify Risk Factors Step 2: Identify Protective Factors Step 3: Conduct Suicide Inquiry Step 4: Determine Risk Level/ Intervention Step 5: Document a treatment plan.

Limitations of Conventional Suicide Assessment

Traditional risk assessment is primarily focused on depressive symptoms as the predominant factor for suicide risk. In reality, most people who die by suicide are not known to have a diagnosed mental health condition at the time of death [16]. Suicide rates rise progressively with age, with the highest prevalence in the United States among men aged 75 and older [17]. Still, there are limited measures specifically designed for older adults, and most suicide assessment measures have been developed for children, adolescents, college students, or young adult populations [15]. Another limitation is ineffective risk stratification, as mental health providers may be hesitant to utilize suicide risk assessment tools because they fear that risk stratification is unlikely to be accurate or helpful [10]. Moreover, the lack of training on how to incorporate an individual’s cultural background as part of the assessment is viewed as a major limitation of conventional suicide risk assessment [4].

Cultural Understanding of Suicide Risk

The cultural theory and model of suicide, developed by Chu and colleagues [18], describes four distinct categories of suicide risk related to African Americans, Asian Americans, Latinos, and lesbian, gay, bisexual, transgender, and queer (LGBTQ) groups. The first concept, *Cultural Sanctions* [18], refers to the acceptability of suicide as an alternative option, unacceptability, and guilt correlated with incidents in life. Cultural sanctions about suicide play a prominent role in determining the risk of suicide and also shape what life events, especially among interdependent cultural minority groups, are considered shameful. The second concept, *Idioms of Distress* [18], refers to an individual's likelihood of communicating suicidality, the way in which suicidal symptoms are communicated, and selected strategies or means of attempting suicide. Research has shown that cultural variation influences both the likelihood of suicide symptoms and the manners in which they are expressed [18]. The third concept is *Minority Stress* [18], which refers to the stress that individuals of a cultural minority group tend to experience due to their social identity or status, including acculturation in relation to ethnic origin and density, discrimination-associated stress, and societal disadvantages. The final concept is *Social Discord* [18], which refers to conflict, lack of integration, or disconnection from family, society, or friends. Lack of social support, family conflict, or rejection can be predictive of suicidal risk. Alternatively, a strong family connection and social support predict lower suicide ideation [18].

In order to operationalize this framework for clinical and research application, Chu and colleagues developed the Cultural Assessment of Suicide Risk for Suicide (CARS) [2]. This measure illustrates how suicide risk assessment can be adapted to different cultural groups, but before delving into the measures, an overview of what is meant by cultural adaptation is provided, followed by a discussion of cultural adaptation of suicide risk assessment in practice.

Cultural Adaptation Defined

While it is widely acknowledged that a multitude of factors contribute to an individual's suicide risk, cultural variations are not typically considered in conventional risk assessment protocols.

Suicide risk varies by ethnicity, so it is important to understand the unique, cultural factors that may otherwise go unnoticed in traditional risk-assessment procedures [19]. A few examples of cultural features related to suicide are discussed.

Hidden Ideation

Hidden suicide ideation is defined as the nondisclosure of suicidal ideation to others [20]. This phenomenon has been found to be more prevalent among individuals with an ethnic minority status, as these individuals are less likely, than members of the dominant group, to disclose suicidal ideation to care providers [2]. It is thus vital to

consider unique cultural factors, including hidden ideation, when developing culturally adaptive suicide risk assessments. In addition to understanding how cultural factors can influence suicidal behavior and treatment engagement, it is important to consider the unique risk and protective factors associated with different cultural identities.

Cultural Risk Factors

Depending on their cultural context, individuals may view and interpret suicidal behavior differently. For example, African Americans tend to have more significant negative attitudes of suicide and higher levels of moral objections to suicide, and low suicide rates despite risk factors such as oppression and limited healthcare access [4, 18]. Exposure to community violence, racial discrimination, and marginalization are associated with suicidal intent [21]. One of the common precipitants for suicidal behavior that has been observed in some Asian communities is the experience of loss of face, or social shame, which occurs when an individual's actions disturbs the group's harmony [22]. The perception of loss of face shapes an individual's suicidal behavior; if a group is perceived to condone suicide, an individual is more likely to attempt it, whereas the likelihood decreases when the group considers suicide as unethical even in the presence of loss of face [18, 22]. Similarly, family discord is often associated with suicide ideation among Asian Americans [6] as well as individuals with LGBTQ identities [23]. LGBTQ youth from highly rejecting families have been found to be eight times more likely to attempt suicide than LGBTQ youth who perceive their families as supportive [23]. Suicide has been found to be more socially acceptable among LGBTQ teens when compared to heterosexual teens [18] and is often prompted by family discord, victimization, and a loss of a sense of belonging [23].

Cultural factors impact help-seeking behaviors and are associated with various precipitating factors, different risk and protective factors, and the availability of resources and options for necessary services [22]. Among Latinx communities, fatalism in combination with negative attitudes about seeking support outside the family may contribute to the growing rate of suicide in this population [19]. Help-seeking is particularly limited among American Indian and Alaska Native communities, which is not surprising when one considers the history of oppression and intergenerational trauma [19]. The conflict between old and new values has been found to prompt suicidal thoughts among families who have recently immigrated to the United States [4]. Furthermore, individuals from diverse cultural backgrounds may not seek assistance or adhere to a treatment plan if they perceive that their faith or cultural practices are not respected by the provider [22]. The stigma related to the utilization of mental health resources in various cultures can be a barrier to receiving services [22]. For example, the concept of shame in some Asian cultures can be a barrier to access mental health services. Leong and colleagues [4] found that more than one-third of Asian Americans deny professional assistance when having suicidal thoughts. Research among American Indian and Alaska Native Youths found common reasons for not seeking accessing mental health resources to include embarrassment and stigma, not believing that help is needed, loneliness, and a desire for autonomy [22].

Cultural Protective Factors

Protective factors, also known as “emotional buffers,” reinforce an individual’s ability to cope with problems and develop crisis management skills [24]. An extended family connection, social support, and involvement with the Black Church are considered to be protective factors against suicide in African American communities [18, 22]. Similarly, beliefs about healing practices and ceremonies, and traditional healers are inextricably related to American Indian cultures’ spirituality [22]. Among many Asian American and Latino families, there is a clear expectation that the family should be involved in the therapeutic process because of interdependence of family in these cultural groups [22]. In the first place, parents play a significant role in understanding and noticing the signs and symptoms of suicide risk [22]. Understanding how cultural worldview may impact suicide assessment is vital. A study on cultural worldview as a moderator between hopelessness and reasons for living in African Americans demonstrated that having a more African-centered worldview may impact depressive symptoms and reasons for living [25]. Furthermore, a trusting relationship with care providers, access to physical and mental health care services, and restricted access to lethal means have also been shown to be protective factors against the risk of suicide [26].

The Centers for Disease Control (CDC) [26] has categorized the factors that can increase the likelihood of suicide risk into four different categories as mentioned below:

1. Individual-level: Social isolation, substance use disorder, individual’s financial, criminal, and legal problems
2. Relationship level: Any form of violence, family loss, bullying, and history of suicide among family members
3. Community-level: Deprivation of health care access, maladaptive cultural belief related to suicide, and group suicide
4. Societal level: Social stigma and unsafe media interpretations of suicide

These risk factors may or may not be the direct cause of suicide. Yet, it is vital to understand and identify suicide risk on every level to provide effective intervention.

Suicide Assessments That Formally Consider Cultural Identity

The following is by no means an exhaustive list, and there may be other culturally adaptive suicide risk assessment measures widely available; however, this was not apparent despite extensive literature review. The two measures discussed here intentionally include cultural identity as part of the assessment of suicide risk and illustrate how suicide assessment can, and should, view the individual within the context of their cultural identities.

Cultural Assessment of Risk for Suicide (CARS) Measure

The Cultural Assessment of Risk for Suicide (CARS) Measure [2], based on the Cultural Theory and Model of Suicide [18] discussed earlier in this chapter, is the first operationalized systemic model that integrates cultural competencies in suicide risk assessment efforts across various cultural identities [2]. The CARS is a 39-item self-report measure assessing culturally specific suicide risk factors. CARS assesses the four cultural constructs on eight subscales including social support, family conflict, idioms of distress-emotional/somatic, idioms of distress-suicidal actions, cultural sanctions, acculturative stress, non-specific minority stress, sexual and gender minority stress [27]. The CARS was proposed as an adjunct to suicide risk assessment to incorporate cultural aspects and exhibited good internal consistency and convergent validity with existing suicide risk measures [8].

Collaborative Assessment and Management of Suicidality (CAMS)

A study by Choi and Colleagues [28] involving suicide risk assessment with Asian American college students suggested the utilization of the Collaborative Assessment and Management of Suicidality (CAMS) model and the Suicide Intervention Response Inventory–2 tool. This study explores the aspects of suicide risk assessment potentially unique to Asian American college students, such as collectivistic cultural values, intergenerational relationships, the experience of acculturation and immigration, perfectionism, and the model minority myth [28]. The CAMS model is a highly collaborative and interactive approach and is a therapeutic method for suicide-specific assessment and treatment [29]. It utilizes an assessment tool known as the Suicide Status Form and integrates both qualitative and quantitative assessments of suicidal risks. It has been shown to be useful for identifying the cultural factors associated with suicide ideation among Asian American college students. This approach also provides a framework by which counselors can include cultural considerations when counseling suicidal Asian Americans by providing relevant examples such as examining counselor's own feelings about Asian Americans, understanding individual's reluctance of information disclosure, seeking consultation if needed, being mindful of the individual's experience on acculturation, intergenerational conflict, and family history [28].

Resilience

Suicide risk assessment is evolving and the importance of assessing the individual within their cultural context is becoming more widely accepted; however, there remains a significant dearth of resources for culturally sensitive suicide risk assessment. Building on the work of Chu [2] and Choi [28] and their colleagues, we call for an approach that is flexible, adaptive to different cultural identities, and is empirically supported. Resilience and Reasons for Living is one such approach that is

worth considering. We begin by defining resilience, differentiating it from its related concepts, followed by a theoretical discussion of resilience, providing the foundation for the approach of Resilience and Reasons for Living.

Defining Resilience

The term resilience refers to the qualities and resources that allow an individual to not only cope with psychosocial stressors but thrive in the face of various risk factors [30]. A variety of approaches to the concept of resilience have been used to make sense of the differences in emotional outcomes following adverse life events. The trait, outcome, and process approaches are distinct from one another and offer different points of view for the understanding of resilience. The trait orientation defines resilience as a personal trait that operates to support individual coping and adjustment both during and after adverse experiences [30, 31]. Early researchers commonly referred to trait-resilience as resiliency, a term that implies either the presence or absence of resilience as a personality trait within individuals. Subsequent research indicates that the term “resiliency” should not be used interchangeably with the term “resilience,” as the latter has typically been used to describe the dynamic nature of maintaining positive adaptation after adverse or traumatic experiences [32]. The outcome orientation indicates that resilience acts as a functional or behavioral outcome that can support individuals throughout the recovery process after adverse experiences [31, 33, 34]. The process orientation suggests that resilience is a dynamic process that allows individuals to adapt positively and recover from adverse experiences [31, 32, 35]. While these approaches to understanding resilience differ from one another, it is clear that the concept of resilience typically includes two key components: exposure to a threatening, traumatic, and/or adverse experience and subsequent positive adaptation [32]. The understanding of factors related to resilience is clinically relevant since resilience is malleable and can increase with treatment, leading in turn to improvements in mental health outcomes [30].

Related Concepts

Given the unique and dynamic nature of resilience among individuals experiencing severe adversity, it is important to distinguish between related, although distinct, concepts also discussed in the literature on the topic of resilience. *Hardiness* [36] is conceptualized as a group of dispositional personality characteristics that function as a resource during stressful life events, and includes a sense of control, a commitment to taking an active role in shaping events throughout life, and a belief that change is normal and necessary for growth. *Benefit finding* [37] is a concept used to describe one's ability to focus on positive changes or personal growth during times of significant adversity [37]. *Thriving* describes the development of new knowledge and skills alongside a return to an adaptive level of functioning following adversity [37]. Lastly, *posttraumatic growth* describes a multidimensional construct that

includes enhanced appreciation for life, spiritual development, and personal strength after the experience of severe adversity [37].

Theoretical Foundations

In order to explore the role of resilience in culturally adaptive suicide assessment, two central theories of resilience, *Stress Inoculation* [38] and the *Transactional Model* [39], are proposed as a foundational framework. With the concept of Stress Inoculation, Hatzenbeuhler [38] suggests that exposure to minority stress facilitates the development of resilience as victimized individuals develop the resources necessary to adapt to repeated psychological stress. It is suggested that when individuals with minority identities access internal as well as external sources of resilience, they are able to develop strategies to manage these repeated stressors, as long as these stressors are not perceived as overly taxing [38]. The second theoretical framework which lends itself to culturally sensitive suicide assessment is the Transactional Model [39] of resilience. This theory posits that resilience is a learned response, resulting from the interaction between the stress and coping process in which the individual learns to “bounce back with resilient reintegration.” [39] These two theories provide a theoretical framework for considering the importance of the relationship between the development of resilience and the potential impact of cultural identity and ability to tolerate psychological distress.

Understanding the sources of resilience and how these sources are bound with cultural identity may help to cultivate an environment in which resilience is developed and maintained, impacting the relationship between stress related to ethnic or cultural minority identity and psychological outcomes, particularly suicide behavior.

Reasons for Living

Reasons for Living are positive adaptive factors that a person may use to cope and overcome suicidal ideation [40]. Differences in those who experience suicidal ideation and non-suicidal individuals may be underscored by strong beliefs in the importance of continuing to live. The standard approach to suicide assessment is to identify risk factors such as stressors, hopelessness, previous suicidal behavior, and impulsivity [18]. While it is important to identify risk factors, it is vital to identify protective, life sustaining factors. Reasons for living can be thought of as a person's unique set of beliefs that keep them from completing suicide and even promote growth after episodes of suicide ideation. This set of beliefs can range from ability to cope with stress, responsibility to children, social connection, and religious or spiritual beliefs [40].

The Reasons For Living inventory (RFL) [40] is a brief self-report questionnaire that can be included as part of a screening protocol for suicidal ideation, used as a stand-alone suicide risk assessment measure or used in treatment planning with individuals experiencing suicidal ideation [40]. RFL increases insight into the

specific protective factors that may be sustaining life for persons contemplating suicide. The RFL's emphasis on protective factors has led to the identification of protective factors inversely correlated with levels of suicidal ideation [40]. A systematic review of RFL literature has examined the potential for RFL to protect against suicidal ideation and suicide attempts [41]. It has been suggested that the positive wording in the RFL can have a positive impact in and of itself, as it prompts the reader to consider their positive attributes and resources that they may not otherwise have been paying attention to [9]. Treatment implications of RFL research encourage the development of therapeutic techniques aimed at fostering reasons for living to further prevent suicidal ideation and attempts. The RFL can be particularly useful in determining key protective factors and resources for a specific client, which can then be used in psychotherapy [9].

Background

The development of the RFL resulted in a reliable and well-validated suicide risk assessment measure [40]. The construction of the RFL led to six subscales: Survival and Coping Beliefs, Moral Objections to Suicide, Responsibility to Family, Child-Related Concerns, Fear of Suicide, and Fear of Social Disapproval [40]. The subscales were identified by differentiating between suicidal individuals, as well as non-suicidal individuals' endorsement of life-maintaining beliefs. Linehan and colleagues [40] asked participants to create lists for the following prompts, (a) their reasons for not killing themselves at the point in their lives when they had most seriously considered it; (b) reasons why they would not kill themselves now; and (c) the reasons they believed kept other people from killing themselves [40].

The RFL [40] consists of six subscales: (1) Survival and Coping Beliefs, (2) Responsibility to Family, (3) Child-Related Concerns, (4) Fear of Suicide, (5) Fear of Social Disapproval, and (6) Moral Objections to Suicide. The Survival and Coping Beliefs subscale measures an individual's positive outlook, future-oriented beliefs, and belief in their ability to cope with difficult events [40]. Responsibility to Family and Child-Related Concerns consist of items measuring the importance of family and child concerns to the individual. Moral Objections to Suicide is comprised of four items, three of which relate to religion. Fear of Suicide measures an individual's fear of death and fear of the actions involved in suicide. Lastly, Fear of Social Disapproval assesses the degree to which an individual believes that others would negatively perceive the act of suicide.

Reasons for Living and Suicide Assessment

The RFL has been repeatedly shown to be a reliable measure of suicidality, with studies finding that low scores on some subscales of the RFL are predictive of suicidal ideation, while others predicted suicide attempts [42]. Understanding a person's unique reasons for living, instead of focusing only on their reasons for

dying, may provide a more robust approach to identifying and preventing suicide, especially in individuals who identify as culturally diverse.

Reasons for Living and Cultural Identity

Suicide risk varies by components of identity such as age, gender, health status, ethnic and racial background, and other contextual factors. Examination of these factors may facilitate the establishment of risk profiles tailored to an individual's cultural background. The subscales of the RFL contain several components that may be culturally relevant to detecting suicide risk in minorities. Studies have attempted to examine which domains in RFL assessments may be culturally relevant for different populations such as the African American community, Latinx cultural groups, Asian American cultural groups, and gender and sexual minorities. Minority groups are less likely to self-disclose suicidal ideation unless questioned by a clinician [43]. These individuals have been termed hidden ideators [20, 43]. Hidden ideators have differences in important predictive elements of suicide such as expression, experience, risk factors, and protective factors [18]. There are varying differences between cultural groups in protective factors in suicide ideation and suicide attempts [18]. For example, one study found African Americans scored significantly higher than European Americans on moral objections, survival, and coping beliefs on the RFL [43]. In terms of potential cultural stigma related to suicide, the literature supports the usage of the RFL to help identify those who may not endorse reasons for dying [43]. The RFL has a plethora of literature supporting the reliability and validity of the tool in multiple languages such as Spanish and Mandarin and for different populations and settings such as elderly adults, adolescents, and college students [18].

Resilience and Reasons for Living as a Framework for Cultural Suicide Assessment

An individual's reasons for living may be regarded as the expression of their level of resilience drawn from both external and internal sources of resilience. If resilience is the mechanism by which an individual is able to withstand psychological pain, then reasons for living may be viewed as the source of this resilience or the meaning and purpose that an individual ascribes to their life. While the RFL does provide clinically vital insights into risk and protective factors, it does not explicitly assess resilience, which is believed to be a key protective factor against suicide. Combining Resilience and Reasons for Living as a Framework for Culturally Adaptive Suicide Assessment allows mental health providers to organize and explore suicide risk and protective factors from a culturally adaptive perspective, by taking into account their cultural identity and thereby gaining a deeper understanding of how these factors relate to the experiences of individuals.

Because the changes that occur throughout an individual's life are both time- and context-specific [44], clinicians should utilize a culturally adaptive framework to understand the biopsychosocial impact of stressors being faced by individuals. How adversity is handled often has a cultural component to it, the two concepts are inextricably related. The way in which historically oppressed communities not only survive but thrive in the face of adversity may provide some insights into the relationship between resilience and culture.

Considering internal and external sources of resilience as a framework, the RFL maps onto this framework with its six subscales. The subscales Survival and Coping Beliefs, Fear of Suicide, and Moral Objections to Suicide can be thought of as being related to Internal Resilience. In terms of External Resilience, the subscales Responsibility to family, Child-Related Concerns, and Fear of Social Disapproval seem reflective of this type of resilience.

Internal Sources of Resilience

Internal risk and protective factors are defined as factors that influence an individual's view of themselves, believed to be reflective of an internal conflict which may either serve to strengthen the individual or act as a risk factor for suicide [45]. Internally generated resilience may include self-acceptance, self-esteem, emotion regulation, identity pride, and personality mastery, all of which have been found to ameliorate minority stress [46]. Resilience is also associated with intellectual functioning, cognitive flexibility, and emotion regulation, indicating support for clinical interventions in this area. Cognitive-behavioral therapy, for example, is a form of psychological treatment often used to support individuals in identifying negative patterns of thoughts and behaviors that may be disrupting their biopsychosocial functioning. In addition, cognitive-behavioral stress management is a clinical intervention used to help individuals challenge their distorted perceptions by replacing them with a more realistic, even positive outlook on the situation that are causing stress [47, 48]. In one study that examined six different emotional intelligence (EI) dimensions, researchers found that emotional self-awareness, expression, self-control, and self-management acted as internal protective factors against subsequent distress for individuals who have experienced adverse life events [49]. In contrast, differences were not found between more and less resilient individuals when measuring two interpersonal EI dimensions, emotional awareness of others, and emotional management of others [49].

Although the aforementioned approaches to defining resilience have vastly different ways of operationalizing and measuring resilience for empirical study, researchers have systematically and extensively studied specific correlates of resilient functioning in individuals [32]. Biological, psychological, and dispositional attributes that interact with one another to foster resilience are described as protective factors, as they protect against the potential biopsychosocial consequences of adversity. By contrast, those attributes that inhibit resilience processes

are referred to as risk factors, since they place individuals at risk for the potential biopsychosocial effects of adverse experiences [25, 37]. Through systematically examining the role of both protective and risk factors in the lives of individuals facing various types of adverse events, researchers have established two critical points pertaining to the importance of resilience in clinical settings. Firstly, many factors and systems – biological, psychological, social, and environmental – contribute to the interactive, dynamic nature of resilience-shaping for individuals throughout their lifetime. Secondly, resilience drives the shaping of different domains of life function, particularly within attachments and relationships [37]. Internal components of resilience, like self-esteem, have been found to safeguard members of minority groups against the psychological effects of discrimination. These points, along with the aforementioned approaches to studying resilience, have directed the field toward delineating specific internal and external sources of resilience. In doing so, clinicians and researchers can continue enhancing psychological treatment and interventions to foster resilience in individuals experiencing adversity.

When considering cultural identity, the Moral Objections subscale of the RFL is of particular importance as it is closely related to religion and spirituality and is believed to be reflective of internal resilience. While Fear of Suicide and Survival and Coping Beliefs are also important subscales to consider in the context of internal resilience, these are not as deeply rooted in cultural identity and are therefore not discussed at this time.

Moral Objections

The Moral Objections subscale of the RFL is undoubtedly associated with religious and spiritual beliefs [50] and religion and spirituality are well-documented protective factors for individuals who identify as African Americans or Latinx [12, 43, 44, 51]. The strength of religious beliefs appears to be associated with the belief that suicide is immoral [12, 43, 44, 51]. African American identified individuals score significantly higher than their White counterparts on the moral objections to suicide subscale [43]. Higher levels of religiosity, specifically religious involvement and spiritual wellbeing, buffer against suicidal ideation in African Americans [52]. African American men and women with a previous suicide attempt reported lower levels of religious involvement and spiritual wellbeing when compared to African Americans who had not attempted suicide [53]. These results indicate that church involvement and spiritual well-being are protective against suicide attempts. Additionally, religion seems to be a protective factor for adolescent African Americans as well. A study with 1,342 adolescent African Americans found that perceived religious capital likely served as a protective factor against suicide [54]. Religion and spirituality are both important cultural factors to identifying suicide risk in the African American community.

Similar to African American communities, studies investigating the importance of religion for Latinx communities have found it to be a protective factor. While Latinx communities are composed of individuals from a diversity of countries of origin, religion serves as a protective factor for many of these different groups.

Factors such as church attendance, self-perceived religiosity, and the perceived influence of religion were all negatively associated with suicide risk [44]. Moreover, those who identify as Latinx scored higher on the RFL's moral objections to suicide subscale and other measures of religiosity compared to their white counterparts [12]. These findings indicate that religion is an important cultural factor for the various Latinx communities.

Religion and spirituality is not only an important factor to consider with racial or ethnic differences, but sexual orientation and gender identity as well. One study found that LGBTQ members of religious organizations reported significantly fewer past suicide attempts than non-religious LGBTQ participants [55]. Religion, spirituality, and involvement with a religious community are believed to be important protective factors.

External Sources of Resilience

External risk and protective factors are defined as the way in which one's environment can either protect against suicide risk by providing a sense of belonging and support or contribute to suicide risk by cultivating feelings of alienation and burden [56]. It is widely accepted that internal resilience is more protective against emotional distress than it is to rely on external factors [57]; however, this varies by cultural identity. Peer support, for example, has been found to significantly moderate the relationship between events of discrimination and psychological distress, providing evidence of external factors of resilience [58]. Social support in the form of positive relationships with family members and peers is particularly associated with fostering resilience. Growing up in stable families, relationships with non-abusive parents, and secure attachment to mothers have been shown to protect against the biopsychosocial consequences of adverse life experiences [4]. Additionally, researchers have found that effective schooling and positive connections with adults in the wider community contribute to the fostering of resilience in children and their communities [14]. School-based interventions and mentoring programs may be a potential area of intervention for communities impacted by historically marginalizing educational barriers and threats to community welfare. Finally, resilience is fostered and developed alongside increased access to community services, opportunities for sports and art, and spirituality and religion [4], also indicating an important venue for community intervention. Through continuing to delineate and explore social support as a potential area for intervention, both researchers and clinicians can enhance the design of programs for individuals impacted by trauma.

While child-related concerns may also be considered an external source of resilience, it ought to be explored with any individual who is a parent, as the drive to protect and care for one's children transcends cultural identity. Of the subscales that appear to reflect external resilience, responsibility to family and fear of social disapproval are important factors to consider when it comes to culturally sensitive suicide risk assessment.

Responsibility to Family

Family connectedness has been shown to be significantly protective against suicidal ideation and attempts [59]. The importance of family can help identify suicide risk by considering the important family dynamics of different cultures [18, 40, 41]. African Americans, Asian Americans, Latinx, and gender and sexual minorities (LGBTQ) all place importance on family support as a protective factor [43]. The RFL's responsibility to family subscale covers aspects of family protective factors as it is focused on the perceived negative consequences of suicide towards family. Family alliance and connectedness are believed to improve the efficacy of suicide risk assessment for the previously mentioned cultural groups [51, 54]. The RFL-A and RFL-I family-related sections may promote a more well-rounded approach to family risk and protective factors.

Studies for both African American adults and college students report that responsibility to family, family adaptability and family cohesion are protective factors [43, 52]. The RF subscale of the RFL was inversely correlated with suicide ideation [43, 51]. While these results were significant, it may be important to also screen for family functioning. Compton, Thompson, and Kaslow [53] found that family concern, commitment, and support were significantly correlated with lower rates of suicide ideation.

Collectivist cultural values in Asian American and Latinx cultures may produce robust suicide risk predictors in family discord and family connectivity. An example of cultural differences in RFL may be the strength of familial relationships for Asian American identified individuals [60, 61]. A study on RFLs of college students that identified as Asian American found that family obligation and a desire to avoid bringing shame to the family were significantly associated with responsibility to family [61]. While there are varying cultural subgroups within the Asian American population, there were similar predictors related to family discord across the different subgroups. Family acculturation, internalization of familial disapproval, and restrictive and controlling parents were correlated with increased suicide risk [61, 62]. Intergenerational difficulties can create high levels of conflict within Asian American families [60]. Along with acculturation stress, restrictive and controlling parenting can result in perceived disapproval in performance and achievement, which can increase suicide risk [60, 61].

Studies examining the importance of family on suicide ideation for Latinx individuals report similar findings. Responsibility to family, family support, and strong relationships with parents seem to be protective factors for Latinx individuals [12, 44]. Considering the interdependent nature within Asian American and Latinx families, the quality of familial support may help identify the level of suicide risk.

Gender and sexual minorities may also benefit from the identification of family acceptance. Individuals who identify as part of the LGBTQ community may experience greater family distress and lower levels of acceptance compared to their cisgender and heterosexual counterparts [54, 59]. Gauging the current level of family alliance using the RFL-A is one way to identify the potential risk of suicide. This is due to the Family Alliance subscale as it measures the degree of family conflict and

isolation [64]. There is strong evidence that levels of family connectedness may help identify suicide risk and serve as a protective factor [59].

The Reasons or Living Inventory for Adolescents (RFL-A) may contain other culturally appropriate dimensions. The subscales of family alliance and peer acceptance and support examine the quality of family and peer relationships, which is different from the RFL's family and social dimensions [40, 64]. The RFL measures perceived negative consequences of suicide in relation to family and social networks [40]. However, the RFL-A measures perceived support and strength of relationships in family and peers [64]. African Americans, Asian Americans, Latinx Americans, and gender and sexual minorities may have more interdependent families and place a stronger emphasis on social relationships as reasons for living. Utilizing both the RFL-I and RFL-A family-related and social-related dimensions may lead to more robust information on an individual's reasons for living.

Fear of Social Disapproval

Social support from family, school, peers, and colleagues has been found to be a strong protective factor for most cultural groups. The RFL's fear of social disapproval subscale is brief, composed of three items, and focuses on the concern of how others may perceive them [40]. The RFL-A, meant for adolescents, may resonate more with cultural minorities. Assessing for unique cultural factors related to communalism and social acceptance may be important in working with African Americans, Latinx individuals, and gender and sexual minorities in suicide risk assessment [43, 53, 54]. Reasons for living related to social connection and the consequences of suicide provide a balanced and culturally considerate approach to suicide assessment.

Social support, in the form of peer and community, may be important predictors in suicide assessment for African Americans and Latinx individuals. There are specific reasons for living scales that culturally relate to reasons for living. Specifically, peer acceptance and support may identify pertinent social factors for African Americans and Latinx Americans [12, 43]. Positive feelings about the African American community and receiving social support are two factors that were related to more reasons for living [43, 53, 63]. Lower levels of social embeddedness and social support for African American individuals were correlated to higher levels of suicide risk [53]. Similar results were found in researching protective factors for depression and suicide risk in Latinx communities. Lower levels of perceived social support significantly predicted higher levels of depression and suicide risk [53]. Furthermore, the size of their social network was not significant, but the quality of the social support was effective in predicting suicide risk.

Gender and sexual minorities have unique social factors related to suicide risk. Within the gender and sexual minorities category, social support in the form of peer acceptance and support, school support, and adult caring were significant predictors of suicide risk [59, 64]. On the RFL-A, gender minorities reported lower rates of peer acceptance and support [54]. Thus, continuous monitoring of sudden changes to their social network may result in better detection of suicide risk as they generally have fewer social resources and capital than their cisgender counterparts [54]. Like

gender minorities, sexual minorities experience fewer protective factors than their heterosexual counterparts [59]. The RFL-A was not used in this study; however, this study found that lower levels of adult caring and safe schools were predictive of higher suicide risk [59]. In consideration of gender and sexual minorities, it may be useful to examine the levels of perceived adult and school support to better identify suicide risk within the LGBTQ population.

Closing

This approach to suicide risk assessment provides a framework by which a clinician, community member, or concerned friend or family member can assess the relative risk of suicide for an individual, based in part, on their cultural identity. Conventional strategies for suicide risk assessment are still relevant and important to consider; however, these methods tend to not assess the individual in the context of their cultural identity and is therefore blind to crucial information. Comprehensive suicide risk assessment is imperative in the identification of suicidal ideation. There are culturally distinctive risk factors to various cultural groups, and reasons for living provide a framework to identify and measure these cultural factors in different communities. The construction of reasons for living inventories is based on a community-based participatory research methodology [40]. Current and future iterations of reasons for living inventories are likely to be informed by the participants unique to specific cultural communities. This makes resilience and reasons for living a robust suicide assessment approach with its sensitivity to diverse populations.

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Abstract

There are many terms that have been used to describe the rates of suicidality among sexual minority individuals – epidemic, tragedy, crisis, etc. For over 40 years, calls to address this issue have come from mental health clinicians, researchers, public policy experts, and, most importantly, from within the community itself. In any discussion of sexual minority suicidality, there are a number of considerations, including rates of suicidality, intersectionality, explanatory frameworks, assessment of general and culturally specific risk factors, treatment

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adaptations, and policy implications. This chapter highlights research and evidence-based practice for each of these considerations and goes one step further by explaining and contextualizing these findings within Integrated Affirmative Therapy, a framework that is easily translatable into multiple professional fields seeking to prevent sexual minority suicide.

Keywords

Suicide · LGBT · Culture · Therapy · Assessment

“Sexual minority” is an umbrella term for people whose sexual identity is other than heterosexual. As such it references identities including lesbian, gay, bisexual, queer, asexual, pansexual, sexually fluid, those questioning their sexual identity, and many more. Of note, “sexual minority identity” refers to the label that one chooses for oneself and may not explain the full extent of their sexual orientation (attractions, behaviors, etc.). The first step in understanding sexual minority suicidality is to grasp the extent of the problem.

Rates of Suicidality

The term “suicidality” is used here to encompass thoughts, urges, intentions, and actions related to the act of killing oneself, while “suicide death” and “die-by-suicide” are terms reserved for the act of dying via an intentional self-directed behavior. One challenge in discussing sexual minority suicidality is the lack of data on suicide as a cause of death [30]. The official classification of suicide as a cause of death is typically determined by coroners, who are required to collect certain information about individuals determined to have died by suicide. Because sexual identity is not included as a documented variable in coroner reports, there is a lack of data regarding the rates of suicide deaths among sexual minority individuals.

Although the current literature does not support strong conclusions about suicide deaths among sexual minority individuals, there is clear evidence sexual minority individuals experience higher rates of suicidal ideation and suicide attempts than heterosexual individuals. In the United States, analyses of nationally representative samples, college student samples, and veteran samples find that rates of suicidal ideation and suicide attempts are three to four times higher in sexual minority individuals, compared to heterosexual individuals [2–4, 45, 79]. In one analysis of ethnicity, sexual identity, and suicidal ideation, sexual minority individuals were three times as likely to endorse past-year suicidal ideation, and this ratio was consistent across ethnicities (Black LGB: 17.6%, Black heterosexual: 5.4%; Asian LGB: 20.8%, Asian heterosexual 6.0%; Hispanic/Latino/a/x LGB: 12.9%, Hispanic/Latino/a/x heterosexual: 5.3%; White LGB: 18.3%, White heterosexual: 5.2%; [45]). A recently published analysis of three sexual minority cohorts shows that up to 30% of sexual minority adults report a suicide attempt throughout their life [52].

Sexual minority suicide disparities are also evident in international data. One analysis from the Netherlands found that, even after controlling for psychiatric morbidity, rates of active suicidal ideation were three times higher in sexual minority men than heterosexual men, and rates of lifetime suicide attempts were five times higher in sexual minority men. However, this study did not find any differences between sexual minority women and heterosexual women [15]. Additional international evidence comes from an analysis of suicidality among sexual minority individuals in Colombia by The Williams Institute. A notable 50% of sexual minority individuals in Colombia endorsed suicidal ideation and about 25% endorsed a history of suicide attempts [83].

In summary, although conclusions about sexual minority suicide deaths are limited by current practices in coroner documentation procedures, there is a strong base of evidence highlighting the higher occurrence of suicidal ideation and suicide attempts in sexual minority individuals around the world.

Intersectionality

Sexual identity is only one of many identities that shape the social experiences of sexual minority individuals. The term “intersectionality” – described in Kimberlé Crenshaw’s seminal work – highlights the ways in which one’s sociopolitical identities interact and inform one’s experiences of power, privilege, and oppression [11]. Consistent with efforts to apply intersectionality more broadly within the empirical and conceptual literature [23, 24], it is crucial to note the wide array of experiences among sexual minority individuals without taking a reductionistic, additive approach. In other words, the suicide risk of a Native American bisexual woman cannot be understood simply by adding the risks associated with being bisexual, the risks associated with being Native American, and the risks associated with being a woman; instead, we must understand the ways in which these identities shape each other, and the resultant influence on suicide. Currently, the literature on multiple identities influencing sexual minority suicide is broadly predominated by an additive approach that is not aligned with intersectionality. However, there have been important findings on the ways in which co-occurring identities (e.g., ethnicity, gender identity, age, religion/spirituality) affect sexual minority suicide, which are reviewed below.

Ethnic Minorities

There have been multiple attempts to determine whether sexual minority people of color exhibit higher rates of mental health symptoms (e.g., suicidality) compared to White sexual minority individuals [12, 53, 56]. One perspective is rooted in the “Double Jeopardy Hypothesis” [25, 34, 58], which suggests that the stress of holding multiple stigmatized identities is greater than the stress of holding one stigmatized identity, likely yielding increased mental health burden [7]. There is quantitative support for the Double Jeopardy Hypothesis regarding suicidality, with the literature generally suggesting that Black and Hispanic/Latino/a/x sexual minority individuals

report higher levels of suicidality than White sexual minority individuals [45, 50, 60]. Qualitative literature also offers some support for this position. Bowleg [6] interviewed gay Black men on their perspectives on intersectionality. One participant stated “Being a Black gay male means also facing discrimination within the gay community as well. There is a huge gap between the White gay community and the Black gay community.” Another participant stated “Well it’s hard for me to separate [my identities]. When I’m thinking of me, I’m thinking of all of them as me. Like once you’ve blended the cake you can’t take the parts back to the main ingredients.”

An alternate perspective, captured by Double Consciousness [16] and Triple Consciousness [66], suggests that multiple identities interact to yield contextual variations of social power. Although individuals may be further stigmatized due to multiple minority identities, there may also be contexts in which the interaction of their multiple identities yields a degree of resilience that they may not have garnered from any single identity. For instance, a Latina lesbian woman may have developed methods of coping with stigma through her earlier experiences as an ethnic minority, which may then provide a level of resilience when confronted with the social stigma directed towards lesbian women. However, if she had not grown up as a Latina woman, she may have been less prepared to deal with the stress of living as a sexual minority individual. This line of thought may be supported by a number of findings that show no increase in suicidality for ethnic and sexual minority individuals (e.g., a Black gay man) compared to White sexual minority individuals (e.g., a White gay man; [57, 70]).

Gender

In order to understand the impact of gender on suicide, a distinction is required between biological sex, gender identity, and sexual identity. Gender identity (the labeling of one’s gender), has unique association with suicide risk, regardless of biological sex (e.g., label assigned at birth, primary sex characteristics, secondary sex characteristics). It is also important to distinguish between the distinct yet highly related identity constructs of gender identity and sexual identity: sexual identity encompasses the label used to express one’s sexual and romantic attractions and behavior, while gender identity encompasses the label used to express one’s internal experience of gender.

Although some research studies only report on men and women, more recent studies embrace gender identity as a continuous spectrum. Research following the gender binary reflects findings from the general population, such that sexual minority women endorse higher rates of suicidal ideation, suicidal planning, and lifetime suicide attempts [59]. Although gender minority suicidality is discussed thoroughly in ► Chap. 47, “Understanding Suicide Among Gender Minorities,” of this volume, it is critical to acknowledge the power dynamics in the broader LGBTQ+ community which stigmatize or ostracize gender minority individuals, which may influence their experience of suicidality. For instance, transphobia has been well-documented within the broader LGBTQ+ community (e.g., [65]).

Sexual Minority Youth

Sexual minority youth are at heightened risk for suicidal ideation and suicide attempts, compared to heterosexual youth. About 20% of sexual minority 18-year-olds report a suicide attempt in the past 5 years, compared to 5% of heterosexual 18-year-olds [26]. Retrospective analyses reveal that rates of past-year suicide attempts are 3–4 times higher among sexual minority adolescents (8% vs. 26–37%; [22, 40]). One analysis of the National Violent Death Reporting System (NVDRS) estimated that sexual minority youth accounted for up to 24% of all adolescent suicide deaths [69]; however, this finding has been disputed based on limitations inherent in the NVDRS (e.g., sexual identity was only coded for 21% of the total dataset; [9]).

Given the reality that sexual minority youth spend a vast amount of their time in school settings, much attention has been paid to these learning environments. Among adolescents who are bullied, sexual minority youth experience suicide rates 2–4 times those of heterosexual adolescents who are bullied [20, 55]. The conclusion that adolescence represents a critical period of sexual minority suicide risk is further supported by a recent finding that rates of suicidality tend to decrease from the age of 18 through the age of 40 [26].

Religion/Spirituality

There has been much debate about the intersection of religious/spiritual identities and sexual minority identities. Although religion has been documented as a suicide protective factor for over 175 years [18, 21, 67, 71, 81], it is also true that certain religious/spiritual traditions have histories of discriminating against sexual minority individuals [9, 13, 73]. Up to 75–80% of sexual minority adults were reared with Christian religious traditions [64, 80, 86]. These individuals report a wide array of identity reconciliation outcomes, including: a lack of conflict, rejecting their sexual minority identity, rejecting their religious/spiritual identity, and the integration of these identities [46, 68, 72, 77]. One analysis of Austrian sexual minority adults revealed that religious affiliation predicted lower lifetime suicide attempts but did not have any relationship with current or past-year suicidal ideation [42]. Gibbs and Goldbach [28] found that past-month suicidal ideation was predicted by unresolved religious conflict, parental anti-LGBQ religious beliefs, and leaving one's religion of origin due to conflict. Hoeflein [35] analyzed religious/spiritual variables alongside minority stress factors and found implications for identity integration, defined as the harmonious synthesis of two cultural identities. For those with higher identity integration, there was no relationship between internalized homonegativity and suicidal ideation, which highlights the potential for identity integration to serve as a strong suicide protective factor. Clearly, there is much to be learned about the relationships between sexual minority identity, religion/spirituality, and suicidality.

In sum, it is important to remember that the lives of sexual minority individuals are continually imbued by their co-occurring identities, which influence all their experiences, including suicidality.

Understanding the Why of Sexual Minority Suicidality: Explanatory Frameworks

For professionals in the fields of mental health, research, social work, and public health, it is critical to understand the motivating factors behind these heightened rates of suicidality. It is only through such an understanding that we will be able to effectively address the specific mechanisms through which suicide disparities are maintained among sexual minority individuals. In this section, we will review four frameworks shown to help understand and prevent sexual minority suicide.

The Minority Stress Model [49]

This is the seminal framework for understanding sexual minority mental health. The minority stress model extends social stress theory by highlighting the additional stressors placed upon sexual minority individuals by society's stigmatization of their sexual identity [49]. Meyer conceptualized minority stress via four components that are important for understanding sexual minority mental health: experiences of prejudice (e.g., discrimination, verbal/physical/sexual assault), anxious expectations of rejection/abandonment (rejection sensitivity), internalization of negative cultural stigmas (internalized homonegativity), and concealment of stigmatized sexual identity [48, 49].

Notable extensions of the minority stress framework include Meyer's own development of the minority stress model specific to suicide [51]. Another critical contribution is the Integrative Mediation Framework [32], which suggests that the effect of minority stress factors (e.g., internalized homonegativity, rejection sensitivity) are mediated by general psychological processes (e.g., coping, emotion regulation). This iteration of minority stress theory facilitates clinical perspectives, which can then be used in therapeutic settings, as it offers specific targets for intervention.

The Psychiatric Model of Suicide [47]

Likely the most well-known theory of suicide in the general population, this model suggests that individuals die by suicide due to two primary factors: depression and hopelessness. There is a wealth of literature supporting higher rates of depression in sexual minority individuals when compared to heterosexual individuals [10]. Of note, recent developments in sexual minority mental health include the Effective Skills to Empower Effective Men (ESTEEM) protocol, which is a transdiagnostic

cognitive-behavioral intervention designed to reduce negative psychological (e.g., depression) and behavioral (e.g., substance use) outcomes for sexual minority men [62].

The Interpersonal Theory of Suicide [38]

Another general approach to suicide, this theory suggests that suicide attempts are motivated by two social factors: perceived burdensomeness (the felt sense that one is placing an undue or excessive burden on others) and thwarted belongingness (the experience of disconnection from a group that was previously important to one's identity). These factors are easily extrapolated to the sexual minority community and provide a further illustration of rooting culturally specific efforts within gold-standard general practices. For instance, thwarted belongingness may be present for sexual minorities who have been rejected by important groups, such as families or religious organizations [28, 44, 74]. Also, perceived burdensomeness may be present in the case of a sexual minority individual who feels like their sexual identity creates additional problems for their loved ones, such as guilt that their parent may be experiencing stigma due to their sexual identity.

The Cultural Theory and Model of Suicide [8]

This transcultural approach suggests that suicide risk among cultural minority groups (ethnic/gender/sexual/ minority individuals) can be distilled into four primary factors: minority stress, idioms of distress, social discord, and cultural sanctions. In this model, minority stress is consistent with the work of Meyer [49], as described above. Idioms of distress refers to the language used by cultural groups to discuss suicidality, as well as the variations in suicide methodology; for sexual minority individuals, it is important to note a common suicide method is the use of alcohol and/or drugs (e.g., [14]). Social discord can be defined as disruption in one's social network; when applied to sexual minority individuals, it can be useful to consider the role of family support or rejection (e.g., [74]) and the presence of LGBQ support groups (e.g., [85]). Cultural sanctions refer to the cultural meanings of potential suicide antecedents (e.g., LGBQ hate crimes) and the culturally driven acceptability of suicide; this factor may be driven by moral objections to suicide (e.g., [19]). For more on this theory, see ► Chap. 41, "Cultural Considerations in Suicide Research and Practice," in this volume.

In sum, when seeking to understand or explain sexual minority suicide, there is benefit to developing conceptualizations based on both culturally specific suicide theories [8, 49], and general suicide theories [38, 47]. As we transition to addressing clinical and policy implications, these models will be critically important in fostering adaptations, which strike at the core factors maintaining sexual minority suicide.

Adapting Clinical Practice: Integrated Affirmative Therapy

At the core of any culturally appropriate approach to suicide prevention is the fundamental principle that sexual minority-specific suicide prevention is grounded in general best practices of suicide prevention. This position represents the core of Integrated Affirmative Therapy (IAT), which is rooted in three tenets: (1) sexual and gender minority orientations are natural variants of human behavior, whose development is influenced by biological, social, psychological, and political factors; (2) effective LGBTQ+ psychotherapy has its foundation in strong general psychotherapy practice; and, (3) the client's rights to autonomy and self-determination are paramount, such that no client should be pressured into making specific choices about their sexual or gender orientation, expression, or identity [29, 78]. These principles inform clinical assessment, such that clinicians should assess gender/sexual identity, intersecting identities, related behaviors (e.g., expression, sexual practices), and phase of identity development. Subsequently, IAT influences case conceptualization, to include a nuanced and balanced understanding of the client's cultural identities and general psychological deficits [1, 32]. Finally, treatment planning [29] targets both general psychological processes and culture-specific processes to undermine psychological distress.

By adopting an IAT approach, culturally appropriate suicide prevention for sexual minorities becomes more a task of adaptation rather than novel creation. Best practices in suicide prevention include lethal means restriction, safety planning, early detection, and the clear assessment of both acute and chronic risk factors. These generalist gold standards are well situated to clients across all sexual identities. At the same time, there are several adaptations or enhancements that best situate these practices for application with sexual minority individuals. The next section highlights evidence-based cultural adaptations to the assessment, management, and long-term treatment of suicidality. A brief case example is then presented to illustrate culturally adapted suicide intervention.

Assessing Sexual Minority Suicide Risk

Clinicians should assess general levels of stress, as well as the presence of stressful events, which are often connected to suicide. In addition, there are specific cultural factors that may hold critical pieces of information for treatment planning. When assessing the suicide risk of a sexual minority individual, questions should be posed in a manner that emphasizes that suicidality is not the fault of the client. For instance, instead of asking "Do you feel like you're really sensitive to people judging you?" a more appropriate question would be: "We know that sexual minority folk are often treated as the 'other,' even to the point of being rejected or discriminated against – do you find yourself worrying a lot about rejection in your relationships?" While the first question seems to blame the client for being "sensitive," the second question starts by normalizing the real-world experiences of sexual minority individuals before asking if that experience applies to the client. In addition, clinicians may benefit from the Cultural Assessment of Risk for Suicide (CARS) tool, which measures a vast majority of cultural suicide risk factors [8] (Tables 1 and 2).

Table 1 Adaptations for assessing general risk factors

General risk factors	Sample queries
Hopelessness [47]	• “When you think about your future, what are your hopes, dreams, or goals specifically related to being gay/bisexual/lesbian/queer?” • “How likely do you think it is that you will meet these dreams/goals?”
Social Support [8]	• “Who are the people that you are closest to?” • “How satisfied are you with the support you receive regarding your sexual identity?” • “How would you describe your relationship with your family and their reaction to your sexuality?” • “Some folks talk about a “chosen family” that provides support. Do you have special people in your life that accept you as you are?”

Table 2 Assessing sexual minority risk factors

Sexual minority risk factors	Sample queries
Internalized homonegativity	• “What are your thoughts about your sexual identity?” • “How do you feel about other gay/lesbian/bisexual/queer people? Are there any stereotypes that seem true to you?” • “If you had the option to become totally straight, would you take it?” • “What are the good things about being LGBQ?”
Experiences of violence and discrimination [49]	• “Have you recently been discriminated against because of your sexual identity?” • “Have you recently been physically, sexually, or verbally attacked because of your sexual identity?”
Cultural sanctions [8]	• “What messages have you heard about suicide being acceptable and understandable for LGBQ folx?” • “What messages have you heard about suicide being a part of being lesbian/gay/bisexual/queer?” • “Do you know any LGBQ people who have died by suicide? What do you think about their decision?” • “What does your moral code say about suicide?”
Rejection sensitivity ([49]; [61])	• “Do you find yourself worrying about people rejecting you when they start to get close? Even people who are probably safe?” • “When you meet new people, do you assume that if they know you are a sexual minority that they will not want to be close to you?”

Managing Sexual Minority Suicide Risk (Safety Planning)

Safety planning is one of the most common and evidence-based interventions for those experiencing suicidality who do not require inpatient or crisis services [82]. The safety plan should be explained to the client as a step-by-step tool that they can use to manage their own suicidal risk, including individual coping and seeking additional help. When completing a safety plan with a sexual minority individual, there are a number of

Table 3 Safety plan adaptations for sexual minority clients

	Sexual minority adaptations
1. Making the environment safe	• In addition to firearms means restriction, also restrict access to substances which could be used for overdose and hanging (most common methods for LGBQ folx). • Identify people who will help make the environment safe (e.g., chosen family).
2. Warning signs	• Thoughts related to internalized stigma, including: ◦ Being a burden, ◦ Not belonging anywhere, ◦ Feeling lonely or isolated, ◦ Wishing to be straight, • Feeling unable to fulfill hopes for life as a sexual minority person (e.g., marriage, parenthood)
3. Internal coping strategies	• Access reminders for reasons for living and hope for the future (e.g., supportive friends, same-gender relationship) • Envisioning effective disclosure of sexual identity to important others, including when, where, and how (coming out)
4. People/settings that distract me and have fun	• Ensure these people are supportive of sexual minority identity (e.g., chosen family) • Using queer-affirming humor • Explore LGBQ related pleasurable activities
5. Reach out to family/friends for practical and emotional support	• Ensure these people are affirming of sexual minority individuals
6. Reach out to professionals/agencies	• Remove stigma-related barriers to accessing therapist • Include LGBQ+ friendly agencies, such as the Trevor project • Include religious/spiritual/community leaders who affirm the client's sexual identity
7. Emergency services	• Identify emergency services that are supportive of sexual minority individuals • Discuss with client when and how to use these services, including how to navigate sexual minority issues

adaptations based on the evidence-based explanatory models discussed above (e.g., minority stress). These adaptations include specific warning signs, considerations for seeking social support, and restricting access to suicide methods, which are most prevalent for sexual minority individuals. Table 3 lists a number of considerations for safety planning with sexual minority individuals.

Long-Term Treatment of Sexual Minority Suicide Risk

For some sexual minority individuals, suicidality may be chronic and it may be driven by risk factors that require a longer course of psychotherapy. Within this process, there are a number of considerations. Taking an integrative approach with

sexual minority clients requires attending to both cultural suicide risk factors and general suicide risk factors.

Balancing Crisis Management and Treatment of Mediating Factors The first priority in treating anyone with suicide risk is to establish a plan to promote their safety. This obligation carries throughout the course of treatment and may from time to time take precedence over the reduction of psychological pain and the treatment of suicide-mediating risk factors. Bruce Bongar [5] in his seminal work *The Suicidal Patient: Clinical and Legal Standards* notes:

If the clinician becomes preoccupied with the issue and threat of the patient's suicide, it can divert the clinician from the primary task of attending to more disposition-based treatment – therapeutics that are solidly grounded in an understanding of the power of a sound therapeutic alliance and a well formulated treatment plan based on the detection of known elevated risks factors.

Informed Consent There are any number of reasons that sexual minority individuals may be hesitant about fully engaging in psychotherapy, including the history of pathologizing same-gender attractions and the continued harmful practice of sexual orientation change efforts (SOCE; e.g., reparative therapy, conversion therapy) by some mental health clinicians. As such, there is much benefit to be had in open conversations about the goals, strategies, and outcomes that will guide the clinical work. Informed consent is an often-overlooked opportunity to facilitate treatment engagement and reduce dropout by sharing the principles of Integrated Affirmative Therapy discussed above: the normality of sexual/gender expression on a natural continuum, the client's autonomy, and the lack of a clear or intended outcome. This process may be completed formally (e.g., signed documentation), or informally throughout treatment. Either way, clinicians should consider informed consent to be a unique opportunity for adapting standard clinical practice for sexual minority individuals.

Passing the Test As many sexual minority individuals approach psychotherapy with a number of hesitations, it is common for clients to hesitate before fully disclosing information related to their sexual identity, behaviors, or attractions. Clients may present multiple “tests” or opportunities for the clinician to show that they are affirmative of their clients and the sexual minority community. These tests may be subtle or overt. They can also be tests related to systemic factors (documentation affirming of sexual minority individuals), environmental factors (brochures, flyers, posters), or clinical knowledge skill (understanding of minority stress; [39]). The core methods for “passing the test” are empathic listening and the incorporation of minority stress into the case conceptualization and psychoeducation. Another way that clinicians can “pass the test” is by using the case conceptualization as a collaborative process, which affirms the client's sexual minority identity, acknowledges the harmful effects of social stigma (e.g., minority stress), and offers LGBQ-specific interventions or adaptations [54]. One example of a client-centered approach that is easily adapted for sexual minority individuals is David Jobes' Collaborative

Approach to Managing Suicide (CAMS; [36]), which provides excellent guidance for engaging clients with suicidal concerns in their own assessment and treatment.

Likely Treatment Targets Suicidality may be a long-term treatment goal for some sexual minority clients in psychotherapy. After ensuring safety, the next step is to determine whether distress within any life domains affects chronic suicide risk. Some of these domains and related targeted problems may include: (1) interpersonal acceptance (e.g., coming out), (2) relationship functioning (e.g., avoidance, rejection sensitivity, conflictual relationship style), (3) identity integration (e.g., as opposed to conflict between one's sexual attractions and their racial/ethnic, religious/spiritual, or other cultural identities), and (4) general psychological well-being (self-acceptance, self-esteem). Once the specific domains are identified, the next step is to address the primary factors maintaining distress within each domain. Three of these potential treatment targets are discussed briefly here.

First, **internalized homonegativity** (e.g., self-stigmas) is defined as the internalization of society's negative stigmas (e.g., attitudes) toward sexual minority individuals [49]; these stigmas may present as wishes to be heterosexual, negative stereotypes about same-gender relationships, and negative predictions about sexual minority lives (e.g., loneliness, lack of children, contracting HIV/AIDS). This process may impact any of the life domains identified above. Internalized homonegativity has been directly linked to suicidal ideation in sexual minority individuals [43]. Second, **rejection sensitivity** is defined as the anxious expectation that other people will reject or abandon the sexual minority individual due to their sexual orientation [61]. This factor may manifest as anxiety about seeking a same-gender relationship, anxiety about a relationship ending, or severe fear that non-romantic people will reject the individual if their sexual orientation is discovered (e.g., employer, teachers). Rejection sensitivity is most likely to impact relationship domains, but may also play a role in identity conflict. Rejection sensitivity has been directly linked to suicidal ideation in sexual minority individuals (e.g., [35]). Third, **shame** is a core emotion, which can be conceptualized as the globalized experience of being wrong, tainted, or inadequate in some way; this emotion is inherently related to negative sexual minority identity [41]. Shame is an especially difficult emotion to contact, and for some individuals, suicide may seem like the only escape from this emotion. Shame is also linked to a global, negative self-image and low self-esteem.

Adaptation of Current Treatment Approaches While there are no empirically validated treatments for sexual minority suicidality, established suicide therapies can be adapted to address these concerns. "Three treatments with the most established empirical support for suicide risk include: Dialectical Behavior Therapy (DBT), Cognitive Therapy (CT), and the Collaborative Assessment and Management of Suicidality (CAMS)" [37]. While integration and adaptation of these evidence-based practices with LGBTQ-specific approaches is still in its infancy, Integrative Affirmative Therapy [29] articulates a principles approach to the adaptation process: (1) Establish an Affirmative Therapeutic Alliance (2) Reduce Minority Stress (3) Enhance Coping (4) Improve Interpersonal Relating. The skillful integration of LGBTQ-specific therapy with general suicide

reduction procedures requires knowledge of both areas of treatment, flexibility in approach, and clear focus on the appropriate outcomes. For an excellent resource on adapting evidence-based treatments for gender and sexual minority (GSM) persons, we recommend the handbook published by Pachankis and Safren [63].

Working in the Family System In working with sexual minority individuals, it is important to define who “family” is for them. “Family” may mean their biological relatives, or it may include the client’s “chosen family” (nonbiological friends and other important life figures who affirm their sexual minority identity). Regarding suicidality, research has highlighted that family decisions can greatly reduce or increase suicide risk [74]. As such, the family system may be a primary area for intervention, whether directly (e.g., family therapy, inviting the family to a session) or indirectly (e.g., providing resources that the client can share with their family). Treatment in this area may look like psychoeducation, support groups for parents of sexual minority individuals, or communication skills. Psychoeducation is likely to be critical. Some parents may believe that they are rejecting their children in effort to protect them; some may have internalized negative myths about sexual minority individuals; others may feel that they made a mistake or caused their child’s sexual minority identity. In all of these cases, psychoeducation can help the families understand how best to support and protect their loved one. The Family Acceptance Project (<https://familyproject.sfsu.edu>) has produced a number of impressive resources for intervening with families of sexual minority youth and their approach has a strong record of helping families come to terms with their sexual minority family member ([74]; [75]). When appropriate, clinicians should consider working with affirming religious/spiritual/community leaders who may provide additional guidance to the family on affirming and supporting the sexual minority individual. Finally, if the family system is unresponsive and the client needs additional protection, the therapist should assist the client in taking actions to seek safety, including communication skills, boundary setting, and deciding how best to relate to their family.

Case Study: “James”

“James” is a 25-year-old, Black, bisexual cisgender man. He is a veteran who was sexually assaulted by a commanding officer in the military; since leaving the armed forces, he has been employed as an engineer. His parents know of his bisexuality; they did not reject him, but their unspoken rule is “we don’t talk about it.” His sister married a man who often spouts gay slurs; the family laughs and never intervenes. One year ago, James’ first (and only) same-gender relationship ended when he discovered that his boyfriend was cheating on him. Subsequently, James was hospitalized due to active suicidal ideation with planning, intent, and access to lethal means (prescription opioids). Since discharge, he has attended an intensive outpatient program for crisis stabilization. The referring documentation states that James has denied suicidal intent and planning consistently for the past 12 months but still experiences passive suicidal ideation (“I just wish God would let me die so I didn’t have to live with being bisexual”). He is being released to your care in an outpatient setting to work on his

suicidal ideation. When asked what would make treatment truly successful, James replied, “I want to be able to feel connected to other men again.”

After reading this summary, take a moment to think about how you would adapt treatment to target the suicide risk of this client. You are encouraged to pause to write down thoughts within the following steps:

Questions to determine suicide risk:

- 1.
- 2.

Suicide risk level (low/moderate/severe/imminent):

Strategies for risk management:

- 1.
- 2.

Adaptations for long-term treatment of suicidality:

- 1.
- 2.

Now that you have taken some time to brainstorm how you would approach this case, see below for some potential adaptations in these domains. The list of gold-standard cultural adaptations is endless; those listed below simply represent a small selection.

Questions to Determine Suicide Risk 1) Assess James’ connection to affirming social support (“Do you have anyone you can reach out to for support, someone who is supportive of your bisexuality?”).

2) Assess James’ internalized stigma (“Do you notice negative thoughts about yourself related to being bisexual? Thoughts like “I deserve the way people treat me,” “Bisexual people always kill themselves” or “My life would be so much better if I was straight?”).

Suicide Risk Level (low/moderate/high/imminent) Based on chronic passive suicidal ideation, a history of suicide planning, and access to lethal means, James carries at least a moderate risk for suicide.

Risk Management 1) Create a safety plan that incorporates his sexual identity in warning signs (e.g., being called a slur) and coping skills (e.g., watching healthy LGBT+ online videos).

2) Encourage him to set up daily check-ins with a friend who supports his bisexuality and knows what he is experiencing.

Long-Term Treatment of Suicidality 1) Facilitate a strong rapport by researching the intersectionality of his various identities (bisexual, Black) and asking him if this information fits his own experience as a Black bisexual man.

2) Target the risk factors that maintain his cultural suicide risk (e.g., lack of family support, difficulty being vulnerable in relationships with men, hopelessness).

3) Foster coping skills, including those required to improve his general psychological functioning and.

4) Increase his understanding of the connections between internalized negative attitudes toward bisexuality, his self-esteem, and his hope of the future.

Implications for Policy and Public Health

In 2010, the US Department of Health and Human Services released the *Healthy People 2020* initiative, which outlined 10-year goals for health promotion and disease prevention. One of the stated goals is to “improve the health, safety, and well-being of lesbian, gay, bisexual, and transgender (LGBTQ+) individuals.” Several areas for change have been identified to reduce suicide ideation, attempts, and suicide deaths within the sexual minority community.

1. **Reduce peer aggression and bullying and increase school safety for LGBTQ + students.** Extensive research has documented the association between bullying of LGBTQ+ youth and suicide behavior [17]. Data show that anti-bullying policies and protective school climates reduce risk of past-year suicidal ideation among sexual minority youth [31, 33]. As such, there is need for the expansion of these protective school measures across the country.
2. **Reduce family rejection, forced sexual orientation change efforts, and homelessness among youth.** Dr. Caitlin Ryan and her colleagues have demonstrated the negative impact – including suicide behavior – of family rejection, including forced religious-based conversion therapy. Through the Family Acceptance Project, excellent education and counseling resources are available for families conflicted about their child’s sexual or gender orientation [74, 76].
3. **Reduce social isolation among older LGB individuals.** Older LGB adults have an increased risk of psychological distress as compared to their non-LGB counterparts [27, 84]. Public health efforts may include educational outreach, improved access to health care, and increased LGB-friendly housing. Intergenerational programs to reduce ageism with the LGBT community are also suggested.
4. **Improve suicide surveillance for sexual minorities.** In order to adequately study suicide deaths among LGBQ individuals, more must be done to record these deaths in coroners’ records (death certificates), the main source of suicide data. Dr. Ann Haas and her colleagues [30] have urged that states enact laws to require updated procedures and have developed a prototype.

Conclusion

Even after 40 years of substantial research and clinical advancement, sexual minority individuals continue to experience heightened levels of suicidal ideation and suicide attempts. This disparity is rooted in the effects of social stigma and the subsequent impacts on LGBQ communities and individuals. Moving forward, the best way to address this disparity is to culturally adapt every step of suicide prevention (public

prevention efforts, risk assessment, risk management, long-term treatment) and public policy relevant to sexual minority suicide. There is no greater calling in the field of mental health than to reduce suicidality, maybe most especially for those who are judged simply for pursuing love.

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Understanding Suicide Among Gender Minorities

47

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Abstract

Within the last decade, considerable research has highlighted the alarming rate of attempted suicide and suicidal ideation among gender minorities compared to the general population. For this chapter, gender minorities will be defined as individuals whose self-identified gender is not aligned with their sex assigned at birth. These alarming rates can be linked to severe marginalization, discrimination, stigma, and higher rates of trauma faced by gender minority communities, as well as a lack of appropriate mental healthcare stemming from inadequately trained providers and limited evidence-based interventions that are culturally specific to the unique needs of gender minorities. This chapter aims to examine the prevalence, causes, and implications of suicide among gender minorities as well as preventative measures that can be implemented for mental health providers and policymakers.

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Keywords

Suicide · Suicidal ideation · Gender minority · Transgender · Marginalization · Discrimination · Stigma · Mental health · Suicide prevention

Introduction

Suicide is a phenomenon with complicated biopsychosocial interactions and, in the United States, has been increasing at alarming rates over the past decade [1]. According to the Centers for Disease Control and Prevention (CDC) National Vital Statistics System, suicide is the tenth leading cause of death in the United States, with a reported 35% increase in suicide rates from 1999 through 2018, causing suicide to be classified as a public health concern [61]. One group that experiences a higher degree of risk for suicide is gender minorities (those whose gender identity does not align with the sex assigned to them at birth). A US transgender survey reported that 39% of the respondents had experienced psychological distress, and 40% have attempted suicide, compared to 4.6% of the general population in their lifetime [2]. Although there has been an increase in recognition of gender minorities within the United States, the lingering effects of historical oppression and marginalization continue to have catastrophic and unfair consequences. Due to continuous stigma, discrimination, violence, and the psychological sequela that follow, collectively known as “gender minority stress,” gender minorities are at a higher risk of mental health issues such as depression, minority stress, and suicidal ideation [3–5].

The language around gender and sexuality has been evolving rapidly. Identity is a cognitive construct influenced by societal movements and cultural considerations. Therefore, it can be expected that definitions of gender diversity will continue to change and adapt to the times. For this chapter, we will be analyzing the antecedents and prevalence of suicide among gender minorities. As of right now, the term gender minority is an umbrella term for those whose self-identified gender is not aligned with their sex assigned at birth. Where data is available, we will distinguish between specific groups that fall under the umbrella of gender minorities, using the language of the studies themselves. Although the use of different definitional distinctions of the study of suicide limits the available data, there is a consensus that gender minorities and those questioning their gender identity are at higher risk for suicidal behavior.

Gender Identity Development

Our sense of self is reinforced when validated and affirmed by others, derived from the innate need to be witnessed and recognized for who we are [6]. Gender minorities may experience non-affirmation of their self-identified gender as a significant stressor, with crucial impacts on mental health and well-being [5]. Several models

have been proposed to explain the process by which one comes to know and affirm their gender identity. For the purposes of this chapter, we will focus on Arlene Istar Lev's [7] model of "Transgender Emergence" as this model is one of the most flexible and widely accepted at this time and identifies specific therapeutic tasks associated with identity emergence. This aspect of the model is important in thinking about suicide risk reduction as it can guide therapeutic interventions in a way that is specific to the experiences of gender minority clients. As stated by Lev [7], below is the six-phase model of "Transgender Emergence":

- **Awareness** – In this first phase of awareness, gender-variant people are often in great distress; the therapeutic task is the normalization of the experiences involved in emerging as transgender.
- **Seeking Information/Reaching Out** – In the second phase, gender-variant people seek to gain education and support about transgenderism; the therapeutic task is to facilitate linkages and encourage outreach.
- **Disclosure to Significant Others** – The third phase involves the disclosure of transgenderism to significant others (spouses, partners, family members, and friends); the therapeutic task involves supporting the transgendered person's integration in the family system.
- **Exploration (Identity and Self-Labeling)** – The fourth stage involves the exploration of various (transgender) identities; and the therapeutic task is to support the articulation and comfort with one's gendered identity.
- **Exploration (Transition Issues and Possible Body Modification)** – The fifth stage involves exploring options for transition regarding identity, presentation, and body modification; the therapeutic task is the resolution of the decision and advocacy toward their manifestation.
- **Integration (Acceptance and Post-Transition Issues)** – In the sixth stage, the gender-variant person is able to integrate and synthesize (transgender) identity; the therapeutic task is to support adaptation to transition-related issues (p. 235).

Throughout these phases, clinicians need to recognize protective and risk factors specific to gender identity emergence in an effort to decrease overall suicide risk. For example, the first phase of awareness is characterized by normalization of the emergence experience, which can be distressful at the beginning. Therefore, initial optimism can be a protective factor against suicide [8, 9]. Additionally, the two stages, seeking out information and disclosure to significant others, have a social component. Social support can be instrumental in reducing distress and suicide risk among gender minorities [10, 11]. Social support may also be important to consider in safety planning with suicidal clients. For example, gender minorities may benefit from safety planning, which includes trusted members of their peer group [12]. For those who cannot identify trusted members of their peer group, peer support and peer-led suicide hotlines may be considered as part of safety planning. The next three phases focus on exploration and integration. During these phases, it is important to have a concrete understanding of the client's emotional stability as a protective factor against suicidal behavior [13]. Clinicians may also find themselves in the role of

advocacy around transition-related medical care, the denial of which can have adverse impacts of mental health [14, 15]. Overall, clinicians should be familiar with the different phases of the model and the unique issues that may be present to implement adequate interventions and provide culturally appropriate resources and referrals.

Suicide Theories

Marginalized individuals in the United States are often faced with added stress due to being part of a stigmatized minority group. Sexual and gender minority stress theory conceptualizes poorer health outcomes and psychological stress due to identifying as a gender and/or sexual minority, being subject to environmental adverse experiences, increased vigilance due to previous adverse experiences derived from the minority status, and internalized negative attitudes due to societal prejudices [3, 16, 17]. Also, Parr and Howe [18] found that a significant risk factor that contributes to suicide ideation and depressive symptoms among gender minorities is gender identity-related microaggressions.

Another theory that helps conceptualize the higher suicide rates among gender minorities is the interpersonal theory of suicide. Two main components of the interpersonal theory of suicide that are also applicable to gender minorities are perceived burdensomeness and thwarted belongingness [19, 20]. Perceived burdensomeness is the perception that the individual is a burden to society, and therefore, they think that if they were gone, it would be beneficial [19]. Thwarted belongingness is when the human need for connectedness is not met, which often leads to social isolation and an increase in suicidal ideation. Trans individuals may experience an increase in solitude derived from the direct stigma and lack of social and familiar support. Due to the lack of connection and societal discriminatory behavior and stigma, the experience of being trans can be isolating and painful [20].

Prevalence Rates

To accurately determine prevalence rates, an accurate estimate of the size of the examined population is required. However, estimates of the gender minority population are difficult to determine due to marginalization, as well as the fact that population data rarely, if ever, accounts for gender minority status, and definitions of gender minorities differ across studies [21]. One study seeking to estimate the prevalence of gender minority individuals in the United States suggested that about 0.4% of the US population identified as a gender minority as of 2016, with some growth between 2006 and 2016 [22]. Another US study found as much as 0.6% of the population identified as a gender minority [23]. Similar prevalence data in Europe estimates a much lower incidence of gender minority identities, roughly 4.6/100,000, but was based on research that occurred between 1968 and 2014,

a timeframe in which gender minority identities were less visible and less well accounted for in larger population samples [24, 25].

While the exact rate of deaths by suicide among gender minorities is unknown, multiple studies estimate the rate of suicide attempts to be disproportionately high. A cross-national study on the prevalence of risk factors for suicide found that 2.7% of participants in the general population had made a suicide attempt over the course of their lifetime [26]. By contrast, a literature review of multiple studies on gender minorities and suicide attempts found the prevalence of lifetime suicide attempts by gender minorities to be between 32% and 50% [27]. A large survey of gender minorities in the United States found the prevalence of lifetime suicide attempts by gender minorities to be 40% compared to 4.6% in the general US population [2]. Known associated risk factors for suicide among gender minorities include younger age, gender identity, family and peer rejection, violence and victimization, and co-occurring mental illness and substance use, while other possible correlates include access to healthcare, ethnicity, education, and income [27–30, 62].

Risk Factors

Suicide attempts among gender minorities appear to be highest during adolescence and early adulthood. One study found that those under 25 were most at risk [62]. Another study found that 76% of those who had attempted suicide in their lifetime did so before age 21 [31]. In a study of adolescent suicide behavior between the ages of 11 and 19, researchers found higher rates of suicide attempts among trans-feminine (50.8%), non-binary (41.8%), trans-masculine (29.9%), and questioning (27.9%) adolescents compared to overall rates (14%) and rate for those who identified as cis-female (17.6) and cis-male (9.8%) [32]. In another adolescent sample, trans-feminine participants had higher rates of passive and active suicidal ideation, suicide plan, and suicide attempt compared to cis-gender participants, as well as trans-masculine participants [33]. In the same study, non-binary adolescents who were assigned male at birth had higher rates of a suicide attempt which required medical attention, and those who were questioning their gender had higher rates of death wish, suicidal ideation, suicide plan, and a suicide attempt which required medical attention, but not suicide attempt alone.

While the above studies suggest a higher risk associated with trans-feminine identity in adolescence, other studies suggest higher lifetime risk for those who identify as trans-masculine. In a study of adult participants at a gender minority conference, 41% of trans-masculine participants reported at least one past suicide attempt compared to 20% of trans-feminine participants [30]. Another study of an adult cohort in the Netherlands found that while the rate of death by suicide decreased over time for the trans-feminine cohort, the rate of death by suicide for the trans-masculine cohort remained unchanged over that same timeframe [34]. Non-binary and questioning gender minorities were largely unexamined in adult samples. In a larger sample of adults in the United States, trans-masculine participants reported a higher incidence of suicide attempts. The difference was most

stark for those identified as cross-dressing, with 44% of those who cross-dressed in a masculine fashion reporting a past suicide attempt compared to 21% of those who cross-dressed in a feminine fashion [29].

A contributing risk factor that impacts adolescents and adults is social rejection by family, friends, or peers. A review of 21 research studies conducted worldwide found that being rejected by family, friends, or community and harassment by an intimate partner, family member, or the public were risk factors for suicidal behavior [27]. One survey of gender minorities in the United States found that 50% of those who had disclosed their gender minority identity to family experienced rejection from a family member due to gender identity [2]. That same survey found that those who experienced family rejection were more likely to have attempted suicide (49%) than those who had not experienced rejection by family (33%). Those who had been kicked out of their homes by family appeared to be at even higher risk for having attempted suicide (66%) compared to those who were not kicked out of their homes (39%). A study of Thai trans-feminine and cis-gender adolescents found that while higher rates of family rejection, lower social support, and higher loneliness were risk factors for suicide in gender minority and cis-gender participants, gender minority participants were significantly more likely to experience these risk factors compared to their cis-gender peers [35].

Violence and other forms of victimization also constitute significant risk factors across multiple studies [27]. One study explicitly examining the link between violence and suicide among gender minorities found those who had experienced physical or sexual violence were more likely to report having ever made a suicide attempt and were also more likely to have made several attempts over their lifetime [36]. Rates of violence and victimization are high among gender minorities, with one US survey finding 32% of participants over 1 year had been denied equal treatment, been verbally harassed, or been physically attacked for showing identification that did not match their gender presentation [2]. That same study found that 47% of participants had been sexually assaulted within their lifetime, while 54% had experienced intimate partner violence. A previous version of the same survey found that 78% of those who endorsed having experienced physical or sexual violence in school had attempted suicide, while over half of those who reported having experienced bullying in school reported a past suicide attempt [29]; this was true across all schooling levels in which the bullying was experienced, from primary school to college.

A correlate of violence and victimization, which has also been shown to be a risk factor for suicide among gender minorities, is co-occurring mental illness and substance use. One study found that for trans-masculine participants, physical and sexual violence were associated with alcohol use, while for trans-feminine participants, history of sexual violence was associated with both alcohol and substance use [20]. Another study found that depression and a history of substance use treatment were associated with a history of suicide attempts [37].

While screenings and interventions have been shown to be effective in preventing suicide more broadly, the lack of affirming healthcare resources for gender minorities has been shown to have a potential association with increased risk for suicide attempt

[29, 38]. In a large US sample, 60% of those who reported a past suicide attempt had also been refused healthcare [29]. In the same survey, high rates of suicide attempts were also reported by those who endorsed delayed or missed preventative medical care (51%) and those who delayed or missed care for illness or injury (56%).

Similarly, few studies have explicitly looked at ethnic, education, and income disparities as they relate to suicide among gender minorities. One Canadian study that specifically looked at all three found that the highest rates of suicide attempts were among indigenous peoples (55.31%), despite this group making up less than 1.5% of all participants, while the lowest rates of suicide attempts were among Caucasian participants (36.8%) [28]. In this same study, those who had completed high school education or less reported the highest rates of suicide attempt (50.70%), while those with an advanced degree reported the lowest rates of suicide attempt (30.25%). Data on income was too limited to draw conclusions about suicide risk.

Veterans and Suicide

Transgender individuals that seek healthcare experience often experience barriers and healthcare discrimination from providers with low trans-competence. Individuals that have an additional marginalized identity and were out to their providers are at a higher risk of experiencing discrimination and an overall negative experience [39].

Despite being banned from US military service throughout most of the military's history, gender minorities appear to serve at higher than average rates. One large survey found that 18% of participants had served in the US military, with 23% of those whose gender minority status was known to a commanding officer also reporting that actions had been taken to discharge them [2]. The same survey found that gender minorities were two to three times more likely to have served in the US military than the general population, with the highest rate of service being for those who were ages 55 and 64 at the time of the survey, meaning they likely served during the Vietnam War. A study of those enrolled in care through the Veterans Health Administration found similarly high rates of gender minority Veterans based on the incidence of gender-related diagnoses in the electronic medical record, which was 7.65 times greater than the estimated rate of those same diagnoses in the general population [59]. Researchers in this study noted that one of the limitations of their data was that it likely underestimated the actual number of gender minority Veterans as not all who identified as gender minorities would have an associated diagnosis in their record.

Suicide rates among US Veterans are notably high, with rates of death by suicide 1.5 times higher than rates in the general population [40]. In a study of gender minority Veterans, 65% of participants in a national sample reported lifetime incidence of suicidal ideation, while 35% reported having experienced suicidal ideation in the past 2 weeks, and 30% had a history of at least one suicide attempt [41]. Another study on gender minority Veteran receiving care in the V.A. healthcare system found the rate of suicide-related events among those

diagnosed with gender dysphoria was 20 times higher than those same rates in the general population [42]. In a study of death by suicide, the rate of gender minority suicide deaths was comparable to the rate for suicide death for those diagnosed with a serious mental illness at roughly 82/100,000 persons/year [42]. The average age of death by suicide for gender minorities in this study was also 5–10 years younger than rates of death by suicide for cis-gender Veterans.

Gender minority Veterans are also likely to have known someone who committed suicide, a known risk factor in the general population [43, 44]. One study found that 40% of respondents in a Veteran sample were close to someone who attempted suicide, while 32.8% were close to someone who had died by suicide [44]. In that same study, 18.5% of participants reported being close to at least one gender minority person who had attempted suicide. Those who reported being close with someone who attempted suicide were more likely to have attempted suicide at least once themselves, and those who reported knowing another gender minority who had attempted suicide were more likely to have experienced suicidal ideation in the past year.

Disparities and Risk Factors

Over the last decade, there has been an increase in studies of the experiences and mental health concerns of those who identify as transgender and gender non-binary. This research has revealed not only high rates of mental illness and suicidality but also suggests that these problems are driven by the high likelihood of discrimination, victimization, and lack of access to appropriate psychological and physical healthcare. And while the number of studies is growing, there is still a pervasive lack of competent mental healthcare providers for transgender and gender non-binary individuals who need these services.

Some of the risk factors that are associated with suicidal intent and behavior include the lack of family support and social support, gender-based discrimination, transgender-based abuse and violence, gender dysphoria and body-related shame, difficulty while undergoing gender reassignment, and being a member of another or multiple minority groups [63].

Another risk factor that increases the risk of suicide among the transgender community is family rejection. Families play a fundamental role in a healthy developmental path for children and adolescents [45]. Fundamentally, as social creatures, humans have the evolutionary need to belong and connect as we rely on each other for protection, companionship, guidance, and emotional support [45]. Family rejection among gender minorities can have detrimental effects on mental health. A study by LGBT health suggested that family rejection significantly increases the likelihood of substance use and suicide attempts among gender minorities [46].

Independent of gender minority status, substance use increases the risk of suicide behavior. Fundamentally, illicit substance use can increase impulsivity and disinhibition and impair judgment [47]. There is an existing correlation between substance

use and suicide behavior. Individuals with a substance use diagnosis are 10–14 times more likely to attempt suicide than those without a substance use disorder [48]. The same study also suggested that 22% of people that completed suicide were under the influence of alcohol, and 20% had opioids present in their system [48]. The correlation between substance use and suicide status is particularly high among gender minorities.

There are disproportionately high rates of substance use among gender and sexual minorities compared to the general population. Studies have indicated that gender minorities have higher rates of alcohol use with estimates up to 72%, marijuana up to 71%, and other illicit drugs by intravenous means of up to 34% [49]. The *LGBT Health* journal article that examined the responses of 6456 adults suggests that family rejection and substance use increase the likelihood of suicide behavior [46].

An additional risk factor contributing to an increase in psychological distress and suicidal ideations among gender minorities is the acquisition of gender-concordant identity credentials. A cross-sectional study from 2020, consisting of 27,715 participants, found that those with a gender-concordant I.D. had a lower prevalence of serious psychological distress, suicidal ideation, and suicide planning [50], which highlights the importance of gender recognition policies.

Implications for Clinicians

Despite experiencing a range of mental health disparities, gender minorities are often hesitant to seek mental health services due to fear of discrimination from providers [51]. This fear of discrimination is derived from authentic adverse experiences gender minorities constantly face in healthcare settings. Surveys have reported that many gender minorities have experienced denial of healthcare services and, in some cases, even harassment by healthcare providers [2, 51]. Many providers also lack competency training to recognize and address specific issues present among gender minorities [52]. One study found that not only did nearly a quarter of participants have to educate a healthcare provider about aspects of their care, but those who experienced suicidal thoughts were more likely to have needed to educate a provider, as well as more likely to have experienced disrespect by a provider [53]. Further, mental health providers who attempt or are perceived to be attempting to change the identity of gender minorities or who are seen as unnecessarily preventing or delaying access to gender-affirming medical treatment may significantly increase suicidality and risk of suicide attempts [54]. Therefore, competency among clinicians is crucial for gender minorities to receive adequate care and should be an integrative process that contextualizes the experiences of gender minorities within specific cultural influences which can impact care [55]. Providers additionally should be able to project knowledge, empathy, and curiosity towards gender minorities to be able to develop a strong therapeutic alliance, which is crucial for treatment outcomes, an approach that has been compared to clinicians “passing a test” set forth by clients to ensure that providers will value the wisdom of a client’s self-identified gender [55].

Measures have been taken to help mental health providers define and provide competency. For example, the American Psychological Association has established four major domains to ensure competency among clinicians. Whitman and Han [52] noted:

- (1) Provision of services consistent with one's training, expertise, and experience;
- (2) obtaining the appropriate training or providing appropriate referrals when research demonstrates sociodemographic influences (e.g., race/ethnicity, gender, sexual orientation, or socioeconomic status) on effectiveness of service implementation;
- (3) obtaining appropriate training before providing novel services or when working with a population that is novel for the clinician; and
- (4) taking "reasonable steps" to ensure the provision of competent services where research evidence remains unclear. (Para, 3)

To ensure competency specifically towards treatment for gender minorities, the World Professional Association for Transgender Health (WPATH) in the Standards of Care (SOC) proposed three domains as summarized by Whitman and Han [52]:

- (1) The ability to identify comorbid mental health concerns as distinct from gender incongruence (e.g., depression or anxiety),
- (2) knowledge and awareness of gender non-conforming identities and of gender incongruence assessment and treatment, and
- (3) continuing education in the assessment and treatment of gender incongruence. (Para, 4)

Since some gender minorities desire to undergo medical interventions to align their physical characteristics with their self-identified gender, the WPATH SOC also outlines guidelines specifically for working with gender minorities who are in the process of undergoing such transitions. Evidence suggests that gender-affirming hormone treatment has positive effects on mental health such as lower levels of anxiety, depression, and stress, as well as increased health-related quality of life, and is not associated with increased risk for suicide [56, 57, 60]. Likewise, evidence suggests that access to gender-affirming surgical interventions, for those who desire it, has a positive impact on mental health, including reduced suicidal ideation [14, 15].

Some researchers have also pointed to specific critical areas of intervention for gender minorities experiencing suicidality. According to Bauer, Scheim, Pyne, Travers, and Hammond [58], efforts aimed at increasing social inclusion and support, reducing client exposure to discrimination and gender-related violence, as well as increasing rapid access to gender-affirming medical interventions should significantly reduce suicidality in transgender individuals. Research has clearly established a reduction in suicidality and improved overall mental health for gender minorities who received desired gender-affirming medical interventions [15, 58]. For adolescents and children, increased family support is inversely correlated with suicidality, suggesting the need for family-based interventions for those age groups. A range of approaches to intervention, including the use of an ecological model with families and the use of gender-affirming approaches with an awareness of minority stress, is well summarized in Dickey and Budge [54].

When working with gender minorities, clinicians should recognize the unique circumstances gender minorities experience from a societal and individual framework. Many gender minorities may have experienced discrimination and stigma from previous providers and may not feel accepted in society. If clinicians and other providers follow the competency domains provided by the APA and WPATH, the therapeutic alliance can be strengthened and, therefore, address maladaptive and suicide behaviors.

Conclusion

Gender minorities have been identified as a group experiencing alarming suicidal ideation rates and attempts [2]. Two major theories have conceptualized these high rates: first, gender minority stress, or the experiences of rejection, victimization, discrimination, and the psychological sequelae that result [3–5], and, second, thwarted belongingness and perceived burdensomeness as conceptualized by the interpersonal theory of suicide [19, 20]. Additionally, lack of access to affirming healthcare and mental healthcare, as well as timely access to gender-affirming medical interventions, is a contributor to higher suicide rates [15, 54, 58].

In particular individuals assigned male at birth and those who identify as non-binary represent the highest risk for suicidal ideation and attempts [32]. However, the rates remain significantly high for those assigned female at birth and those questioning their identity [32, 33]. Other noted risk factors were Indigenous, African American, Latino, or mixed-race heritage, being a young adult, veteran status, and lower education [28, 41].

Thus, clinicians treating gender minority clients, especially those with additional risk factors, need to screen carefully for suicidal ideation and suicide risk as well as the other factors that raise risk: substance use, trauma, and isolation [20, 37, 54]. Because low access to mental healthcare and discrimination based on gender identity are major factors in increasing suicide risk, the clinician must pay special attention to creating affirming and inviting encounters, especially early in the therapeutic relationship [29, 38, 39]. To increase competency in treating gender minority clients, clinicians are urged to review the APA's Guidelines for Psychological Practice With Transgender and Gender Nonconforming People as well as the WPATH Standards of Care. Additional training is strongly suggested to establish competency with this population.

Research suggests that psychotherapists can play an essential role in reducing suicidality among gender minorities in important ways: as advocating for systemic change to reduce stigma in the mental health field and communities; as suicide prevention through specific suicide interventions (including family-level interventions); and through advocating for gender minority clients in accessing needed gender-affirming medical care [54, 58]. Clinicians are especially urged to consider the role of culture and individual differences in the ways that both suicidality and gender are understood by the client and their family.

Clinicians play an essential role not only in advocating for individual clients and their families but in the broader cultural landscape in the form of advocacy, policy change, and research that supports the access of gender minorities to affirming, supportive, and needed mental and physical healthcare. Further, psychological research into the impact of discrimination and victimization and the importance of affirming care plays a crucial role in supporting efforts to improve legal and cultural support for gender minorities in general.

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Voices from the Black Rainbow: The Inclusion of the Aboriginal and Torres Strait Islander LGBTQI Sistergirl and Brotherboys People in Health, Well-Being, and Suicide Prevention Strategies

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Dameyon Bonson

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Originally published in 2016, the author acknowledges that there has been an increase in visibility of Indigenous LGBTQI people in suicide prevention in Australia. However, these activities are not as yet commensurate with the elevated high risk faced by this population group and need.

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Abstract

Despite the significant suicide risk associated with two, both, highly marginalized groups, Indigenous and Lesbian Gay Bisexual Queer Trans Intersex (LGBTQTI) community voices including Indigenous Transgender people who identify as Sistergirl and Brotherboy remain distressingly infrequent in both Indigenous and LGBTQTI suicide prevention strategies and activities. While the challenges of providing these voices in a suicide prevention strategy have been identified (Holland, Dudgeon, Milroy. The mental health and social and emotional well-being of aboriginal and Torres Strait islander peoples, families and communities. 2013. Retrieved 2014 July 8 http://www.healthinonet.ecu.edu.au/uploads/resources/24980_24980.pdf), and the National LGBTQTI Health Alliance (2012) further indicate that more research needs to be conducted in this area the absence does leave a feeling of being forgotten. The lack of Indigenous LGBTQTI voices in suicide prevention activities is not believed to be a result of homophobia or racism but rather unintentional heterosexism and Eurocentric privilege. At the recent “Power Through Action” Human Rights Forum in Darwin, sample voices of the Indigenous LGBTQTI community were collected via an Indigenous methodology called “Yarning Circles” (Bessarab and Ng’andu, Int J Crit Indig Stud 3(1), 2010). Bessarab and Ng’andu (Int J Crit Indig Stud 3(1), 2010) explain Yarning as “an informal conversation that is culturally friendly and recognized by Aboriginal people as meaning to talk about something, someone, or provide and receive information.” Curtin, Gibson, and Dudgeon confirm Yarning as a suitable research method, particularly as a responsive technique in Indigenous health (Curtin M, Gibson C, Dudgeon P. Yarning as a health research method. 2013. Retrieved online 2014 January 27 <http://iaha.com.au/wp-content/uploads/2013/12/1430-Chontel-Yarning-as-a-health-research-method-241113.pdf>). For the purposes of this chapter a “Yarning Circle” was used in a similar fashion to a workshop.

Keywords

Indigenous · Sistergirl · Brotherboy · LGBTQTI · Suicide Prevention

Introduction

The health of the gender and sexuality diverse (aka LGBTQTI) Aboriginal and Torres Strait Islander communities have largely been framed within the context of sexually transmissible infection (STI) and blood borne virus (BBV). Very little investigation

has gone toward the social and emotional well-being (SEWB) of this minority group. A review of strategies and preventative measures indicates the absence of the specific considerations required when addressing the needs of the Indigenous LGBTQTI community. Up until now there has been no formal “research” in this area. Both Indigenous and LGBTQTI voices do not advance into the intersectional aspect of this area of research.

In April 2014, a project entitled “Echoes of the Forgotten Mob” was completed between 3 March 2014 and 26 May 2014 and encapsulated a number of methodologies. These included a national survey of Aboriginal and Torres Strait Islander people, and a workshop at the Human Rights Forum Power Through Action was used to complement the survey. The purpose of this workshop was to ensure that there was a face-to-face component of this research paper. This was attended by non-Aboriginal and Torres Strait Islander people.

Both the survey and the workshop grew out of the body of my work in upstream suicide prevention activities across the Kimberley region from 2011 to 2014. As a self-identifying Gay male of both Aboriginal and Torres Strait Islander (Indigenous Australian) heritage, it became evident that there was a paucity of health and well-being information outside of the Sexually Transmitted Infection/Blood Borne Viruses (STI/BBV) discourse. The point between self-realization and self-disclosure as gender variant or sexuality diverse is described as a time where a person is at greatest risk of suicidal ideation or self-harm [1]. It is in this context, when considering the national suicide statistics and the social determinants of health affecting Indigenous people that it can be seen that the risk for the Indigenous LGBTQTI community is amplified. To stop the deaths from suicide, it is time the health system explored the needs of this population. Analyzing the literature pertaining to Australia’s Indigenous LGBTQTI population over the last 15 years of research has identified significant reporting on sexuality, gender diversity, and the health and well-being of the wider LGBTQTI community with several reports having a national footprint. In 1998, Hillier, Dempsey, Harrison, Beale Matthews, and Rosenthal produced the first national report (“Writing themselves in”) on the sexuality, health, and well-being of same sex attracted young people in Australia. Since then, second and third reports have been published, in 2008 [2] and 2011 [3], respectively.

However, a brief review of these documents revealed that the sexuality, health, and well-being of the same sex attracted Aboriginal and Torres Strait Islander community were not included. There may be numerous reasons for this, including the difficulty in navigating discussions due to inappropriate research methodologies used to engage the Aboriginal and Torres Strait Islander community. The same can be said for the recent “Growing Up Queer” report (2014). The Aboriginal and Torres Strait Islander community is not excluded from facing challenges of navigation in this research space; as it too has very limited documentation regarding the health and well-being of its LGBTQTI population.

“Voices from the Black Rainbow” is the discussion of both the “Echoes of the Forgotten Mob” survey findings and the workshop conducted.

Literature Review

The literature reviews incorporated studies, publication, strategies, and plans that had a national footprint. From the LGBTQTI sector I selected the “Writing themselves in” series, now in its third publication [3]. Additionally, both first and second editions were also included in 1998 [4] and 2008 [2] respectively. A scan of these publications indicated limited inclusion or discussion regarding the needs of the Aboriginal and Torres Strait Islander LGBTQTI community. I found similarly minimal content in the recent “Growing Up Queer: Issues Facing Young Australians Who are Gender Variant and Sexuality Diverse” [5] report. The National Aboriginal and Torres Strait Islander Suicide Prevention Strategy [6, 7] does not mention gender variance or diverse sexualities.

However, Holland, Dudgeon, and Milroy in “The mental health and social and emotional wellbeing of Aboriginal and Torres Strait Islander peoples, families and communities” [8] highlight “cross-membership of other communities,” such as the Indigenous LGBTI community, “can create further challenges” (p. 3) in the context of their mental health and social and emotional well-being. Furthermore, they “may face discrimination from Aboriginal and Torres Strait Islander communities” (p. 3). The National Aboriginal and Torres Strait Islander Health Plan 2013–2015 [6, 7] makes mention of sexual orientation as part of Aboriginal and Torres Strait Islander diversity (p. 10) but apart from this instance specific issues are not raised or addressed anywhere else in the plan.

Determining the size of the Indigenous lesbian, gay, bisexual, and transgender population is almost impossible, as it is equally impossible to estimate this number of people who identify in Australia as a whole [9]. However, the recent study by Gates and Newport [10] in the United States puts the LGBTI population at approximately 3.4%. According to the Australian Bureau of Statistics “Within the Aboriginal and Torres Strait Islander population there were an estimated 294,000 children and young people, representing 4.2% of the total Australian population aged 0–24 years” [11]. Extrapolating from the US figure of 3.4%, albeit cautiously, there is a cohort of approximately 10,000 Indigenous Australians who are LGBTI and whose needs are yet to be identified. This also suggests that there are up to 10,000 Indigenous LGBTI Australians who are at 14 times greater risk of suicide than Indigenous Australians that are not LGBTI, whose suicide risk is already higher than the general Australian population. Interestingly, the question of the implications of and to what extent sexuality plays in “excessive high rates” of suicide in Maori males has also been asked [12].

Methodology

In order to take the first step to better understand the health and well-being of the Aboriginal and Torres Strait Islander LGBTQTI community, I undertook a national survey (n69) asking predominately Aboriginal and Torres Strait Islander people if they had been affected by suicide, who they turned to when affected, and if they had

seen the issue of suicide by Aboriginal and Torres Strait Islander Sistergirls and Brotherboys addressed in any strategies or health plans.

A workshop was held concurrently (May 2014) to the survey (April–May 2014) to build on the survey as well as capture the need for more work in this area. From that workshop one of the themes that repeatedly arose was that the wider population or including our own communities need education about the specific challenges facing the Aboriginal and Torres Strait Islander LGBTQI, Sistergirls and Brotherboys.

Both methods responded to the need for a dialogue in the area of health and well-being, including suicide prevention. This study was believed to be the first of its kind in Australia. Recently, the Human Rights Forum, Power Through Action was held in Darwin, May 2014. The second item of this methodology “Yarning Circles” was used to collect the narrative, which reinforced the need for further discussion to occur in relation to a national health, well-being, and suicide prevention strategy for the Aboriginal and Torres Strait Islander LGBTQI Sistergirl and Brotherboy community. Neither the survey nor the workshop was intended to be prescriptive as to strategy, but to highlight the necessity for discussion of this unmet need.

Survey Aim and Method

The primary purpose of the survey was to capture the need for Aboriginal and Torres Strait Islander LGBTQI Sistergirl and Brotherboy health and well-being plans of action and possible strategies to support the needs of this group. The survey had a national reach and was completed by residents in all states and territories, with the exclusion of the Australian Capital Territory (ACT). The survey was opened for 6 weeks.

The background for this work, including the survey and abstract, was circulated to a number of Indigenous health professionals including Doctors’ of Social Work, a Professor of Psychology, a Medical Anthropologist PhD candidate, and an Indigenous PhD candidate who identifies as Genderqueer. This was grass roots insider research, identified by the group to be researched not requiring ethics approval.

The survey was developed using Survey Monkey and shared as a link via email and social media (both Twitter and Facebook). Restrictions were placed on access to only allow one survey per PC, laptop, or handheld device items such as tablets and smartphones. Ten questions were asked regarding Indigenous status, sexuality and gender identity, geographical location, and age group. The survey included questions that also asked if participants had been affected by suicide and whom they had turned to for support (if applicable). Participants were also specifically asked, in questions nine and ten:

- (i) Have you seen any Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex Sistergirl and Brotherboy Suicide Prevention or Well-being and Healing strategies? If so, please answer in the “other” box.
- (ii) This question has two parts. Part 1. What would you like to see in an Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex Sistergirl

and Brotherboy Suicide Prevention, Healing and Well-being strategy? Part 2. When seeking support is a cultural understanding of your needs important?

The survey was open for a period of 6 weeks and distributed via email and social media (Facebook and twitter), with 69 responses covering a cross-section of national participants. This was particularly encouraging, as it identified the reach and the necessity of such a project.

Strengths

This inclusive community approach (yarning circle) also served as function of capacity strengthening, inherent to self-determination. The use of Survey Monkey basic plan was also a recognized strength for this preliminary research as it was free [13] and subsequently allowed for a larger reach. The invitation to attend the Human Rights Forum, Power Through Action (2014) is also an identified strength as it allowed for the face-to-face element, the yarning circle, to a broader range of people who could elaborate on the survey just completed.

Limitations

An identified limitation of this survey particularly relates to questions regarding sexual identity. For example, a transgender male (female to male) identified subject may be attracted to females making them “straight” or they may be attracted to males making them “gay” or attracted to both sexes and identify as “bisexual.” Additionally, the gender identity of a respondent is not necessarily an indication of their biological sex. A person’s sexuality does not necessarily align with how a person identifies their gender. For example, a Brotherboy (Indigenous Transgender male) may identify from across the sexuality spectrum, i.e., gay (MSM), straight (MSF), or bisexual.

Number of Respondents

In total there were 69 responses.

Identity

Overall, 51% (35) of respondents identified as Aboriginal, 1% (1) identified as Torres Strait Islander, 10% (7) identified as both Aboriginal and Torres Strait Islander, and 38% neither Aboriginal nor Torres Strait Islander or both.

Age

Respondents aged 35–44 made up 32% (22), which was the largest of the sample group. Those 45–54 made up 26% (18), followed by the 25–34 age range of 19% (13), 55–64 with 14% (10), with 7% (5), and the 12–17 with 1% (1). None of the respondents identified in the 65–74 age range or the 75 or older.

Gender Identity

Predominant gender identities were those who identified as female, 46% (32) of respondents, while 35% (24) of respondents identified as male. Brotherboys accounted for 7% (5), with Sistergirls making up 4% (3). Similarly, those who identified their gender diverse accounted for 4% (3) and respondents whom identified as transgender made up 3% (2) of the sample group.

Sexuality

Overall those who identified as Gay made up 43% (30), those identifying as Straight accounted for 42% (29), while Lesbian and Bisexual respondents were both at 7% (5).

Location

Geographically, 33% (23) of the respondents came from Western Australia, followed by both Queensland and New South Wales with 19% (13), Victoria had 12% (8), the Northern Territory 9% (6), Tasmania 1% (1) and there were no respondents from the Australian Capital Territory (ACT).

Environment

The highest number of respondents came from an urban or city setting 48% (33). Those from a remote area made up 22% (15) of respondents, 20% (14) from a regional setting, and 10% (7) from a rural environment.

Suicide

Respondents were asked if they had been affected by suicide; 84% (58) said Yes and the remaining 16% (11) said No.

Help Seeking

Respondents were asked did they talk to someone and if so who? A friend was the most common response with 48% (33) then family with 35% (24), and 33% (23) of respondents used an in- person counseling service. An alarming 19% (13) spoke to no one. Elders were a source of support for 9% (6) of respondents. Only 6% (4) used a helpline (phone), 4% (3) used a callback counseling service, with 1% (1) using email/online counseling (internet).

Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex Sistergirl and Brotherboy Suicide Prevention, Well-being, and Healing.

The last two questions, number 9 and 10, respectively, were in two parts.

Question 9 asked, “Have you seen any Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex Sistergirl and Brotherboy Suicide Prevention or well-being and healing strategies? If so, please answer in the ‘other’ box.”

87% (60) answered an unsurprising No and but a surprising 13% (9) answered Yes. However, only two of those who indicated “Yes” left responses and I have included them below:

1. Have set up yarning space for LGBTI young people going through emotional/ physical/spiritual issues. Was a safe place to gather and voice concerns as well.
2. What I have worked on with young people in communities. There are no active or on hand services in remote to assist.

Question 10 asked, “Would you like to see an Aboriginal and Torres Strait Islander, Lesbian, Gay, Bisexual, Transgender, Intersex, Sistergirl and Brotherboy Suicide Prevention, healing and well-being strategy?” and “When seeking support, is a cultural understanding of your needs important?”

An encouraging 88% (61) respondents answered Yes; wanting to see an Aboriginal and Torres Strait Islander, Lesbian, Gay, Bisexual, Transgender, Intersex, Sistergirl and Brotherboy Suicide Prevention, well-being and healing strategy, while 12% (8) said No. When asked if cultural understanding of the respondents’ needs were important, 94% (65) answered Yes and 6% answered No. These responses clearly indicate the need for such a strategy or strategies and the importance of the inclusion of culture.

The workshop, the second component of the “Echoes of the Forgotten Mob Project” at the Human Rights Forum Power Through Action was used to accompany the survey.

Workshop

Preliminary planning for the workshop was strongly influenced by the concept of Yarning Circles as explained by Bessarab and Ng’andu [14]. Yarning is defined as “an informal conversation that is culturally friendly and recognised by Aboriginal people as meaning to talk about something, someone, or provide and receive

information” ([15], p. 5). For the purposes of this paper a “Yarning Circle” was the format used within the workshop.

The Yarning Circle involves conversational styles in culturally appropriate ways [16] and embraced the community development approach when seeking face-to-face responses. As a recognized methodology of indigenous research, Yarning provides safe space for Indigenous people to share stories of culture, place, experiences, and knowledge [17]. Yarning in research is underpinned by a set of ethics and values and Curtin, Dudgeon, and Gibson highlight these as “Spirit and Integrity, Reciprocity, Respect, Equality, Responsibility, and Survival and Protection” ([17], p. 5). As the convener of the workshop using Yarning as a research methodology, and after discussions with some of my peers I was satisfied that the Human Rights Forum was a safe space for the voices of the attendees to be shared and heard.

The workshop was specifically conducted to explore the need and desire for Aboriginal and Torres Strait Islander LGBTQI Sistergirl and Brotherboy Suicide Prevention, Well-being, and Healing strategies or plans. The opportunity to conduct this workshop was considered ideal because it provided an opportunity to engage a random cross-section of Aboriginal and Torres Strait Islander LGBTQI Sistergirls and Brotherboys. Non-Indigenous participants, a number of whom work in health and/or mental health, were also included in this workshop as were members of the international indigenous LGBTI community. A total of 38 people took part in the workshop.

To facilitate a safe space and one that was “informal and relaxed” ([14], p. 38), I shared my own experiences to equalize the power balance between facilitator and the participants, and to enhance relationship building [18]. Green et al. (2006) describe this as “judicious sharing of personal experience” (p. 6) also in Muller [19] as “selective sharing” (p. 196). I achieved this by giving an acknowledgment of Country and paid my respects to Elders past and present. I shared the location of my heritage as an Aboriginal and Torres Strait Islander person, as well as a white Australian. I self-identified as a gay male from Darwin, in the Northern Territory. I was able to share the experiences of growing up in this regional/remote setting. At the time that the workshop was conducted, I had left Darwin almost 20 years earlier and returned to another remote setting, Broome WA. I let the group know that the opportunity for me to share my educational and professional understandings with the Aboriginal people of the Kimberley region was one of the main reasons for my relocation. This sharing resonated with the group and enabled a safe space for sharing and learning.

Social and Emotional Well-Being (SEWB)

Aboriginal and Torres Strait Islander people view their health as holistic and through a whole-of- life view [20]. Social and Emotional Well-Being (SEWB) is the term used to describe this view of health and is said to consider “the impact of other factors on emotional well-being, such as life stressors, removal from family, discrimination and cultural identification” ([20], p. x).

The concept of social and emotional well-being (SEWB) as explained by the Social Health Reference Group (SHRG) in their National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Well Being 2004–2009 [17] underpinned my approach to this discussion and is encapsulated as:

“The concept of mental health comes more from an illness or clinical perspective and its focus is more on the individual and their level of functioning in their environment.

The social and emotional well-being concept is broader than this and recognizes the importance of connection to land, culture, spirituality, ancestry, family and community, and how these affect the individual” ([21], p. 9)

I was also informed by the Aboriginal Mental Health First Aid poster “What is Mental Health? How Indigenous people see mental health” ([22], p. 10) to interpret social and emotional well-being within the context of day-to-day living. The definitions are as follows:

- (i) Social – participate in community life, justice, fairness, and equity.
- (ii) Emotional – Feeling safe, good body touching, speak good words to each other.
- (iii) Physical – Looking after self when sick, being active, participate in recreational activities, eating good food.
- (iv) Cultural – Participate in community activities, including ceremony, included in policies supporting cultural practices, knowing stories and songs

I situated these headings, the five areas of social and emotional well-being, on individual poster boards placed at the back of the room. I informed the workshop participants that when thinking of a response, to think of it in a health and health service delivery context.

To obtain research insights, including the importance of the health and well-being of the Aboriginal and Torres Strait Islander LGBTQI community, I asked the participants one question “What is important to you in regard to your social, emotional, physical, cultural and spiritual well-being?”. The responses from the discussion are set out below.

Discussion

From the yarning, there was a strong emphasis on education and inclusive health promotion material. A baseline understanding of the clinical and nonclinical needs of LGBTQI Sistergirls and Brotherboys was also largely voiced. In policy and frontline service delivery it was emphasized that there needed to be less inquisitiveness on the biological or physical aspect of their being and more on their social and emotional well-being. Social networks, family, and community were indicated to be of utmost importance. Feeling connected to those networks was highly regarded.

The use of social media as a tool was spoken of positively, particularly for those in isolation, although it did present some limitations of anonymity and internet access. The need for health promotion that was inclusive of the Indigenous LBGQTI community would be a positive step toward attracting members to get support, for example, counseling support. Positive imagery of Indigenous LBGQTI people was declared a sign of “belonging” to society in general. Similarly, when asked “What is important to you in regard to your physical well-being?,” the conversation was dominated by services needing to be more inclusive.

The need for health promotion that was inclusive of the Indigenous LBGQTI community would be a positive step toward attracting members to get support, for example, counseling support. The need for inclusive health promotion and health literature for the Indigenous LBGQTI community was also mentioned as was positive imagery and visibility, which made participants feel more “included” in society. It was pointed out that while Indigenous LBGQTI health promotion material was a step in the right direction, there also needed to be imagery showing inclusion as part of the wider community.

Having a connection to both the Indigenous and LBGQTI communities was identified as being very important to many of the participants’ cultural well-being. Both communities created a sense of belonging, however not at the same time. Those who had access to ceremonial practice spoke positively of the effect this had on their well-being. Participating in activities such as National Aborigines and Islanders Day Observance Committee (NAIDOC), Sorry Day and Pride were also of noted importance.

The largest of the sample group of the survey respondents were from the 35–44 age bracket, making up 32% (22) of all respondents. The reasons for this may be two fold. Firstly, the survey was circulated among professionals in the health sector and secondly, this particular age group may have felt more comfortable responding. Identifying the location of the respondents of the survey gave an indication of reach and hypothesized the need in those regions; which are each affected by their own determinants of health.

Underlying the discussion was an “implicit” understanding of the four paradigms of wellness and well-being, Social, Emotional, Physical, and Cultural, which contributed to an understanding that when there was balance among them, one’s spiritual well-being was in a good place.

Outcomes

The significant take home points from this discussion were the visibility of the Indigenous LGBTI community in the broader Indigenous and non-Indigenous community by creating a feeling of inclusion. It was evident that the issues are as complex as the people themselves. The results of this workshop also indicate a strong need for Indigenous LBGQTI Sistergirl and Brotherboys to be included in developing resources to strengthen the services delivery of health organizations and agencies. Inclusive health promotion isn’t just about having identifiable Indigenous LGBTI people on posters or other literature. It meant having health promotion that is

included in a positive light as part of the larger community and not just help seekers. A significantly larger conversation is required with more time allocated to pay respectful attention to the needs of the Indigenous LGBTQTI community.

Creating a safe environment underpinned by the ethics and values of “Yarning” made for an inclusive community development approach where participants felt comfortable and safe as well as providing the capacity strengthening, inherent to self-determination.

For many, the concept of a social and emotional well-being framework was new, for both Indigenous and non-Indigenous participants. Given the time constraints, I was only able to give a short explanation of what social and emotional well-being was and how the framework was being used in this sense. Since the workshop, I have been fortunate to talk with Dawn Bessarab [10] in person and expressed concern that I had not fulfilled the requirements of calling the workshop a “Yarning Circle.” I expressed my concerns to Dawn who then explained that what I had engaged in was a “social yarn” – the principles are the same as those of “Yarning Circles,” just in a smaller window of conversation.

Intersectionality

To explore what happens when the Indigenous and LGBTI world comes together, Intersectionality Theory is a way of understanding and uncovering any potential health inequalities ([23], p. 1). It is also a great way to highlight those previously unknown social determinants caused by a kaleidoscope of social inequalities, whether it is race, gender, class, and/or sexuality. The logic model (Fig. 1. below) I have created is a preliminary tool to highlight the preexisting social determinants for Indigenous peoples that carry forward if the person then identifies as LGBTI. It also shows how the preexisting social and emotional unrest is amplified through perceived and or actual threats of homophobia and/or community exclusion. Further research is required to measure this amplification in an Aboriginal Torres Strait Islander context so that there is a greater understanding of the suicidality of this group of people.

Conclusions

The outcomes of the literature review, workshop, and the survey data, while only preliminary, are both compelling and confounding. In the last 15 years there has been no national strategy, plan, or research to identify and meet the needs of the Aboriginal and Torres Strait Islander LGBTQTI community. Previous completed LGBTQTI reports have excluded Aboriginal and Torres Strait Islanders in national strategies and health plans specific to the LGBTQTI cohort. It is evident from the surveys and workshops that the nuanced intersections of respondents’ needs were unveiled and that this is just the beginning of further work that needs to be done in this area. Furthermore, this data asserts that baseline information of the Indigenous LGBTQTI

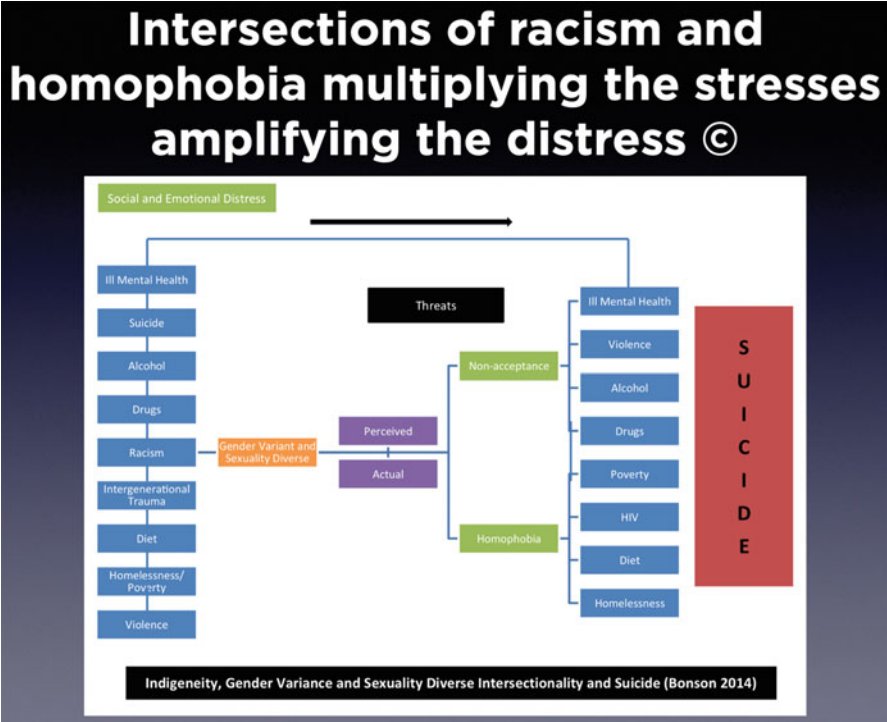


Fig. 1 Racism and homophobia as multipliers of stress, amplifying the distress

populations about universal awareness of these groups and their social and emotional needs and health service access is required.

Knowing that “LGBTI people have the highest rates of suicidality of any population in Australia” [24], my placing this in the context of Indigenous suicide makes a compelling argument that a response is required, particularly as the rate of suicide is “more than 4.2%, or one in every 24 Aboriginal or Torres Strait Islanders” [6]. Therefore, when we look at the intersecting stressor indicated in Fig. 1, Indigenous LGBTQTI populations in Australia experience an almost double jeopardy.

Future Directions

The survey results and workshop outcomes provide compelling information highlighting the need for further discussion in the area of social and emotional well-being and Aboriginal and Torres Strait Islander LGBTQTI community. When developing strategies, locally or nationally, it is recommended that the Aboriginal and Torres Strait Islander LGBTQTI community are asked to take the lead to facilitate this discussion in order for it to progress.

The mental health/SEWB of the Aboriginal and Torres Strait Islander LGBTQI community needs to be assisted, realized, strategized with actions developed to guide best practice when working alongside and within this community. A national conversation will act as a mechanism to generate “new ideas and innovative solutions to improve health” for diverse sexual orientations as set out in the National Aboriginal and Torres Strait Islander Health Plan 2013–2015 [6, 7]. It is also recommended that the findings from a national conversation influence all types of health policy and programs that interact or engage with the Aboriginal and Torres Strait Islander LGBTQI community. These discussions are also very important and will be influential when achieving Closing the Gap [25] targets pertinent to this group of people.

Based on the body of work presented in this chapter and previous work and research I have undertaken in this field of study, I am currently looking at further work that will elucidate a “A culturally responsive pathway that responds to the health needs of gender variant and sexuality diverse Indigenous peoples.” As Fig. 1 illustrates, the social determinants of health and life stressors affecting Indigenous people in Australia are amplified if they are Lesbian, Gay, Bisexual, Queer, Trans, Intersex, Sistergirl, and Brotherboy. I hope to also explore a hypothesis of “Neo-Cultural Gender and Identity Expression” [26] which I alluded to during my keynote address at the MindOUT LGBTI Suicide Prevention and Mental Health Conference in Sydney (June 2014). For example, within Indigenous pre-settler societies, males and females had roles. However, these roles were not defined by Western constructs of gender expression or definition. In parts of the coastal South Australia the Ngarrindjeri males were prolific basket weavers [27]. This was due to their role as fisherman and the need to create fishing nets. Within western context basket weaving can be seen to more align with female gender constructs.

This chapter provides evidence that there is a much broader body of knowledge in the area of Aboriginal and Torres Strait Islander LGBTQI health to be discussed and uncovered.

Appendices: The Survey

Echoes of the Forgotten Mob – Indigenous LGBTQI Voices in Suicide Prevention Survey

1. How do you identify?
 - Aboriginal
 - Torres Strait Islander
 - Aboriginal and Torres Strait Islander
 - None of the Above
2. What is your age?
 - 12–17
 - 18–24

- 25–34
- 35–44
- 45–54
- 55–64
- 65–74
- 75 or older
- 3. What is your gender identity?
 - Male
 - Female
 - Brotherboy
 - Sistergirl
 - Diverse
 - Transgender
- 4. Where do you live?
 - Remote
 - Rural
 - Regional
 - Urban/City
- 5. Which best describes you?
 - Lesbian
 - Gay
 - Straight
 - Bisexual
- 6. What State or Territory do you live in?
 - NT
 - WA
 - QLD
 - TAS
 - VIC
 - NSW
 - ACT
 - SA
- 7. Have you ever been affected by suicide?
 - Yes
 - No
- 8. Did you talk someone about it? If so, who?
 - Friend
 - Family
 - Elder
 - Helpline (Phone)
 - Email/Online counseling (Internet)
 - Call-back Counseling Service
 - Counseling Service (In person)
 - No one
 - Other (please specify)

9. Have you seen any Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex SisterGirl and BrotherBoy Suicide Prevention or Well-Being and Healing strategies? If so, please answer in the “other” box
 Yes
 No
 Other (please specify)
10. This question has two parts. Part 1. Would you like to see in an Aboriginal and Torres Strait Islander Lesbian Gay Bisexual Transgender Intersex SisterGirl and BrotherBoy Suicide Prevention, Healing, and Well-Being strategy? Part 2. When seeking support is a cultural understanding of your needs important?
 Part 1. Yes
 Part 1. No
 Part 2. Yes
 Part 2. No.

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Prevention of Suicide in Latin America

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*“Yo estoy aquí para contar la historia.
Desde la paz del búfalo
Hasta las azotadas arenas
De la tierra final, en las espumas
Acumuladas de la luz antártica,
Y por las madrigueras despeñadas
De la sombría paz venezolana. . .”
Amor América, Pablo Neruda
(Chilean poet, Nobel Prize in 1971)*

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Abstract

There is little consensus regarding which countries and territories make up what we call Latin America; nonetheless, there are certain agreements regarding common cultural elements. Since mental pathology is closely related to cultural factors and in turn suicide is closely linked to mental pathology, studying suicide in the region acquires relevance.

Given the socioeconomic characteristics of Latin American countries, to date there are few epidemiological studies, determining that in many cases public health decisions must be made taking as a reference the evidence collected in other parts of the world such as North America or Europe.

To generate suicide prevention strategies, it is essential to have an adequate understanding of the magnitude and characteristics of the phenomenon.

Unfortunately, the methodological differences between the studies that address the subject make comparisons difficult. However, the evidence would show that on the globe the suicide rates in Latin America would be lower than in the other continents, but with an upward trend during the last decade.

In relation to suicide prevention, the countries of the region, guided and accompanied by the Pan American Health Organization (PAHO), have been making progress in the construction of general mental health and suicide prevention programs. This constitutes a great challenge for the future as there is still much to do.

Keywords

Suicide prevention · Latin America · Public policies

Introduction

What is Latin America and who composes it? From the beginning, its description and definition have implied a challenge. For Gissi [14], there is not a single answer since we have different regional, national, and cultural identities; Latin Americans are a heterogeneous group, yet simultaneously similar: “In addition to an Argentine or Mexican identity, an indigenous or a mulatto one (and not instead of), we have a common identity: we are Latin Americans” [14].

Various origins have been proposed regarding the conception of the term Latin America. Some historians designate Michel Chevalier, a French economist and engineer, as the forger of the term during the mandate of Napoleon III in the nineteenth century. This as a way of differentiating the “Latinos” of America from the “Anglo Saxons” [51], which was related to the aspirations of France on the territory and population, appealing to an alliance between “Latinos from America” and “Latin Europe” [9, 23, 26, 41, 42, 47, 52, 58]. On the other hand, its initial use is acknowledged to the Chilean Francisco Bilbao in 1856 in Paris during the conference entitled “Initiative of the America. Idea for a Federal Congress of Republics.”

The Colombian poet José María Torres Caicedo refers to the term in his well-known poem “Las Dos Américas” [51].

In linguistic terms, the concept encompasses a set of countries whose language comes from or is derived from the Latin or Romance languages.

Geographically, it goes from Tierra del Fuego in the south, up to the Rio Grande on the Mexico-United States border [51]. It is made up of 20 countries and 14 dependent territories, without considering the Caribbean, with a total surface area of roughly 19.2 million km², which corresponds to 13% of the earth’s surface. In 2019, its population reached approximately 636 million (again, without considering the Caribbean) (ECLAC) [62].

In economic terms, the gross domestic product (GDP) of Latin America in 2018 was \$5,671,277 million dollars. Considering the total GDP, the first places are occupied by Brazil, Mexico, and Argentina, but if we adjust this to the population, we see that the highest GDP per capita would be in Uruguay, Venezuela, and Chile [62].

Regarding religions in Latin America, Catholicism appears as the predominant one in all countries, followed by the Protestant Christian churches. However, the percentage distribution varies for each country, narrowing or distancing the relationship between these two religions, with other creeds having less representation [5].

Taking into consideration the challenge previously posed, we will address the phenomenon of suicide within the Latin American reality.

Mental Illness and Suicide in Latin America

There is consensus that suicide deaths are associated with mental illness in about 90% of cases [4, 7]. It is for this reason that suicide prevention is closely related to mental health care. The main psychiatric pathologies associated with suicide are mood disorders (43.2%) as well as substance abuse and dependence disorders (25.7% of cases). If there is a simultaneous comorbidity between axis I and axis II, the risk increases dramatically by almost 340 times [4]. However, the studies that support this assertion are predominantly European and North American, so to extrapolate these conclusions to Latin American countries must be done with some *cavil*. In relation to this, the Argentinean Germán Teti and his collaborators in 2014 carried out a systematic review in which only publications from Latin American countries on suicide and suicide attempts in the clinical population were included. This study found that the vast majority of suicide deaths were associated with mood disorders, especially major depressive disorder and anxiety disorders [50].

There are few epidemiological studies evaluating the prevalence of mental illness in Latin America. Moreover, in several countries there is no state registry. One of the first studies was conducted by the WHO World Mental Health Survey Consortium in the early 2000s, which included 14 countries from different regions of the world: the Americas, Europe, the Middle East, Africa, and Asia [10]. This study sets a methodological precedent for subsequent studies by using the Composite International Diagnostic Interview (CIDI), a structured interview that can be administered

by lay interviewers and that can be self-administered in some versions. In addition, this instrument has the advantage that it can give psychiatric diagnoses of both the DSM and the ICD, which is why it has become the gold standard for large epidemiological investigations at present. The results of the WHO World Mental Health Survey were not favorable for the Americas, since, of the studied countries, the United States and Colombia were among the first three with the highest prevalence of mental disorders among their population in the last 12 months [10]. While it is true that the United States is not considered a Latin American country, Colombia was in a worrying second place.

Another study carried out by WHO within consulting patients in primary health care showed that Chile was the country with the highest prevalence of psychiatric symptoms and depression among 14 countries, including Brazil [13]. Indeed, Chile has been characterized by having a high prevalence of mood disorders, which has been constant in almost two decades of epidemiological studies [3, 17, 54].

Chile has several epidemiological studies that have intended to quantify the prevalence of major depressive disorder (MDD) in the general population. Most of these were done in the late 1990s and early 2000s [3, 13, 54]. These studies demonstrated a prevalence of MDD in the general population of 5.5% the week prior to assessment [3] and 9.3% for lifetime prevalence [54]. This high prevalence (almost 1 in 10 Chileans would experience MDD at some point in their life) motivated the health ministry to implement a program for screening, diagnosis, and comprehensive treatment for depression in primary health care. This program was created by Araya et al. and was evaluated through a randomized controlled study in three primary care centers (Araya 2003). The first evaluations carried out at the beginning of the program were positive. One of them, which considered a cohort of women between the ages of 25 and 65, who were admitted to the program for 2 years, demonstrated good adherence to treatment and a significant decrease in their depressive symptoms [1, 2]. These studies included only the female population to facilitate the methodology and were carried out in two of the main cities of Chile. As will be seen later, with this information, Chile has resulted in a very complete National Mental Health Plan, guaranteeing mental health care by law for almost the entire population.

Worth mentioning is Colombia for it has been conducting population studies on mental health since 1993. In its latest study, carried out in 2015, 12,311 people from different areas of the country were surveyed. The study showed that 10.1% of the entire population will experience a psychiatric disorder at some point in their life, with a depressive illness being the most frequent (4.3%) followed by anxiety disorders [15]. It is important to mention that this study also included children (7–11 years) and youth (12–17 years). The prevalence in the last 12 months for any mental disorder was 3.8% in children and 2.4% in teenagers [36].

As a part of the 2005 World Mental Health Study, Peru obtained a lifetime prevalence of 29% for any mental illness, the most common being anxiety disorders (14.9%) followed by mood disorders (8.2%) [11, 47, 56]. According to Rondón in 2003, these figures are due to the high rate of interpersonal violence in all its forms and to the political violence experienced in the early 1980s [47].

In 2006, Mexico conducted the Mexican National Comorbidity Survey as part of the World Health Organization World Mental Health Surveys to evaluate the 12-month prevalence of psychiatric disorders using the CIDI in a national, stratified, multistage sample, in a population between 18 and 65 years. The results showed that 26.1% of Mexicans will experience one mental illness in their lifetime and 12% will experience 2 or more [19]. Although, like in many other countries, anxiety disorders (as a group) are the most frequent followed by mood disorders, the most frequent “single” pathology is alcohol abuse (7.6%), followed by major depressive disorder (7.2%) [19].

As it has been shown, the prevalence of mental disorders in several Latin American countries is quite high, especially when compared to countries in other regions. It is difficult to establish homogeneity in Latin America because both the frequency of these disorders and the access of patients to different health services are strongly determined by the level of development of the country, especially by its economic development [55].

Suicide Epidemiology in Latin America

One of the main issues for a successful prevention of suicide deaths is to verify the magnitude of these and to characterize them. This allows us to quantify, not only the dimension of the problem but also to identify which population subgroup is the one that dies mainly from this cause and thus be able to carry out more focused prevention campaigns.

Suicide mortality register has varied over time and between countries, making it difficult to homogenize data and make comparisons. This is mainly due to two problems: what type of deaths are registered as suicide and how the mortality rate from this cause is calculated. The ICD-10 (International Statistical Classification of Diseases and Related Health Problems tenth Revision) codes suicide deaths according to their causative agent: X60-69 from poisoning and X70-84 from various causes. However, there are also undetermined causes (events of undetermined intent codes Y10-34) that are left out by many countries because they are unknown, even when a suicide attempt has been made [60].

Another important problem regarding the registration and subsequent calculation of a country's suicide mortality rate is given by the ages that are included in the total population for the calculation of the mortality rate. If the mortality rate includes the population between 0 and 100 years of age, the rate will be lower than including those above 15 years of age. It is evident that children between 0 and 10 years old will hardly be able to commit suicide and, if they did, these would be among those over 8, being still very rare. Therefore, suicide mortality rates should be calculated considering the population over 15 years of age [6].

Perhaps the greater difficulty is the specific mortality registry carried out by each country. A good registration implies that each deceased person has a death certificate issued by a doctor and, hopefully, having made a cross-reference with other

registration bases. However, not all countries in Latin America report their deaths in this way.

Thus, if we want to compare suicide mortality rates among Latin American countries, it is important to unify and standardize these rates. This is what the WHO does, standardizing the population by age [59, 60]. In Table 1 we can see the suicide mortality rates in the region (2016), where Guyana and Suriname stand out with the highest rates while Honduras and Peru have the lowest. Recently, the Global Burden of Disease Self-Harm Collaborators (GBDSH) team led by Mohsen Naghavi of the University of Washington [39] decided to perform a new calculation of the rates with a different methodology. This approach included not only the categories X60-84 but also the indeterminate ones (Y10-34), as well as an older population, older than 10 years and not 5 years (unlike the WHO that includes from 5 onward) [39]. Table 1 shows the suicide mortality rates for the year 2016, comparing the rates obtained by the WHO and the GBDSH team. The differences between one and other can be very wide from 5.7 points (in the case of Bolivia) to 0.2 (Guyana).

As can be seen in Fig. 1, suicide rates for North and Central Latin America are lower and more homogeneous than those for the South. In fact, South America has the highest figures with a tendency to increase towards the southern countries. It is difficult to explain the reason for this heterogeneity, especially when we know that suicide is a multifactorial phenomenon. Still, one could hypothesize the influence of greater economic development in South America [18] or the southern latitude [9, 16].

As a whole, Latin America is below the world's average for suicide deaths, being surpassed by Africa, Europe, and Southeast Asia [61]. However, while the highest number of deaths from this cause occurs in low- and middle-income countries (79%), when the mortality rate is age-adjusted, it is slightly greater in high-income countries [61]. This could explain why suicide deaths are more prevalent in countries with greater economic development in the region, such as Uruguay and Chile [9], although it does not explain the low mortality rates in Brazil and Argentina [12]. With regard to suicidal behavior, it appears that there would be no difference between its prevalence in developed and developing countries [8].

Finally, as an upsetting fact, the WHO pointed out that of all regions in the planet, between 2010 and 2016, North and South America was the only one that experienced an increase in the age-standardized suicide mortality rate, which was 6.0% [61]. This should be a wake-up call for all local authorities to improve their registration and surveillance systems.

Mental Health Plans and Programs in Latin America

“An explicit mental health policy is an essential and powerful tool for a mental health section in a ministry of health. When properly formulated and implemented through plans and programs, a policy can have a significant impact on the mental health of populations” [56].

Table 1 Age and sex suicide rates in Latin American countries in 2016 (adapted from Naghavi et al., 2019 and [61]). GBD: Global Burden of Disease Self-Harm Collaborators Study; WHO: World Health Organization

	Age-standardized suicide rates (per 100,000)	Women age-standardized suicide rates (per 100,000)	Men age-standardized suicide rates (per 100,000)	Quality of Data	Number of suicides	WHO Age-standardized suicide rates, all ages (per 100,000)	Difference (GBD vs WHO)	
1	Guyana	30.4	13.1	47.6	4	220	30.2	0.2
2	Surinam	24.4	11.3	38.3	3	131	23.2	1.2
3	Uruguay	16.8	6.8	28.4	4	642	16.5	0.3
4	Argentina	11.2	4.2	19.1	4	5,010	9.1	2.1
5	Chile	10.9	3.5	18.8	4	2,160	9.7	1.2
6	Venezuela	9.4	2.1	17.1	4	2,970	3.8	5.6
7	El Salvador	9.4	3.8	16.5	3	591	13.5	-4.1
8	Ecuador	7.9	4	11.9	4	1,270	7.2	0.7
9	Belize	7.9	2.7	13.2	4	1,071	5.9	2
10	Nicaragua	7.3	2.9	12.3	3	450	11.9	-4.6
11	Bolivia	7.2	5.2	9.3	1	700	12.9	-5.7
12	Guatemala	7.1	2.5	12.4	4	1,060	2.9	4.2
13	Costa Rica	6.8	1.9	11.7	5	348	7.5	-0.7
14	Paraguay	6.5	3.4	9.7	4	422	9.3	-2.8
15	Brazil	6.4	2.3	10.9	4	13,900	6.1	0.3
16	Panama	5.9	1.5	10.4	4	233	4.4	1.5
17	Mexico	5.8	2	9.8	4	7,440	5.2	0.6
18	Colombia	5.7	1.8	9.9	4	2,820	7	-1.3
19	Honduras	4.6	2.3	7.1	2	307	3.4	1.2
20	Peru	3	1.5	4.6	3	917	5.1	-2.1
21	French Guiana	—	—	—	—	—	6.5	—
	TOTAL	9.73	—	—	3.4	—	—	-0.01



Fig. 1 Suicide rates in quartiles of Latin American countries

The Pan American Health Organization, the regional office of the World Health Organization, following its indications and using the motto “there is no health without mental health” [45], elaborated in 2009 a “strategy and action plan” for all the countries of the region. It proposes that governments express their commitment with ten key suggestions. These include, in the first place, proposing the formulation and implementation of national mental health policies, plans, and laws, in addition to the promotion of mental health and prevention of mental disorders, with an emphasis on the psychosocial development of children, provision of health services focused on primary care, strengthening human resources, and strengthening the capacity to produce, evaluate, and use the information on mental health [41].

The writing of this document constitutes a historical milestone in the development of prevention and promotion strategies in mental health, since, for the first time, the highest health authorities of all the Latin American countries met to study different strategies and developed a program of work specifically directed to the problems detected in the region. In this way, “the elaboration of this ‘Strategy and

Plan of Action' gathers the experience achieved in our region and expresses a commitment not only technical but also political" [46], demonstrating that there is in the region a political will to improve the mental health of the population.

According to PAHO [41], the benefits of having clear policies and national mental health plans are evident. They allow, on the one hand, to have a broader vision of the national reality and, therefore, develop strategies and public policies specifically directed to the challenges detected. On the other hand, they allow to organize health services in an integrated and efficient manner, establishing priorities and routes to follow. Meanwhile, law promulgations provide an adequate legal framework to promote and, above all, protect the human rights of those with mental disorders.

For said organization, in its document entitled "Plan of Action on Mental Health 2015–2020," the main problems of Latin American countries are related to the high prevalence of mental disorders and the abuse of psychoactive substances, with the consequent deterioration in other indicators of health such as general morbidity, disability, and mortality. Despite this, the resources assigned by the countries to face this burden are insufficient, are unevenly distributed, and, at times, are used ineffectively. As a result, many countries present a large gap (over 70% in several of them) in the availability of mental health care. On the other hand, "the stigma, social exclusion, and discrimination surrounding people with mental disorders exacerbate the situation" [42].

In its most recent plan of action on the subject [42], PAHO suggests to the Latin American countries four central topics or strategic lines of action [42]. The first is the formulation and implementation of policies, plans, and laws in the field of mental health and its promotion, with the fundamental objective of obtaining an effective state policy specifically directed to the concrete reality of each country. Associated with this first guideline are three other strategic lines focused on mental health systems and services (and their management capacity), promotion, and prevention programs and strengthening of information systems and scientific research.

Various countries in the region have worked to develop mental health programs aimed at planning strategies and executing specific measures oriented at promoting, preventing, and treating mental health-related diseases. These include Chile (2017), Colombia (2018), Costa Rica (2012), Mexico (2018), and Peru (2018), which have developed national plans based on the 10 principles suggested by PAHO previously mentioned [20–38, 48].

On the other hand, there are Latin American countries that, without yet having a structured national mental health program, have made considerable progress towards this objective by promulgating laws aimed at making explicit the mental health rights of the population, with the purpose of ensuring basic guarantees in relation to timely and equitable access to specialized health care. Among the countries in this group are Argentina (2013) and Uruguay (2018).

The plans proposed by the Latin American countries to date have certain common notes, taken mainly from the PAHO and WHO guidelines and based on local reality, especially in socioeconomic, demographic, and epidemiological aspects. One of the main focuses in most of the programs is the promotion of the right to mental health as one of the human rights and, among other things, the promulgation of a mental

health law that protects these rights, thus ensuring equitable access to required treatments and adequate social insertion. Most of the programs also describe a communitarian and family approach, giving more prominence to patient associations or other sectoral and inter-sectoral entities as managers or promoters of mental health in the community. A third common aspect worth highlighting is the development of strategies aimed at professional education and training of team workers dedicated to mental health, in order to improve quality and increase the availability of care.

It is worth noticing the case of countries such as Chile, which presents an ambitious National Mental Health Plan for the years 2017–2025, focused on improving people's mental health with integrated sectoral and intersectoral strategies, and a focus on the promotion and prevention of mental disorders, as well as guaranteed care and social inclusion for those who require health services. All this within the framework of a family and community approach. For this, it designs seven lines of action on the most relevant issues: legal framework and protection of human rights; provision of mental health services; a financing plan; quality of care management (considering the importance of improving the quality of epidemiologic information and research); professional and technical training of care teams; and, lastly, inclusive participation of service users and their communities, strengthening intersectorality. Each of these lines has a diagnosis of the current situation and specific goals and strategies for the year 2025.

In the latest edition of the "Regional Atlas of Mental Health in the Americas" [43], PAHO is generally quite optimistic about the progress that has been made in the region: most (85%) of the countries that do have independent policies have implemented or updated them in the last 10 years (since 2005). Of the six countries (19%) that do not have an independent policy on mental health matters in our region, four of them (67%) have mental health policies and plans integrated into other general health or disability policies or plans. Only two countries reported having neither an independent mental health policy nor one integrated into general health policies. Regarding the current state of mental health policies and plans, in only 6% of the countries, they were not formulated, in 13% they were available but not implemented, in 72% they were partially implemented, and in 9% of the countries, they were fully implemented [43].

According to the official information published by the Pan American Health Organization on its website, "currently most or almost all of the countries in Latin America and the Caribbean are receiving some form of technical cooperation in mental health from the PAHO/WHO, either in specific projects and in a systematic way or in a specific way in response to specific requirements from governments" (www.paho.org).

Despite the fact that the work carried out by the aforementioned countries constitutes a great advance towards improving the promotion and care of mental health in the region, it is still insufficient given that some of the countries still do not have an available or current program. It should also be considered that most of the programs that exist to date are relatively new, so there would not yet be clear evidence regarding their execution and results. In short, Latin American countries are making efforts to improve the mental health of their population, but the road ahead is still very long.

National Suicide Prevention Programs in Latin America

The creation of a national suicide prevention strategy constitutes a systematic response at a country level, which indicates a true commitment of governments to prioritize the problem of suicide within public health policies. The development of national suicide prevention programs is a measure that has been promoted and strongly recommended by the United Nations (UN) and the World Health Organization (WHO). In fact, in 1996 the United Nations Organization published a first document entitled “Prevention of Suicide: Guidelines for the formulation and implementation of national strategies” [53], which would be the seed of the first WHO document on the suicide prevention, published only in 2012 under the title “Public health action for the prevention of suicide” [57]. This text, collecting the existing evidence, as well as the international experience of previous decades, had the purpose of providing a resource of help for governments to develop and implement national strategies for the prevention of suicide, as well as to help those who have already initiated the development of national suicide prevention strategies. Later, in 2014, the WHO publishes another document entitled “Preventing suicide: A global imperative,” a longer and more complete text than the previous one, but with the same function, to provide a knowledge base on suicide and experiences at a global level in this matter and to guide governments, policy-makers, and stakeholders in steps to develop multisectoral strategies for the prevention of suicide.

Regarding Latin American by 2012 when the first WHO document “Public health action for the prevention of suicide” was published, only Nicaragua, Panama in Central America, and Colombia and Uruguay in South America had national plans for the prevention of suicide. The Pan American Health Organization, for its part, in collaborating with the development of national suicide prevention programs in the Americas region, only in 2016 published the document “Prevention of suicidal behavior” [44] corresponding to a compilation of chapters regarding the epidemiology and experiences in the prevention of suicidal behavior from different countries in the region. This document, however, did not correspond to a guide or recommendations, as are the WHO documents of 2012 and 2014, but rather a mere compilation of the presentations made at a regional workshop in Mexico in 2014, which were conceived as a tool to provide information about suicidal behavior and the main strategies for its approach [44]. Possibly this effort from the WHO and PAHO allowed the number of Latin American countries that had national suicide prevention programs to double by 2016, reaching nine countries (see Table 2). The advance of this type of strategies in Latin America, however, has not been as fast as would be desired, since the date of publication of the aforementioned PAHO document, only Brazil has added a national prevention program which was published on the year 2017. In South America, some countries have added initiatives, without achieving a national prevention strategy itself, as is the case of Argentina, which in 2018 publishes the “Guidelines for the care of suicide attempts in adolescents” or the case of Peru and Bolivia that have “hotlines” or telephone lines for handling people in suicidal crisis. The WHO document (2014) recognizes these alternative and

Table 2 National suicide prevention programs in Latin America

Nicaragua	2000	National Strategy for Suicide Prevention. National Plan of Life Promotion
Panamá	2006	Plan for Prevention and Control of Suicidal Behavior in Panama
Uruguay	2010	National Plan for Suicide Prevention
Colombia	2012	National Plan for Prevention and Intervention of Suicidal Behavior
Chile	2013	National Plan for Suicide Prevention
República Dominicana	2014	Program for Suicidal Behavior Prevention in República Dominicana
Costa Rica	2015	National Strategy for Prevention of self-elimination attempts and Suicide 2015–2021
Guyana	2015	National Suicide Prevention Plan 2015–2020
Surinam	2015	National Suicide Prevention and Intervention Plan 2016–2020
Brazil	2017	Agenda for Strategic Actions for Suicide Surveillance and Prevention and Health Promotion in Brazil

limited approaches aimed at reducing deaths from suicide. At the same time, some Latin American countries, without having national programs, have made progress on this path by the legal route, with some having bills in process at the time of writing this document, such as Ecuador and Mexico, and others with approved laws for the prevention of suicide that have not yet been “settled” into a structured program, such as the cases of Paraguay and Argentina. In spite of everything, the region of the Americas (Latin America including the United States and Canada) is the second region after Europe with the greatest development of national suicide prevention programs [58].

The different national suicide prevention programs in Latin America vary widely in their scope and characteristics. In order to make an adequate comparison between them, it is advisable to first review which are the desirable elements that should constitute a national program, according to the various recommendations issued by the United Nations and the World Health Organization [53, 57, 58]. The programs must meet various parallel objectives, all of them intertwined with each other, which in turn must be clearly defined and have measurable variables that represent their fulfillment. For a program to be effective, it should have the following objectives [58]:

1. Improve surveillance and investigation.
2. Identify and target vulnerable groups.
3. Improve the evaluation and management of suicidal behaviors.
4. Promote individual and environmental protective factors.
5. Increase awareness through public education.
6. Improve attitudes and beliefs in society, and eliminate stigma towards people with mental disorders or who show suicidal behavior.
7. Restrict access to lethal suicide methods.
8. Encourage the media to adopt better policies and practices towards the suicide report.

9. Support individuals grieving close suicide.
10. Monitoring and evaluation of the implemented interventions.

To facilitate comparison between the different national suicide prevention programs, we grouped the objectives indicated above into the following: (1) awareness; (2) surveillance; (3) responsible media; (4) evidence-based interventions multilevel (universal, selective, and indicated); (5) research; and (6) monitoring and evaluation. According to all these aspects that constitute an ideal national suicide prevention program, Table 3 indicates the completeness of each program in each of these aspects.

Special attention is given to the case of Chile, where, deriving from the National Suicide Prevention Program, the Ministry of Health has published a series of documents, of national nature, for the prevention of suicide in the school and university population, entitled “Recommendations for the prevention of suicidal behavior in educational establishments” and “Practical guide on mental health and suicide prevention for higher education students” [25, 26] respectively, both published in 2019. The first of these documents, although it has no power to force institutions to implement a program, corresponds to a valuable guiding instrument to implement prevention strategies. This document incorporates strategies of (1) protection of the school climate; (2) prevention of mental health problems and disorders; (3) education and awareness about suicide; (4) detection of students at risk; (5) steps to follow in the face of an attempt or suicide and post-intervention actions; and (6) coordination and access to the health network. The second corresponds to a guide for higher education students in order to educate them about mental health and suicide and facilitate consultation and referral to specialized care. On the other hand, continuing to address Chile, the health ministry of that country also developed recommendations for the approach to mental health and suicide in indigenous populations [23], which is considered desirable according to the guidelines of WHO, that calls to consider cultural variations in suicide prevention issues [58]. Chile was also the first country in South America that started dialectical behavior therapy (DBT) for high risk of suicide patients in public hospitals.

Table 3 Comparison among national prevention programs in Latin America

	Awareness	Surveillance	Interventions	Media	Research	Evaluation
Nicaragua	+/-	+	+/-	-	-	-
Panama	+	+	+	+/-	+	-
Uruguay	+	+	+	+	+	+
Chile	+	+	+	+	-	-
Colombia	+	+	+	+	+	+
República Dominicana	+	+	+	+	+	+
Costa Rica	+	+	+	+	+	+
Guyana	+	+	+	+	+	+
Brazil	+	+	+	+	-	-

The case of Uruguay also deserves attention, due to the time that has been dedicated on working on suicide prevention at a national level, being one of the Latin American countries that earlier initiated measures. Although the current document of its national prevention plan was launched back in 2010, in 2008 a national guide for the prevention of suicidal behavior had already been published, entitled "Guidelines for the diagnosis, prevention and detection of risk factors of suicidal behaviors." In turn, the current national suicide prevention program includes all the objectives and strategies recommended by the WHO and also proposes a schedule for the development of the same program.

Regarding Argentina, it is interesting to note that while lacking a program, it has a national suicide prevention law sanctioned in 2015, still waiting for a regulation or document to regulate it. However, the content of the law only partially considers the objectives recommended by the WHO. Despite this, this country stands out for its regulations in the area of communications in matters related to suicide. To date, there is a regulatory document on this matter issued by the Health Ministry entitled "Responsible Communication: Recommendations for the treatment of mental health issues in the media" and a guide published by UNICEF Argentina for the specific communication of suicide in childhood and adolescence: "Suicide. What are we talking about when we talk about journalistic coverage of adolescent suicide?"

Among all the programs mentioned, the case of Costa Rica stands out for its detailed, clear, and operationalized implementation planning. This program integrates all the dimensions recommended by the WHO and in turn clearly orders each of its general objectives with their respective strategic actions, activities, goals, execution times within a period of 4 years, achievement indicators, as well as responsible for each one.

Conclusion

There is little consensus regarding which countries and territories make up what we call Latin America; nonetheless, there are certain agreements regarding common cultural elements. Since mental pathology is closely related to cultural factors, and in turn suicide is closely linked to mental pathology, studying suicide in the region acquires relevance.

Given the socioeconomic characteristics of Latin American countries, to date there are few epidemiological studies, determining that in many cases public health decisions must be made taking as a reference the evidence collected in other parts of the world such as North America or Europe.

To generate suicide prevention strategies, it is essential to have an adequate understanding of the magnitude and characteristics of the phenomenon. Unfortunately, the methodological differences between the studies that address the subject make comparisons difficult. However, the evidence would show that on the globe the suicide rates in Latin America would be lower than in the other continents but with an upward trend during the last decade.

In relation to suicide prevention, the countries of the region, guided and accompanied by the Pan American Health Organization [44], have been making progress in the construction of general mental health and suicide prevention programs. This constitutes a great challenge for the future as there is still much to do.

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Abstract

Suicide prevention is everyone's business; as a public health problem, population-based strategies are imperative, particularly in regions where specialized assistance may be scarce. Friends, family, colleagues, frontline workers like teachers or social workers, and other members of the general public are often best situated to provide initial help if someone is at risk of suicide. As a means of health promotion and grounded on resiliency, psychological first aid (PFA) has multiple applications for preventing ulterior psychological sequelae in trauma-exposed individuals and groups, including suicide crises. As an evidence-informed practice, PFA can contribute to suicide deterrence, provided essential components and formulations are followed. In this chapter we present the scope, goals, and rationale of psychological first aid, its use in suicide crises, training variants, evidence of its effectiveness, the implications for first responders and frontliners, and ethical concerns. Ultimately, amid the COVID-19 pandemic,

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relevance and pertinence of PFA are discussed as depression, anxiety, and suicide ideation and intent are increasingly accompanying the health crisis.

Keywords

PFA · Suicide prevention · Emotional health · Psychological emergency · Emotional first aid

Introduction

Suicide prevention is a collective responsibility and must be spearheaded by governments and civil society throughout the world [1]. As physical first aid is to medicine, psychological first aid (PFA) is to psychotherapy and falls into the realm of resources accessible to the general public. PFA has been widely endorsed as a critical addition to the corpus of mental health-related support services, designed to foster human resilience [2]. Frankel identifies the work of Lindemann (1944) as the first professional attempt to systematize emotional first aid, and its therapeutic and preventive nature in the latter's studies of acute grief management due to death or separation [3]. In comparison, the term "psychological first aid" emerged in the military during World War II by way of a debriefing tool, as mentioned by Drayer et al. [4], where the need to provide PFA to those exposed to traumatic events was recognized [4]. Moreover, Thorne stated in 1952 that "psychological and mental hygiene literature has given relatively small attention to the first aid treatment of acute personal problems," identifying the need of "a large armamentarium of tools" for acute psychological emergencies [5]. A couple of decades after, Schuster presented findings of a "brief psychological technique designed to speed up the normal healing process after physical injury," which focused on awareness of one's sensations and feelings around the time of such grievance [6]. Although not entirely related to the psychological contention of psychosocial trauma, Schuster's study is a first into the evaluation of what he called PAMFA: psychological assist to medical first aid. Nonetheless, PFA roots were greatly supported on either debriefing or on cathartic ventilation of feelings and emotion, which nowadays have been shown to potentially cause harm and re-traumatization of survivors and first responders [7], and currently discouraged in light of relatively recent evidence for PFA and crisis intervention.

All of the above paved the way to various guidelines that would help to standardize and clarify effective response efforts in the form of PFA, such as the one published jointly in 2006 by the US National Child Traumatic Stress Network and the US National Center for PTSD [8], or the 2007 IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings [9]. Ultimately, the World Health Organization (WHO) established the core principles of PFA as "to look, listen, and link," likewise being aware of its limits and promptly recognizing when professional or specialized care is required [10]. In this chapter, a derivation of PFA to suicide crises initial management is presented, grounded on WHO's core actions:

(a) ask the question, (b) listen without advising, and (c) connect to adequate mental health services; all within a public mental health framework that distinguishes a suicide attempt as a medical emergency – and consequently not subject to PFA – from emotional crises that may include suicidal ideation or intent, these are the object of this PFA application.

What Is PFA

Psychological first aid can be defined as an early psychosocial intervention approach, comprised of several actions and techniques, aimed at assisting trauma-exposed individuals under the dominion of the psychosocial aspects of recovery or resiliency. Overall, PFA is mostly practiced at the scene of the event or disaster or in the affected locality or might be undertaken in various other areas depending on the emerging needs (e.g., treatment centers, schools, hospitals, households, businesses, airports, and other community settings). Psychoeducation about acute stress symptoms, supporting normalization of the process and stabilization, easing going back to normal life before the event, and protecting individuals from long-term consequences of the traumatic event may be some of the goals of PFA. However, psychological first aid does not assume that individuals exposed to trauma will develop psychological disorders or long-term difficulties while recovering; instead, people might experience a broad range or initial reactions and can also develop or manage a variety of coping resources.

From this perspective, evidence-informed PFA practices may be considered as preventive mental health interventions, and not at all a method for diagnosis or treatment [8]; what is more, PFA can be implemented in a variety of situations – as noted below – individually or collectively, with children, adolescents, adults, and the elderly. Additionally, it should be noted that PFA is designed as an initial component of a comprehensive disaster/trauma response, and not seen as an isolated systematic set of helping actions [11]. As an early type of intervention, applied during or immediately after a given event, PFA may take a few minutes in certain cases, or days or weeks; such variability stems from the wide scope of psychological first aid practices [10].

There is an ongoing discussion on who should administer PFA. Most of the literature warrants that PFA is designed to be delivered by mental health or other initial response workers (e.g., police or paramedics) and may also be provided to first responders and other trained staff in crisis intervention or disaster relief. Also, school-based mental health practitioners (e.g., school counselors, psychologists, social workers) might be called upon to provide emotional support for school-aged children; however, teachers might be ideal candidates to engage in initial PFA and help children or adolescents who have difficulty functioning in the classroom due to a recently experienced traumatic event or toxic stress due to chronic interpersonal trauma [12], possibly leading to hopelessness, depression, anxiety, substance use, or suicidal ideation. It is until recently and amid the COVID-19 pandemic that psychological first aid is openly recommended for use by non-mental health clinicians, for instance, when mental health practitioners may be overwhelmed or otherwise inaccessible [13]. It is our belief that PFA should be readily available to the general

public, just as our initial statement, the same way as first aid is accessible to the population under the precept that people are resilient, capable of caring and upholding their own health.

Scope of PFA

Historically, Thorne characterized psychological first aid as flexible and expedient, which in turns remains valid on the premises of not having enough time to uncover the underlying dynamics of a suicidal crisis and keeping in mind that a suicide attempt is considered a medical emergency and should be treated as such [5]. Taking into account this vital distinction, the main areas of application of PFA may noticeably be sorted into the following categories:

- (i) Accidents, trauma, and other emergencies
- (ii) Disasters (natural or human-made)
- (iii) Adverse life events and personal crises (including suicide and life-threatening behaviors)
- (iv) Social displacement and other humanitarian crises, like armed conflict and forced migration
- (v) Pandemics and health crises
- (vi) Terrorist attacks, kidnapping/abduction, and other social violent scenarios

Nonetheless, emergent PFA areas of application or development are as follows:

- (a) Remote, online, and on-site PFA and the COVID-19 pandemic [14–18].
- (b) People with intellectual disabilities who have experienced sexual abuse [19].
- (c) Prevention of vicarious trauma and compassion fatigue in first responders and healthcare providers [20].
- (d) Creative expression workshops as PFA for asylum-seeking children [21] and migrants on the move [22].
- (e) Within programs where humanitarian workers or volunteers are exposed to prolonged and chronic stressors [23].
- (f) Organization-based PFA for emergencies in the workplace [24].

Common and complex reactions to difficult or extraordinary experiences are an important component in efficiently delivering PFA, and differentiating them should lead to the proper management of risk and to the effective continuation of professional care or treatment. Common reactions to emotional trauma include but are not limited to the following [25]:

- Feelings of guilt, sadness, relief, anger, fear, anxiety, confusion, uncertainty, and hopelessness
- Feeling numb, increased heartbeat, sweating, shaking, trembling, or shortness of breath

- Difficulty making decisions and comprehending complex information
- Difficulty communicating clearly with others
- Feelings of helplessness or powerlessness
- Feeling overwhelmed

Complex reactions are more serious than common reactions to distress, and an individual with these reactions often needs referral for specialized help or other assistance right after PFA. Certain factors can increase the risk of developing complex reactions, for instance, if the person (a) was separated from their family; (b) thought they were going to die; (c) was involved in a situation where the horror element was high; (d) has had previous traumatic experiences; (e) lost loved ones; or (f) has an underlying psychological disorder. Examples of complex reactions are as follows [26]:

- Panic attacks and feelings of overwhelming anxiety.
- Anger and aggressive behavior, which are common reactions to crisis in situations of violence, or when people have experienced immense losses [25].
- Self-harm and suicide. Do not overlook that a suicide attempt is a medical emergency; it is important to always take someone who threatens to harm or kill themselves seriously and not leave the person alone until more help arrives.
- Harmful coping methods, like self-medicating with drugs or alcohol, becoming violent or aggressive, withdrawing, or keeping oneself completely apart from other individuals.
- Prolonged grief, when someone finds it hard to accept and adapt to the loss of someone they loved. The grief then affects how the person lives from day to day and how they relate to other people. While not an immediate reaction, it develops over a period of time. It can also lead to extreme feelings of distress when the person experiences new challenges or is somehow reminded of their grief.
- Sleeping problems are very common after crises. Many people find it difficult to fall asleep or experience nightmares. Some people sleep more than usual and find it hard to wake up. If sleeping problems go on for numerous days and nights, it can lead to physical and psychological problems. Severe sleeping problems interfere with daily living, moods, and relationships with other people, and seeking support can be helpful.
- Flashbacks are when a person feels as if they are back in the moment of the original stressful event; they often feel real and can be confusing and frightening. They can also be a normal reaction to abnormal experiences; however, the person may still need help to manage them.

Goals of PFA

One of the most important research findings is that a person's belief in their ability to cope can predict their outcome [27]. Typically, people who do better after trauma are those who are optimistic, are positive, and feel confident that life and self are

predictable or who display other hopeful beliefs [28]. Hence, the goals of psychological first aid in the context of a suicidal crisis comprise efforts to:

- Calm the individual while emergency services arrive to the scene, always acknowledging that a suicide attempt is an emergency situation, and PFA serves as a transient response.
- Reduce distress with the individual at risk of suicide. Herein, distress is conceptualized as when someone is unable to cope with or adapt to the challenges or situation they are facing. Distress leads to physical and emotional discomfort and suffering; it can be caused by a one-off crisis event or from stress building up over time.
- Make the person and those around him/her feel safe and secure, in terms of asking openly about suicide ideation, communicating that it is not something to be ashamed of, and like many other health concerns; it is not something to be hidden or be frowned upon.
- Identify and assist with current needs; the suicidal crisis is mostly not about wanting to die, but rather stop suffering. Understanding these needs and acknowledging them is validating emotional states that may lead to a tunnel vision, for example.
- Establish human connection, which is commonly lost when there are risk factors for suicide such as alienation and social isolation.
- Facilitate people's social support. It is common that under overwhelming emotional states preceding a suicidal crisis, people experience an incremented state of disconnectedness and PFA may, by itself, become a means of reconnecting.
- Help people understand the suicidal crisis and its context. A crisis is both a situation of danger and opportunity. By making the question "Are you thinking of taking your own life?" and listening, without judgment or advising, people are able to grasp the context of suicidal ideation or intent and also may understand better why professional ulterior help is pertinent.
- Foster belief in people's ability to cope and give hope, as PFA opens up a window for openness to the complexity and uniqueness of circumstances but also to a variety of alternatives. Remember that one of the precepts of suicide prevention is that suicide is not an option.
- Assist with early screening for those needing further or specialized help; PFA does not exclusively connect with psychotherapy, psychiatric services, or hospitalization; it also comprehends that individuals progress into crises due to legal issues or learning disabilities, debt, and loss, among other detonating situations.
- Get people through the earliest stage of high intensity and uncertainty.
- Set people up to be able to recover intuitively from stressful events.
- Reduce the risk of mental illness such as posttraumatic stress disorder as a result of the emotional crisis.

There is an early study that distinguishes between PFA actions and psychological treatment when working with children exposed to community violence. In their

paper, Pynoos and Nader (1988) present classroom consultation as a PFA alternative, which integrates well with well-documented school-based suicide prevention actions. For these authors, classroom consultation and PFA have the following aims [29]:

- (i) To provide permission to express feelings
- (ii) To clarify cognitive confusions
- (iii) To screen children and adolescents for exposure, traumatic response, and risk factors
- (iv) To promote renewed classroom cohesion and ongoing learning
- (v) To encourage help-seeking from parents, teachers, school mental health workers, and nurses

Rationale of PFA

To understand the extent and limitations of PFA, it is important to consider a model of risk, resilience, and health promotion, where numerous factors mediate and moderate how people react to difficult or adverse experiences, as noted previously. A worldwide panel of experts on the study and treatment of people exposed to disaster and mass violence [30] identified five principles that would guide early to mid-term phases of psychosocial intervention –including PFA: (a) promote a sense of safety, (b) promote calming, (c) promote a sense of self- and community efficacy, (d) promote connectedness, and (e) promote hope.

Furthermore, age, personality, people's support system and coping styles, how much time has passed since the time of the event, and previous stressful experiences are some of the aspects a PFA trained individual should take into account. Not everyone needs or wants support; on the other hand, witnesses to a frightening event may also be strongly affected and need support. Some people are calm and do not react strongly at the time of an event but have strong reactions later on, and others may have strong reactions and can manage their situation on their own or have support from other sources. In this mental health education and promotion context, principles and techniques of PFA should meet four basic standards [31]:

- (i) Should be consistent with research evidence on risk and resilience following trauma or other life-threatening behaviors including suicide attempts.
- (ii) Applicable and practical in field settings, like schools, homes, businesses, community, or various service settings (e.g., medical triage areas, shelters, emergency departments).
- (iii) Appropriate for developmental levels across the life span; guidelines often differentiate PFA for children or adolescents, older adults, and people with disabilities.
- (iv) Culturally informed and delivered in a flexible manner.

While psychological first aid focuses on determining basic physical and mental needs of individuals in major events, Gispén and Wu [32] identify four core action principles of psychological first aid as follows:

- (a) Look. The relevance of checking or assuring safety, especially among those experiencing emotional distress.
- (b) Listen. After checking for safety, approach individuals in distress, ask about needs or concerns, help others feel calm, and not necessarily discuss the traumatic event.
- (c) Link. Having heard needs and concerns, address basic needs, access services, and offer social support.
- (d) Limits. As noted from start, recognize when professional care is needed. It is important to distinguish between crisis intervention – handled by trained professionals – and PFA as an initial response to emotional trauma.

Furthermore, Brymer et al. [8] elaborate on these core action principles into eight essential actions and goals in their model [8]:

- 1. Contact and engagement, to respond to contacts initiated by survivors, or to initiate contacts in a non-intrusive, compassionate, and helpful manner
- 2. Safety and comfort, to enhance immediate and ongoing safety, as well as provide physical and emotional comfort
- 3. Stabilization (if needed), to calm and orient emotionally overwhelmed or disoriented survivors
- 4. Information gathering (current needs and concerns), to identify immediate needs and concerns, gather additional information, and tailor locally and culturally validated PFA interventions
- 5. Practical assistance, to offer practical help to survivors in addressing immediate needs and concerns
- 6. Connection with social supports or networks, to help establish brief or ongoing contacts with primary support persons and other sources of support, including family members, friends, and community helping resources
- 7. Coping information, to provide information about stress reactions and coping to reduce distress and promote adaptive functioning and ultimately add up to resilience building
- 8. Collaborative services connection, to link distressed individuals, groups, or survivors with available services needed at the time or in the future

The first four tasks and subsequent goals generally cover the assessment needs that arise in a crisis situation; they provide guidance to professional crisis workers regarding how to contact clients immediately following a crisis and how to determine what needs are present in the situation. The last four tasks and subsequent goals help professional crisis workers to respond to the needs assessed in a given crisis situation; these tasks involve both immediate and long-term assistance for those affected by crisis. There is no specific amount of time that should be dedicated to

each task; instead, providers should utilize professional skills and abilities to evaluate the needs of each survivor being treated in the days and weeks following a crisis event. Although the tasks can generally be followed in the order in which they are outlined, some tasks may overlap, or need to be repeated multiple times.

In addition to trauma work, Gispén and Wu [32] argue for the importance of all healthcare personnel to know psychological first aid practices. They also confer why the general public may benefit from learning the basics of PFA following the same rationale of first aid training as a measure of self-care, prompt response, and injury prevention in the household [32]. Thus, different models for training and field guidance have been developed considering these basic actions and actors within the scope of PFA.

Suicide Crises and PFA

Suicide can be prevented and herein is understood as a complex psychosocial phenomenon, where multilevel risk and protective, mediating, and moderating factors take place, embracing the effects of culture and other anthropological developments [33]. Suicide is not considered a pathology but rather an outcome of numerous processes and dimensions [34], and resiliency strategies to prevent suicide – such as PFA – are to be promoted [35]. This view and grasp of suicidology allow for a difference to pinpoint PFA as a means of suicide prevention and health promotion. A distinction is made between the proper course of action throughout a suicide attempt – as a medical emergency – and the viability of PFA when a person is at risk of suicidal behavior in the midst of emotional distress or psychological crisis (excluding psychotic episodes or other correlated scenarios). Henceforth, suicide crises are shaped by the context in which they occur: a history of previous attempts, the type of event or situation contributing to or triggering a particular crisis, where and when these crises occur, availability of resources, and the vulnerability of those involved [36].

Understanding crises. From a mental health perspective, a situation becomes critical when an individual's emotional and/or physical needs exceed available resources [37]; when safety, security, and stability are compromised, a state of crisis ensues, generating what Caplan defined as “psychological disequilibrium” [38]. In the history of emotional first aid and in the context of death and loss, Frankel stated that the word “crisis” implied a challenge to the personality, family, or community in association to “an altered set of circumstances and for which adaptive resources are not readily available” (p. 824), thus making room for delivering PFA [3]. It is noteworthy the transition from critical incident stress debriefing – familiar to most emergency responders – to psychological first aid in terms of scientific evidence around its benefits in reducing or avoiding long-term psychological consequences of major stressful events. On top of reviewing such transition, McEvoy emphasizes that PFA is aimed not only at lessening complications and shortening recovery times for the general public but also for the emergency service personnel [39]. This is key in always including first respondents and

emergency personnel in care and supervision efforts, as McEvoy proposes three objectives of PFA correlating with the building blocks of emotional strength while applicable to suicide risk: [1] recreating a sense of safety, [2] establishing meaningful social connections, and [3] reestablishing a sense of efficacy. Consequently, some form of intervention is provided to mitigate the impact of these emotional or psychological crises – such as PFA – continuing onto offering immediate and ongoing support services. In this general context, PFA would be most effective when sensitive to and compatible with the setting (e.g., educational communities) and unique needs of those served while acknowledging cultural differences, for example, as most PFA protocols already anticipate.

Suicide risk and PFA. One of the first studies to assess pertinence of PFA in suicide prevention was carried out by Kelly et al. [40], using the Delphi methodology to reach consensus in a panel of experts; they identified a number of actions which are considered to be useful for members of the public when they encounter someone who is experiencing suicidal thoughts or engaging in suicidal behaviors, which also may be useful in revision of curricula of mental health first aid and suicide intervention training programs. Among the statements accepted as mental health first aid guidelines are (i) identification of suicide risk, (ii) assessing seriousness of the suicide risk, (iii) initial assistance, (iv) talking with the suicidal person, (v) no-suicide contracts, (vi) ensuring safety, (viii) confidentiality, and (ix) passing time during the crisis [40]. Following the same method, Colucci et al. [41] added three more sections in their suicide first aid guidelines for assisting persons from immigrant or refugee background: (x) what the first aider should know in providing suicide PFA, (xi) statements specific to adolescents, and (xii) gender-specific accepted statements [41].

Another model of a suicide prevention service that incorporates PFA has been developed by the Israeli Association for Emotional First Aid (ERAN); the model is based on four components: variety of sources, use of paraprofessionals, professional supervision, and professional and the adherence to an ethical code [42]. Gilat and Shahar [43] compared characteristics of calls to three technologically mediated sources of help that are part of ERAN: telephonic hotline, personal chat, and an asynchronous online support group. They found that threats of suicide were much more frequent among participants in the asynchronous support group than the other two; these results support further research into suicide-related interpersonal exchanges in asynchronous online support groups [43]. Later on, Gilat and Shahar [44] addressed this issue by (a) presenting empirical evidence and theoretical aspects of online support groups for suicidal individuals and (b) presenting a practical model of emotional first aid via an online support group moderated by paraprofessionals, which applied the theoretical rationale of the Action Approach [44]. Lastly, Gilat and Reshef [45] examined the perceived helpfulness of emotional first aid via email with distressful clients by trained volunteers of ERAN, revealing a preference for written communication and the accessibility of assistance to be the most frequent reasons for clients choosing email. Their findings suggest that most clients found the responses to be helpful in

providing emotional support, enhancing cognitive change and suggesting practical ways of coping, whereas women perceived the assistance to be more helpful than men [45]. This sheds light on the value of email and an agent of mental health assistance, with expected implications on sociocultural context and other factors present in telepsychology and tele-PFA.

Other key point in using PFA as a means for suicide prevention, where most suicidal people do not want to die, but rather stop the pain they are feeling, is the question of who are best positioned to deliver them. While most of the discussion centers on frontline personnel or people with some background in health sciences, there is evidence of following well-established suicide prevention community strategies. Helping a suicidal person talk about their thoughts and feelings can help save a life, and Colucci et al. [46] in their PFA guide for people from immigrant and refugee backgrounds target the general public and make the invitation to “not underestimate your abilities to help a suicidal person, even to save a life” (p. 1) [46]. These guidelines identify significant PFA issues such as dealing with communication difficulties related to culture or language, determining the urgency of the situation, developing a safety plan, and self-care of the individual providing psychological first aid. Afterwards, this group addressed open public use of PFA in a study evaluating the pertinence of such procedures.

De Silva et al. [47] developed guidelines that help members of the public to provide first aid to persons in Sri Lanka who are at risk of suicide in the context of gatekeeper programs in the country. More importantly, these suicide first aid guidelines were culturally appropriate – by means of the Delphi method – but also set the foundation for corresponding training [47]. More recently, Lu et al. [48] adapted PFA guidelines incorporating actions specific to the Chinese context, including Chinese attitudes towards suicide, the role of families and friends, and means of suicide restriction [48]. Within this trend, Jorm, Ross, and Colucci identified 18 items across 6 Delphi studies that were highly endorsed across all 8 of the Delphi panels and an additional 15 items highly endorsed across the panels from the 9 lower middle-income countries (India, the Philippines, and Sri Lanka); these findings evidence a broad agreement on what constitute appropriate suicide first aid actions for the general public [49]. Examples of endorsed items found by Jorm, Ross, and Colucci across all Delphi studies are as follows:

- Suicidal thoughts are frequently a plea for help and a desperate attempt to escape from difficulties and distressing feelings; thus, the first aider should let the suicidal person talk about those thoughts and emotions.
- The first aider should approach the suicidal person with respect and include them in decisions about who else is aware of the suicidal crisis.
- Safety plans ought to include 24-h safety contacts in case the suicidal individual feels unable to continue with the agreement not to attempt suicide (e.g., a suicide helpline, a professional, or a family member).
- It is important for the first aider to allow the suicidal person talk about their reasons for wanting to die.

Training in PFA

Forbes et al. [50] states that, “exactly how PFA is operationalized depends very much on the specific context in which it is delivered” [50]. Concurrently, Hambrick et al. [51] establish that dissemination of psychological first aid is challenging considering the complex nature of disaster response, the various disaster mental health trainings available, and limited resources; therefore, a variety of PFA training approaches that differ in content, style, and length would be useful [51].

Throughout PFA training processes, two actors are identified: a PFA-trained individual (PFA-TI) and the trauma-exposed individual (TEI). McCabe et al. describe a competency-based model of PFA training developed under the auspices of the Centers for Disease Control and Prevention and the Association of Schools of Public Health [52]; the approach summarizes the observable knowledge, skills, and attitudes underlying the six core competency domains for the trained individual (PFA-TI):

- (i) Initial contact, rapport building, and stabilization (positions provider for optimal effectiveness and efficiency with other PFA competencies)
- (ii) Brief assessment and triage (PFA-TI informs acute intervention)
- (iii) Intervention (assumes prior determination of actual or probable dysfunction)
- (iv) Triage (informs post-acute referral for post-PFA interventions)
- (v) Referral, liaison, and advocacy (facilitates access to continued support or care, as indicated)
- (vi) Self-awareness and self-care (a prerequisite for caring for others)

The Johns Hopkins model of PFA emerged as an alternative proposal whose clinical effectiveness would not be wholly dependent upon mere presence, active listening, or referrals to psychiatric care [53]; creation of the model began with a review of the historical and theoretical background of PFA and used structural equation modeling (SEM) to identify key mechanisms of action: active listening, a compassionate presence, normalization, stress management, and simple cognitive-behavioral tactics. Using more than 1500 subjects, Everly et al. (2011) found that training in a revised version of the Johns Hopkins approach – the RAPID-PFA model – led to improvements in participant knowledge, confidence, and preparedness for applying PFA as well as personal resilience, therefore supporting the notion that knowledge engenders resilience-related self-efficacy [54], a key element in suicide prevention. Reavly et al. [55] carried out a randomized controlled trial to assess the effects of eLearning or blended Mental Health First Aid (MHFA) courses on public servants’ knowledge, stigmatizing attitudes, confidence in providing support, and intentions to provide support to a person with depression or posttraumatic stress disorder (PTSD), finding that the blended MHFA course was only marginally more effective than eLearning MHFA in improving knowledge and attitudes [55].

In the development of culturally appropriate guidelines on how to provide mental health first aid to Australian Aboriginal and Torres Strait Islander people experiencing suicidal thoughts or behavior, Armstrong et al. [56] completed an uncontrolled

trial of the 5-h suicide gatekeeper training course “Talking About Suicide.” Authors found that even though a high level of suicide literacy among participants was observed, improvements were seen in beliefs about suicide, stigmatizing attitudes, confidence in ability to assist, and intended assisting actions in the context of Aboriginal and/or Torres Strait Islanders [56]. Training also includes analyzing the effectiveness and the decision times when implementing specific PFA protocols, like in the initial phases of a disaster, depending on the style and decision process involved. Grinhauz et al. [57] assessed differences within an urgent decision-making style in rescuers: affective or rational; their findings suggest that the least effective and, at the same time, slowest style were those trained rescuers with an urgent affective decision style but induced under an emotional process, concluding that the rational decision-making style or a rational decision induction favors a greater effectiveness of the PFA actions [57]. In contrast, Binkley (2020) proposes a case-based approach to PFA training for teaching beginning counselors to assess and respond to crisis in a safe classroom environment [58]. Kang and Choi (2020), on the other hand, examined a simulation-based psychological first aid (PFA) education program, finding it most effective when combining the simulation-based PFA education program with a PFA lecture and giving relief workers access to the Psychological Life Support (PLS) mobile app as complementary methods to assist them in applying PFA in disaster situations [59]. This is promising as it sets ground to specific and contextualized PFA training in suicide crises, by integrating online and local or regional resources.

Adolescent suicide is by no means left out in PFA. In a cluster randomized crossover trial, Hart et al. [60] evaluated evidence for the teen version of the Mental Health First Aid program, among high school students. This Australian mental health literacy suite was designed to improve peer support towards adolescents at risk of suicide, and the authors of this study also assessed whether participation in this school-based program dealing with suicide was distressing to participants. This aspect which is closely related to iatrogenic risk in PFA is relevant, and Hart and colleagues argue that while open discussion of mental health first aid for a suicidal peer was distressing for some students, results indicate this to be transient and not associated with harm [60].

Effectiveness of PFA

Psychological first aid is evidence informed but not evidence based due to the difficulty of studying it under controlled conditions and because the elements employed may vary depending on the needs of the individuals being assisted [61]. Instead, the concepts of PFA have been derived from an initial set of five “empirically supported intervention principles” developed by an expert panel in 2007 [30]. In 2012, the American Red Cross Disaster Services requested that an independent study determines whether first aid providers without professional mental health training, when confronted with people who have experienced a traumatic event, offer a “safe, effective, and feasible intervention” [62]. By then, authors

concluded that adequate scientific evidence for psychological first aid was lacking but widely supported by expert opinion and rational conjecture, therefore fitting the category of “evidence informed” but without proof of effectiveness. In 2014, Dieltjens et al. conducted a systematic literature search to identify effective PFA practices, finding none and authors avowing it was impossible – at the time – to build evidence-based guidelines about which practices in psychosocial support were most effective to help disaster and trauma victims [63].

Nonetheless, randomized controlled trials have been used to assess PFA effectiveness or efficacy, and there is a growing body of research attending the particularities of evidence-informed practices. Despeaux et al. [64] assessed the efficacy of group psychological first aid (PFA) by comparing the Johns Hopkins RAPID-PFA model with a group conversation condition, suggesting the former was more effective in lowering negative affect scores post-intervention and significantly increasing positive affect scores at 30-minute delay [64]. Listen, Protect, and Connect (LPC), mentioned by Wong in 2008 [65], is a version of PFA with some empirical support [66]. Ramirez et al. [67] found that students who received LPC were less likely to experience depressive and posttraumatic stress symptoms within the training effects of a didactic and simulation-based psychological first aid (PFA) program [67]. Similarly, a need for post-trauma interventions using PFA has been documented, specifically in rural settings to help families of children to address the emotional outcomes in the aftermath of an injury [68].

Based on the competency-based model, Lee and colleagues [69] provide preliminary evidence supporting the effectiveness of a PFA training program using a combined method of didactic and simulation-based practice for disaster mental health providers in Korea [69]. Kantaris evaluated first aid training for healthcare assistants [70], finding that training healthcare assistants is useful in improving staff confidence, therapeutic engagement with service users, and ward culture in general; if executed correctly, the training can enhance practice and care outcomes and the overall service user experience. Lalani and Drolet (2018) report that PFA training enhanced social work students, practitioners, and human service professionals’ confidence, disaster preparedness, and self-care strategies needed to provide psychosocial support to individuals and families in disaster situations [71].

These results support the two primary goals of PFA, which are mitigating acute distress and instilling hope. Sijbrandij et al. evaluated the effectiveness of a 1-day PFA training on the acquisition and retention of knowledge of appropriate responses and skills in the acute aftermath of adversity in Peripheral Health Units in post-Ebola Sierra Leone, finding that PFA training improved acquisition and retention of knowledge and understanding of appropriate psychosocial responses and skills in providing support to individuals exposed to acute adversity [72]. McCart et al. [73] found that PFA with crime victims did not outperform usual services with regard to improvement on victims’ individual psychiatric and adaptive functioning outcomes, but on a composite global functioning outcome, PFA yielded significantly greater improvement relative to treatment as usual [73].

The above angles PFA research towards contextualization in different cultural, political, and socioeconomic contexts and in different population groups. Sim and

Wang [74] conclude in their literature review the emergence of population-focused, context-specific, and group-based PFA worldwide. Purposely, these authors identify that nurses are actively playing a role in providing PFA, as well as research gaps in differentiating between the roles played by “outside” and “inside” responders, considering vulnerable age groups other than children, incorporating the major PFA concepts such as resilience, and evaluating the cost-effectiveness of PFA [74].

PFA for First Responders and Frontliners

As noted in the emergent applications of psychological first aid, PFA-trained individuals (PFA-TI) may be at an elevated risk of occupational trauma exposure and its related psychological consequences; PFA-TI may also experience increased levels of anxiety, depression, and posttraumatic stress disorder (PTSD) compared to the general population, and this also extends to first responders, humanitarian workers, and volunteers [23]. Group PFA (GPFA), delivered in a group or a team setting, is a more recent adaptation of PFA that is supported by several major agencies, including the International Federation of Red Cross (IFRC), as an effective way to care for staff and volunteers in crisis [75]. However, Connorton et al. [76] noted that organizations that employ relief workers have varying approaches to train for these risks, and more support in the field is needed [76], and this would also be the case for PFA-TI such as suicide hotlines personnel, counselors in crisis centers, or school psychologists, among others.

PFA may be useful in helping frontline staff manage stress associated with the increased workload and general anxiety relating to the COVID-19 pandemic, including suicidal ideation and related processes; this was the purpose of Thum et al.’s study [77], when examining the needs of hospital frontliners amid the new normal and engaging clients through virtual communication methods. Their findings not only ascertain PFA as useful in helping frontline staff manage stress associated with the increased workload and general anxiety relating to the pandemic but also exemplify the benefits of electronic resources such as Zoom or Facebook [77]. Another interesting proposal is made by Choi [78], by asserting the need to develop and provide effective, nationwide psychological first aid training, as well as disaster trauma recovery programs socioculturally tailored and contextualized, while using immersive digital healthcare/education technology [78].

Ethical Concerns

According to Demircioğlu, Seker, and Aker [79], the most essential ethical concern in the implementation of psychological first aid is the mandatory focus on the principle of “*primum non nocere*,” the preservation of the state of wellness among individuals, and the implementation of interventions without doing them any harm [79]. It is not useful – and may be harmful – to directly encourage suicide crises survivors to talk about what happened to them if they do not want to. If a person wants to discuss their experiences, it is useful to provide them with support, but only

in a manner that does not push them to examine more than they want [80]. Post-emergency settings are not clinical environments, and it is inappropriate to conduct a clinical or psychological assessment within the setting; as such, it is noteworthy to keep in mind that PFA is [25]:

- Not debriefing
- Not obtaining details of traumatic experiences and losses
- Not treating (psychological or psychiatric)
- Not labeling or diagnosing
- Not counseling
- Not something that only professionals can do
- Not something that everyone who has been affected by a stressful event will need

It may be advocated that the healthcare professions, including counselors, social workers, and psychotherapists, are high-risk occupations wherein the risks of disabling burnout and vicarious psychological traumatization are significant, particularly when treating suicidal clients. On this, Everly [2] suggests that PFA may prove of value in fostering resiliency in healthcare professionals, since it can be rapidly and effortlessly taught to non-mental health trained individuals who can serve, formally or informally, as “peer” crisis interventionist [5].

Conclusions

Psychological or emotional first aid can prevent a suicide. Following proper training and safety provisions, a sound three-step PFA strategy like “ask, listen, and link” can make the difference in acknowledging someone’s suicide ideation, besides acting promptly and accordingly. Recent research has shown promise on cultural and regional appropriation of PFA variants, including the contexts of low-income countries and exceptional circumstances like the COVID-19 pandemic. Following worldwide recommendations, PFA contributes to empowering individuals and collectives in taking action in all areas of health, including complex and multidimensional problems like suicide and other life-threatening behaviors.

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Community-Based Interventions in Suicide Prevention 51

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Abstract

Suicide is a painful human reality affecting worldwide individuals of different ages, races, cultural, and religious backgrounds. It has been traditionally attributed to mental illness, but it has also been linked to other adverse social circumstances, not always adequately addressed by psychiatry and other mental and health professions.

To make impact on its prevention at different levels, coordinated multi-disciplinary efforts must be community based. Throughout this chapter, the authors go back in history to see how the interpretations and solutions offered have evolved. When proposing solutions, emphasis is placed in the model of interventions provided by the WHO-backed Safe Communities Movement, pioneered and coordinated at the Karolinska Institute, Stockholm.

Keywords

Suicide prevention · Community safety · Isolation and exclusion

Introduction

The decision of killing oneself is usually a personal one, commonly conditioned by several factors. As judged by the letters left by suicidal victims, it is not possible to identify a single factor conducing to suicide. Rather, this is due to a series of adverse circumstances and the feeling of unfulfilled emotional and vital needs [1]. Therefore, we propose addressing suicide within a wider social context, looking for causes that could explain tendencies to commit suicide in different social groups.

Durkheim theorized in 1897 that suicides are a sensitive indicator of social integration, i.e., at higher suicide death rates, higher social levels of social disintegration within a given population [2].

In the second half of last century, Szasz postulated that mental disease is a man created myth, and psychiatry a pseudoscience similar to astrology or alchemy, lacking in scientific bases. He also considered that suicide is a personal basic human right and a choice decided only by the individual [3]. As result, Szasz followers narrowed the philosophical approach, making aside medical and social aspects of suicide.

Earlier, Popper had theorized that all knowledge is conjecture, and all scientific theories will eventually be proven to be wrong and be replaced by fresh knowledge and better explanations. Nevertheless, until they are replaced, today’s scientific truths, albeit unstable, have to be accepted as realities without which nobody, in practical terms, could do science. This is in essence Popper’s fallibilism [4]. According to Popper and contrary to Szasz, psychiatry keeps changing

permanently and enriching its conceptual frameworks, accepting as a consequence that its current formulations will eventually be replaced by new knowledge.

In medical sociology, social constructs of disease are based on widely acknowledged conceptual distinctions between disease, biological condition, and becoming ill or its social significance. The cultural significance of some diseases, which is deeply ingrained within some groups, does not derive directly from the nature of the disease itself but is constructed socially as a function of how individuals and societies come to understand and live with their disease.

In contrast with the medical model that assumes that diseases are universal and invariable in time and place, social constructs emphasize upon the manner in which cultural and social systems configure the meaning and experience of disease. Thus, the so-called social constructivism interpretation differs from the deterministic approaches of disease and could help us to widen our vision and the way we take political decisions to prevent specific situations such as the suicidal behavior [5].

In the 1970s and 1980s of the last century, suicide numbers in Sweden were amongst the highest in Europe and the world, especially among the elderly. It was hypothesized that loneliness could be the trigger of this form of suicidal behavior, and therefore, it was necessary to design strategies to lower the suicide rates [6].

Jan Beskow and professionals from Stockholm's Karolinska Institute designed a successful suicide prevention program within the Safe Communities framework, which reduced the number of suicides, not only among the elderly. In 2010, this experience was included in the book *Community Suicide Prevention*, edited by one of the authors of this chapter [7].

By the time that book was written, Leif Svänstrom and other leaders had identified the increasing need of including suicide prevention within the framework of the Safe Communities, a topic previously addressed briefly in the book *Introduction to Safety Promotion*, published in 2007 [8].

Since 2010, most aspects included in these two books have remained unchanged. Notwithstanding, there remain several unanswered questions and some controversial points. To address them, we have to overcome the skepticism and prove the value of the interventions proposed.

Through this chapter, we'll revisit old proposals and venture new approaches. We do this by acknowledging the complexity of the issues but accepting that there is a need to overcome the generalized pessimism over the value of actions designed to prevent suicide. We do this on the conviction that suicide is painful for all and must be avoided.

Persisting Patterns

Worldwide, the use of antidepressants has increased. From the data published by the National Health and Nutrition Examination Surveys (2005–2008), 11% of Americans aged 12 and older reported having taken an antidepressant in the previous month, an increase of 400% in the prescription rate between 1988 and 1994 [9]. According to the Prescription Cost Analysis Survey and the statistics of

the NHS, the number of prescriptions of antidepressants in England has doubled in a 13-year period. In 2017, among OCDE-selected countries, Iceland, Canada, and Australia were the highest consumers of antidepressants. In Iceland, daily defined doses (DDD) were 141/1000 persons, in Canada 110, and in Australia 109/1000 [10].

Nevertheless, the number of suicides has not diminished; on the contrary, in the last 5 years, there has been an increase of suicides in most countries. A consensus declaration published in 2017 states that “suicidal ideation, suicide attempts and death by suicide keep being critical public health concerns worldwide” [11].

The World Health Organization (WHO) reported that in 2016, there were 817000 suicides worldwide, which represents a global annual age standardized rate of 10.5/100,000, higher in males (13.7/100,000) than in females (7.5/100,000). In adolescents, suicide was the second cause of death, after deaths from traffic-related events [12]. Suicide rates in Africa were 12.0/100,000, in Europa 12.9/100,000, and in Southeast Asia 13.4/100,000, higher than the world mean for 2016 (10.5/100,000). The lowest rate was observed in the East Mediterranean region (4.3/100,000) [12]. The 2020 WHO report confirms that suicide occurs in all countries and affects people of every nation, culture, religion, sex, and social class. Suicide rates worldwide vary and such variations often are associated with changes in political and economic circumstances.

In the last decade, there was a descent in suicide rates in many countries, but in the last 5 years, there has been an upsurge of suicides worldwide. According to the WHO, the highest suicide rates occur in Lithuania (46.3/100,000 inhabitants) and Russia (47.5/100,000). In South America, Guyana’s rate is 26.7/100,000, and in Uruguay 15.9/100,000. In Asia, South Korea’s rate is 26.9/100,000 [13]. In Colombia, suicide rates increased from 4.23/100,000 in 2013 to 5.93/100,000 in 2018 [14].

Data are not always reliable. In some countries, underreporting is common due to a lack of adequate statistical methods and timely processing of results.

Controversies Over Definitions

Suicide is a serious public health concern. Both suicide and its prevention are complex issues not fully explained yet by the health sciences, including psychiatry and psychology. In suicidal behavior, converge multiple social risk and triggering factors demanding the participation of other disciplines, such as social anthropology, epidemiology, sociology, theology, and religion, to begin to understand how our thinking and our treatments have evolved and also the responses of communities confronted by individual and collective suicides [15].

Despite its complexity, scientific and medical literature emphasize mainly biologically oriented interventions and pharmacological treatments, ignoring other disciplines. In the First International Classification of Diseases (1903), suicide was classified as “a condition produced by external causes.” Later, it was included in the section “Accidents, poisoning and violence” (1968), then in “Lesions and intoxications” (1975), and, lastly, in the CIE-10 (1992); still in use, it was included within the

newly created category “Intentional Self-harm,” which also covered “intoxications or self-inflicted injuries with the purpose and intent of suicide” [16].

In practice, suicide attempts, when are serious enough to require medical attention, are seen in emergency services where health attendants are more concerned with the nature of the lesion or intoxication at hand than with their origin. That means that, although the consequences are treated by physicians, suicide is not identified as a specific medical condition. Doctors, then, are not usually capable of understanding suicidal behavior, let alone identifying the signs of suicidal ideation, suicidal attempts, and the diversity of etiological factors, be they medical, individual, or social. As a result, most countries have permanent national registers on suicides (mortality), but, so far, none have equivalent systems to record suicidal attempts (morbidity). Some have similar registers for lesions and intoxications; nevertheless, few refer to intent, which could help to discriminate between accidental injuries or intoxications and those criminal or self-inflicted [16].

Although we all understand the meaning of suicide, it is doubtful that we shall ever achieve consensus and accept unequivocal universally accepted criteria to characterize suicidal behaviors, especially intent. However, it is desirable that the terminology used be explicit and amenable of generalization to the fields of research, clinical practice, public health, and law [16].

The lack of standard nomenclature hinders clinical practice and makes it difficult to assess effectiveness of treatments and evaluation of risks.

Multifactorial Etiology

Suicide is a complex phenomenon that has attracted the attention of philosophers, theologians, sociologists, and artists. This has not resulted in its interdisciplinary study, which in turn has led to discrimination and rejection of suicidal individuals and their families [16].

Although the WHO [17] considers suicide as a multidimensional disorder resulting from a complex interaction of biological, genetic, psychological, social, and environmental factors, the impact of every risk factor has not been measured.

Mann’s group considers that mentally ill people attempting suicide show higher levels of aggression and impulsivity, few reasons to live, and higher frequency of self-elimination ideation. They also identified among those attempting suicide higher numbers of individuals with borderline personalities; tobacco, alcohol, and drug consumption, family history of suicide, history of child abuse, and cranial trauma, and research suggests the existence of a diathesis when impulsiveness and aggressiveness, tendency to pessimism, and hopelessness are present [18].

Several sociodemographic, psychological, cultural, and public health factors make some countries more vulnerable to suicide and aggression in Latin America. In Guatemala, Mexico, Peru, Bolivia, and Paraguay, there are high levels of poverty among the indigenous populations; malnutrition is more prevalent in Guatemalan Indians; women are commonly family heads in Costa Rica, Colombia, and El

Salvador. Under this and similar circumstances, unsatisfied needs and a sense of hopelessness become risks factors and triggers of suicidal behavior [19].

Whatever the circumstances, experts coincide in that suicidal ideation and behavior are rarely identified, thus treated only sporadically. Efforts to prevent and treat suicidal behavior are hindered also by the lack of standardized nomenclature and disagreements on how to approach diagnosis of individuals with suicidal ideas and behavior [11]. Lack of political will is expressed in inadequate investment and absence of concrete actions.

For convenience's sake, in this chapter, we will use the concept of suicide as a self-initiated behavior, with or without the intent of dying, expressed in ideas, suicidal attempts, and consummated suicides, with the exclusion of slow suicides and suicidal gestures.

Suicide and Social Exclusion

Increasingly, social exclusion is identified as a serious problem, worth looking by society and academics. When anyone see their social stance lowered, the risks of depression and suicidal behaviors increase. Suicidal risks are higher in persons excluded by their groups. Inclusion and equity are good for everyone but are difficult to achieve, since they imply commitment, a sense of belonging that is not self-centered, i.e., betting also on others and not only on ourselves [20].

Durkheim as well as contemporary researchers agree. Differences in suicide rates among countries are determined by their different social, economic, cultural, and religious conditions. Nothing in society happens in isolation.

Wilkinson and Picket report that in relatively homogenous countries, suicide is not more common in the lower echelons of society, and suicide is often inversely related to homicide [21].

In fact, it is paradoxical that differences in mean income and standards of living between countries don't matter much, but those same differences among populations within a given country matter a lot [21]. Countries with greater inequalities such as Colombia, levels of trust, mental diseases – alcohol and drug addiction included – life expectancy and child mortality, obesity, poor school performance, homicides, adolescent pregnancies, and imprisonment were important problems, and yet, suicide rates remained relatively low, despite recent increases [14].

Not always is convenient to treat inequalities as separate problems from services and solutions; doctors and nurses or curative services isolated in their institutions, police or prisons to prevent crime; teachers or child psychologists to address education problems; psychiatric services and experts for mental health promotion. These are expensive services and are not particularly effective [21, 22].

The neuronal mechanisms underlying low social integration are badly known in depressed and suicidal patients. Recent studies have shown altered cerebral connectivity, especially at the insula and anterior cingulate cortex in socially excluded individuals presenting with depression and suicidal ideation [23]. Also, individuals with polymorphism of the serotonin transporting gene are more prone to depression and suicidal behavior when exposed to environmental stressors [24].

Suicide and Anomie

According to Durkheim, the causes precipitating suicidal behaviors are of social nature and intimately entangled to the lack of integration between individuals and societies. As a result, there are suicidogenous societies [15]. He also considered that suicide relates to psychological as much as to social causes [2] and described four categories of suicide.

- *Egotistical suicide*, which results from poor integration of individuals to society. It is the case of “solitary wolves amidst multitudes.” It is common in societies that value individualism highly. Its incidence lowers in times of political, religious, and economic crisis and during wars.
- *Altruistic suicide*, as a manifestation of excessive sense of integration to a group, as happened with kamikaze pilots and recently with perpetrators of terrorist attacks. It is seen in rigidly structured societies, that place duty and belonging to a group above any individual consideration.
- *Anomic suicide* is an expression of altered social order or deregulation of social mechanisms, leading to individual disorientation and loss of significance of life, as happened in wars or during economic crisis. This is the type of suicide that interested most to Durkheim, since it is the one that characterizes modern society and reflects best the influence of economic cycles, as observed during the recent crisis in France and Greece.
- *Fatalistic suicide*, not examined by Durkheim or his school, is the result of tragic situations in which groups belonging to a sect commit group suicides [1].

When applying his statistical and sociologic methods to the suicidal behavior, Durkheim concluded that social anomie is the fundamental cause behind most suicides. For him, anomie is a lack of sense of purpose that appears most commonly in times of social upheaval. Anomie brings confusion, insecurity, or what today is defined as alienation or lost identity. Then, traditional values are not accepted, and the new ones lack strength and conviction [2]. Currently (2020), in the middle of the COVID 19 pandemic, Durkheim’s concept of anomie has become relevant once more [25].

Suicide and Ageism

Suicide affects all ages. Today, more people live longer and reach ages unknown to most. Despite this demographic change, suicide in the elderly receives less attention in all social spheres, from the media to the financing agencies and health establishments.

Frequently, old people are discriminated upon. Robert Butler, a psychiatrist and gerontologist, coined the term *ageism* to refer to discrimination, prejudice, and attitudes of rejection or indifference toward the elderly, old age, and the aging process [26]. Negative attitudes toward old people prevail even in cultures such as

the Asian societies traditionally identified as filial and respectful toward parents and ancestors.

Ageism is so ingrained worldwide that the WHO has pointed out the gravity of the problem: “Different from other forms of discrimination, such as sexism and racism, ageism is socially accepted, strongly institutionalized, and in great measure undetected and unsolved” [27].

An association has been documented between internalized ageism and the loss of will to live. When old people internalize the message that they are a burden to families and society alike and that ageing goes hand in hand with depression and loneliness, the will to live diminishes.

A model recently developed proposed that education on ageing combined with increased intergenerational contacts could reduce the untoward effects of aging, reduce discrimination, and promote good health and well-being of old people [28]. Prevention of suicide in old age must not remain limited to clinical aspects [29]. Elderly people usually die with their first attempt [28, 29]. Therefore, our understanding of ageing must be more realistic and more positive.

Beskow's Contributions

In his chapter on the meaning of suicide and suicidality, Beskow affirms that the challenge in suicide prevention based on community interventions is to create security (knowledge and structures), in such a way that it be possible to dream and help to make reality communities without suicide [30]. Beskow's main contributions to the social model of suicide behavior are as follows:

- *Suicide is a process.* Often suicide is understood through “psychiatric models” emphasizing mental disease, especially depression. Nevertheless, suicide is a process that involves thinking and planning suicide, making suicide attempts, and ultimately committing suicide. But it is also understood as a longitudinal process from the first genuine personal suicidal thought (“I can commit suicide!”) to the final suicidal act. Thus, the suicidal process has been perceived as something separate from mental disorder [30].
- *Suicide has symptoms.* In psychiatry, thoughts about suicide, suicidal attempts, and completed suicides are considered to be symptoms of mental disease. This is understandable, since the work of psychiatrists is to identify and treat such disorders [11].

However, the predictive value of mental disorders for suicidal acts is low, since these conditions are long-standing. Similarly, the predictive value of the instruments employed to identify individuals that eventually will commit suicide is low. Nonetheless, many suicidal patients are not identified as mentally ill; consequently, they seek attention late, often the day before the planned suicide. Therefore, psychiatrists often miss the first stages of the process when it is still possible to prevent suicides happening [30].

- *Suicide prevention implies prevention.* The core of suicide prevention is to welcome back and reintegrate the suicidal persons into the human community as respected and valuable members. This also applies to anyone suffering from a mental disease.
- *Loneliness is a trigger.* Deeply ingrained cultural values such as individuality, and the belief that life is our property, reinforce the sense of isolation, bring loneliness, and increase the risk of suicide [30].
- *Suicide should concern anyone promoting safety.* This means understanding suicide as a form of accident where deficiencies of surrounding social structures have a decisive influence. The feeling of not being understood is common among those thinking about suicide or attempting it. Near the suicide itself, suicidal persons lose control almost completely, and their minds are not clear anymore. The precision of judgments and acts diminishes and the risk of suicide increases. These are the cases where nothing will stop the suicide happening [30].
- *Taboos must be replaced by effective prevention.* A comprehensive history of the suicide process, distinct from that of mental illness, should form the basis for the identification, reinforcement, and further development of coping strategies already existing in the patient [30, 31].
- *Treatments must aim to restore the patient's integrity.* For this, it is necessary to confirm what the patient's actual thoughts and feelings are.
- *Role of cognitive therapy.* CT helps to understand the suicidal process in detail and permits assessing suicidal ideation within a process and not as a psychopathological symptom. Consequently, collective taboos on suicidal behavior can be modified [32].
- The therapist's task is to reach a shared understanding with the patient about their suicidal tendencies. Therefore, patients must be considered as experts of their own situation, whose history therapists listen attentively.

Therefore:

- (a) In order to keep living and solve their underlying problems, individuals with suicidal ideation, as a rule, try hard to maintain their intrusive thoughts at bay. Only when actual suicide has taken place, the capacity to deal with the problems is lost.
- (b) *Thinking about suicide is a normal process.* Everyone does it now and then. The goal of therapeutic interventions is not to prevent the patient from thinking about suicide but to prevent thoughts from turning into actions.
- (c) Thinking about suicide is helpful. When somebody's consciousness is wholly occupied with pain, anxiety, and depression to the point of paralysis, thinking about suicide can diminish cognitive paralysis. This is easier when patients accept thinking about death as a possible way out to painful situations. This perspective of normality helps that their actions be best understood, respected, and accepted for patients and therapists alike [32].
- (d) Thinking about suicide is a message. It acts as an alarm signal in case of fire. "Your problems are real; solve them now. Else, your life is at risk." Through

evolution, we have developed this warning system. There is clear value of survival in this message [32].

- (e) Thinking about suicide is dangerous when problems are not addressed and solved. Then, suicidal thoughts can take root and lead to decide on specific methods and circumstances. Completion of plans can be triggered then by apparently negligible events [33].

The Concept of Security

There is confusion about the concept of security. For some, security refers only to the prevention of crime and violence; for others, it refers more to a feeling of being out of danger than to an objective state, or it refers to the satisfaction of basic needs (food, shelter, clothing, etc.). These interpretations do not always include injury prevention, much less suicide prevention. In fact, the concept of “security” is quite difficult to understand in all its dimensions (physical, social, psychological, etc.) and, therefore, difficult to promote.

Security is a state in which dangers and conditions leading to physical, psychological, or material damage are controlled. A better shared understanding of this should favor increased cooperation among disciplines and sectors involved and, consequently, to less isolated interventions and a value worth promoting in our communities [34].

In 1988, the WHO published the conceptual framework of safety and promotion of safety in communities, whose elements are worth consulting.

The eight WHO statements provide a global and positive point of view regarding safety and safety promotion. It is useful to better understand and integrate the efforts made in a community to improve its security. It should also favor the mobilization of the population and multisector partners, with the aim of achieving common security objectives, and therefore should favor the effectiveness and efficiency of the interventions.

Suicide Prevention and Safe Communities

In this chapter, as in the texts *Community Suicide Prevention*, and *Safety Promotion, an Introduction*, community means a real and concrete group of people who are part of a concrete social structure. Therefore, we recognize the state, political, and power structures as essential components of communities. This inclusion means active participation, social responsibility, and not only personal, outside the clan and the family; it also means a sense of belonging to a larger group.

Frequently, we see many actions without community participation. As long as there is exclusion, an incomplete solution and high possibilities of failure, frustration, and resentment will prevail. On the contrary, community participation is a source of strength that leads to a better quality of solutions such as inclusion.

Welander points out that “communities are defined not only by what they do but also by what they do based on shared expectations, values, beliefs, and meanings between individuals” [35]. A community is not just the people who are in it. Community interventions are distinguished by a shift in focus from individual responsibility to multifaceted community-wide interventions designed to ensure that everyone in the community participates [35].

To understand the meaning of community, it is necessary to take into account the following principles: [7].

- Communities are more important than social structures.
- Communities are not in the air. They are part of specific societies and, therefore, are subject to their structures, their dynamics, and their rules.
- States and state structures are important components of any community and cannot be ignored. However, these structures cannot become more important than the communities they must serve.
- It is very easy to perpetuate and defend structures for their own good. The only way to avoid it is through strong communities.

The ultimate goal of the *Safe Communities Movement* is to prevent injury and promote safety. Included within this concept are suicide prevention and the promotion of strong and organized communities that could impact suicide prevention and advance integrated treatment for suicide attempts and the families of suicide victims.

The *Safe Community concept* is a formal one closely associated with the World Health Organization and not a nonspecific concept that can be freely applied to any community interested in safety issues. Today, the movement has more than 1000 *designated Safe Communities* and more than 20 international Safe Community Support Centers. To be part of the movement, a community must present a program that meets different explicit principles and criteria that must be based on promoting safety and mobilizing the community and demonstrating the effectiveness of the programs [35].

The Safe Communities Movement believes that the beneficiaries are communities and not just individuals, and in the case of suicide prevention, communities should be the ones to lead prevention strategies.

When suicides occur, there is generally no one more willing to assist with healing processes than those close to the victims, particularly parents, family, and friends, but also priests and other local religious and social leaders, teachers, policemen, or mental health experts serving specific communities, have a lot to say about suicide and suicide victims, because they are close to a shared painful reality and are in closer contact with communities and individuals.

“Suicide, in addition to hurting victims directly, spreads in unsettling waves of pain through successive family circles, both close and in a more remote relationship, to neighborhoods, communities, and eventually affects everyone in society. This effect explains why people in distress sometimes imitate or adopt the ‘individual’ pain of another as their own” [7].

For the concept of communities to be useful in suicide prevention, the following are necessary:

- Recognize the existence of communities as real living structures.
- Recognize that everyone is part of one community or many communities.
- Accept that communities have rules.
- Accept that the rules are created for survival and better coexistence.
- Recognize that when societies become disorganized, individuals are at greater risk because they tend to be excluded.

Within any society, everyone is important. In suicide prevention and intervention, there are other people as important as the psychiatrist and psychologists, doctors and health specialists, or any professional who deals with suicide victims. The media, police authorities, and political and legal institutions, but especially family members, are so much a part of society and must be included.

To prevent suicide, it is better for all concerned to work in harmony than in discord. Exclusion is very costly and has negative effects not only on those who are excluded but also on those who exclude them. Exclusion is the root of all violence, including self-violence. On the contrary, inclusion fosters life and hope [22]. Wilkinson and Pickett wrote: “While it is true that suicide is painful for everyone, pain can hurt less and have more healing power when shared with others. Sharing begins the healing process and drives prevention and safety promotion efforts. There are aspects of how communities work to promote safety that are well identified and studied, as well as the outcomes of injuries that have been carefully measured. I wish we could say the same about suicide and suicide prevention” [21].

Community Interventions to Repair Societies

The fabric of society as a whole (a unit) must continually repair itself if it breaks, and this must be done not only through individual interventions but also with social solutions. “For each social group, a specific tendency to suicide not explained neither by the organic psychological constitution of the individuals nor by their physical environment; it depends on social causes and constitutes in itself a collective phenomenon” [22].

Injury and Intent

The concept of injury focuses on the effects of processes which can harm humans or property. These effects may be due to accident, violence, or suicide. The study of the event includes both the causes and the process that led to this event.

An accident refers to unintentional events, which can cause injury to both individuals and property, while violence refers to intentional acts (events), which can cause injury to both individuals and property.

The process leading to an accident or suicide may show a rapid escalation of the threatening situation, resulting in a loss of control, as in impulsive suicide, where the actor does not always intend to die [18, 34].

Although, as De Leo points out, suicide is a self-initiated behavior [16], the actor does not always intend to die or has designed a plan to commit suicide. This new concept changes the paradigm that considered that suicide victims had always intended to die and, within the framework of safe communities, allows us to understand that those committing suicide in some cases have no intention to die [16, 18]. This concept shares some similarities with that of accidents.

Lack of intentionality in suicidal behavior has been the subject of study for several decades, which started with the pioneering work of Erwin Stengel at the University of Sheffield, in the late 1930s of the last century and has continued now, with the contribution of neurosciences. A phenotype characterized by alterations in the serotonergic system and in the response of the HPA axis has been identified, which differentiates carriers of the phenotype from suicide victims who have done early planning and have expressed frank wishes to die [18].

Suicides often occur unexpectedly. Henricson et al., when making the community diagnosis at Arjeplog in Lapland, Sweden, observed that suicidal acts occurred unexpectedly in a good percentage of the cases. This result agrees with the observations of other researchers such as Deisenhammer et al., who found that 47.6% of patients referred for medical care after a suicide attempt reported that the time from the first thought of suicide to the actual attempt was 10 min or less [36].

Suicide Prevention Interventions Within the Framework of Safe Communities

The focus of the interventions is on the early stages of the suicidal process which, for didactic reasons, is divided into three phases: before, during, and after the acute suicide episode.

In modern societies, everyone is supposed to learn how to help a drowning person and how to attempt cardiac resuscitation, but few know how to treat a person who due to emotional pain is close to suicide or how to understand the friend who tells us that he plans to commit suicide [34].

In acute suicide episodes, the expert is often a long way off, and therefore the goal is to make community members react rationally when encountering a person in a suicide episode, both in the acute phase and in subsequent moments.

The first objective is to overcome the taboo surrounding suicide, which includes the irrational fear of talking about death and suicide [30, 31]. Any member of a modern society should be able to speak about any existential concerns about life, death, and suicide, without entering into philosophical disquisitions and discriminatory attitudes [34]. In addition, everybody should have a basic understanding of anxiety, depression, sexual and family violence, and suicidal tendencies, to be able to weigh the value of concerns and emotional states and be able to support those who are in crisis and accompany them in the search for appropriate treatment.

Levels of Attention and Levels of Prevention: Two Different Concepts

Attention levels should not be confused with promotion levels. In primary health care, interventions are based on prevention, community work, and education, but levels of prevention can be developed independently of the level of care. In other words, regardless of the sophistication of the health institution, health center, community center, or university hospital, everyone can do primary, secondary, and tertiary prevention [7, 34].

Primary prevention aims to reduce the incidence of disease and the emergence of new cases, through immunization, hygiene, and education. This concept cannot be separated from that of health or safety promotion, whose objectives are to preserve the health level of the community and educate the community so that has better control over its health and stimulate it to practice healthier lifestyles.

Primary suicide prevention means activities aimed at educating people about the risks of suicide and promoting better mental health and better communication between different members of society. In addition, to create environmental changes and product development, make suicide attempts nonlethal [7].

In the case of suicide, *secondary prevention* aims at identifying and intervening early the individuals and groups with the highest risk of suicidal behavior and, in general, mental health problems. This type of prevention, in practice, has a lot of resistance by different groups [7].

In the case of suicidal behavior, *tertiary prevention* corresponds to the treatment and recovery of those who attempted suicide. The repair work must include, in addition to the survivors, family members and the community [7].

When communities join the Safe Communities Movement, the medical community within them begins to reconsider priorities. They often realize that they and their ways of prioritizing can be justified only insofar as they are part of communities larger than their own professions [34, 35].

The Role of the Media

Suicidal ideas are contagious, especially among young people and can produce small suicide epidemics that, in turn, may be fueled by news provided by the media and, currently, by social networks and the widespread use of Internet.

When talking or writing about suicide, it must be done responsibly, to find the balance between the need to be informed that the community requires and the avoidance of morbid attitudes about the suicidal act and discriminatory ones about the suicide actor.

In another chapter of this text, the importance of the media in the evaluation and prevention of suicide risk is analyzed.

Here, we will limit ourselves to commenting that the WHO together with the International Association for Suicide Prevention (IASP) has designed a document in this regard [37].

Norway, has developed a road map, as a result of close collaboration between their suicide prevention agency and the organization of Norwegian journalists [38].

Toward a Comprehensive Model of Suicide Prevention

Although the tendency is to prevent suicide individually, it should not be forgotten that suicide disturbs the communities to which the suicide victims belong. Suicide, therefore, is not a private matter; the behavior of an individual has consequences for the family and for the entire community [7].

Although it is a difficult task, suicide prevention is possible and should include activities ranging from providing the best possible conditions for the education of young people and children and the effective treatment of mental disorders to the environmental control of risk factors.

Conwell et al. (2011) point out that taking the risk factors individually constitutes a weak guide for the design of successful strategies in suicide prevention, because their power to predict who is going to commit suicide is very poor and, therefore, better results are obtained when suicidal behavior is considered from a public health perspective. The latter allows suicide to be understood as a developing process in which the combination of risk factors and protective factors contribute to defining the trajectory of suicidal behavior over time [39].

Identify Populations and Individuals at Risk and Provide Better Life Opportunities

People who are mentally sound can take care of themselves, see themselves as valuable people, and judge themselves by reasonable standards, rather than unrealistic ones. People who do not value themselves are frightened by rejection, keep others at a distance, and are trapped in solitude [22].

The most important predictor of a suicide attempt is the previous suicide attempt. Unfortunately, its importance is overshadowed by the myth that those who threaten to commit suicide or who do so with a “gentle” method fail to reach a fatal suicidal act.

It is necessary to evaluate and treat possible mental disorders related to the appearance of suicidal behavior (depression, anxiety, schizophrenia, bipolar affective disorder), but also, strategies for the inclusion of the patient in the family and in the community should be established to avoid discrimination and social isolation.

Additionally, additional efforts should be made to ensure connections with typically marginalized and isolated people, including the elderly, undocumented immigrants, the homeless, people with mental illness, victims of sexual violence, and intra-family violence, individuals at risk of discrimination, or exclusion as those who suffer bullying or cyberbullying [40, 41], and those who have higher suicide rates, due to their physical illnesses, unusual behaviors or sexual orientation.

Sexual abuse in childhood causes behavioral changes and varied affective symptoms: post-traumatic stress, depression, suicide, sexual promiscuity, repetition of the victim-offender cycle, and low academic performance, behaviors that can lead to exclusion in the community [40]. Sexual abuse produces hyperactivity of the HPA in children and alterations of the neuropeptide system that are manifested in adulthood as affective instability, irritability, impulsivity, and difficulty in coping with stress [42].

Lonely and Socially Excluded Elderly

Van Orden et al. (2010) consider that the two emotional situations that are closely related to the desire to kill oneself are the limitation of the sense of belonging (living alone, being widowed, lack of social support) and perception of feeling seriously ill, to the point that the presence of both dangerously elevates the desire for self-elimination [43].

The purpose of dying in the elderly is characterized by their firm conviction and by the use of effective methods to realize their intentions. It is an active suicidal behavior, often reflective and premeditated [44]. The increase in the lethality of suicidal behavior in the elderly reflects a decrease in their physical resilience, a greater degree of social isolation, and a strong determination to die, which leads them to choose violent and lethal methods to consummate their suicide plan.

The Uruguayan Ministry of Health identified the following social risk factors for suicide in the elderly: prejudice against old age, loneliness, isolation, reduction of income with sudden changes in the economic situation, forced retirement, loss of social roles, and humiliating events such as consequence of social prejudices.

Primary care and family doctors see the elderly frequently, but in a good percentage, they have not received training in the care of the elderly and do not have enough time to carry out a consultation that allows them to inquire about the symptoms of depression or the presence of suicidal thoughts and making a correct diagnosis of depressive disorder [45].

The tendency to isolate older people from society must be countered. A good example of prevention is the Tele-Help/Tele-Check service, established in the Italian region of Veneto, which, after 10 years of follow-up, showed a very significant reduction in the number of suicides [46].

Mobile phone text messaging (as reported by Beskow [47]) and the use of computers in homes connected to a service station are technical aids that can be used to avoid the exclusion of the elderly.

Adolescents: Behavioral Changes and Substance Abuse

Suicides are a serious problem among young people. Suicide is the second leading cause of death in children, adolescents, and young adults aged 15–24 years [12]. In adolescence, affective disorders, bipolar affective disorder, and schizophrenia appear, entities that have a high risk of suicide, which increases with the abuse of

alcohol and psychoactive substances [48]. Among younger children, suicide attempts are often impulsive and are often associated with feelings of sadness, confusion, anger, or attention problems and hyperactivity.

Family members, teachers, and the community should be alert to the signs associated with suicidal behavior in adolescents: changes in eating or sleeping habits; frequent or general sadness; estrangement from friends, family, and regular activities; frequent complaints about those physical symptoms that are often related to emotions; decreased quality of school work; and concern about death [48].

In adolescents, it is also necessary to inquire about the presence of suicide ideas related to their philosophical conceptions, the meaning of death or the attraction they feel toward it. It is not just a matter of valuing the existential aspects of life and death but of specifying whether the ideas are part of peer group preconceptions, whether they are influenced by the leaders of their peer group or are the response to their feelings of pessimism and hopelessness.

COVID-19 Pandemic and Communities at Risk

At the current time of the COVID-19 pandemic and in the years that follow, as in all epidemics and natural disasters, an increase is to be expected in depression, post-traumatic stress disorder, substance use disorder, and a wide range of other mental and behavioral disorders, such as increased domestic violence and child abuse. Suicide numbers will surely increase as a consequence of social distancing, increased loneliness, economic crises, unemployment, decreased religious support, reactivation, and lack of adequate treatment for medical conditions and mental disorders [49].

Suicide in Physicians: A Silent Epidemic?

Several studies document high suicide rates among medical professionals, especially in women [50]. The subject is covered in-depth in another chapter of this book.

Health professionals are a high-risk group now serving on the frontlines of the battle against COVID-19. There are several sources of stress they are dealing with: concerns about infection, exposure of family members, colleagues that fall ill or die, a shortage of necessary personal protective equipment, facilities overwhelmed by excess demand, and job stress. This special population deserves support and prevention services [49, 50].

In many places, it has been observed that doctors have been attacked and discriminated against by communities, who fear being infected.

Suicide Prevention: Medical Approach

Prevention of suicide attempts and completed suicides is a challenge for medical personnel and especially for those who work in mental health. Studies show that

40–60% of people who commit suicide have seen a doctor in the month prior to suicide and that in countries where mental health services are not well developed, the proportion of people in suicide crisis who see to a general practitioner, it tends to be lower.

It is difficult to identify who wants to commit suicide, because the individual frequently denies or hides his or her suicidal ideas or, as mentioned, the suicidal person has high levels of impulsivity that trigger nonfatal suicidal behaviors, which, without the intention of dying, can trigger a fatal outcome.

A “pre-suicide” syndrome has been described, triggered by feelings of pessimism and hopelessness, made up of narrowing of the psychic life, behaviors of social isolation, inhibited aggressiveness toward others, ideas of suicide, and fantasies of self-destruction [51].

Physicians, including psychiatrists, usually address suicidal behavior within the framework of the medical model and often prefer interventions that are biologically targeted. Even so, although the anti-suicide effects of clozapine and lithium have been confirmed, they are underused by doctors and psychiatrists.

Undoubtedly, early detection and adequate treatment by the primary care physician of depressive disorders and bipolar affective disorder can prevent suicidal behavior, because pharmacological treatments and psychotherapy have shown to be important tools in suicide prevention [52].

In our opinion, however, it is a somewhat limited approach, since it concentrates the most important efforts in the use of medicines with the exclusion of community interventions, which in this way are limited to the marginal participation or the formulation of policies of some patient advocacy organizations, such as the American Foundation for Suicide Prevention.

For some authors, medicine cannot claim the merit of our improved health and, instead, could represent a source of problems that, once created, are extremely difficult to overcome. Medical and health services can stifle or degrade community initiatives and lessen the powerful influence of solidarity, and as a result, people are weakened rather than strengthened.

Improve Epidemiological Surveillance Systems

The social discrimination that accompanies the suicidal act leads to underreporting in all countries and to the fact that it is not possible to distinguish between accidental death and completed suicides. On the other hand, the psychological autopsies, although they have brought us closer to understanding the motives that the person that commits suicide had to make his fatal decision, are also influenced, to a greater or lesser degree, by the subjectivity of the person who performs it and by falsification or concealment of the facts by the interviewees [11].

Epidemiological surveillance is the systematic and continuous collection of data about a disease or events in such a way that they can be identified early enough so that interventions are possible in a timely and efficient manner.

Suicide Prevention in the Secure Communities Model

Suicide prevention must contemplate different strategies according to the different stages of the suicide process, already discussed.

Before the Suicide Episode

- Increase the general standard of care. Suicide is a problem area with approximately the same mortality and complexity rate as cardiovascular disease. Therefore, the care of suicidal persons must have the same quality in terms of personnel and technology as cardiac intensive care rooms. Any decrease in the quality of care of the suicidal patient is unacceptable.
- Increase the competence of health personnel in suicide prevention. Health personnel are still trapped in the suicide taboo and, although can often talk about suicidal thoughts as symptoms, do not understand that suicide can be a real option for a patient in a stagnant and painful problem-solving process [31]. An increased interest in problem-solving aids early detection, when suicide prevention may still be helpful.
- Developing and making cognitive therapy programs available to the community, which, as Beskow explained, has been shown to have good scientific rigor and to be effective in preventing suicidal behavior.

During the Suicide Episode

Assess the risk of suicide. There are many schemes for this, which can be useful even if your predictive value is restricted. The patient has to involve the therapist in the problem-solving process. As “two inseparable researchers,” they approach the patient’s suicidal tendency as a problem, engaging them both. The patient contributes his unique knowledge about himself and his suicidal thoughts while the therapist his experiences, theories, and techniques to strengthen the patient’s ability to face their own realities [32].

After the Suicide Episode

Carry out a microanalysis of the episode and point out the message, even partially understood, that the patient has attempted to communicate through the suicidal act. Promote the result as a platform for a more detailed analysis of the problems of the patient’s life [33, 34].

Community Interventions

There are many challenges ahead. We need to learn to use the media and social media as forums to communicate our ideas creatively. We have to learn to listen and

recognize painful differences and realities; recognize the right of others to exist and those who argue differently from us, without resorting to disqualifications of any kind. We have to learn to identify bullies of all kinds and begin to confront them. We have to learn to strike up tough conversations with advocates of euthanasia and suicide, especially when they come from educators.

All of the above also means having difficult discussions with moralists, be they right and wrong. There is a danger in its simplicity, especially when it is officially endorsed.

- Recognize that we are part of a group. That alone we cannot survive. However, the trends in modern medicine and hospitals are to ignore these realities and for health professionals to become isolated and instrumental machines.
- Recognize that life has meaning and purpose and must be valued. For this, we must go to philosophy and discover the meaning of life and death.
- Accept that communities exist: that we all recognize which group we belong to, that we are all part of a specific community or of several communities, that some are closer to our hearts than others, and that it is to the most personal groups that we return to celebrate life and find meaning and help in crisis. Intimate communities in the deepest sense, as our family, real friends, partners, blood and meat, cultural neighbors and neighbors of the village, so close to our hearts and so different from the realities of life in large anonymous cities, surrounded by forms and morals that create artificial paradises [7, 34].
- Accept the broader connotations of the term community, states, regions, shared music, dances, national anthems, and all cultural expressions whose importance is so easily identified in all kinds of ceremonies and celebrations, sport, or national holidays. Food, flavors, smells, appeal to basic brain structures in charge of the most intuitive and important functions than those identified with the intellectual brain, mathematics, logic, grammar or with the motor and sensory areas that are so emphasized in teaching anatomy and physiology.
- Accept that loneliness and isolation are harmful and that exclusion kills.

The disciplines must learn from each other must have a complementary and not antagonistic dialogue: excessive specialization hurts.

Ours is a task that never ends, construction and permanence must be permanently adjusted, and it is necessary to be alert all the time, fully committed to what we do. We must also be aware that accepting responsibilities should not mean guilt, neither moral fault nor legal fault. Regardless of what one does or fails to do, there will be those who commit suicide despite the correct diagnosis and interventions. When someone finally decides to commit suicide, there are no barriers or restrictions in the way Haddon applies in his womb, which will prevent a suicidal person from performing his fatal act. This does not run counter to our previous claim that suicide can and should be prevented.

Conclusions and Proposals

In our reasoning, we acknowledge the fact that everything changes and eventually all knowledge, even the most scientific, will eventually be shown to be untrue and may be replaced by new knowledge. This does not imply that we cannot act at a given moment in history without accepting as truth things that today appear as the closest thing to the truth as we perceive it at this moment. Without concrete truths, no one can make practical decisions that allow living.

Furthermore, to understand mental illness and suicide, we must resist the temptation to use single-causal statistical and epidemiological models. The complexity, in addition to statistics, is conceptual, historical, sociological, and scientific. It also includes religious human realities and, above all, those that are inevitable as sooner or later we will die. History is a good help in understanding this.

However, the biggest obstacle remains to be social and personal indifference, including psychiatry and psychiatrists. Suicide is contagious and seductive, and the responsibilities of the media and social media to prevent clustering and spread in practice are far greater than are expressed in current practice.

We have to be realistic. To create and maintain the necessary structures, we need to finance them properly, and to achieve this, we must fight the complacency and the dangers of letting the structures make our efforts irrelevant and our programs stagnant. We must not allow our organizations to become too bureaucratic. We must be prepared to change, if necessary, always adapting to new realities and circumstances. We must prevent medicine or psychiatry from becoming only a tool in favor of the doctors themselves only.

There are several challenges that we must face.

To approach them, we can rely on programs and movements such as Secure Communities that have identified problems contributed to developing international networks and successfully created and socialized language and methods. Like any model, it risks becoming bureaucratic and stagnant, but it is still the best, for now, we know.

We have to adapt to the new ways of acquiring and transmitting knowledge. Physicians must be trained not only to listen better but also to learn to use practical statistics and to collect and interpret data with appropriately adjusted rates, to contact political and economic powers to seek and manage resources, to relate to the pharmaceutical industry while maintaining an ethical perspective, and to take positions without intolerance.

We need to update public health education and prepare doctors to deal with management and politics. We need to create and strengthen communities of physicians locally and internationally, using all the modern means known to create associations and keep them alive. It is necessary to change teaching methods in medical schools to invite further reflection and active participation in the search for solutions.

We have to learn about the realities of those traditionally excluded in the country without resorting to intolerance and polarization. We must maintain our fight against

indifference, but mainly against our own prejudices, just as we fight against forms of medical practice that encourages anonymity and encourages the reification of human experiences.

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Suicide Prevention for Underserved Populations and Community Mental Health 52

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Abstract

Although suicide is a global issue affecting various groups of people, there are some groups who present a significantly elevated risk, like ethnic minorities and

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gender and sexual minorities (GSM). Because ethnic minorities and GSM are among the diverse populations most served by community mental health organizations, community psychologists face a unique set of challenges and demands in the prevention and treatment of suicide. Community mental health providers can also use community connection to increase community safety, increase mental health awareness through outreach, and increase access to the services they offer. Awareness of and adjustment to cultural factors among community providers is recommended to increase mental health service utilization, improve treatment quality, and expand suicide prevention. Such efforts may be an important step in addressing service gaps and increasing awareness of and accessibility to services.

Keywords

Suicide prevention · Community mental health · Ethnic minority · Gender minority · Sex minority · Culture · Diversity · Training

Introduction

Suicide is a global mental health issue. In 2016, more people died from suicide than homicide, battle-related conflict, and violent deaths combined; these results were consistent worldwide [1–3]. In 2018, suicide was the tenth leading cause of death in the USA for all age groups, the second leading cause of death among Americans aged 10–34, and the fourth leading cause of death for Americans aged 35–54 (CDC WISQARS, as cited in Ref. [4]). When analyzing the US suicide rates from 1999 through 2018, there is an apparent increase of 35% [4]. Of those individuals who endorse suicidality, about 90% of them exhibit mental health concerns and illness [5].

Although suicide is a global issue affecting various groups of people, there are some groups who present a significantly elevated risk, ethnic minorities and gender and sexual minorities (GSM) [6, 7]. Regarding ethnicity, Native Americans and Alaska Natives show suicide rates twice that of the White American population [8]. Elderly East Asian American women show disproportionate rates of suicide among women over age 65 [8]. African American youths have showed an increase in suicide rates compared to White youths between 2001 and 2015 [9]. Regarding GSM, research indicates that lesbian, gay, bisexual, and transgender individuals show higher rates of suicide attempts [7, 10]. Suicidal risk is particularly high for adolescents and emerging adults who identify themselves as GSM [11]. Adolescents and emerging adults are more likely to be victimized across contexts, increasing their vulnerability to developing mental health challenges [12–15]. Due to the elevated risk of suicide that ethnic and GSM youth display, a portion of this chapter will be dedicated to the challenges and therapeutic recommendations for this population.

This chapter will also discuss recommendations for addressing suicide within community mental health organizations. Because ethnic minorities (immigrant and the US born) and GSM are among the diverse populations most served by

community mental health organizations, community psychologists face a unique set of challenges and demands in the prevention and treatment of suicide. Awareness of and adjustment to cultural factors among community providers is recommended to increase mental health service utilization, improve treatment quality, and expand suicide prevention. Community mental health organizations must continually strive to provide treatment that is culturally appropriate. Techniques such as client-therapist cultural matching may be indicated. Preventative community training models offer promising approaches to bringing mental health expertise to communities and expanding the reach of the community mental health care system through the training of community gatekeepers, teachers, and community health professionals, rather than solely relying on help seeking by community members. Such efforts may be an important step in addressing service gaps and increasing awareness of and accessibility to services. With their unique on-the-ground position, community mental health providers can use community connection to increase community safety, increase mental health awareness through outreach, and increase access to the services they offer.

Suicide and Ethno-Cultural Minorities

Most literature discusses suicide and suicide prevention with sole regard to majority and native populations. To enhance diverse knowledge and representation, this section will be taking an ethno-cultural minority lens. Ethno-cultural minorities refer to immigrants or nonimmigrants who do not identify as White or Caucasian [16]. A migrant and immigrant is any person who has moved away from their habitual location regardless of legal status, duration of stay, or reason for relocation [6]. Ethno-cultural minorities may also be refugees, defined as persons requiring international protection and residing outside of their country of origin for reasons of violence, persecution, or conflict [6]. Generally, an individual's ethno-cultural identity influences their values, beliefs, traditions, and activities [16]. Although there is a diverse array of ethno-cultural identities with unique factors, there are also shared challenges across the minority groups [16]. This section will focus on those shared difficulties as they relate to suicide risk and suicide prevention.

Suicide Rates

According to Forte et al. [6], ethno-cultural minorities show higher rates of depression and suicide: Foreign-born minorities in Sweden display a higher suicide risk ratio when compared to native-born individuals. Migrants in England, the Philippines, and the Netherlands display a higher risk of attempted suicide when compared to the native population. Black and Asian minorities in America and Europe display an increased risk of mental health difficulties and traits associated with suicide attempts. Additionally, there is an increased suicide risk for ethno-cultural minority

youth [17]. Joe et al. [17] outlined suicide risk from highest to lowest risk in the following order: Indian/Alaska Native, Latinx, African American, and European American individuals. They mentioned that suicidal ideation, nonsuicidal behavior, and suicide mortality are the highest for American Indians [17]. Forte et al. [6] also argue that Native Hawaiian and other Pacific Islander youth display increasing rates of suicide attempts and suicide deaths. They report that compared to non-Hawaiian students who have a suicide prevalence rate of 9.6%, Hawaiian adolescents have a higher prevalence at 12.9%, comparable to the rates of American Indians [6]. Overall, it is evident that ethno-cultural minorities have distinct levels of risk when compared to native majority populations.

Shared Challenges

As mentioned previously, ethno-cultural minorities coming from different backgrounds may face similar challenges. Forte et al. [6] argue that in Bhutanese refugees who resided in the USA predominantly faced difficulties revolving around language barriers, family separation, and worries about family, all of which contributed to suicidal behavior. These difficulties are not unique to the Bhutanese refugee population but appear to extend toward ethno-cultural minorities in general. Furthermore, arranged marriages, lack of health care information, social loss, and acculturation are risk factors for Black and other minority populations [6, 18]. Other authors discussed the shared challenges of language barriers, family loss, social isolation and exclusion, suicide stigma, pre-immigration trauma, employment hindrances, financial instability, and discrimination [16, 17, 19]. Acculturation difficulties are of particular interest when examining the risk of suicidal ideation.

Acculturation

Acculturation is commonly understood as assimilating to the majority culture, particularly when it is non-native to the person. Acculturative hardships are risk factors for mental health challenges and suicidal behavior in ethno-cultural minorities [6, 18]. The greater the level of acculturation, the higher likelihood of suicide behaviors such as thoughts and attempts [16]. In fact, a study of Hawaiian youth found that participants with higher levels of acculturation had a greater risk for suicide attempts [6]. Additionally, studies of generations of immigrants found that second-generation immigrants display higher acculturation and higher suicide risk compared to their less acculturated first-generation counterparts [20]. Some difficulties arising due to acculturation are social and economic marginalization [19]. In their host country, immigrant populations may face financial or employment challenges; this may cause distress which can be exacerbated by lack of social support and eventually increase suicide risk [19]. Chung [19] suggests that immigrants can decrease the risk factor of acculturative stress and suicide if they reside in a host country that aligns with their needs; this measure of alignment is commonly referred to as a “goodness of fit.”

Seeking Help

Shared challenges can impact the help-seeking behaviors of ethno-cultural minorities. First, there are distinct cultural stigmas that can limit their social help seeking and elevate their emotional distress to enable propagation of further mental health difficulties. For example, many ethno-cultural minority populations endorse negative suicide stigma. Because individuals may value harmony in their home life, the thought of disclosing their difficulties and seeking support is likely to induce shame, predominantly for reasons of perceived family burdensomeness and fear of community repercussions [19]. Stigma, fear, and shame are especially strengthened when they witness others being reprimanded for disclosing their difficulties with family [19, 21]. This stigma may decrease the chances that ethno-cultural minorities seek support from social connections, likely increasing their experienced mental health difficulties [17, 22]. Stigma may also decrease their openness to reporting instances of family suicide behavior, reducing their opportunity to receive treatment and provide culturally helpful data for community prevention [17]. Although there is risk attributed to suicide stigma as it relates to a lack of help-seeking behaviors, sometimes suicide stigma may serve as a protective factor. For example, some ethno-cultural minorities may internalize the stigma as shameful and not view it as an option [17].

Second, ethno-cultural minorities experience hindrances with regard to seeking help from mental health services. Lai et al. [16] mention that immigrant adults in America and Canada endorse service barriers related to mistrust, lack of mental health service information, lack of culturally appropriate care, and expensive service costs. Cultural mistrust is defined as an individual's belief that individuals from dissimilar cultures will treat them unfairly and likely stems from experiencing discrimination [17, 23]. This is exemplified in the fact that African Americans with high levels of cultural mistrust endorse negative feelings when therapy is conducted by European Americans [17]. This lack of trust reduces positive treatment outcomes and the chances of staying in treatment [17]. Regarding lack of service information, in a study of suicide risk, it was found that two-third of participants were unaware of specialty mental health services until after their symptoms became severe or they made a suicide attempt [19]. Some participants were able to contact their primary care physicians, but they did not provide them with symptom psychoeducation or referrals [19]. In instances in which individuals were aware of mental health services, many were unable to cover the cost or receive financial assistance [19]. Because of such barriers, immigrants are less likely than the general population to seek mental health care services, ultimately increasing helplessness and diminished mental health and suicidal behaviors [16, 19].

Suicide Prevention

It is evident that ethno-cultural minorities present with unique suicidal risk and therefore authors have suggested the following preventative measures. First, the

provision of culturally sensitive and competent treatment. Increasing the amount of ethnic minority facilitators in the target community may increase awareness of cultural vulnerabilities, reduce cultural mistrust, reduce dropout rates, increase positive treatment outcomes, and increase ethnic participation in data collection for preventative measures [16, 17]. Second, organizations must address service gaps and fight to increase knowledge of services, enhance accessibility to services, and increase financial feasibility of their services [16]. Ethno-cultural minorities represent a lot of impoverished individuals who are unaware of mental health services, unable to access treatment, or unable to afford it. Changing policy to advocate for these hindrances may increase help seeking and reduce suicide behaviors in this population.

Third, social relationships must be encouraged in treatment and in the community, particularly because immigrant populations may lack social connections, a risk factor of acculturative stress and suicide behaviors [6, 16, 19]. Finally, religious participation may serve as a preventative factor of suicide behaviors for some ethno-cultural minorities. Not only do many of these congregations object suicide which reduces suicidal ideation and attempts in believers, but they also increase social connectedness [16, 19]. Some studies have even found that religious participation and sense of religious well-being are protective factors for suicide behaviors [6, 24]. In conclusion, all mentioned preventative strategies may be implemented with the consideration of unique client presentations and the understanding that they may not be absolute solutions for all.

Suicide and Gender and Sexual Minorities

Research indicates that gender and sexual minorities (GSM) are four times more likely to attempt suicide than their heterosexual and cisgender peers [11, 25]. Since the literature has identified individuals aged 15–24 as those with the highest risk, this section will focus on that age range [11]. Compared to heterosexual and cisgender individuals, GSM are more likely to experience prejudice, bullying, violence, and harassment [13, 15]. This makes them vulnerable to experiencing low self-esteem, social isolation, depression, anxiety, substance use disorders, and panic disorders [12, 14, 15]. In one of the first studies analyzing suicide risk of young adult sexual minorities (SM), it was found that 30% of SM reported attempting suicide compared to 13% heterosexuals. Of those reporting having attempted suicide, 58% of the SM indicated they genuinely wanted to complete suicide compared to 33% heterosexuals [26]. In a study of SM high schoolers, 42.8% reported they considered suicide, 38.2% reported a suicide attempt, 29.4 attempted suicide at least once, and 9.4% made an attempt that resulted in injury [27]. Overall, adolescent GSM present with higher risk accounting for 30% of completed youth suicides [12]. Regarding gender minorities, 18% of transgender individuals report suicide attempts compared to 4.6% of the general population [10]. With these statistics in consideration, it is evident that GSM display an increased need for suicide prevention.

Parental Relationships

Research indicates that GSM who come from families with stigmatizing attitudes about sexual orientation and gender are eight times more likely to attempt suicide than those with supportive families [11, 28]. Studies indicate that youth with parents who are unaccepting of their gender or sexual orientation are more likely to experience abuse and poor health outcomes [27, 29]. They may be at risk of getting kicked out of their homes and being verbally and physically abused by their parents [11, 12]. SM youth with high levels of familial rejection are also 5.9 times more likely to be depressed and 3.4 times more likely to misuse substances than those with supportive families [29]. Although these exact numbers may not necessarily generalize to all GSM, there is still an increased risk of substance use, depression, and suicide across all GSM [11]. Also, a negative parent-child attachment may hinder the youth's ability to develop positive relationships outside of the home, further enabling psychosocial difficulties [29]. Overall, family rejection and lack of support influence GSM psychosocial development, increasing the suicide risk [29].

Family support and acceptance of youth's GSM identities have been linked to fewer mental health difficulties and suicide risks [14]. To increase family understanding, acceptance, and positive parent-child relationships, it is encouraged that the family participate in family therapy. In treatment, clinicians can help reduce family rejection and increase support for the youth by: (1) providing the parents with psychoeducation about the negative health outcomes and suicide risks associated with rejection of GSM children, (2) giving them interventions and skills to modify their rejecting behaviors, and (3) providing the family with resources for external support groups [29]. This may be particularly helpful when families are already willing to learn more about GSM and how to support them.

Peer Relationships During Adolescence

Research indicates that peer relationships are particularly difficult for gender and sexual minority (GSM) youth [29, 30]. In adolescence, youth place large importance on developing friendships which makes peer rejection GSM identity more impactful [29]. With higher instances of peer rejection, GSM youth are more likely than their heterosexual and cisgender peers to be victims of bullying [29, 30]. Some forms of bullying include homophobic remarks and micro-aggressions [15]. This includes calling GSM names that historically have negative connotations and are meant to cause pain; such victimizations puts them at greater risk of developing depression, delinquent behaviors, low self-esteem, poor academic achievement, substance use, suicidal ideation, and attempting or planning to complete suicide [11, 31]. Unfortunately, these impacts can be further propagated by a lack of school support.

The Influence of Educational Systems

In the face of peer rejection, the distress of GSM youth may be elevated when they experience a lack of support from school officials. Research indicates that many times school officials ignore bullying and harassment of GSM students, and bullies feel freer to continue toward more physical violence [29]. Additionally, in a survey analyzing the homophobic remarks, 90% of respondents disclosed having heard remarks. Of those who reported the remarks to school officials, 31% disclosed that they did not respond or act [30]. This lack of response causes GSM students to view their educational environment as unsafe and unprotecting of their rights, resulting in higher rates of truancy and low academic performance [29]. It also results in a lack of school connectedness and attachment which further increases feelings of depression and suicide risk [15].

To increase positive outcomes for GSM youth in school systems it is suggested that the entire school system participate in inclusive actions and programs. Hong et al. [29] argue that school officials hold important roles in decreasing the rates of bullying, victimization, and harassment. These roles could be carried out by defending children as they are being victimized, advocating for government changes that protect GSM students, or implementing GSM inclusive programs. First, teachers should intervene when they encounter bullying and report it to school officials. Ahuja et al. [11] mention that when students find support in at least six teachers, they feel safer and experience more positive reactions in their educational environment. Second, continuing to advocate for government changes such as the California FAIR Education Act. This act mandated the neutral and positive portrayals of LGBTQ+ individuals in high school books [11]. Such representation of GSM in the academic curriculum increases the likelihood that GSM students feel their classmates are accepting of them [11].

Third, schools should implement Gay-Straight Alliances (GSA) that increase resources for LGBTQ+ information and protect against prejudice [11, 25]. Schools with GSA clubs are more likely to have supportive staff and safe environments for GSM youth, decreasing harassment, victimization, and assault [11, 25]. Furthermore, GSM youth in schools with GSA display improved attendance, higher academic performance, positive self-esteem, decreased anxiety, and decreased depression [11, 15]. All three of the aforementioned techniques can increase GSM youth's perceptions of safety and school connectedness which inversely reduces the risk of suicidal ideation and attempts [25]. They may also increase staff and student diversity self-efficacy, defined as the ability of an individual to gain and use knowledge to promote a positive environment [12]. More specifically, when they are faced with environments that are prejudiced and in need of change, they can educate others by modeling values of diversity and cultural humility [12].

Culturally Adapted Treatment Considerations for Community Mental Health

Along with the increased risk of suicide, ethno-cultural and gender and sexual minorities (GSM) also face various other challenges when accessing mental health care services. One important concept to keep in mind and increase better therapeutic

outcomes for these populations is to develop a strong therapeutic alliance. The therapeutic alliance has been defined as a mutual working relationship between the client and therapist with agreed upon goals and tasks of therapy with the therapist providing a supportive and collaborative environment [32]. It is essential to strive for a strong therapeutic alliance as it has been indicative of decreased client termination rates and improvement in client's global change and symptom distress [33–35].

Previous studies have shown that ethno-cultural and GSM populations tend to terminate treatment faster and at higher levels compared to those who identify as White or heterosexual [36, 37]. In the context of community mental health, it is important to address these disparities and make mental health care services more inclusive and reflective of the population's needs. Community mental health services are recommended to adopt two methods: (1) client-therapist cultural matching and (2) culturally adaptive or multicultural approach to therapeutic interventions. Utilizing these two approaches will hopefully provide better quality of care to those in minority populations and encourage further treatment participation by strengthening the therapeutic alliance.

Client-Therapist Cultural Matching

Having a similar culture, identity, or background shared between the therapist and client is thought to be an instrumental variable for treatment. Common variables studied between therapist and client matches are race, ethnicity, language, gender, sexual orientation, and socioeconomic factors. Clients who are a part of minority populations are shown to have a strong preference for cultural matching of therapists when seeking treatment [38]. Reasons for this cultural preference have been described as shared language, perceived similarities in values and perspective, and as a potential protective factor against use of stereotypes and microaggressions between therapist and client [37–41]. Clients may feel more comfortable and view therapists as more credible and positive when there is a similarity in culture or identity [38, 40, 41]. In previous research, benefits to cultural matching between therapist and client have been studied under the concept of the culturally responsive hypothesis, in which clients are thought to receive better treatment outcomes and decreased dropout rates when matched with a culturally similar therapist [37, 39].

In the 1990s, many studies began to investigate how the therapeutic relationship and treatment outcomes were influenced by clients who were matched with therapists of the same race, ethnicity, or culture [38, 42–44]. Part of the cultural responsiveness hypothesis claimed if clients matched with therapists who shared a common culture or identity, then the therapeutic alliance would be stronger in comparison to clients and therapists who were not matched [37]. The therapist and client may be able to build rapport and trust based on an assumed similar perspective and values, which may potentially impact the overall underutilization and high dropout rates of ethnic minority populations when accessing mental health care [37, 42].

In a meta-analysis by Cabral and Smith [38], it has been shown that ethnic minority populations (African Americans, Asian Americans, and Hispanic/Latino (a) Americans) tend to prefer having a therapist who matches their ethnic or cultural

identity. Having this sense of culturally responsive services to be able to provide a client-therapist match leads to clients feeling more positively about the therapeutic alliance; however, ethnic and cultural matching did not lead to more beneficial treatment outcomes regarding client level of functioning after treatment [38, 43, 44]. The ethnic match was shown to have a slight decrease in dropout rates and increase in number of treatment sessions attended by ethnic minority clients, but the results were not significant to conclude that ethnic match was a sole determining factor of these results [43]. Despite results of ethnic match between client and therapist not having a significant impact on the benefits of therapy outcomes, this does not mean that ethnic match should be disregarded – rather it should be looked at with other factors.

In community mental health, many people seeking services identify as being a part of ethno-cultural and/or gender and sexual minority populations. To increase treatment utilization and treatment outcome benefits, community mental health services should reflect on how they can further support and reach out to the people in their communities. Ethnic minority populations were shown to prefer a therapist who matched their ethnic identity, despite this match not being a determining factor in treatment outcomes [38]. It is important to have this culturally responsive service available to potential clients as it can establish trust within the community and possibly lead to more long-term service utilization if people are aware of this option of preference [45].

Another important factor to consider is having a language match between client and therapist. Ethnic minority clients whose primary language was not English found that a language match with a therapist was preferred and beneficial to treatment outcomes [37]. Having a therapist who can speak with a client in their native language can make it easier for the client to express their experience without the complications of translating or being misunderstood [37, 42]. A shared language may also increase communication and disclosure of symptoms the client may be experiencing [42, 45]. While it may not always be possible to match a therapist with a client based on preferences, it is important for any therapist to have cultural competence regarding the multiple identities in the room whether similar or dissimilar between client and therapist in order to provide the best care.

Cultural Competency

Therapists who are competent in multicultural matters provide more effective treatment to clients who identify as part of minority populations [46]. Stanley Sue has defined cultural competence as the awareness and recognition of cultural groups and being able to effectively provide treatment to these groups [45]. In community mental health, clients may be a part of specific cultural groups that are dissimilar to the therapists. It is important for the therapist to acknowledge and educate themselves about that client's cultural background as it can influence the therapeutic alliance, presenting problem and symptoms, and treatment direction [45, 47]. Clients who identify as being a part of minority populations face difficulties about whether a

therapist would understand their specific values and worldviews [47, 48]. These difficulties and uncertainties can influence the client's level of disclosure of present symptoms or distress [48]. This is especially important when assessing suicide risk for minority populations [49].

In the Cultural Model of Suicide, culture affects stressors leading to suicidal behavior, the development suicidal tendencies, and the expression of suicidal thoughts and behaviors [49]. Therapists should strive to become culturally competent in order to be aware and knowledgeable of the specific ways culture can affect suicidal risk and behaviors of minority groups [49, 50]. Having this knowledge of minority groups suicidal risk and behaviors can allow therapists to screen for risk factors that may be culturally specific to certain groups that may not be otherwise prevalent [49]. Culturally competent therapists are needed in community mental health in order to effectively treat every person with varying identities. Culturally competent therapists can build therapeutic relationships with clients and the community, and be alert and prevent suicide risk with populations in the community.

Role of Community Mental Health in Suicide Prevention Among Cultural Minority Groups: Promises, Challenges, and Recommendations

The rise of the community mental health movement marked a significant paradigm shift in mental health history. By the end of the nineteenth century, there was increased awareness regarding the shortcomings of institutional care, including inhumane practices, discrimination, and poor treatment outcomes. Increased support for community care, social integration, and awareness of human rights further propelled the emergence of community mental health services [51]. As it stands today, the community mental health approach continues to be defined by some fundamental perspectives that make it well suited to prevent suicide among cultural minority groups. The field of community mental health operates from a public health lens where the focus is on (1) primary, secondary, and tertiary preventions; (2) improving access to acceptable services; (3) melding the recovery-oriented approach with evidence-based science; and (4) promoting the use of other community resources and services to improve mental health [52].

In line with the theoretical principles that define the community health approach, research data supports its potential to step up and play a major role in suicide prevention. In 2018, the National Mental Health Services Survey (NMHSS) indicated that community mental health centers (CMHCs) served the second-highest number of clients in mental health treatment facilities that provide 24 h inpatient care. Furthermore, approximately 70% of the CMHCs offer specific suicide prevention services. It is well recognized that community health centers mostly serve individuals who are publicly insured or uninsured, are at the federal poverty level or below, and belong to racial and ethnic minority groups [53]. Community mental health focuses on increasing access to treatment, which is a shared risk factor for suicide across various underserved populations [54]. Despite the promising scope of

community mental health, there are several challenges to implementing effective suicide prevention programs. The following section elaborates on the current state of suicide prevention initiatives in community mental health, the field's challenges, and recommendations to improve suicide prevention among underserved populations.

Challenges and Recommendations

There is limited research on community mental health-based suicide prevention among cultural minority groups; nonetheless, some challenges consistently stand out in the literature. These challenges include lack of gatekeeper training [55–57], inadequate communication between systems for coordination of care [58], limited funding, limited/methodologically weak research [56, 57, 59, 60], the scope for more community-based participation [61–63], and need for diversity orientation [54, 64, 65].

Gatekeeper Training and Community Awareness Programs

Community awareness regarding suicide and gatekeeper training are common initiatives taken to reduce suicide-related behaviors. In the case of suicide prevention, the term gatekeepers refers to individuals who interact with a large number of community members regularly, and can be trained to identify those at risk of attempting suicide and refer them to the appropriate services available [56]. Some examples of gatekeepers include individuals employed in schools, lawyers, students, military personnel, pharmacists, and first responders.

It is important to identify and target culturally relevant gatekeepers (e.g., tribe leaders, faith-based organization members, traditional healers, etc.) to prevent suicide in cultural minority groups. For instance, Molock et al. [66] described a suicide prevention program for African American youth called the Helping Alleviate Valley Experiences Now (HAVEN). The HAVEN proposed gatekeeper training for Black church members, including the administrative body, young adult church members, pastors, Bible study instructors, Sunday school teachers, etc. Molock et al. [66] strategically selected Black church members as gatekeepers due to the centrality and influence of religiosity in African American youth [66].

Several suicide awareness and gatekeeper training programs have targeted schools and youth [60], one primary reason being the high rates of suicide among youth populations [67]. Although such programs are frequently implemented, the research evidence for their effectiveness is limited [60]. A rigorous systematic review of 16 suicide prevention interventions, based on the guide to community services method, indicated that the effect sizes ranged from small to large [57]. The review indicated strong support for the improvement in students' attitudes and knowledge about suicide and its risk factors; however, most studies did not assess for an actual reduction in suicidal behaviors in youth [57]. Another review of 93 studies found that suicide rates lowered only in programs that involved physician

education regarding depression recognition and treatment, and restriction of access to lethal means [68]. Except for few studies [69–71], school suicide prevention studies rarely measure the program’s impact on suicide attempts and rates [57, 60].

Several commercial train-the-trainer models of gatekeeper training for suicide prevention are also available. Some examples of these training programs include the Question, Persuade, and Refer training (QPR) and Applied Suicide Intervention Skills Training (ASIST) [55]. At best, there is support for an increase in suicide-related knowledge and skills confidence after engaging in these gatekeeper training programs; however, there is no conclusive support for their impact on gatekeeper behaviors [55]. Overall, there is limited evidence suggesting that community awareness programs and training impact suicide behaviors and rates.

Recommendations

- Extend the evidence for community awareness initiatives and gatekeeper training for suicide prevention by examining their association with suicide rates, suicide attempts, and gatekeeper behaviors (e.g., making referrals).
- Tailor community awareness initiatives to make them culturally relevant to the target population.

Community-Based Participation

Community-based participatory research (CBPR) methods entail equitable partnerships and community involvement in the formulation, implementation, and evaluation of an intervention. There is growing support for CBPR to reduce health disparities [63]. Members of cultural minority groups have inequitable access to health care services, and their explanatory models of illness may be incongruent with that of the majority groups. Within this context, CBPR can improve help seeking, promote the consumer/survivor movement, empower marginalized groups, build upon the valuable contextual knowledge of community members, and promote culturally relevant care [61, 62]. Some authors have documented CBPR suicide prevention projects with populations such as Canadian Aboriginal peoples [72, 73], American Indian, and Alaska Native (AI/AN) communities [62, 74, 75].

One CBPR case example of an indigenous suicide prevention program is the Qungasvik (“tools for life”) intervention [62]. The authors of this study included members of the Yup’ik community who initiated a CBPR-based collaboration with other Yup’ik members to address alcohol misuse and suicide among the Yup’ik youth (12–18 years). The authors developed a theory of change embedded in indigenous knowledge in collaboration with the Yup’ik community elders and leaders in *qasgiqs* (communal house). The theory of change emphasized strengthening the Yup’ik culture among the youth as part of suicide prevention. The Yup’ik elders, community members, organization leaders, and youth collectively identified 13 protective factors. These protective factors formed the basis of 26 modules of intergenerational cultural activities appropriate to the season, location, and status of the community. Yup’ik community members subsequently executed the modules.

The activities aimed to promote resilience, protective childhood experiences, and a sense of belongingness among the Yup'ik youth [62]. Although the generalizability of such interventions created through CBPR may be low, they serve to mobilize communities and promote culturally relevant interventions [62]. Researchers seeking such mutual engagement can utilize CBPR principles and also draw from published toolkits such as the World Health Organization's (WHO) "Preventing suicide: A community engagement toolkit" [76] to create individualized suicide prevention programs in equal partnership with the target community. While CBPR methods increase community involvement, it is important to meaningfully integrate community members into different stages of the research beyond brief consultations and merely as participants. Furthermore, researchers should also plan and account for the sustainability of suicide prevention programs that emerge from CBPR. In other words, emphasis should be laid on the successful transition and continuation of the program once the researchers leave the community [77].

Recommendation

- Develop and maintain partnerships with consumers and community members to mobilize communities and utilize cultural knowledge to create, evaluate, and sustain suicide prevention interventions.

Training Community Health Professionals

The role of community health professionals in suicide assessment and prevention is crucial. Research indicates significant health and mental health care contact 12 months prior to suicide and a notable association of suicide with mental disorders [78, 79]. Despite these known trends, there are gaps in the training of community mental health professionals [80]. One study that collected data from eight large community behavioral health care organizations across seven states in the USA reported that approximately 65% of the staff had not received any suicide prevention training [80]. Timely training, following evidence-based practices for suicide prevention, risk assessment as well as tracking the use of these practices can be helpful. For instance, one such practice is the routine assessment for access to lethal means. Restricting access to lethal means is an empirically effective suicide prevention strategy [81, 82], therefore it is important for community health professionals to routinely assess for access to lethal means as part of suicide risk assessment and management. Despite the evidence, studies indicate that many providers do not routinely ask about access to lethal means as part of risk assessment [83]. Training should, therefore, address the beliefs of community health professionals regarding asking about access to lethal means and conducting risk assessment and subsequently underscore its importance in suicide prevention.

Recommendations

- Provide periodic training to community health professionals in evidence-based practices for suicide prevention and risk assessment.

- Address the barriers (provider and other systemic levels) to implementing evidence-based practices for suicide prevention and risk assessment.

Research, Program Evaluation, and Funding

Several types of suicide prevention programs exist; however, a major challenge is the lack of research evaluating these programs, and the paucity of longitudinal studies [57, 59]. One explanation could be the lack of continuous funding to conduct such research [59]. Longitudinal studies can provide important information about the long-term impact and sustainability of a suicide prevention program's desired outcomes. A notable example of a longitudinal study is the evaluation of the Garrett Lee Smith (GLS) Youth Suicide Prevention Programs [84]. Garraza et al. [84] evaluated the GLS programs' impact on youth suicide mortality between 2006 and 2015. The 6-year follow-up of GLS programs suggested a reduction in youth suicide mortality rates, with effects lasting for approximately 2 years [84]. These findings indicate the importance of the long-term continuation of suicide prevention programs, therefore continuous funding is crucial to sustaining quality suicide prevention efforts.

The limited research available on suicide prevention programs has several methodological weaknesses. One major drawback is that studies assess proximal outcomes like change in knowledge and attitudes rather than suicide rates or attempts [56, 57, 59]. Since suicide has a low base rate, researchers are often unable to attain sufficient power in research trials when they include suicide rates as an outcome [56, 57, 59]. Specific statistical analyses meant for analyzing low base rate events should be utilized to evaluate suicide prevention programs.

Based on the review of community-based suicide prevention programs, York et al. [57] documented some common methodological problems in suicide prevention research. York et al. [57] noted that several studies employed a pre and posttest design but did not account for the effect of pretest sensitization. Furthermore, there were insufficient attempts to address the fidelity of interventions and a lack of moderating variables other than gender. Training to conduct program evaluation or partnering with academic institutions can be facilitated to overcome these methodological barriers. More systematic reviews and guidelines/resources about research methods, common methodological errors, and standard outcome measures used in studies can be helpful for suicide prevention researchers [56, 57].

Recommendations

- Conduct cross-sectional and longitudinal program evaluations of suicide prevention programs to generate empirical evidence.
- Include suicide attempts and rates as outcome measures to evaluate the impact of suicide prevention programs.
- Develop and widely disseminate suicide prevention research guidelines that address common methodological issues and available methods to overcome these challenges.

Linkages Between Systems of Care

Suicide prevention is not just a mental health issue but a broader health issue that requires coordinated efforts. Various guidelines highlight that effective suicide prevention requires coordination and linkages between multiple care sectors [56, 85]. For instance, the National Action Alliance for Suicide Prevention's Research Prioritization Task Force (RPTF) used a large-scale modified Delphi process to formulate a series of 12 aspirational goals to reduce suicide rates. The results led to the formulation of a goal that targeted the need for enhanced continuity of care – “ensure that people getting care for suicidal thoughts and behaviors are followed throughout their treatment so they don't fall through the cracks” [86, p. 313]. Research findings concur with the conclusion that continuity of care is likely to reduce suicidal attempts [58, 87]. One cost analysis study found a highly favorable 6:1 benefit-cost ratio. The study estimated that psychotherapeutic and other linkage interventions would reduce suicide rates by 10% and save approximately 9.4 billion US dollars [58].

In 2019, the National Action Alliance for Suicide Prevention published a document on the best practices in care transitions for individuals at risk for suicide that can apply to community mental health settings. The recommendations suggested developing and maintaining formal partnerships with inpatient providers through a memorandum of agreement or understanding. Such agreements can facilitate smooth transition plans, warm handoffs, and expedited medical record sharing. Another suggestion was to establish and regularly review policies for engaging with clients with an identified suicide risk, including referral acceptance and triage intakes. Policies for triage scheduling are critical since the suicide rate for discharged patients with an identified suicide risk is approximately 300 times higher than the general population [88]. If the first appointment is more than 24 h from discharge, an outreach call to the patient can increase the patient's chances utilizing future care. To further enhance the care coordination, community mental health professionals can organize in-person/conference call meetings with the patients, their family, and the inpatient care staff before the discharge. Lastly, the National Action Alliance for Suicide Prevention [89] recommended following up with the patient regarding the missed first appointment and notifying the inpatient facility of the patient's missed and completed intake session to maintain the communication loop.

Recommendation

- Develop, maintain, and strengthen formal relationships with surrounding health care organizations/systems to promote a smooth transition of patient care via timely in-person and virtual contact.

Cultural Appropriateness and Diversity Orientation

As discussed in the previous sections of this chapter, culture impacts suicide behaviors in various ways. Research indicates that culture influences the rates of

suicide, motives for suicide behaviors, degree of condemnation of suicide, choice of means, help seeking, as well as other risk and protective factors [64, 65]. For instance, some studies have indicated that hanging and poisoning as a method for suicide are more common among Asians [90, 91], while the use of firearms is more common among White Americans [90, 92]. Similarly, poor academic achievement is a relevant risk factor for Asian American youth [54]. It is important to conduct further research to understand these cultural differences as well as to appropriately tailor suicide prevention outreach and training programs for gatekeepers and community health professionals.

To be responsive to the needs of cultural minority groups, it is essential to adopt a cultural lens in all stages of suicide prevention research. In other words, the development of the intervention (length, type, setting, and delivery), selection of outcome measures, implementation, and sustenance of the intervention [17]. Focus on themes like the stigma associated with suicide, cultural mistrust, acculturation etc. is critical to expand our understanding of efficient ways to prevent suicide in cultural minority groups [17].

Some researchers have developed culturally tailored suicide prevention programs, in keeping with the evidence of cultural influence on suicidal behaviors. One example of a culturally sensitive community health education and mobilization initiative is the “Promoting Community Conversations About Research to End Suicide” initiative (PC CARES) [93]. The PC CARES focuses on the prevention of suicide among Alaska Native youth. Facilitators trained by academicians, social workers, community health workers, and local leaders conduct a “learning circle” by inviting community members, tribal officials, health workers, and educators. These learning circles start and end with a prayer, and the facilitators share research evidence on the prevention of Indigenous youth suicide, which is followed by analysis, storytelling, and discussion. The aim of PC CARES is twofold. Firstly, it sparks community dialogues about American colonialism, which is perceived as a reason for substance use and suicide among the Alaska Native youth. Secondly, it mobilizes community members to interpret and apply research evidence as well as their indigenous knowledge to facilitate suicide prevention strategies within their community [93].

Other known examples of culturally based interventions are the Zuni Life Skills Development Program (ZLS) [94] and the American Indian Life Skills Development curriculum (AILS) [95]. LaFromboise [94] developed the ZLS curriculum – a high school suicide prevention program for Zuni youth – in collaboration with the Zuni community. The program was heavily guided by Zuni values, and involved the Zuni community and leaders in its implementation. The ZLS reiterated the core Zuni values, and aimed to develop the skills of Zuni youth to seek help and support their peers when others reach out for help. In addition, community and gatekeeper trainings were also conducted to promote suicide prevention. A quasi-experimental study supported the effectiveness of the ZLS, and it is currently listed on the SPRC and SAMHSA website as an evidence-based program [96]. The promising outcomes of the ZLS program prompted the development of the AILS curriculum. The AILS was more heterogeneous in its scope than the ZLS and more broadly targeted the

American Indian tribal community. A significant drop in the 20-year suicide rate of Sequoyah High School supported the effectiveness of AILS program [97].

The case examples of PC CARES, ZLS, and AILS illustrate that culturally sensitive programs can be initiated to prevent suicide in cultural minority populations. Such culturally tailored programs can further enhance previously mentioned strategies, including cultural matching and cultural competency training of community health providers and gatekeepers.

Recommendations

- Conduct research on cultural factors associated with suicide-related behaviors.
- Incorporate a cultural lens throughout the different research stages (e.g., development of the intervention, implementation, outcome measures, etc.) and culturally tailor suicide prevention programs.

Conclusion

Community populations present with unique risk and unique needs in the prevention and treatment of suicide. Certain ethno-cultural, sexual, and gender minorities are at higher risk of suicide compared to the general population, due to issues like minority stress, stigma, discrimination, and financial instability. Furthermore, aversive experiences in the health care system, cultural norms, and fear of judgment may contribute to decreased utilization of mental health care services, services which could provide crucial help to individuals at risk of suicide. In addition to these risk factors and barriers, mental health providers should acknowledge their client's unique cultural background, as well as how it may influence therapeutic rapport and treatment participation. In response to their awareness of culture, they must design culturally appropriate treatments that are sensitive to their client's unique vulnerabilities and needs.

Several innovative approaches to suicide prevention at the community level show promise. New interventions are being devised that extend beyond the therapy room to increase the reach of mental health care services. Gatekeeper training and community awareness suicide prevention programs equip individuals who interact with greater proportions of their communities to identify suicide risk and connect at-risk individuals with help. Community-based participatory research methods use community partnerships to empower communities to design interventions through their own cultural lens, a promising avenue to designing culturally appropriate and relevant suicide prevention treatments. Research demonstrating the effectiveness of these community-based suicide prevention interventions will be crucial in further mobilizing public health resources to implement such preventative interventions on a larger scale. Improved training of community mental health professionals will bolster the effectiveness of community mental health care, further preventing suicide in at-risk individuals. Strengthened linkages between the different arms of the mental health care system and health care system will improve continuity of care, further protecting suicidal individuals and preventing suicide attempts. Overall, the field of

suicide prevention has generated many promising solutions that merit continual testing and implementation.

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Suicidal Self-Burning in Women and Men Around the World: A Cultural and Gender Analysis of Patterns and Explanations

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Abstract

Self-burning is a violent suicide method with high morbidity and mortality. In some regions it is most common among women and in other regions among men. This pattern is consistent with a foundational idea in suicide-scripts theory (Canetto, 1997) – specifically, that the typical suicidal individual and suicide method vary by culture. Women’s predominance, in some regions, among the suicidal self-burning challenges many myths about gender and suicide, including the idea that women always avoid disfiguring, painful, and highly lethal methods. A common script in terms of the motivation and meanings of suicidal self-burning is that it is a way to protest against social injustices and persecution. In the case of women, the social injustices and persecution are institutionally enabled but typically perpetrated by close family. The social injustice context and the protest message of women’s suicidal self-burning are well-articulated in the literature but are often lost when the situation is summarized as a family problem or a mental health issue. The social injustices and persecution associated with men’s suicidal self-burning typically involve distant institutions, such as the government. The social injustice and protest framework remains central to the dominant narrative of men’s suicidal self-burning. Questions about personal (e.g., mental health) difficulties potentially contributing to men’s suicidal self-burning are not asked. To correct these gender biases in the suicidal self-burning literature, we recommend privileging attention to social factors in theory, research, and the prevention of women’s suicidal self-burning; and to psychological and close relationship factors in theory, research, and the prevention of men’s self-burning.

Keywords

Suicidal self-burning · Self-immolation · Women/Men · Gender · Culture

Introduction

Self-burning is one of the most disfiguring, slow, painful, and violent methods of suicide. It is also one of the most lethal – its fatality being about up to 79% [66]. The fatality of intentional self-burning is higher than the fatality of unintentional self-burning [48, 63]. The morbidity associated with intentional self-burning (e.g., the total body surface area burnt) is greater in the case of intentional than in the case of accidental self-burning [66].

Suicidal self-burning is most common in low- and middle-income countries. Almost half (40%) of suicides in low- and middle-income countries are by self-burning – with significant variability by country [3]. Low- and middle-income countries are also where the vast majority (77% in 2019) of suicides occur [92].

The countries with the highest prevalence of suicidal self-burning spread across a vast area of Asia. They include Iran, Iraq (particularly the Kurdistan region of Iran and Iraq), Afghanistan, Tajikistan, and Uzbekistan; India and Sri Lanka [47, 79, 82], as well as China and Vietnam [86]. Suicidal self-burning has also been reported among Asia-origin individuals living in Western European countries (e.g., the United Kingdom) or majority European-descent countries (e.g., Australia) [3]. Furthermore, suicidal self-burning has been recorded in African countries (e.g., Tunisia) [14, 15] and in Eastern European countries (e.g., Poland) [95].

Despite its prominence in large-population countries (e.g., India, Iran) and across regions (Africa, Asia, Eastern Europe), and despite its high levels of morbidity and mortality, suicidal self-burning has received limited attention in the dominant English-language suicide literature.

There are systematic reviews and meta-analyses of quantitative and qualitative studies of suicidal self-burning in various regions of the world (e.g., [47, 66, 69]) and countries (e.g., [40], for the United States; [79], for Iran). These reviews have revealed that in some regions (e.g., in Southeast Asia) and some countries (e.g., Iran) suicidal self-burning is most common among women. In other regions (e.g., Far East Asia) and countries (e.g., Vietnam), suicidal self-burning appears to be most common among men.

Missing in the literature is a critical analysis of the cultural context and the patterns of women's and men's suicidal self-burning, by country. Also unavailable in the literature is a critical examination of the typical ways in which women's and men's suicidal self-burning are explained, by country. This chapter addresses these gaps in the literature.

This chapter starts with an analysis of terminology and quality of data issues. Next, it reviews the cultural contexts, patterns, and explanations of suicidal self-burning, first in women and in countries where women have higher rates of suicidal self-burning than men, and then in men and in countries where men have higher rates of suicidal self-burning than women. It concludes with a discussion of the implications of using cultural and gender lenses, in theory and research on suicidal self-burning, and for the design of prevention initiatives.

Terminology

Suicide by self-burning is often called self-immolation. A problem with the word "immolation" is that it is associated with the idea of devotional sacrifice. In religious contexts, "immolation" is the term used to refer to the ritual killing of animals or people in order to gain favor with the god/s. The word "immolation" has also been used in reference to so-called martyrdom by burning. In other words, the word "immolation" can have positive connotations. To prevent the association of suicidal self-burning with connotations that may encourage acceptance, admiration, and potentially, imitation, the word "immolation" is not used in this chapter.

Quality of the Data

Suicidal behavior is underreported and undercounted. A reason for the underreporting is that suicidal behavior involves social and economic penalties for the suicidal person and/or their family (e.g., loss of coverage of medical care for the person who survives the suicidal act). As a result, reported rates of suicidal behavior, including rates of suicidal self-burning, are considered serious underestimates of actual rates [4]. Information on the factors contributing to suicidal self-burning, including its cultural and social context and meanings, is also of variable reliability and quality, within and across countries.

Cultural Context, Patterns, and Explanations of Suicidal Self Burning in Countries Where Women Have Higher Rates of Suicidal Self Burning

In this section, we review evidence about the cultural context, patterns, and explanations of suicidal self-burning in countries where women have higher rates than men. Most of this evidence comes from social sciences or medicine publications.

Iran

Iran is a Muslim-majority country where Shia Islam is dominant. In Iran, like in other Muslim-majority countries, suicide is *haram*, that is, prohibited. The prohibition relates to the beliefs that life belongs to God, and that suicide means giving up hope in God [80].

Fire has symbolic meanings in Islam. A belief is that those who disobey God will face a hell that is primarily made of fire. Therefore, in Islam self-burning can have the meaning of self-inflicted hell and can be a way to communicate that one's life is hellish [9].

There is a large body of research about suicidal self-burning in Iran. Most of it is epidemiological, but there are also qualitative studies. Reviews of suicidal self-burning in Iran are also available [3, 54, 68].

Iran is one of the countries with the greatest morbidity and mortality from intentional self-burning. According to a review, 1–10% of all nonfatal suicidal acts and 25–41% of all deaths by suicide in Iran are from self-burning. Self-burning accounts for up to 37% of all admissions to burns centers in Iran [3]. Sixty-one percent of self-burning acts result in death [68]. Iran's national incidence of self-burning is 4.5 per 100,000 [79]. Suicidal self-burning rates vary by province, with the Western, economically deprived, high Kurdish-population provinces of Ilam, Kermanshah, and Kurdistan recording the highest rates [54].

In Iran self-burning is mostly a woman's behavior and way of death [54, 68, 79]. Women account for 70% of intentional self-burning acts. Individuals who engage in

suicidal self-burning are typically young (average age is 27.31), married (61%), and free of mental health problems (81%) [68].

Across studies, the circumstances identified by Iranian women who engaged in suicidal self-burning (and/or by significant others) include juvenile and/or forced marriage; confinement to the house; control of their every behavior by family members; having to follow the routines of their husband's extended family rather than one's own; being expected to serve the husband and his extended family; having no children; being blamed and harassed for not having children or for not having male children; bearing and raising a large number of children; polygamy by the husband; unwanted divorce; emotional and/or physical abuse by the husband and/or family members; and having experienced sexual abuse and/or rape (e.g., [1, 5, 19, 33, 50, 53, 58, 68, 77]). For example, in an interview study [19], a woman reported that she set herself on fire because she had been "accused of being a 'dokhtarza', i.e., a woman ... [who gives] birth to girls only" (p. 3157). Another woman said: "My husband used to beat and harass me. I had to do hard works. At last I was bound to do this" (p. 3158). Similarly, a study by Maghsoudi and colleagues found that women who died of self-inflicted burns had suffered "degradation in the family, many ... [having been] subjected to male domination and arrogance" ([53], p. 219). In Iran, self-burning is also a socially expected way for a woman to prove herself "sinless" when she is accused of so-called moral improprieties. This includes having been the *target* of sexual harassment and abuse, including rape [77].

Many studies have documented how for Iranian women suicidal self-burning is a desperate response to institutionalized family and societal oppression (e.g., [1, 5, 19, 44, 53, 68]). For example, in one study a dominant theme in interviews with married women admitted to a burn center was that self-burning was the only option these women saw to end the violence, the abuse, and the "prison-like situation" of their family and society [1]. In another interview study [19], a woman said: "I saw self-burning as the only way of release"; and another woman stated that her suicidal act was "to get rid of her patriarch" (p. 3161). In yet another study, a woman admitted to a burn center said that her self-burning was the "only way ... [to] escape from" her husband's verbal and physical violence (p. 3). Another woman in the same study said that she set herself on fire to exit a forced marriage: "My father told me I do not have the right to return to our home if I get a divorce, and my family will be ashamed... I was ... ready to die" ([1], p. 4). Based on interviews with women who survived intentional self-burning and with their significant others, Alaghenbandan and colleagues concluded that women "turn to the desperate remedy of self-burning. ... as a means of escaping from intolerable conditions and speaking out against [the] abuse" they experience in their families and in society because they have no other way to "bring about changes that would allow them to lead safe and secure lives" ([5], p. 168). Some women communicate their self-burning intention to family members prior to engaging in it – to signal their "misery, frustration, hopelessness, and stalemate," and to attempt to trigger support for an end to the discrimination, abuse, and violence, according to Kankeh and colleagues ([44], p. 1567). If no change in the discrimination, abuse, and violence occurs, the women may act on

their intention. Collectively, the evidence indicates that for women in Iran self-burning is a culturally scripted response to patriarchal oppression. In Iran, self-burning is such a culturally meaningful and normalized idiom of distress for women that “I will burn myself” is what women learn to say “beginning in childhood” in response to various difficult situations ([78], p. 162).

In Iran, women who survive intentional self-burning suffer a range of negative consequences [33, 44, 51]. Rehabilitation from burns requires extensive and costly treatment – treatment that women may have no independent way to access because of systemic barriers to women’s paid work and ownership of assets. The physical sequelae of self-burning (e.g., wounds, deformities, and disabilities) can be particularly difficult for women given the social pressure on women to be attractive; and also the expectation that women center their lives on taking care of others. Self-burning by women may also be viewed as a form of disobedience, to men and to God. For all of these reasons, self-burning may trigger rejection by family and ostracism in the community. If single, women who survive a self-burning act may be considered ineligible for marriage; if married, they may be repudiated by their husband. In Iran, as in many other countries, marriage is women’s only or most reliable way to access economic resources, and to have a social life. Not being married for an Iranian woman can mean economic and social death. For these reasons, women who survive an intentional self-burning act may repeat the behavior. “After self-immolation, my life became worse than before. I have tried to commit suicide a couple of times,” said a woman following an act of intentional self-burning ([51], p. 4).

Some Iranian women deliberately engage in self-burning in public spaces to make most visible their protest against the systemic discrimination and abuse that women endure. For example, Homa Darabi, a 54-year-old pediatrician and academic, set herself ablaze at a public thoroughfare after shouting “Death to oppression.” Her 1994 self-burning was to protest the many ways in which Iranian women are oppressed, including via the obligation to wear the hijab. A few years prior to her death, Darabi had been dismissed from her position for nonadherence to the hijab requirement [34]. Another public self-burning case is that of Sahar Khodayari, a 29-year-old computer engineer. In 2019, she set herself on fire in front of a court building. Khodayari had been sentenced to 6 months in prison for having tried to enter a stadium, disguised as a man, to watch a soccer game – in defiance of the national ban on women to attend such events [38].

Researchers (e.g., [19, 39, 71]) who study women’s suicidal self-burning in Iran have recognized it as a social justice problem requiring social justice actions – and specifically, challenging the traditions and transforming the institutions that enable discrimination, abuse, and violence against women. For example, Groohi and colleagues wrote that the prevention of women’s suicidal self-burning requires “the promotion of [the] civil, social, and cultural rights of women” (p. 20), including women’s rights to education, choice in marriage, properly compensated work, and freedom of movement.

All too often, however, the systemic social injustices propelling Iranian women’s suicidal self-burning are summarized in the literature in ways that trivialize the

discrimination and the abuse that women experience in their family and community. This occurs even in articles that provide details about the discrimination and the abuse. For example, in some articles the discrimination and abuse are labeled “family disputes” [51], “family maladjustment” [19], “marital conflicts” [5, 53], or “marital quarrels” [19, 39]; and the self-burning is framed as “a cry for help” [54] or the sign of “psychological problems” [51]. Women’s powerlessness in the so-called family problem, or, more precisely, in the discrimination and abuse they experience in the family, is lost when the situation is defined as a family problem – especially when statements like the “motive was marital conflict” are all that is said about the context of women’s suicidal self-burning in a prominent section of the article (e.g., in the abstract) ([53], p. 217). The social protest message of women’s suicidal self-burning is also lost when women are described as “victims of self-inflicted burns” ([53], p. 217).

Furthermore, the social determinants of Iranian women’s suicidal self-burning are missed in prevention programs that target women for change – instead of aiming to change the social institutions and practices that contribute to women’s protest self-destructive acts. An example is a program that was offered in an Iranian town for 3 years. This program consisted of showing young women videos depicting stories of suicidal self-burning; and a painting and a writing competition about the videos [4]. As discussed by Rasool and Payton [74], programs like the Iranian one described by Ahmadi and Ytterstad are problematic in a number of ways. Their main flaws are that they minimize the discrimination, abuse, and violence that women endure, and that they underestimate the depth of despair that leads women to suicidal self-burning. Educational programs targeting women are problematic also because they assume that women are clueless about the physical consequences of self-burning – and that all it takes to deter them is some information. For these reasons, these programs may at best be effective at reducing women’s suicidal self-burning in the short-term. In the long run educational programs targeting women could contribute to an increase in suicidal acts by other methods because these programs do not address the systemic injustices that lead women to self-burning.

Iraq

Iraq is a Muslim-majority, majority-Shia country with a history of Sunnis in positions of power.

Self-burning is a common suicide method in Iraqi Kurdistan. For Kurds, self-burning is a symbolically rich and powerful act. For example, a Kurdish lover may express devotion by saying: “I would walk into fire for you” ([74], p. 248). Self-burning as a form of political protest and as a “weapon of the weak” has been part of Kurdish nationalist activism since 1990 ([74], p. 240).

In Iraqi Kurdistan, suicidal self-burning is most common among women. In one study conducted in a province of Iraqi Kurdistan, the rate of deliberate self-burning was 15.5 per 100,000 people in women compared to 1.2 in men [65]. In Iraqi Kurdistan, women who engage in suicidal self-burning are usually young, illiterate,

and married (e.g., [57, 65, 74]). After the US invasion of Iraq, self-burning has also been reported among Iraqi girls and women captured and sold by Islamic extremist groups [76].

Suicidal self-burning in Iraqi Kurdistan has been described as women's response to being denied control over their life – including their education, work, money, relationships (including marriage), and fertility, as well as their access to public spaces. Abuse and violence in the family and outside have also been reported as antecedents of women's suicidal self-burning.

For example, in an interview study, a woman who survived intentional self-burning stated: "Despite being 26, my family still impose strict rules on me, especially my brother and father. . . . I can't go anywhere alone and must always have someone to go with me." Another woman said: "My family was against me pursuing my education. They rejected my suitor and made me do the house work. I'd sometimes thought to myself, how do I put an end to it all?" Yet another woman reported: "I have been tortured by my husband's interfering family for not being able to bear a child; they encouraged my husband to re-marry" ([6], p. 60).

Studies have documented how in Iraqi Kurdistan self-burning is women's ordinary and extraordinary way of escape from, and protest against the community-enabled discrimination, oppression, and violence that they are subjected to [57, 74]. Intentional self-burning is ordinary in the sense that self-burning is a locally understood and expected way for women to express distress and escape discrimination, oppression, and violence. It is extraordinary because it is a very costly way to communicate despair and escape discrimination, oppression, and violence. In Iraqi Kurdistan, women do not typically have access to less drastic ways to put an end to the discrimination, oppression, and violence. Rasool and Payton suggested that Iraqi Kurdish women may choose self-burning (*xo sûtandn*) as suicide method because via "utter self-destruction" by fire they can reclaim from male control "disputed territory," that is, their body (p. 248). Given this context, it is not surprising that women who survive a suicidal self-burning act are often rejected from their family and community [56].

Taken together, the evidence suggests that suicidal self-burning by women in Iraq is a culturally scripted response to patriarchal oppression. "Through gendering the pre-existing discourse of self-immolation as political protest, . . . [self-burning by women] blurs the boundaries between the personal and the political, through analogizing the collective experience of authoritarian rule shared by the Kurds with the authoritarianism of patriarchal family relations," wrote Rasool and Payton [74].

A few of the researchers (e.g., [74]) who study Iraqi girls' and women's suicidal self-burning have recognized that women's suicidal self-burning is a social justice problem requiring social justice solutions. Rasool and Payton wrote that women's *xo sûtandn* is "an indicator of severe social inequalities" at the disadvantage of women – not a mental health issue. As such, *xo sûtandn* needs to be addressed via "social and institutional change designed to empower women," they have argued (p. 251). Psychological and educational approaches to suicidal self-burning prevention, including "educational programmes on the harmful nature of burns" (p. 250), are at best, short-term solutions, they said. According to them, the prevention of women's suicidal self-

burning should focus instead on its social and economic determinants – for example, the systemic barriers to education and paid employment faced by women in Iraqi Kurdish communities.

At the same time, Iraqi Kurdish women's motives for self-burning are often framed in the literature in ways that minimize the discrimination and abuse that these women experience, and that shift attention away from the large social context and institutional determinants of women's suicidal self-burning. For example, in one study, women's intentional self-burning was said to be a response to "family problems including disagreements and quarrels" ([65], p. 241). In another study, women's self-burning was trivialized as a reaction to "family conflicts," as an attempt to seek "attention" and induce "guilt," and as "resentment towards male dominant community" (Mohammed [6], p. 60). As noted by Rasool and Payton [74], the psychologizing of women's suicidal self-burning also contributes to directing prevention toward women as targets of change, or at best, as targets of "support;" and leaves unchanged the social systems and institutions that contribute to it.

Afghanistan

Afghanistan is a Muslim-majority, mostly Sunni country.

In Afghanistan, self-burning is a symbolically rich act. Fire imagery is ubiquitous in Sufi poetry where fire is perceived as a way to transcendent annihilation. In Afghan culture, "fire also symbolizes the elimination of one's legacy. To destroy oneself by fire would symbolize destroying one's generation eternally" ([9], p. 49).

Reliable data on suicidal self-burning are particularly difficult to obtain in Afghanistan because of its politically unstable situation and its chronic state of war [72].

There are indications that in Afghanistan suicidal self-burning is most common among women [9, 64]. Afghanistan is also one of few countries where women's suicide rates, by any method, are higher than men's rates [91].

Suicidal self-burning by women has been described as a growing phenomenon in Afghanistan. Self-burning cases by women were recorded during the mid-1990s. This is when the Afghan civil war started, following the military withdrawal of the former Soviet Union. Men raped women across enemy factions as a war tactic. Afghan women who experienced sexual violence were often rejected by their families. Some of these women engaged in self-burning to end, and protest against the abuses perpetrated against them outside and within their community [9].

Self-burning in Afghanistan is particularly common among young women who are married and have low education [67]. A study of medical records found that the majority of women who had engaged in suicidal self-burning were married (80%) and very poorly educated, or illiterate (95%) [72].

The circumstances of the suicidal self-burning described by the women who survived and/or by individuals who knew them involve oppression, abuse, and/or violence in the family and community. These circumstances include underage and/or forced marriage; polygamy by the husband; brides being exchanged between

families (“*badal*”); the selling of girl brides (“*tuyana*”); and/or abuse by the husband and/or the in-laws [9, 64]. For example, in one study, forced engagement or marriage during childhood were a self-burning trigger in almost one third of the cases (29%); bad or “*badal*” practices, that is, marriage to settle a conflict between families or tribes, in 18% of cases; and abuse by in-laws, in 16% of cases (these categories were not mutually exclusive). In this study, the women who had engaged in self-burning described abuse by their husband as a common experience. The self-burning often occurred “after the women complained against the abuse or sought help in alleviating it—but were ignored” ([72], p. 2202).

According to the authors of a study of self-burning in Afghanistan, girls and women “appear to see this horrifying act as a means of both escaping from intolerable conditions and speaking out against abuse, since their actual voices do not bring about changes that would allow them to lead safe and secure lives” ([72], p. 2203). A woman said of her sister who set herself ablaze: “My 18-year-old sister did not want to marry this man and asked my father several times not to give her to the farmer. But he ignored her pleas. One day I heard that my sister had taken petrol and committed [sic] self-immolation” ([72], p. 2203). Similarly, Billaud [18], who studied suicidal self-burning in young women, wrote that these women viewed it as an act of defiance against an unyieldingly oppressive patriarchal society – a society where women are not allowed non-self-destructive means of challenging systemic oppression. Aziz, the vice president of Afghan Education for a Better Tomorrow, stated: “Many Afghan women . . . may believe that by setting themselves on fire, they will cheat their enemies, who oppress them and, in turn, they will at least take control of their death, if nothing else. . . . [T]he idea may be that by putting oneself alight, those in power will change their beliefs and attitudes about how women are treated. In other words, Afghan women who find themselves in an oppressive society, community, or family may come to the conclusion that self-immolation will provoke guilt and shame in those who sympathize with them, who, in turn, will do something to end the women’s misery and despair. . . . The motivation for self-immolation, therefore, would be to show defiance and to oppose those whose power keeps women from advancing and living a humane life” (p. 48). Taken together, the evidence suggests that self-burning by women in Afghanistan is a culturally scripted response to patriarchal oppression.

Among those who write about women’s suicidal self-burning, there often is awareness that women’s suicidal self-burning is a social justice problem that requires social justice solutions. For example, Aziz stated that Afghan women do not have a “way out of the cycle of misery in which they recurrently face assaults on their basic human rights, oppression, and lack of legal protections. . . . Self-burning for Afghan women becomes an appealing method to end life and injustice in a most painful, but powerful way” (p. 48).

At the same time, in too many articles, Afghan women’s suicidal self-burning is framed in ways that trivialize the discrimination, abuse, and violence that motivate such behavior, and that also obscure the social context and institutional determinants of the behavior. For example, the suicidal self-burning is defined as a response to family “conflict or disputes” – even when such conflict or disputes are described as

“oppression” and “violence” (e.g., [72], p. 2202). Calling women’s suicidal self-burning a family problem contributes to directing prevention toward women as target of change, and at best, to providing women with psychological support. As discussed by Rasool and Payton [74], prevention approaches targeting women for change leave intact the social systems and institutions that contribute to the suicidal self-burning.

Tajikistan and Uzbekistan

There are indications that in Tajikistan [46] and Uzbekistan [84] suicidal self-burning is most common among women. Tajikistan and Uzbekistan are officially secular states with a Muslim-majority population.

A study conducted in Uzbekistan found that intentional self-burning mostly involved women from rural villages (75% rural residence) that had high rates of unemployment (83% unemployed) and norms that were very oppressive for women. Most intentional self-burning was carried out by married women (84%) [84].

With regard to circumstances, in Tajikistan [46] and in Uzbekistan [84], women’s intentional self-burning has mostly been linked to state-enabled and/or state-tolerated discrimination (e.g., being forbidden to go to school or to work for pay), abuse (e.g., forced marriage; emotional abuse), and violence in their family and community. In Tajikistan, women’s suicidality by other means has also been associated with community-enabled and/or tolerated discrimination, abuse, and violence [41].

In terms of cultural context, Central Asia has a history of protest self-burning by women. Around the late 1920s and early 1930s, women started challenging the expectation that they wear the *paranja*, a robe that covers the head and the body, also known as *iashma*, and “a symbol of slavery in Central Asia” ([84], p. 220). Many of the women who challenged the *paranja* were subjected to insults, ostracism, harassment, banishment, and beatings. Some took their lives in protest. From 1926 to 1928, 203 women died of protest self-burning [46].

There is some recognition, in the literature, that in Central Asia women’s suicidal self-burning is a response to state- and community-enabled social and economic injustices [46, 84]. Specifically, there is some acknowledgment that Central Asian women’s suicidal self-burning is a culturally scripted response to patriarchal oppression, including “the low status of women, lack of women’s rights, and extreme socioeconomic and religious pressures” ([46], p. 75).

At the same time, the context of Central Asian women’s suicidal self-burning has been described in the literature in ways that trivialize the injustices that women experience. For example, in the study conducted in Tajikistan, the presumed motives for women’s suicidal self-burning were described as “quarrels with a husband’s relatives” ([46], p. 76). In the study conducted in Uzbekistan, women’s suicidal self-burning was characterized “as an affective reaction in situations where individuals could hardly control their behavior and had a vague idea of their purpose” ([84], p. 218). Consistent with its mental-illness framework, the Uzbek study proposed

mental health “treatment[s]” (p. 220) as prevention strategies. In the Tajik study, the primary framework of interpretation of women’s self-burning was social justice but no specific social-justice prevention recommendations were offered.

India

Suicide by fire is glorified in several of India’s cultures. As god Agni, fire was symbolically meaningful in the Vedic traditions that developed into Hinduism, the majority religion of India. In Hinduism, fire is a purifying way of disposing of a deceased body [48].

In Hinduism, suicide by fire is exalted as an honorable death for Hindu women through the story of goddess Sati. It is narrated that Sati jumped into the sacrificial fire to protest against her father Daksha, who had offended her and her husband Shiva. In Hinduism, the term sati is synonymous with good wife. Positive stories of self-burning suicide are also found in Mahayana Buddhism. Mahayana Buddhism started in India in the first century before the common era [2].

The proportion of suicides by self-burning in India has been reported to range from 6% to 57% [7]. In India, suicidal self-burning is most common among young women. India has the highest number of cases in the world of intentional self-burning by young women. Women’s suicidal self-burning cuts across caste, socioeconomic status, and region [43, 59, 63, 75].

In India a dominant reason for young women’s suicidality by self-burning and by other methods is physical and emotional abuse by the husband and/or the in-laws. The abuse is often related to dowry issues (e.g., [11, 45, 63, 70, 73, 87]). In an article on women’s suicide in Gujarat, Prajapati and colleagues stated: “The most obvious reason behind such deaths is unending demands of dowry . . . by their husbands and/or in laws, for which they torture the bride in such a way that she commits [sic] suicide, either by burning, poisoning, hanging, jumping from terrace or by some other means” ([70], p. 31). Extramarital affairs by the husband and infertility have also been reported to be antecedents of married women’s suicidal behavior, including by self-burning [70]. In an article about rural women’s mortality by intentional burns, it is stated that “torture by in laws” was the most common reason ([11], p. 270). According to Waters [87], Indian women’s violent suicides suggest the internalizing and directing against the self of experienced violence. Based on her research, Waters also affirmed that women in India are incited to violent suicide by cultural values valorizing female suffering. It has been noted that the women who survive intentional self-burning suffer long-term and serious health (e.g., pain, disability), economic (e.g., medical care costs), family (e.g., rejection), and community problems (e.g., ostracism). For these reasons, the risk of repeated suicidal behavior is considered high [63].

An unknown proportion of Indian women’s deaths by self-burning may not be suicides but homicides, directly or indirectly perpetrated by the husband and/or the in-laws. An indirectly perpetrated homicide occurs when the woman is pressured into suicide [45, 59, 63, 87]. The data on married women’s suicidal self-burning may

be imprecise also by undercounting (not just by overcounting, via inclusion of homicides). This is because some suicidal self-burning acts may be reported as accidents [35]. “Because the women’s families do not want police inquiring into their domestic problems, they persuade the women to report [the attempted] suicides and homicides as accidents. Victims concur because they may be afraid of the perpetrators, often their husbands, and they also fear that, if their husbands are arrested, their children will be left stranded on the streets,” wrote Natarajan ([63, p. 1037]).

The other main life circumstance associated with suicide by self-burning in India is widowhood. In this case, inheritance is the issue. Women’s self-burning suicide following widowhood is called *sati* in reference to goddess Sati’s suicide story. Originally *sati* was limited to the warrior caste and to northwestern India. *Sati* eventually spread across caste, and to all regions of India. In the nineteenth century, almost a million women died of *sati*. Outlawed under British rule in 1929, *sati* has persisted in India [10].

Understanding *sati* requires knowledge of Hindu beliefs. In Hinduism, female widowhood (but not male widowhood) is considered an aberration and a violation of the social moral code. It is believed that women should die before their husband, or together with him, on his funeral pyre, never after, because in India women are believed to be “made for the service of man, but not man for the woman” ([10], p. 210). As an example of this expectation, during the wedding ceremony the bride is told by the priest: “May you be one who accompanies her husband (always), when he is alive and even when he is dead” ([10], p. 212). According to Hindu beliefs, if a woman survives her husband, it is because she did not take care of him or because of wrongs she committed in this or a previous life. Therefore, a widow who does not suicide on her husband’s funeral pyre is morally suspect. As a single woman, a widow is also considered a social danger because in Hinduism a woman’s sexuality is supposed to be under a man’s control – her father first and her husband next. In some communities, a widow who chooses to live has to submit to major social restrictions and economic renunciations. The restrictions and renunciations include the prohibition to marry, forsaking material possessions, exclusion from feasts and family celebrations, and banishment to an *ashram* (a widows’ house). By contrast, a widow who dies on the husband’s funeral pyre is socially acclaimed. The belief is that, through *sati*, she brings fortune to herself and her family. In other words, a Hindu widow has the choice of a miserable life or a celebrated death. Disguised as religion, the drivers of *sati* are economic. Via *sati* the widow is eliminated from inheritance claims, and the marital property is retained by the husband’s male lineage [10].

Many scholars (e.g., [10, 63, 70, 73, 87]) have recognized that Indian women’s suicidal self-burning is culturally scripted behavior—and an indicator of social justice problems requiring social justice-grounded prevention. For example, Prajapati and colleagues stated that the increasing rates of female suicide in India are a symptom of the “continuing erosion and devaluation of women’s status” (p. 31). As a way of preventing women’s suicidal self-burning, Prajapati and colleagues recommended “strong legal support network but also opportunities

for economic independency, essential education and awareness, alternative accommodation and a change in attitude and mindset of society, judiciary, legislature, executive” (p. 34). Similarly, Natarajan recommended, as prevention strategies, “[s]tringent penalties for domestic violence and public shaming of batterers of women[,] . . . community outreach for violence prevention, [and] [p]romot[ing] gender equality and more opportunities for women’s education and employment” (p. 1038).

At the same time, Indian women’s self-burning is too often framed in ways that minimize the institutionally-enabled social injustices and persecution that women are subjected to. For example, in one article, women’s self-burning was trivialized, in the discussion section, as a reaction to family quarrels, even though in the introduction it was stated that women in India suffer “from torture since birth . . . [because of unrelenting] discrimination” ([73], pp. 3814, 3815). In this article, the recommendation for prevention included improving women’s “psychological habits” and “educational level” (p. 3814).

Sri Lanka

Sri Lanka is a Sinhalese- and Buddhist-majority country. Tamils, a minority, are mostly Hindu [8].

Sri Lanka is the country with the highest rates of deliberate self-burning suicide, with 5.8 cases per year per 100,000 inhabitants [47]. In Sri Lanka, suicidal self-burning is most common among Tamil young adult women [48].

Studies indicate that in Sri Lanka women engage in suicidal self-burning mostly in response to the abuse that their husband inflicts on them and/or on their children. “In this male-dominated society . . . the woman is often held responsible if the man . . . abuses her and the children (if she had been a good and forgiving wife, this would not have happened),” wrote Laloë and Ganesan, to give cultural context to women’s suicidal self-burning ([48], pp. 478–479). “The woman will [also] be advised to tolerate, forgive and live with” being abused by their husband, they also stated (p. 478). In Sri Lanka, a culturally acceptable alternative to tolerating the abuse is self-burning. In other words, self-burning is a culturally scripted way for women to escape abuse by their husband, wrote Laloë and Ganesan.

In the literature, there is not much recognition that Sri Lankan women’s suicidal self-burning is a social justice problem that requires social justice prevention. For example, it has been stated that personal problems and poor problem-solving are root causes of Sri Lankan women’s suicidal self-burning [47, 48]. Consistent with the failure to recognize the social determinants of Sri Lankan women’s suicidal self-burning, a prevention program delivered in Sri Lanka involved showing women “pictures of burns victims” (so women learned about the consequences of self-burning), and teaching them problem-solving ([48], p. 479).

Africa

Suicidal self-burning has been reported in Africa [93]. Systematic data on the proportion of women among those who engage in suicidal self-burning in Africa were not found. There are indications that these proportions vary by country and over time.

In Egypt [52] and in Zimbabwe [62], suicidal self-burning appears to be most common among women. Egypt is Muslim-majority; Zimbabwe is Christian-majority. A study of persons admitted to a Cairo (Egypt) hospital following suicidal self-burning reported that 91% were women [52]. About half of the suicidal by self-burning were young, single, illiterate or primary-school educated, and “housewives.” According to the authors of this study, this “tragic” behavior was caused by psychiatric disorders, mainly depression.

Similarly, in a study of persons admitted to a Harare (Zimbabwe) hospital following suicidal self-burning, the majority (89%) were married young women (median age was 25 years) [62]. Most (64%) were described as housewives. The group at the highest risk were women married according to tribal law, and women with the largest number of children. The most commonly reported circumstance preceding the suicidal self-burning was described as a “conflict in love relationships” (p. 460). Examples of love–relationships conflicts were that the woman had been harassed by a former boyfriend; that the husband did not allow the woman freedom of movement; and that the husband had relationships with other women, informally and/or formally. Other reported causes of suicidal self-burning were that the woman had been beaten by her husband and/or other family members. It was implied that the women did not have ways of recourse against the “conflict in love relationships” problems – really, the abuse and the violence that they had been subjected to. No prevention recommendations were offered.

Cultural Context, Patterns, and Explanations of Suicidal Self-Burning in Countries Where Men Have Higher Rates of Suicidal Self-Burning

In this section, we review evidence on the cultural context, patterns, and explanations of suicidal self-burning in countries where men appear to have higher rates than women. This evidence mostly comes from social sciences or humanities (e.g., religion) publications, and from popular media.

China

Suicidal self-burning in China draws upon Buddhist tradition and stories. At the end of the fourth century, Buddhist Monk Fayu 法羽 is said to have carried out the earliest recorded self-burning in China. According to legend, he publicly swallowed

incense chips, wrapped his body in oiled cloth, and chanted while setting fire to himself. It is said that witnesses were full of admiration for his act. Since then, self-burnings by Buddhist monks have been public performances. According to dominant accounts, over the centuries Buddhist monks have burned themselves to express discontent about various economic or social situations – from economic issues affecting them (e.g., a decline in patronage by the ruling class) to social issues affecting the community (e.g., invasions) [88].

In recent decades, Tibetans have engaged in self-burning to protest against the Chinese government's hostility toward Buddhism. According to a report, since 2009, over 150 Tibetans have died of self-burning as protest against the Chinese government [86].

Reports of self-burnings by Tibetans are mostly featured in the general press where they are framed as acts of moral superiority [88]. Scholarly work on self-burnings by Tibetans is often published in religion journals. In these religion articles, the discussion typically focuses on the philosophical aspects of Tibetans' suicidal self-burning (e.g., [83, 85, 86]). No scholarly work about suicidal self-burning by Tibetans was found in medical journals.

Systematic data on the proportion of men among those who engage in suicidal self-burning by Tibetans in China were also not found. However, in both the popular press and scholarly articles, suicidal self-burnings by Tibetan men are most prominent [85, 86, 88].

Vietnam

Vietnam has a long tradition of intentional self-burning. This tradition is rooted in Buddhism, one of the religions of Vietnam, a country where most people do not follow an organized religion. Celebratory accounts of self-burning suicide are found in Mahayana Buddhism. In the Lotus Sutra (the *Bodhisattva Bhaisajyarāja*), the Buddha tells the story of the Medicine King Bodhisattva who, in a previous life, burnt his body as an offering to the Buddha [16].

Systematic data on the distribution of suicidal self-burning in men and women in Vietnam were not found. However, in both academic and popular media, self-burning acts by men are more prominent than self-burning acts by women [17, 61].

A most reported case of suicide by self-burning in Vietnam involved a man, Thích Quang Đức. This Mahayana Buddhist monk burnt himself at a Saigon intersection in 1963. In a letter he left, he stated that his self-burning was in protest against the persecution of Buddhists by the country's Catholic president. The protest narrative of his self-burning was endorsed by the popular and scholarly media. For example, in an article published in a speech journal, Thích Quang Đức's self-burning suicide was described as "a powerful rhetorical act that utilizes self-inflicted violence as a means of performing a visual embodiment of violence done by an 'other'" ([61], p. 1). In an article about self-immolation in Vietnam published in the *Archives of Suicide Research*, the founder of the Engaged Buddhist Order, Thích Nhất Hạnh, was quoted as saying that self-immolation by "Vietnamese monks, nuns and

laypeople” is an act of “courage [and] determination” “intended to move the hearts of the oppressors” (p. 88). The author of the article stated that these are deaths of “dignity and moral integrity” “dictated by the prevailing circumstances” in which the individuals had been “forced to live” ([17], p. 91)

Africa

Systematic data on the proportion of men and women among those who engage in suicidal self-burning in Africa were not found. There are indications that this proportion varies by country and over time. The media visibility of self-burning by men has been greater than the media visibility of self-burning by women.

A well-known case of suicide by self-burning is that of Mohammed Bouazizi. This Tunisian street vendor set himself ablaze in December of 2010, presumably to protest against the authorities who had confiscated his wares [12]. Within weeks of his death, a wave of male suicidal self-burnings was reported – first in Muslim-majority countries (in Tunisia as well as in Algeria, Egypt, Mauritania, Saudi Arabia, and Syria), and then in Europe [93].

Before Bouazizi’s death, suicidal self-burning in Tunisia was a behavior similarly or substantially more common in women than in men [15, 42]. According to a study of suicidal self-burning covering 5 years before and 5 years after Bouazizi’s death, suicidal self-burning became a predominantly male phenomenon (by a female/male ratio of 1:3) [15].

In both the popular and scholarly literature, Bouazizi’s self-burning suicide has been “interpreted as an act of public defiance” [88], specifically, a protest against Tunisia’s socioeconomic and political problems. For example, in an article published in *The British Journal of Psychiatry* Bouazizi’s self-burning suicide was framed as his way to expose and “confront oppression, felt injustice and social suffering” ([13], p. 495). Bouazizi’s self-burning suicide has also been assumed to have instigated the so-called Arab Spring. In the Muslim world, as well as outside, Bouazizi has been treated as a hero. He has been “elevated to the status of a myth . . . [and] invested with a meaning more national, social and political than personal,” wrote Beaumont in *The Guardian* (2011). Squares in Tunis and Paris were named after Bouazizi. In 2011, *Time* magazine made him the person of the year [93].

Eastern Europe

Suicidal self-burning has been recorded in Eastern European countries. Most Eastern European countries have a long history of Christianity that was followed by regimes promoting atheism.

Systematic data on Eastern Europe’s distribution of suicidal self-burning by men, compared to women, were not found. At the same time, the cases featured in the media typically involve men.

In the late 1960s, the most publicized cases of suicidal self-burning were those by Ryszard Siwiec in Poland, Jan Palach, Jan Zajíc, and Evžen Plocek in Czechoslovakia, and Romas Kalanta in Lithuania. More recently, media attention was given to the 2017 self-burning death of Piotr Szczęsny, in Poland.

These self-burning suicides were defined by the actor, and were generally viewed by others as a political protest by ordinary men [95]. For example, in an article about Szczęsny, Żuk and Żuk stated that self-burning “is the most radical form of using one’s own body to convey a political message” (p. 614). They also argued that the individuals and/or institutions being protested against (in the case of Szczęsny, the Polish state apparatus) “always tries to . . . take away the credibility of its opponents” by insinuating that the person who engaged in self-burning was mentally disturbed (p. 614). In other words, Żuk and Żuk recognized that the political meaning of suicidal self-burning can be undermined by raising questions about the mental status of the person who engaged in it.

Discussion

In this chapter, we examined, via a gender lens and in cultural context, patterns of women’s and men’s suicidal self-burning, and the explanations typically given for such behavior, in a diversity of countries. There is significant variability, by country and/or region, in the quantity and quality of information about women’s and men’s suicidal self-burning, and also in the type of sources where the information is found. This variability impacted our analyses and conclusions. The difference in quantity of media coverage by country and/or region is not an indication that self-burning acts are more frequent in locations where they receive more media attention. The difference may simply reflect regional differences in the resources invested in media coverage of self-burning, and also differences in interest and ease of conducting and publishing research studies on self-burning. In this section, we review the main findings of our review and then articulate the implications of using cultural and gender lenses for theory and research on suicidal self-burning, and for the design of prevention initiatives.

A Gender Lens on Similarities and Differences in Patterns and Explanations of Women’s and Men’s Suicidal Self-Burning Across Cultures

Suicidal self-burning is most common in low- and middle-income countries. The prominence of suicidal self-burning in some regions and cultural groups, and not in others, is likely related to variability in its meanings and acceptability. Like suicidal behavior by other methods [23, 25, 31], suicidal self-burning is not just an expression of a person’s psychology. It is also a cultural act with meanings that draw on local stories and experiences [32].

In some countries (including Afghanistan, India, Iran, Iraq, and Sri Lanka), women represent the majority of cases of suicidal self-burning. In other countries (including China and Vietnam), suicidal self-burning appears to be more common in men [69].

Similarities and differences were found in the typical explanations of women's and men's suicidal self-burning, across cultures.

A similarity was that both women's and men's suicidal self-burning acts were typically interpreted as social protest behavior. In other words, the dominant script of suicidal self-burning, across cultures, and for both women and men, is that it is a way to express opposition to social injustices and persecution.

There were differences in how the protest aspect of suicidal self-burning was framed when women engaged in it, as compared to when men engaged in it. There were also differences in the consequences of suicidal self-burning depending on whether women or men engaged in it. In other words, there were substantial differences in important details of women's versus men's scripts of suicidal self-burning.

To start with, there were differences in the media where women's and men's suicidal self-burning was covered. Women's suicidal self-burning was commonly reported in social sciences and medicine publications while men's suicidal self-burning was frequently featured in humanities (e.g., religion) publications and in the popular media. These differences reflected and reinforced the different frameworks typically used to interpret women's and men's suicidal self-burning, and also the different impact of, and response to the coverage.

In the case of women, suicidal self-burning was often described as a desperate response to, and a protest against the institutionally-enabled social injustices and persecution (e.g., abuse and violence) that women experience in their family and community. Evidence was presented that women who engaged in suicidal self-burning did not have other ways to end the abuse and the violence – because abuse and violence against women were normalized in their community and/or country. The social-injustice context and the protest message of women's suicidal self-burning were well-articulated, for example, in the result section of articles, but often missing, for example, in the abstract, where the situation was described as a family problem.

Another difference was that women's suicidal self-burning received relatively limited popular-media attention despite the fact that women represent the majority of those who engage in suicidal self-burning, and also despite the fact that many of the countries where women are the majority among those engage in suicidal self-burning are large-population countries (e.g., India, Iran).

In both popular-media and social-sciences articles, women who engage in suicidal self-burning were often described with passivity language, like "victim" (e.g., [52, 53, 63]), "tragic" (e.g., [52, 60, 72]), and "driven to . . . death" [72]. In some academic and popular media articles, women's suicidal self-burning was written off as a symptom of personal deficiencies, including mental health problems. For example, in an article published in *Iran Journal of Psychiatry and Behavioral Sciences*, it was stated that "[m]ost of the self-immolation victims had a history of

psychiatric disorders” ([54] p. 4). “They are uneducated women. . . . Some have mental issues. They don’t think about the results of their actions,” said an official interviewed for a *World Politics Review* article [60].

In the case of men, the suicidal self-burning was framed as a protest against distal oppressive authorities or institutions (e.g., the president; the government) or situations (e.g., socioeconomic problems). Not only the social injustice and protest framework was always at the center of men’s suicidal self-burning narrative. The tone of the narrative was often one of admiration. Also, in the case of men, questions about personal (e.g., mental health; family) difficulties potentially triggering the suicidal self-burning were not typically asked – and when they were, they did not impact the hero plot. Some authors of articles about male suicidal self-burning actually warned readers that insinuations of mental illness are a tactic used by those threatened by the protest message of the act, as a way to dismiss the act’s social meaning [95]. Examples of the framing of men’s suicidal self-burning as a purely social act are found in articles about Bouazizi, the Tunisian man who died of intentional self-burning in 2010. His suicide was commonly interpreted as a protest against the socioeconomic and political problems of his country. For example, Ben Cheikh and colleagues wrote that his suicide by self-burning was “a way to confront oppression, felt injustice and social suffering” ([13], p. 495). That personal (e.g., emotional) problems might have contributed to Bouazizi’s act was nearly never considered. When personal problems questions were raised (e.g., [49]), they did not seem to stick – and they did not seem to influence the dominant narrative. Around the world, Bouazizi was hailed as a hero [15].

Implications of a Gender Lens for Theory, Research, and the Prevention of Women’s and Men’s Suicidal Self-Burning Across Cultures

In many countries, women represent the majority of those who engage in suicidal self-burning. In these countries, women who engage in suicidal self-burning are typically young, married, and mothers. These patterns challenge gender-and-suicidality myths that recur in the literature produced in European and majority European-descent countries (e.g., the United States) (see [21, 29], for critical reviews).

One such myth is that women are naturally averse to suicide, particularly during their reproductive years, and when married or a mother (see [30], for a critique of this myth). Clearly, in the case of suicidal self-burning being female, young, married, or a mother does not confer protection – in fact, just the opposite, at least in some countries. The suicidal self-burning patterns by age and marital status are not surprising when the global evidence on women and suicidality is considered [20, 30, 36]. To start with, for women everywhere being married increases exposure to abuse and violence because the typical perpetrators of abuse and violence against women are their current or past intimate partner, not strangers [28]. Also, in a diversity of countries, for women exposure to abuse and violence in close

relationships is associated with suicidality [37], including self-burning suicidality. To be clear, abuse and violence do not inevitably lead to suicidality. Suicidality requires a script linking the abuse and violence to suicidal behavior as the socially expected response [24, 25, 29]. As documented in this review, in many low- and middle-income countries suicidal self-burning is a culturally scripted response for women who experience abuse and violence in their family and community.

Another myth challenged by women's patterns of suicidal self-burning is that women avoid suicide methods that are disfiguring, messy, painful, violent, and/or highly lethal – and because of vanity and cowardice. Clearly women, like men, use all sorts of suicide methods – not just methods that are presumably clean, painless, soft, and/or low-lethality. Whether or not women and men use a method depends on local scripts of gender and suicide, including scripts of gender and method [23, 29, 31].

As articulated in suicide-script theory [23–25, 29], suicidal behavior is most likely when a suicidal act is the culturally expected response by a certain kind of person (e.g., a woman) given a specific situation (e.g., abuse). According to theory, individuals implicitly draw upon their community suicide scripts “in deciding when, where, and how to engage in suicidal behavior. As a result, suicidal acts everywhere have local cultural features, meanings, and impact” ([25], p. 226). Cultural scripts also influence the responses to the suicidal behavior of family and friends as well as the actions of people in the community.

Progress in Theory, Research, and the Prevention of Women's Suicidal Self-Burning Across Cultures Requires More Attention to Social Context

There is substantial evidence that the social context of women's suicidal behavior is often missed or underestimated [21, 24, 26]. As documented in this and other reviews (e.g., [32]), the social in women's suicidal behavior is overlooked or minimized also in the case of suicidal self-burning [26] – and even in studies of women's suicidal burning where social factors like discrimination, abuse, and violence are clearly articulated.

To compensate for this bias, we recommend privileging social questions, methods, and explanations in theory and research about women's suicidal self-burning; and setting aside, at least for a while, psychological questions, methods, and explanations. Given the dominant bias, the psychological in women's suicidal behavior will likely not be overlooked. This recommendation is not to imply that psychological factors are irrelevant to women's suicidality. The recommendation is because psychological frameworks have been too extensively applied to women's suicidality. We need to try new ideas.

A specific strategy to sustain a social framework in theories and research on women's suicidal self-burning is to apply to women the social questions, methods, and explanations typically used to theorize about and to study men's suicidal self-burning – down to the words used for men's suicidal self-burning. This strategy, which has been recommended as a way to overcome conceptual ruts [89], will likely expand our imagination about women's suicidal self-burning. Consider, for example, how theories and research on women's suicidal self-burning might evolve if we call

women's suicides by self-burning deaths of "dignity and moral integrity" (as Ben Park did in a 2004 [17] article about "self-immolations in Vietnam," p. 91) – instead of a response to "marital conflict" (as Maghsoudi and colleagues did in a 2004 [53] article about "women victims of self-inflicted burns," p. 217). Consider also what new ideas may be generated if we conceptualize women's suicidal self-burning as the "most radical form of using one's own body to convey a political message" and/or as "an indicator of significant tensions between social expectations and the logic of the official system" (as Žuk and Žuk did in a 2018 [95] article about men's self-burning, pp. 614–615); or as a "a powerful political act challenging the symbolic order" because in suicidal self-burning "the violence on the body is not only physical . . . it symbolizes something greater than itself" (as Lankford did in a 2011 [49] article about men's "self-immolation" in the Middle East).

The prevention of women's suicidal self-burning will also likely open to new directions if we start using with women the prevention frameworks and strategies that are typically used in reference to men's suicidal behavior. This includes frameworks and strategies that recognize, for women (as it has been done for men), the importance of decent employment for well-being [28]. It also includes supporting women's access to well-compensated work as a way to prevent suicidality – as it has been done for men. An example of a study on the role of work protection programs in the prevention of men's suicide was conducted in Italy by Mattei et al. [55].

As documented in this review, a social perspective is not completely absent in the literature on women's suicidal self-burning. It is not difficult to find articles that recommend, as a prevention priority, a focus on the social injustices and the institutionalized persecution that women's suicidal self-burning is a culturally scripted response to. In many articles, it is stated that the prevention of women's suicidal self-burning requires system-level changes so women are guaranteed access to education and properly compensated work, and also freedom of movement, choice in marriage and divorce, and safety from violence in their homes and outside (e.g., [10, 19, 26, 39, 71, 74]). The issue is to increase the visibility of these social justice and human rights frameworks, and also to ensure that they are carried into suicidality-prevention programs.

Progress in Theory, Research, and the Prevention of Men's Suicidal Self-Burning Across Cultures Requires More Attention to Psychological and Close-Relationships Factors

There is evidence that psychological and close-relationship factors in men's suicidal behavior are overlooked or minimized [22, 23, 27]. As documented in this review, neglecting the psychological in men's suicidal behavior is also a gap in the literature on men's suicidal self-burning.

To compensate for this bias, we recommend that theory and research about men's suicidal self-burning give priority to psychological and close-relationships questions, methods, and explanations; and that, at least for a while, they divest from social questions, methods, and explanations. Given the dominant bias, the social factors of men's suicidal behavior will likely not be neglected. This recommendation is not because we think that social factors are unimportant in men's suicidality. It is

because social frameworks have been too extensively applied to men's suicidality. Therefore, for progress, we need to try new ideas to make sense of, and prevent men's suicidality. For men, this includes a greater focus on the psychological factors.

A specific strategy to sustain an individual, private life focus in theories and research on men's suicidal self-burning is to apply to men the psychology and close relationship questions, methods, and explanations typically used to theorize about, and to research women's suicidal self-burning – including the words used to frame women's suicidal self-burning, including “attention-seeking” ([6], p. 60), “demonstrative” ([94], p. 117), a “cry for help” ([6], p. 56), and “impulsive” ([3], p. 35). This strategy will likely expand our views of men's suicidal self-burning.

The prevention of men's suicidal self-burning will also likely expand to new directions if we start adopting for men the prevention frameworks and strategies that are typically used for the prevention of women's suicidal behavior. This would involve, for example, offering men psychological and close-relationships assessment and interventions, including psychotherapy. Adding individually-focused work to programs aiming at the prevention of men's suicidality is consistent with the recommendations of a recent review of suicidality interventions. This review found that psychological (including mental disorders) factors were more of an issue in men's than in women's suicidality. A conclusion was that mental-health-focused interventions (e.g., psychotherapy) are particularly important in prevention programs targeting men's suicidality [81]. A psychological and private-relationships approach to the prevention of men's suicidality, including men's suicidal self-burning, is consistent with a diversity of evidence about men's psychological and relationships needs and experiences [90]. Centering on men's psychological and private-relationships concerns would be a step toward normalizing men expressing those concerns. A psychological and private-relationships approach to men's suicidality would also increase the likelihood that men have support for their psychological and close-relationships growth. Growth in psychological and close-relationship domains could improve men's psychological resilience against the social and economic adversities that may contribute to their suicidal thoughts and behavior.

Conclusions

The prominence of suicidal self-burning in some regions and cultural groups, and not in others, is related to the variability in its cultural meanings and acceptability. Like suicidal behavior by other methods, intentional self-burning is both a private and a cultural act. Across cultures, suicidal self-burning tends to be scripted as social protest. In the case of women, suicidal self-burning is scripted as a protest against the institutionally-enabled social injustices and persecution that women experience in their family and community. Psychological and family explanations and interventions receive the most attention while social explanations and solutions are neglected when women are the persons who engage in self-burning. By contrast, suicidal self-burning by men is scripted as a protest against distal oppressors, authorities,

institutions, or situations. In the case of men, social explanations get center of attention while psychological and close-relationships questions and interventions are overlooked. To correct these biases, we recommend focusing on social factors in theory, research, and the prevention of women's suicidal self-burning, and on psychological and close-relationships factors in theory, research, and the prevention of men's suicidal self-burning.

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The Crises in Suicide Among Members of the Military Special Operations Community

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Abstract

Suicide is the tenth leading cause of death in the United States (USA; [1]). From 2005 to 2011, 1455 active duty military personnel enlisted in the Army, Navy, Marine Corps, and Air Force died by suicide [2]. In particular, the Army experienced the greatest increase in suicides over the years, and the primary cause of death for suicide across all branches of the military in the sample was firearms [2]. As of 2014, veterans are more likely to die by suicide by approximately 21% in comparison with civilians, and an estimated average of 20 veterans commit suicide on a daily basis [3].

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Military

The uptick in military suicides was first observed in 2005 after Operation Iraqi Freedom (OIF) was initiated, and the frequency of military suicides began to overtake the rate of civilian suicides beginning in 2008 [4, 5]. Research indicates that suicide rates among the Army more than doubled during the wars in Afghanistan and Iraq, and that 99% of these suicide attempts were committed by enlisted soldiers in the US Army [5].

Military personnel who are frequently exposed to combat are at particularly high risk for engagement in suicidal behaviors [5]. Although special forces military personnel are elite soldiers who frequently engage in warfare operations, the rate of suicide attempts in this particular branch of the military is lower than other branches, suggesting that this group of personnel may be more resilient than others [5].

Special Forces

Special operations forces (SOF) duties may include engaging in several fields of “unconventional warfare” that is not expected from the general military force, such as: Foreign internal defense, strike operations, strategic reconnaissance, and for some units, counterterrorism [6]. These soldiers may work unilaterally with foreign “regular or irregular forces” and one unit of special forces soldiers is able to organize, train, and equip a guerilla force with up with 1500 indigenous personnel, and as each unit is trained in two to four of these areas, they could split in half in order to operate in different missions at equal capability [6].

Due to the strenuous nature of the missions, not only physically but mentally, basic qualifications for all special forces military occupational specialties (MOS) is very rigorous [6]. It requires special forces soldiers to possess above average mental and physical abilities, in addition to being proficient in a variety of military skills [6]. For mental qualifications, special forces soldier needs to possess “effective oral communication skills, analytical ability, ability to recall detailed instructions, number facility, and a high degree of emotional stability to facilitate quick thought and action in rapidly changings situations [6].” The physical requirements are also rigorous, such as stamina, agility, and endurance are expected in order to perform strenuous tasks for long periods of time. Military skills requirements include proficiency in conventional light infantry doctrine, low intensity conflict, unconventional tactics, principles of fire and movement, use of individual and light crew weapons, first aid and field sanitation, and infiltration/exfiltration techniques and procedures and they are vital to the success of the mission.

Individuals interested in joining military special forces must successfully complete the Special Forces Qualification Course (SFQC), it is divided into three phases; phase 1 emphasizes general subjects such as leadership, patrolling, physical conditioning, and land navigation and lasts four weeks; Phase 2 focuses on specialized training within the individual (MOS), and the training is focused on communications, weapons, engineering, and medicine, this phase lasts from 13 to 38 weeks depending on the specialty of the individual; Phase 3 focuses on specialized training such as unconventional warfare operations [6]. After all phases are completed, a final exam is administered and if passed, the individual becomes special forces.

Psychological Training

Army special operations forces (SOF) personnel are among the most elite in the military. SOF personnel are perhaps most well known for their psychological resilience [7]. These individuals are expected to excel and adapt in ever-changing cultural environments and dangerous situations, complete missions, and function both independently and effectively in small groups [8]. SOF personnel are required to undergo extensive selection procedures including specialized training and assessments [9, 10]. Approximately 45–55% of candidates succeed in the selection procedures [8] and less than 5–15% of individuals are actually selected for SOF units [10]. For instance, Green Berets are expected to engage in multiple types of special operations, running the gamut from advising to increasing a country's ability to engage in warfare [11]. Individuals seeking to become Green Berets first volunteer to engage in a 19–20 days Special Forces and Selection (SFAS) course, which consists of multiple cognitive and physical challenges that are completed without performance feedback [11]. Green Beret candidates must also excel in the Army Physical Fitness Test (APFT) in order to progress in the SFAS course [11]. Thus, the purpose of assessment and selection (A & S) courses like the SFAS is to eliminate the candidates who are deemed as “unqualified or unsuited” for elite personnel work ([12], p. 280).

After the SOF operators complete the A & S process, they are expected to successfully complete 2–4 years of training in advanced military skills [13]. This may include adapting to diverse cultural contexts and life-threatening situations, diplomacy, unconventional warfare, and engagement in critical thinking during periods of intense stress [12, 13]. There are additional physical demands that SOF candidates must succeed in such as jumping from high altitudes with the intent of landing undetected by ground personnel and carrying bulky backpacks for long distances [13]. In addition to the grueling and intensive selection process, operators participate in programs dedicated to survival, evasion, resistance, and escape, or SERE schools that are specific to the particular military branch that the operator is a candidate for [13].

The duration of SERE school is approximately 2–3 weeks long, and they provide operators with the necessary knowledge and skills for surviving in the wilderness, evading the enemy, and proper interrogation procedures in the event that they are captured by the enemy [13]. SOF operator candidates also undergo simulation training including “shoot house” with simulation and live ammunition where they engage in numerous scenarios that are reminiscent of real-world close-quarters battles [12, 13]. Operators are additionally trained in skills associated with intrapersonal and interpersonal relations in service of succeeding in diplomacy and methods of unconventional warfare [13].

Suicide

Mental Disorders are dependable predictors of suicide attempts and death among the general population as well as in the military [14]. However, when looking at suicide attempts by soldiers, only 60% actually had a mental health diagnosis.

Understanding risk for suicide outside of a mental health diagnosis in military is important to address the other 40% of suicides that are attempted by soldiers [14]. Risk factors for suicide in veterans differ from those with and without a mental illness, however, it is not yet known if risk factors differ in active duty soldiers [14]. According to Ursano et al. [14] suicide attempts are more likely among enlisted soldiers, females, younger and in their first tour of duty, less educated, and non-Hispanic Caucasian; Most soldiers who die by suicide had contact with primary care physician (97%) in the year before their death but also within a month prior to their attempt (Nearly 38%). From 2011 to 2014, 49 SOF died by suicide; though it's a small number of the total armed forces, this is a significant number for the special operations forces [15]. Knowing what behaviors potentially predict suicide is important, and some of the risk factors that predict suicide risk among soldiers include recent injury-related hospitalization, including unintentional injuries, being involved with legal or family services, being subjected to crime, perpetrating crime, and family violence are all risk for suicide [14].

Risk Factors

Posttraumatic stress disorder (PTSD) is estimated to occur in 6–12% of Army personnel deployed to Iraq and Afghanistan [16]. A study of a sample of 430 SOF soldiers found that the rate of PTSD in SOF personnel was approximately 16–20%, thus demonstrating that PTSD may occur with greater frequency in elite groups of the military [16]. Research suggests that the severity and incidence of PTSD is influenced by an individual's exposure to combat and number of deployments [16, 17]. Given that SOF personnel are repeatedly deployed and exposed to acute stress and threats, it is plausible that PTSD may occur with greater frequency within this community [16]. Although SOF personnel exhibit higher levels of psychological hardiness than other types of military personnel, even mild PTSD symptoms have been found to have a detrimental effect on health [17]. Specifically, research indicates that the presence of PTSD symptoms increases the effects of somatic issues on health and frequency of medical visits for SOF personnel [17]. It is suggested that somatic symptoms may be issues that are deemed as more appropriate to report, and that increases in somatic complaints and medical health visits may be indicative of psychological distress in SOF personnel [17]. Given that the presence of a mental illness, especially disorders marked by anxiety, impulsivity, and aggression, are most predictive of the evolution of suicidal thoughts to suicide attempts, the relative frequency of PTSD within the SOF community is a critical suicide risk factor [4].

Operator syndrome is a constellation of health-care issues that SOF personnel experience including traumatic brain injuries (TBIs), sleep disturbances, suicide, depression, and substance abuse [10]. The rate of TBIs in SOF operators is approximately 85% during training alone, and research indicates that those suffering from the effects of TBI experience an increased likelihood of cognitive impairments, depression, and suicide [10]. Given that the risk of depression increases in individuals with TBIs and/or PTSD, there is an increased risk of suicide after an individual

experiences a TBI [4, 10]. Sleep disturbances can then compound the difficulties that SOF operators experience from TBIs by exacerbating depressive symptoms [10].

Existential and social issues are also risk factors for suicide in the SOF community. In particular, SOF operators may experience difficulties transitioning from military life to civilian life [10]. These problems may manifest as a loss of purpose and issues reuniting with their civilian family members and friends [10]. Stressful life experiences such as family or romantic conflicts are therefore linked to suicide risk [4]. Given that SOF personnel are frequently exposed to life-or-death situations, research has also found that many SOF operators experience dilemmas when they are expected to plan for the future [10]. Hopelessness about the future is therefore a thought process that may indicate that an individual is at risk for suicide [4]. SOF operators also fear being “next” as the number of their comrades who die from suicide or experience difficulties associated with substance use and TBIs increase ([10], p. 288). The risk of suicide is particularly pronounced in the SOF community given that the majority of SOF personnel indicated that they know of one or more colleagues who died by suicide during or after engagement in service [10].

Research indicates that military personnel who were exposed to combat exhibited an increased risk of alcohol misuse or alcohol-related issues, which may then be associated with health-related problems and increased mortality [7]. Substance abuse, especially alcohol abuse, is common in the SOF operator community [10]. In a study conducted by Skipper et al. [7], one in seven SOF operators met criteria for alcohol misuse and 3% of SOF personnel met criteria for PTSD. It is possible that the high rate of alcohol misuse in the SOF population is a coping strategy [7]. Given that alcohol misuse is highly associated with increased impulsivity and impaired judgment, it is therefore strongly related to increased mortality in SOF personnel [7].

Stigma

Given that many SOF personnel hold positions that require security clearance, fear of stigmatization and the loss of their security clearance may impact the decision to seek behavioral health services [9, 16]. Since the SOF culture places significant value on stoicism and resiliency, the fear of stigma may also influence teammates and family members to refrain from providing assistance to a struggling soldier [16].

Of those who return from combat with mental health problems, less than half seek help for their symptoms. It is well documented that an individual’s belief about how they will be perceived and their lack of trust in mental health providers are strong determinants in the likelihood they will seek help. In a study conducted with United States soldiers found that of those who scored above the cut-off on mental health screening measures, only 38–45% indicated an interest in receiving help, while only 23–40% had actually sought mental health care. The three most common barriers to seeking help were: (1) being perceived as weak; (2) being treated differently by their unit leadership; (3) members of their unit having less confidence in them.

In a study by Ursano et al. [14], more than one-third of enlisted soldiers who had attempted suicide, had no mental health diagnosis, though likely many had undetected mental health problems. There are several reasons why mental health problems can go undetected in soldiers, and a part of it has to do with the stigma on having a mental disorder in the military. Some of the reasons discussed in the study were, no perceived need for treatment or soldier did not seek help, not assessed for mental health problems during medical evaluations, did not report symptoms during post-deployment screenings, screened positive and did not follow up with referral, and lastly screened positive, followed up but no mental health diagnosis was given. A thorough mental health screening during basic training medical evaluations would likely help decrease some stigma around seeking help. In the study discussed, nearly 60% of soldiers who had attempted suicide were in their first year of military service compared to 21% of those who had a previous mental health diagnosis [14]. Researchers have indicated that SOF members, even more so than enlisted soldiers, are likely hesitant to disclose psychological symptoms due to fears of the impact on their careers [15]. Though not all soldiers who attempt suicide will have a mental health diagnosis, reducing the stigma associated with seeking mental health help for various reasons, may significantly curb the rate of suicide in the military.

Protective Factors

Though risk factors increase the likelihood of an individual engaging in suicidal behavior, protective factors can decrease this probability and ensure the risks are lowered [4]. Despite the benefits of assessing for protective factors, they have been less frequently examined than risk factors, and are still not as well-known for SOF [4]. A common protective factor among different populations is social support. Forms of support can come from family members (e.g., parents, spouse, children) and religious affiliations, though these are still important, for soldiers support from their unit, perception of a supportive leadership, and strong peer-to-peer relations also hold significant importance their protective factors against suicidal behavior and enhances perceptions of combat readiness [4].

Unit cohesion can buffer the effects of stress and development of PTSD among other psychiatric disorders and likely against suicidal behavior [4]. Special Operations units are known for “high community spirit” and comradery, which underlies strong bonds between the soldiers, and serves as an important protective factor to combat negative outcomes to combat-related stress. Morale, which in a military environment can be considered a reflection of a service member’s engagement, level of enthusiasm, and motivation to fulfill their mission objectives, is also seen as a protective factor. Being able to maintain high personal morale helps service members better cope with stressful situations, reduces stress related to combat experiences, and improves unit cohesion. Resilience, “a stable pattern of health

adjustment,” is also seen as a protective factor in special operations forces, specially following combat-related stress [4].

Resilience

For soldiers, resilience can be defined as the soldier’s ability to maintain their psychological well-being in the face of hardships [15]. Overall, little emphasis has been placed on the importance of psychological fitness compared to physical fitness and often psychological assessments are completed at the beginning of Special Operations Forces training and not revisited [15]. Special Operations Forces endure physically and psychologically strenuous missions, and the strain of continuous operations and their unpredictable and prolonged deployments cause high levels of stress [15].

In an attempt to improve psychological resilience, the Comprehensive Soldier Fitness (CSF) Program was implemented in the US army [15]. The army’s CSF program is an integrated, proactive approach to develop psychological resilience in soldiers, their family members, and in the Army’s civilian forces [18]. The program was born out of recognition for the soldier’s high level of stress related to going back and forth between home life and combat and also the impact it had on readiness and performance and the *persistent conflict* they face, which is the continuing use of violence to accomplish political and ideological objectives [18]. The CSF program was planned to be the primary source of developing psychological resilience and hoped to serve as a catalyst in changing Army culture, from one in which stigmatized behavioral health to one that views psychological fitness as important as physical fitness [18].

Another program implemented to help support soldiers and build psychological resilience was the Psychological Performance Program (PPP); its purpose was to provide psychological support for service members and their families and reduce stigma around seeking psychological health. This program embedded mental health professionals within each unit in order to provide support for the Special operation forces and assist in accommodating unpredictable trainings and deployment in order to minimize added stress [15].

Hardiness and Mental Toughness

Hardiness is a dispositional trait that manifests as a commitment to life and work, openness to change and life challenges, and a sense of control [19]. Hardy persons frequently construe challenging and painful experiences as natural and interesting parts of life, and they are thus less susceptible to the negative effects of stress [19]. Hardiness may therefore be conceptualized as demeanor and skills that allow an individual to

transform stressful situations into opportunities for growth, and it is a trait that is exceptionally advantageous in stressful environments like the military [20]. Specifically, research indicates that hardiness may enhance performance and health even when an individual is in a stressful situation [19, 21, 22]. Thus, hardiness is posited as a partial explanation as to why some soldiers do not experience war-related stress [19].

Hardiness may also be particularly useful for military and Special Forces training and selection [20]. Lo Bue et al. [21] suggested that hardiness allows for discrimination between elite individuals and their colleagues, and they found that hardiness enabled military trainees to outperform others on cognitive and physical tasks. Hardiness was found to predict behavioral persistence among military trainees, such that hardier trainees were more likely to continue training 2 months later [21]. Hardiness was also identified as a positive factor in the retention of United States Military Academy (USMA) cadets at West Point during Cadet Basic Training [22].

Grit is defined as “perseverance and passion for long-term goals,” and the gritty person works toward challenges despite facing failures and stagnations in progress ([23], p. 1087). Thus, the gritty person seeks out, maintains, and works toward a goal that is not easily attainable or overly difficult over the course of years [23]. Grit is consequently a characteristic that may be useful in military contexts. In a study examining the retention of USMA cadets at West Point during the first summer of training, grit predicted retention better than other factors assessed [23]. Grit also had a larger effect on retention for USMA cadets than hardiness [22]. Hardiness and grit may therefore serve as protective factors in that they allow the individual to continue to strive toward their goals despite experiencing stressful and painful challenges during the course of training and life during and after deployment.

Much like grit and hardiness, mental toughness is a trait that is related to behavioral perseverance in the face of adversity. Mental toughness is therefore conceptualized as a psychological resource that allows for the pursuit and maintenance of goal-oriented behaviors [24]. Mental toughness may facilitate the interpretation of a difficult situation as a challenge rather than as an attack on the individual's functioning, and therefore most impacts behavioral perseverance in situations of great stress [24]. Mental toughness may thus play a role in the completion of special forces selection and training [24].

Interventions/Future Directions

When working with SOF personnel, it is expected that the psychologist will provide support for the unit and the mission [9]. Consequently, the routine interactions that the psychologist has with individuals in the unit may lead to decreased stigma as speaking to a psychologist becomes a normalized process within the unit [9]. In this manner, the psychologist transitions from a mental health professional to a trusted staff member who supports the mission [9]. The change in perception may then facilitate help-seeking behaviors from individuals within the unit [9].

In the Psychological Performance Program, similar interventions were used as embedding mental health professionals in the military units, which would be helpful in decreasing stigma about seeking psychological help. However, further assessment of the program and its efficacy in decreasing stigma and suicide risk as well as increasing psychological resilience in special operations forces is necessary. Programs such as the PPP and the CSF are important in decreasing stigma associated with psychological help-seeking behaviors and a greater scale of implementation of such programs is likely to help in this.

Conclusion

Suicide is the tenth leading cause of death in the United States, and the army experienced the greatest increase in suicides over the years, and the primary cause of death for suicide across all branches of the military in the sample was firearms (U.S.; [1, 2]). As of 2014, veterans are more likely to die by suicide by approximately 21% in comparison with civilians, and an estimated average of 20 veterans commit suicide on a daily basis [3]. Army special operations forces (SOF) personnel are among the most elite in the military. SOF personnel are perhaps most well known for their psychological resilience, as they are expected to excel and adapt in constantly changing cultural environments and dangerous situations, complete missions, and function both independently and effectively in small groups [7, 8]. Due to the nature of the missions, not only mentally but physically, basic qualifications for all special forces military occupational specialties (MOS) is very rigorous, it requires special forces soldiers to possess above average mental and physical abilities, in addition to being proficient in a variety of military skills [6]. From 2011 to 2014, 49 Special Operations Forces members died by suicide; though it is a small number of the total armed forces, this is a significant number for SOF [15].

The risk of suicide is particularly pronounced in the SOF community given that the majority of SOF personnel indicated that they know of one or more colleagues who died by suicide during or after engagement in service [10]. Posttraumatic stress disorder (PTSD) is estimated to occur in 6–12% of Army personnel deployed to Iraq and Afghanistan [16]. A study of a sample of 430 SOF soldiers found that the rate of PTSD in SOF personnel was approximately 16–20%, thus demonstrating that PTSD may occur with greater frequency in elite groups of the military [16]. Of those who return from combat with mental health problems, less than half seek help for their symptoms. It is well documented that an individual's belief about how they will be perceived and their lack of trust in mental health providers are strong determinants in the likelihood they will seek help. Despite this, there are protective factors, and unit cohesion can act as a buffer to the effects of stress and development of PTSD among other psychiatric disorders and likely against suicidal behavior [4]. Special Operations units are known for "high community spirit" and comradery, which underlies strong bonds between the soldiers, and serves as an important protective factor to combat negative outcomes to combat-related stress. In summary, reducing stigma

related to psychological help-seeking behaviors in military culture, especially in Special Operations forces, is likely to significantly reduce suicide risk and build psychological resilience in SOF members.

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Abstract

Suicide in prisons is a serious international public health problem. Suicide remains one of the most common causes of death in detention centers in many countries with suicide rates that are much higher than those of the general population. Therefore, it is crucial to understand the possible root causes and risk factors associated with prison suicide. Most epidemiological studies suggest that suicide commonly results from the cumulative effect of numerous biopsychosocial factors.

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Some of the risk factors are already present in the prisoners prior to their imprisonment and are then “imported” into prison, making the prisoners a particularly vulnerable population. The presence of a psychiatric disorder is one of the most common. Moreover, there are other highly stressful factors that are specifically related to detention. An additional factor is the fact that prisons are often left out of community mental health programs.

To cope with this serious public health problem, there are several prevention strategies reported in literature that need to be examined. These include: training of prison staff, prisoners’ screening and observation, communication between staff members, creation of a positive prison environment, adequate connections with mental health services, and debriefing in case of suicide occurrence.

Keywords

Prison · Suicide · Prevention · Prison staff · Mental health

Epidemiology

According to the World Health Organization, prison suicide is a serious international public health problem [1], and suicide remains one of the most common causes of death in detention centers in many countries, with suicide rates that are much higher than those of the general population [2]. In Western countries, the suicide rate in male prisoners is 3–7 times higher than the suicide rate for men in the general population [3]. In England and Wales in particular, the suicide rate in male prisoners is 5–6 times higher [3, 4] and 20 times higher in female prisoners [3, 5] compared to suicide rates in the general population. The highest suicide rates are found in Northern European prisons, with numbers that in most cases exceed 100 suicides out of 10,000,000 prisoners per year. Similar numbers can be found in France and Belgium, while in Australia and in North America suicide rates are approximately between 23 and 67 [6]. Moreover, in recent years those numbers seem to be growing steadily. It is, therefore, a priority to reduce the number of suicides in prisons through prevention programs [1].

Risk Factors

To cope with this serious international public health problem, we firstly need to understand the phenomenon and all its possible causes, that is, the main risk factors associated with prison suicide. In accordance with the stress-diathesis model of suicidal behavior (Mann [10]), most epidemiological studies suggest that suicide in prison rarely depends on a single cause, but more commonly results from the cumulative effect of numerous biopsychosocial factors [2, 7–9].

In 2007, the WHO drafted a document aimed at reducing the suicide rate in prisons through specific prevention strategies [1]. The document identifies some risk factors, subsequently confirmed by numerous studies, that are present in the

prisoners prior to their imprisonment. Those risk factors are then “imported” into prison, making the prisoners a particularly fragile population [1, 11–20]. Among the risk factors most commonly associated with suicide, there is the presence of a psychiatric disorder, a clinically relevant risk factor for the general population and also for prisons inmates [2, 11–14].

In a recent study, Fravil et al. studied the causal relations between the presence of a psychiatric disorder and suicide among the convicted population. Their results indicated that the presence of a psychiatric disorder does not directly lead to an increase of suicides, but rather increases suicidal ideation. The risk factors that suicidal acts come instead are from biopsychosocial conditions such as impulsivity and the frequent exposure to painful events [2, 21].

The psychiatric disorders more frequently associated with high lethality suicidal attempts are depression, psychosis, anxiety (including PTSD), personality disorders (especially antisocial personality disorder), and drug abuse [16–18, 21, 22]. Prisoners who make high lethality suicidal attempts were found to have high levels of aggressiveness, impulsiveness, hostility, childhood trauma [23], loss of hope, low self-esteem, social isolation, and a history of previous suicidal behaviors [19, 20, 22, 24]. High lethality suicidal attempts were also associated with adverse early life events such as being bullied, the loss of a parent or a sibling, and the lack of a stable home [15].

There are also factors specifically related to the detention. The arrest is a highly stressful event. The prisoners are separated from their families and friends, and they are confined in a highly controlled and dehumanizing environment [18]. They may have difficulty accepting a long sentence, they may fear the unknown situation that awaits them after conviction, and they may also feel ashamed by their incarceration [25, 26]. In addition, prisoners suffering from drug addiction may experience withdrawal symptoms [15]. Aspects related to the daily life in prison can also be highly stressful, such as the lack of purposeful activities [27], receiving bad news [28], residing in a single cell or in segregation [14, 24], exposure to violence and victimization [17], and boredom [15].

In many prisons, there are no programs aimed at identifying and monitoring inmates at risk of suicide. Even when these programs do exist, work overload and poorly trained personnel often make it difficult to put suicide prevention tactics into action [1, 18].

Lastly, the WHO identified a further factor that can put an inmate at a higher risk of suicide, and that is the fact that prisons are often left out of community mental health programs, making it more difficult to access psychiatric services for the prison population [1].

Characteristics of the Phenomenon

Among inmates awaiting trial, many suicides occur in the first 24 h after the arrest [26] or in the hours before the court hearing [29]. Another critical period is the one following the first 60 days of imprisonment resulting from psychological exhaustion

and burn out [30]. Among inmates convicted to long-term sentences, suicide occurs more frequently after a few years (on average, between 4 and 5 after conviction) [1].

From the analysis of interviews with inmates who have made high lethality suicidal attempts, these attempts were made when the prisoners were alone in their cell [17], especially at times when there are few prison surveillance personnel, during night shifts and weekends. Housing prisoners in a cell by themselves is, therefore, a major risk factor [1, 18, 31]. The majority of suicides by inmates who had cellmates occurred when the cellmates were away [26]. About 21% of suicides take place within 15 min of the last time they were seen, while 31% are found after more than an hour [26].

The most common method for suicide is hanging [32]. In the majority of suicides by hanging, the inmates use their own bed linens or, less frequently, their own clothes [26]. In many cases, the bed is used as support to carry out the suicide (30%), but the bars or the cell door can also be used (27%) [26]. Much less frequent methods are cutting oneself, suffocation, drug overdose, ingestion of a foreign body, and self-immolation [15].

Particular care should be taken when a prisoner dies by suicide because of the copycat phenomenon. When inmates have witnessed or learned about the suicide of one of the other inmates from the same prison, the risk of suicide is increased [1, 18, 33].

Prevention

According to a 2009 study from Pompili et al. [18], the best practices to prevent suicide in prisons should include the following elements: training programs for prison personnel, screening procedures for the inmates, communication between staff members, creation of a positive prison environment, good connections with mental health services, and having debriefings shortly after a suicide has occurred.

Training of Prison Staff

A key part of a suicide prevention program is the training of prison staff, especially the prison guards and the psychiatric and health personnel. In particular, detention officers are more often than not the only staff members available during night shifts and weekends, times when suicide attempts are more frequent. An initial training course, with further refresher courses on an annual basis, is ideal [1]. These training courses should address issues related to suicidal behaviors induced by the prison environment, predisposing factors, recognition of warning signs, and analyses of earlier suicides and suicide attempts made within the prison. The training should prepare the personnel for first aid techniques and suicide drills to ensure a quick response to attempted suicides [1]. Furthermore, the prison staff should be trained in developing empathic skills that can help better understand prisoners' state of mind

and overcome the difficulties caused by work-related stress and burnout, which are very frequent in the professional staff [18].

Screening Procedures and Patient Observation

Screening inmates for the risk factors for suicide is critical. Considering that the one time of great risk is that immediately following the arrest, the screening should be done when the inmate enters the prison and repeated whenever the circumstances of detention change or when the inmate receives bad news from outside the prison, such as a spouse dying or divorcing the inmate [17, 18]. It is necessary to identify risk indicators that are easy to spot and that take into account both static variables (anamnesic and demographic) and dynamic variables (personal or situational) [1, 34]. According to the WHO, inmates who exhibit one or more of the following factors are to be considered in need of further intervention, as they are subjects at increased risk of suicide [1]:

- Current state of intoxication or previous drug abuse
- A strong sense of guilt, shame, or worry concerning their detention
- Hopelessness or fear for the future and other signs of depression
- Presence of suicidal thoughts
- Previous treatment for psychiatric problems
- Current presence of a psychiatric disorder
- Previous suicide attempts
- Declaration of suicidal intent
- Poor internal and external support resources
- The inmate is considered at risk of suicide by the officer who carried out the arrest
- Records reporting that the inmate was previously deemed at risk of suicide

It is important to structure the questions asked to the prisoner in order to identify the risk of suicidal behavior, since this prevents the questioner from leaving possible unexplored areas at the end of an interview, making sure at the same time that the interview can, if needed, take place quickly without affecting its effectiveness. Furthermore, structuring the questions and the answers leads to clearer communication between the various personnel involved in the evaluation of the prisoner. Lastly, it produces a legal documentation that certifies that the prisoner has been properly evaluated for suicidal risk upon entering prison [1, 18].

In addition to the abovementioned preliminary evaluation, regular monitoring is required during the entire period of the detention. Specifically, it is important to focus the attention at particular occasions through the use of [1, 18]:

- Routine security checks designed to detect: suicidal intent and indicators of psychological distress such as crying fits, insomnia, laziness, extreme restlessness, or walking back and forth around the cell; sudden changes in mood, eating, or sleeping habits; gestures of dispossession such as giving away personal items;

loss of interest in activities and/or relationships; and repeated refusals of treatment or requests for higher doses of medications.

- Talks with the inmates during periods close to court hearings or other critical events (such as the loss of a family member or a divorce) to identify feelings of hopelessness and suicidal intent.
- Supervision of talks with friends or family members to detect possible conflicts or other problems that may arise during the visits. In addition, the prisoner's family members should be encouraged to report to the prison staff if they perceive suicidal intent in their imprisoned relative.

Observation intervals should be adjusted to the subject's level of risk. Prisoners at very high risk of suicide should receive constant monitoring; prisoners with suicidal thoughts but without a current ideation can be checked at regular intervals of 10–15 min [18], although keeping in mind that 3 min are enough to leave permanent brain damage after a suicidal attempt by hanging. Video surveillance could be a viable solution [1, 18].

Communication Between Staff Members

Having good communication between the staff members is essential to ensure a full exchange of information regarding the prisoners at risk of suicide and allows for a better management of the internal resources available in order to prevent suicide. Hayes [35] pointed out three basic levels of communication that can help to prevent suicide in prisoners:

- Communication between the officer who carried out the arrest and the prison staff
- Communication between the various professional figures within the prison (including police officers and health and psychiatric personnel)
- Communication between staff members and the inmate who is at risk of suicide

Since the arrest is often the most stressful event for most prisoners, the suicide risk assessment and, therefore, the communication of the data must be undertaken during this first stage when anxiety and extreme agitation may occur. The police and correctional staff must, therefore, maintain constant vigilance during this critical phase of the incarceration process.

All information that can potentially be useful for assessing the risk of suicide should be shared during regularly organized multidisciplinary meetings, which should involve police and correctional officers, health care workers, and psychiatrists. Furthermore, the authorization of an inmate's security measures, and any changes to them, must be documented in an appropriate format that must be distributed to all the personnel responsible for the inmate in question [1].

Creation of a Positive Prison Environment

There are simple and effective preventive measures that can be implemented for the creation of a positive prison environment that can minimize the occurrence of suicide. These measures can improve the psychological condition of the prisoners, and also reduce the means available for suicide. Given the close relationship between social isolation and suicide risk and the critical role played by social relationships within the prison, it is important to promote good relations both between inmates (e.g., avoiding the use of one inmate in each cell) and between the prisoners and the prison staff.

The promotion of activities that promote social interactions and prevent boredom is a protective factor, although measures must also be implemented to prevent bullying between inmates, especially violence and sexual abuse [17, 23, 36, 37]. In some prisons, social intervention is facilitated by some inmates who are specially trained (the so-called “buddies” or “listeners”). These listeners can be valuable resources in situations where the inmate may not trust the prison staff but may be willing to open up to other prisoners [17, 18, 38, 39]. Another useful tactic is increasing the number of visits from the prisoners’ family members [18].

Prison cells can be constructed to prevent the occurrence of suicidal behavior. It is important to remove any points where ropes made from sheets or clothes can be hung. In the more severe cases, it may be appropriate to restrain inmates who already exhibit suicidal behavior [1, 17, 18]. Since prisoners often use their rolled-up sheets for their suicidal acts, the use of special sheets made of more fragile fabrics (that can tear if subjected to a strong traction) would be a simple but effective way to hinder the prisoners in their suicide attempts. However, some studies have shown that there have been suicides despite this, indicating that we must continue to develop fabrics that may be better suited for the purpose of preventing these deaths [17, 40, 41].

Connections with Mental Health Services

Given the role played by the presence of psychiatric disorders in prisoners who engage in high lethality suicidal attempts, especially depression, PTSD, a history of drug abuse, and an antisocial personality disorder, action must be taken in a targeted and appropriate manner [17]. Some studies have highlighted a discrepancy between the number of prisoners with psychiatric disorders and those who ultimately receive medical treatment or psychological support [12, 17, 42, 43]. Prisoners at risk of suicide need further evaluations and specific treatments carried out by mental health experts [18]. Since it is very difficult to provide mental health services within a prison, it is extremely important to create solid links between prisons and the mental health services in the community, starting with general hospitals and emergency services, psychiatric facilities, and services for the recovery of people with addictions [1, 18].

In Cases of Attempted Suicide

When a suicide attempt occurs in prison, staff members must be ready to act promptly, performing first aid maneuvers while waiting for the arrival of qualified medical personnel. To avoid delays in the rescue response, communication systems between staff members must be strengthened, and all staff must be properly trained and prepared in case of emergency. The emergency equipment must be placed in every location inside of the prison and regularly tested. Prisoners who attempted suicide must also be provided with immediate psychiatric support [1, 18]

Debriefing

After a suicide has taken place, it is essential to implement debriefing strategies that can assist other inmates who have witnessed the suicide or learned about it, as well as for the prison staff. It is important to analyze the sequence of individual and environmental events that led to the occurrence of the suicide in order to come up with new preventive strategies [1, 18].

Conclusions

Suicide prevention is always difficult, but especially within the prison environment. While life in prison has aspects that make suicide more easily preventable compared to other environments (like an easier monitoring of the people at risk and limited access to suicidal means), others aspects (like bullying and social isolation) can increase the suicidal risk in prisoner who already are more vulnerable due to the high incidence of psychiatric problems, drug abuse, trauma, and social isolation [17]. Furthermore, since prisoners have greater impulsiveness and greater suicidal intent than the general population, their suicides are often unpredictable.

Nevertheless, a multifactorial suicide prevention program can be effective in reducing suicides and suicide attempts in prisons, especially if it focuses on improving the clinical, psychosocial, and environmental factors impacting the prisoners [17, 44].

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Part V

Treatments and Preventive Actions



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Abstract

Global suicide rates continue to increase despite local efforts to address the problem. The field of global mental health has identified various barriers and strategies to effective suicide prevention, which have informed global efforts in providing resources and guidance at a national level. In this chapter, we provide a review of global efforts and national strategies aimed at decreasing rates of suicide globally. We look at the evolution of global mental health and its focus on suicide prevention, provide an overview of global efforts, national strategies, and the lessons to be learned from these programs.

Keywords

Global Mental Health · Suicide · Healthcare Disparities · Low- and middle-income countries

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Introduction

Global action is needed to improve services for people with mental health conditions. Worldwide, an estimated 970 million people, or 13% of the world population, are living with mental illness [1]. However, the actual prevalence may be much higher as mental health disorders remain widely underreported, especially in low-income countries where there is less attention and treatment [2]. The concept of disability-adjusted life years (DALYs), calculated as the sum of years lost due to premature mortality plus the sum of years lived with disability (YLDs), has helped to quantify the global burden of disease (GBD). According to the World Health Organization [3], the GBD due to mental illness is substantial and increasing: in 2010, mental and substance use disorders were responsible for 149.2 million DALYs, and by 2019, it had increased 12.7% to 168.1 million DALYs. However, the GBD due to mental illness is believed to be an underestimate due to mortality being attributed to other causes (e.g., suicide) and the fact that other related disorders (e.g., personality disorders) are typically not included in these calculations [4]. In fact, mental and substance use disorders contribute to 18.7% of YLDs [3], and depressive disorders alone are the second leading cause of YLDs [3, 5]. One study estimates that mental illness may actually account for over 32% of YLDs [4]. Although cardiovascular diseases are the leading cause of DALYs due to noncommunicable diseases [3], mental illness can be a risk factor for these and other diseases and can affect adherence to care and treatment outcomes [6]. Furthermore, over the years, total DALYs have decreased while DALYs caused by mental and substance use disorders have increased [3]. This trend is even more apparent in low-income countries, where total DALYs have decreased 7.8%, and DALYs caused by mental and substance use disorders have increased 28.4% since 2010 [3].

Despite the burdens mental illnesses place on society, resources for mental health are inadequate worldwide. The global median mental health expenditure per capita is about US\$ 7.49, only 2.1% of the median government health expenditure [7]. Additionally, there is a shortage of mental health workers around the world, with only 13 mental health workers per 100,000 population [7]. Considerable disparities in mental health resources exist across income groups. Low-income countries only spend US\$ 0.08 per capita on mental health, while high-income countries spend US\$ 52.73 per capita on mental health. Additionally, in most low-income countries, people have to pay mostly or entirely out of pocket for mental health services and psychotropic medicines, but people living in high-income countries pay nothing or at most 20% of these costs. Similarly, low-income countries only have 1.4 mental health workers per 100,000 population, while high-income countries have 62.2 mental health workers per 100,000 population. In fact, although over 80% of the world's population resides in low- and middle-income countries (LMICs), these countries have less than 20% of global mental health resources [8]. The overall lack of resources contributes to the mental health treatment gap, that is, the difference between the prevalence of a disorder and the number of individuals receiving treatment for this disorder expressed as the percentage of individuals who require care but do not receive treatment [9]. One study estimated that globally only 7–28%

of people with depression and 5–20% of people with an anxiety disorder receive treatment, resulting in a treatment gap of 72–93% for depression and 80–95% for anxiety [10]. Even when treatment is available, it is too often inadequate or even inhumane, sometimes involving involuntary detention or shackling [8].

Mental health has gained increasingly more attention globally as governments have become more aware of the economic impact of mental illness and mental health treatments. An estimated \$ 2.5–8.5 trillion is lost annually due to mental illnesses, a figure that is expected to double by 2030 [10]. In fact, the financial burden resulting from mental illnesses is greater than those of cardiovascular diseases, diabetes, chronic respiratory diseases, and cancer [5]. Furthermore, evidence has been found across countries of all income levels of the cyclical relationship between mental health and poverty, in which individuals who live in poverty have an increased risk of mental illness and those with mental illness are at increased risk of slipping into poverty [11]. There is now robust evidence indicating that relatively small investments in mental health, as little as \$ 0.05 per person per year, may have significant financial benefits to the country [10]. Studies have found that investment in mental health can lead to improved economic outcomes, more so than poverty alleviation programs [11]. Programs aimed at improving economic stability by way of mental health promotion have found significant reductions in family economic burden, improvements in the duration of employment, increased working ability, reduction in work-related disability, and increased family employment [11].

Main Text

Global Efforts to Bridge the Mental Health Gap

Global mental health is a field that emerged relatively recently. Historically, it was debated whether psychiatric conditions are universal or are defined by and unique to each culture [12, 13]. Over time, epidemiological studies revealed that while culture plays a role in how mental illnesses are expressed and treated, “these health conditions affected people in all cultures and societies, and were neither a figment of the ‘Western’ imagination or colonial export.” [13]. With the introduction of DALYs in the 1993 *World Development Report*, countries began to recognize the burden mental illnesses place on societies [12]. In 2001, the World Health Organization (WHO) published its first *World Health Report* wholly focused on mental health, titled *Mental Health: New Understanding, New Hope* [12]. This report reviewed the burden of mental disorders as well as various approaches to address the issue through services, policy, and public health and recommended additional options [12]. In 2007, *The Lancet*, a highly influential medical journal, published a series of articles focused on global mental health, further highlighting the importance of the field and putting the scaling up of mental health services on the global agenda [8, 13]. In the years following the publication of this series, global mental health became more prominent. Of the 62,300 sites related to “global mental health”

identified by a Google search in 2009, over 85% were registered after this *Lancet* series was published [8].

Within a year of the *Lancet* series' publication, the WHO established the Mental Health Gap Action Programme (mhGAP) to encourage and support countries, particularly those with low and lower-middle incomes, in scaling up services for not just mental disorders but also neurological and substance use disorders [14]. The Programme offers strategies for implementing and scaling up evidence-based interventions to address priority conditions (e.g., depression, schizophrenia, suicide, etc.), suggesting adaptations for countries that face more barriers or have access to fewer resources [14]. As part of this initiative, the mhGAP intervention guide (IG), a tool designed to help nonspecialist healthcare settings implement mhGAP interventions, was released in 2010 and later updated in 2016 [15]. In 2013, the WHO developed the Mental Health Action Plan 2013–2020, which has since been expanded upon and extended to 2030 [7]. This action plan identifies a variety of actions that can be taken to achieve the objectives of strengthening effective mental health leadership and management; providing comprehensive mental health care and social services in community-based settings; implementing mental health promotion and prevention strategies; and improving mental health research and dissemination of information [7]. Most recently, in 2019, the WHO Special Initiative for Mental Health was implemented with the goal of ensuring at least 100 million individuals in 12 priority countries have access to affordable and quality mental health care by 2023 [16].

Outside the WHO, other organizations have also come together to advance the promotion of mental health and reduce the treatment gap. In 1992, the World Federation for Mental Health established World Mental Health Day [12]. The Movement for Global Mental Health, a coalition of individuals and institutions worldwide, was formed in 2008 to serve as a hub for members to collaborate and share resources on ways to improve mental health services available in the community [17]. Its members include care providers, policy advisors, nongovernmental organizations (including the World Federation for Mental Health), and global organizations representing hundreds of countries, including several LMICs [17]. In 2010, the National Institute of Mental Health and Global Alliance for Chronic Diseases invited hundreds of experts around the world to identify research priorities to improve the lives of those living with mental, neurological, and substance use disorders in the Grand Challenges in Global Mental Health Initiative [18]. The United Nations (UN) adopted Sustainable Development Goals (SDGs) for 2015–2030 and included a goal to promote not only physical health but also mental well-being [19].

Suicide

When mental health issues go untreated, they can lead to serious consequences, such as suicide. Suicide is a major public health issue. In 2019, it was estimated that 703,220 deaths, resulting in 30.9 million years of life lost, were due to self-harm,

putting suicide in the top 20 causes of death and years of life lost [3]. In fact, there were almost 1.5 times as many deaths due to self-harm as those due to interpersonal violence [3]. Of particular concern is the fact that suicide has consistently been one of the leading causes of death for youth and young adults, aged 15–29 years, globally [3, 20]. Based on the annual number of deaths, it is estimated that one person dies by suicide every 45 s. Furthermore, it is estimated that for every adult who dies of suicide, there are likely at least 20 others who made one or more attempts [20]. Altogether, self-harm is responsible for around 31.9 million DALYs [3]. However, the burden due to suicide is likely to be an underestimate as suicide is illegal in some countries and often goes misclassified or unreported [20].

Suicide accounted for 1.3% of all deaths globally in 2019, but this percentage varies by country, ranging from 0.05% of deaths in Barbados to 4.96% of deaths in South Korea [3]. Although the number of deaths due to suicide has declined from 2010 to 2019, it has increased 12.1% in low-income countries [3]. Additionally, even though high-income countries have seen a 4.5% decrease in suicide, there is a disproportionate amount of global suicide deaths relative to their population (22.7% versus 15.9%) [3]. When considering WHO regions, the Africa Region, Region of the Americas, and Eastern Mediterranean Region all saw increases in the number of suicides since 2010 [21]. Similarly, despite the global decline in suicide, many countries have seen increases in suicide rates [21, 22]. Of 172 WHO countries with populations greater than 300,000, 56.4% experienced more than a 10% decline in age-standardized suicide rates from 2010 to 2019, but 8.7% experienced more than a 10% raise and 34.9% experienced relatively little change (at most 10% change) in age-standardized suicide rates [3]. This change in suicide rates ranged from a 54.6% decline to a 123% increase [3]. Suicide rates in 2019 varied significantly as well, ranging from fewer than two suicides per 100,000 population to over 85 per 100,000 [3]. Even within a country, there can be substantial variation in suicide rates, with as much as a two- to fivefold difference between various regions [22]. These disparities in suicide rates may be the result of multiple factors, such as regional differences in religion (a protective factor) or alcohol abuse (a risk factor) [22].

Demographics is another factor affecting suicide rates. In 2019, 2.25 times as many men died by suicide than women; in high-income countries, the male-to-female ratio was 2.9 [3]. While this ratio was less than 2 in the WHO South-East Asia and West Pacific Regions, it was greater than 3 in the Africa Region, Region of the Americas, and European Region [3]. This difference is generally attributed to a male tendency to use more lethal methods and be less likely to seek help [22]. Although the number of deaths from suicide is highest in people between 15 and 29 years of age, the suicide rate is highest in those who are at least 70 years old [3, 20]. In some regions, rates of suicide increase steadily with age while other regions see peaks at 15–29 or 45–60 years of age [20, 22]. When considering gender and age simultaneously, one finds that suicide rates are much higher in young adults and elderly women in LMICs than those in high-income countries; on the other hand, middle-aged men in high-income countries have much higher suicide rates than their counterparts in LMICs [20]. Other populations have also been identified as

being at higher risk of suicide, including indigenous peoples, refugees, migrants, people who have experienced trauma, sexual minorities, prisoners, veterans, and the military community [20]. Overall, cultural, personal, social, and environmental factors interact to influence suicidal behavior [20, 22].

Global Suicide Prevention Efforts

Suicide is closely linked with mental health. Not only is mental illness a risk factor for suicidal behavior, but it can also be an antecedent as well [22]. It is estimated that in North America, approximately 90% of the people who committed suicide were experiencing a mental illness at the time; in East Asia, this proportion was found to be 30–70% [22]. Consequently, promoting mental health and scaling up mental health services may have an impact on decreasing suicidal behaviors. However, these efforts are not sufficient for significantly reducing suicide rates. Even in countries with accessible mental health care, only about 25% of people who die by suicide were receiving or had recently received mental health services [22]. Some people did not even have a diagnosis of a mental disorder prior to their suicide [22], and many suicides are the result of impulsive decisions in the face of crises [20]. As such, strategies to specifically combat suicide need to be implemented.

Suicide is included in many of the global mental health efforts. The WHO mhGAP lists suicide as a priority condition to be addressed [14]. Some of the evidence-based interventions recommended in the mhGAP focus on preventing and treating depression and substance abuse, while others suggest ways to restrict access to common means of suicide [14]. The mhGAP-IG reminds health care workers to assess for suicide whenever a patient is suspected of having a mental, neurological, or substance use disorder and identifies “common” and “emergency” presentations of suicide to look out for [15]. The intervention guide also explains how to assess for and follow-up on the risk of suicide and provides protocols to follow in different scenarios along with more detailed interventions providers can use [15]. The original Mental Health Action Plan 2013–2020 elicited commitments from WHO Member States to work towards reducing the global rate of suicide by 10% by 2020 [20]. The updated action plan sets an even more ambitious goal of decreasing the rate of suicide by a third by 2030 and calls Member States to establish national suicide prevention strategies, particularly for vulnerable populations, in order to achieve this [7]. Specific plans of action recommended include decriminalizing suicide and suicide attempts; restricting access to common means of suicide, such as pesticides and firearms; promoting responsible media coverage of suicide; and establishing a system to monitor cases of suicide and suicide attempts [7]. The UN SDGs use the suicide mortality rate as an indicator to monitor progress towards reducing premature mortality from noncommunicable diseases by one-third [19]. This decision to include suicide as an indicator highlights suicide as a major global public health threat and encourages countries to prioritize suicide prevention strategies in their public health agendas.

Other global efforts to address suicide include publications that focus primarily on suicide prevention and the establishment of World Suicide Prevention Day. In 1996, the UN published *Prevention of Suicide: Guidelines for the Formulation and Implementation of National Strategies* to provide nations a set of guidelines for developing effective suicide prevention strategies, and in 2012, the WHO expanded on the UN's recommendations in *Public Health Action for the Prevention of Suicide: A Framework* [23]. In this document, the WHO describes important steps to take and key components to include when developing a suicide prevention strategy [23]. The WHO followed up with two additional publications in 2014 and 2018. *Preventing Suicide: A Global Imperative* summarizes general knowledge around suicide (e.g., epidemiology, risk, and protective factors) and identifies relevant evidence-based interventions to emphasize the burdens associated with suicide and encourage increased efforts for suicide prevention [20]. It also gives an overview of current progress in suicide prevention efforts around the world, providing case examples from various countries to support its exhortation to implement a national strategy [20]. *National Suicide Prevention Strategies: Progress, Examples, and Indicators* focus primarily on existing national suicide prevention strategies from each WHO region to encourage and facilitate governments to establish their own [24]. It introduces the LIVE LIFE framework for addressing suicide: Interventions (i.e., Less means, or restriction of access to means; Interaction with media to ensure responsible reporting; Formation of youth to encourage the development of life skills; and Early identification, management, and follow-up) built on the pillars of Leadership in policy and interdisciplinary collaborations; Interventions for implementation; Vision to identify funding sources, innovations, and service delivery platforms; and Evaluation of goals and objectives [24]. Since these documents have been published, several countries have adopted national strategies to promote suicide prevention, and suicide rates have decreased globally; however, it became apparent that more action is needed in order to achieve the SDG goal of reducing suicide rates by one-third by 2030 [21]. Consequently, the WHO published *LIVE LIFE: An Implementation Guide for Suicide Prevention in Countries* to offer practical advice on concrete actions governments can take to implement LIVE LIFE interventions for preventing suicide, especially after adopting a national strategy [21]. World Suicide Prevention Day is another global effort to increase awareness around suicide and its prevention. Since it was created in 2003 by the International Association of Suicide Prevention, World Suicide Prevention Day has been observed annually on September 10, and in some countries, a whole week – or even month – is dedicated to this issue [24].

National Strategies

Scientific research can enhance global efforts by assessing the effectiveness of available interventions and identifying which interventions are more sustainable than others. In a systematic review, Platt and Niederkrotenthaler [25] evaluated the overall effectiveness of 13 different approaches commonly found in national suicide

prevention programs. The approaches are categorized into three distinct groups, with interventions containing strong, weak, or insufficient supportive evidence.

Interventions with Strong Evidence

Restricting access to commonly used methods of suicide such as hotspots, bridges, and pharmacological agents is well supported by evidence as the methodological quality of included studies is high, and findings are highly consistent across studies [25]. For example, Skegg and Herbison [26] investigated whether the loss of vehicle access to a jumping hotspot due to construction work would lower suicide incidents and calls to the emergency police in Dunedin, New Zealand. No deaths by jumping occurred during the 2-year vehicle restriction period compared to the 13 deaths that occurred 10 years prior, while police callouts for threatened suicides declined from 19.3 observed during the preceding 4 years to 9.5 per year [26].

The study conducted by Perron and colleagues [27] assessed whether the installation of a barrier would displace suicides to other jumping sites in the Québec province of Canada. The annual suicide rate at the Jacques-Cartier Bridge fell from 0.324 to 0.079, with little evidence of suicide displacement to other bridges in the region [27]. Law, Sveticic, and De Leo [28] illustrated similar outcomes as suicide incidents dropped 53.0% after a safety barrier was installed on the Gateway Bridge in Brisbane, Australia, along with no evidence of displacement to nearby sites, and further reductions were detected in subsequent periods. Hence, restricting access or installing a barrier decreases the risk of suicide by jumping, as illustrated in the three studies.

Two cultural differences among the countries mentioned above are worth noting. Compared to Québec, suicide by jumping is uncommon in New Zealand [26] and Queensland, Australia [28]. A structure's popularity as a suicide hotspot is heightened by its accessibility, publicity, perceived lethality [27], and sociocultural acceptability, as indicated by Mann and colleagues [29]. These four reasons may help explain why suicide by jumping is more common in Québec. In terms of gender, most suicides by jumping at the Jacques-Cartier Bridge were male and younger [27], which is consistent with the risk factors observed in other countries [24]. However, this was contrary to the frequency in Dunedin as more suicide incidents involved women [26]. The gender differences in these two locations serve as a prime example of the importance of tailoring strategies to each country's needs and sociocultural context [24].

Studies have also demonstrated that restricting access to pharmacological agents can reduce suicidal behavior. For instance, Nordentoft et al. [30] examined whether reduced availability of dangerous compounds such as carbon monoxide gas and barbiturates was associated with lower suicides in Denmark. The suicide rate in the country diminished by 55% between 1970 and 2000, with limited evidence of displacement to other dangerous means [30]. Thelander et al. [31] evaluated the effects of restricting the number of caffeine tablets (100 mg) bought over the counter in a single purchase from 250 to 30 tablets per box on intentional fatal intoxications. The tablet restriction emanated from the report by Holmgren, Nordén-Pettersson, and Alhner [32] as they described four cases of caffeine fatalities, two of which the

manner of death was suicide, that occurred in a single year in Sweden. Compared to 14 fatalities documented between 1993 and 2004, six fatalities occurred immediately following the restriction in 2004, four out of the six fatalities entailed suicide, no fatal intoxications were reported between May 2007 and September 2009, and telephone calls to the Poisons Information Centre dropped from 153 to 63 between 2004 and 2005 [31].

In terms of gender, Denmark experienced 37,270 suicides between 1970 and 2000, and 23,972 of these cases involved men [30], which coincides with the statements made by Perron and colleagues [27] and the WHO [24]. The Denmark restrictions were not adapted to assist its male constituents, but it had a positive impact as suicide rates steadily declined for men and women since 1980 [30]. This was contrary to the gender differences in Sweden as 7 out of 12 documented intentional fatalities from 1994 to 2007 involved women [31]. The restrictions targeted the entire population, it decreased suicides by caffeine intoxication for both genders, and no fatalities by suicide were documented between 2007 and 2009 [31].

Although cultural considerations were not examined, the studies in Sweden and Denmark embodied the leadership and evaluation components of LIVE LIFE. For example, Thelander et al. [31] observed the before and after effects of the 2004 restriction that was influenced by the report of Holmgren, Nordén-Pettersson, and Alhner [32], and they used forensic autopsy cases from two nationwide databases to assert their findings. Although caffeine intoxications are rare [31], having case registration systems that allow for evaluations to be conducted and reported by research can influence subsequent legislative actions. The Danish study also described the impact of legislation on suicide rates and used the Danish National Cause of Death Register's mortality data to support their findings [30]. Thus, case registration and surveillance systems, monitoring and evaluations, and enactment of policies as suggested by LIVE LIFE can inform one another to enhance suicide prevention measures.

Interventions with Weak Evidence

Restricting access to firearms, lithium as an intervention, cognitive behavioral therapy (CBT), and setting-based programs in schools are known to be effective; however, they generally possess weakly supportive evidence as the methodological quality of available studies is moderate-to-high, and findings are reasonably consistent across studies [25]. Despite the overall consensus about the available evidence, interventions with significant research findings warrant attention as they can positively inform current or future national suicide prevention strategies.

The following three studies can help explain the relationship between restricting access to firearms and suicide rates. Lubin et al. [33] described the impact of a 2006 Israeli Defense Force (IDF) policy on suicide rates among soldiers aged 18–21. The policy commanded soldiers to leave weapons at their bases during weekend home visits. Compared to the suicide average of 28 per year during 2003–2005, the annual suicide rate decreased by 40%, and the 2007–2008 average fell to 16.5 per year [33]. The effects of the 2003 Army XXI reform in Switzerland on suicide rates were

examined by Reisch et al. [34], which restricted access to firearms. There were 2.16 fewer suicides per 100,000 inhabitants in the overall suicide rate of men ages 18–43, suicides by firearm diminished by 2.64 per 100,000, and roughly 30 fewer young men died by suicide each year [34]. Lastly, Flegler et al. [35] investigated whether more firearm laws were associated with reduced firearm mortalities in the United States (USA). Each state was assigned a firearm legislative strength score from 0 to 28 based on the number of enacted laws (0 points = no laws; 28 points = 28 enacted laws), and firearm-related deaths from 2007 through 2010 were analyzed. Findings revealed that compared to states with strength scores of 2 or less, states with more firearm enacted laws had a lower overall firearm fatality rate and firearm suicide rate with absolute rate differences of 6.64 deaths per 100,000 individuals per year and 6.25 deaths/100,000/y, respectively [35]. Consequently, greater legislative strength in a state was associated with lower firearm fatalities and suicide [35].

It is proposed that culture and attitudes towards firearms within a state may be perceived as extraneous variables when looking at the association between firearm ownership and legislation [35]. However, the effects of these variables on suicide frequencies were not measured in the US study. While firearm-related mortality rates are lower in some states than others [35], the heterogeneity of cultural norms and attitudes may deter countries like the USA from fully achieving their suicide prevention goals unless there is greater consensus on restricting access to firearms between state and federal governments. Although the US article did not focus on culture, it did contain aspects of LIVE LIFE such as leadership, evaluation, and restricting access to lethal means that can help promote or drive future policy changes.

During the study's publication, Switzerland had fewer firearm restrictions than other European countries, and suicide by firearm was the most frequent method [34]. In regard to gender, firearm suicides were statistically associated with the reform among men ages 18–43, significant changes were not observed for women and older male cohorts, and the intervention was able to reach a wider population [34]. No evidence of confounding effects on suicide frequencies was found in the relevant male age group regarding unemployment and immigration [34], making it the only study mentioned thus far to have evaluated the effects of sociocultural factors on suicide. The Israeli study also highlighted the impact of military reform on suicide rates among younger male constituents as 90% of all suicides in the military involved firearms [33], yet it did not assess cultural factors. Nonetheless, the tailored policies enacted by the Army XXI and IDF addressed the needs of its members and helped lower the suicide frequency among young men.

Findings on lithium's effectiveness in reducing the risk of suicide contain mixed results [25]. Despite the available evidence, it is important to highlight findings from research studies as they may provide potential guidance to other countries who are interested in using lithium as a preventive measure. For instance, Kessing et al. [36] assessed if lithium was linked to a reduced risk of suicide among 13,186 patients with mood disorders who purchased lithium in Denmark during 1995–1999. Findings illustrated that compared to those who purchased lithium only once, higher purchasing was connected with a 0.44 reduced rate of suicide [36]. Lauterbach et al.

[37] conducted a randomized controlled trial (RCT) to evaluate lithium's preventive effects during a 12-month follow-up period among 167 German patients mostly with affective disorders and with a history of prior suicide attempts. At 12 months, the lithium group ($n = 84$) had seven attempts with no completed suicides, whereas the placebo group ($n = 83$) had seven attempts and three completed suicides. Since no completed incidents occurred in the lithium group, it was concluded that lithium treatment might be effective in lowering the risk of suicide [37].

The potential interactions of sex and age on the association between lithium and suicide were examined in the Denmark study, yet no significant results were obtained [36]. Danish suicide rates were also high among men as detected in other countries. Regarding medical care, the country offers free psychiatric treatments, lithium is widely prescribed and offered at a low cost, and the study was unbiased by socioeconomic factors [36]. Other countries may not have sufficient resources to offer similar services like Denmark, and replicated studies worldwide may either support or rebuff these findings. Perhaps future studies will follow suit and examine the interaction between suicide and sociocultural factors such as age, sex, and socioeconomic differences.

The German article briefly discussed sociodemographic factors, but it was not a critical factor of concern. Fortunately, participants were offered free services and resources to reduce potential harm or risk of suicide. Like Denmark, Germany had ample resources to conduct the first study of its kind to measure suicidal behavior using an RCT design [37]. Other countries may not have the means to conduct similar studies, but they can use these findings to inform and foster their national suicide prevention plans. Both studies did speak to the limited and mixed amount of evidence on the topic, but overall, there is a shared consensus that lithium is associated with reduced suicide risk in patients with affective disorders [37]. Perhaps the effects of lithium can be heightened if it is offered in conjunction with other treatments to reduce suicide.

The systematic review and meta-analysis of Tarrier, Taylor, and Gooding [38] indicated that CBT had a highly significant effect on reducing suicide behavior. The subsequent studies can help evaluate this assertion. Brown et al. [39] directed a randomized controlled trial to examine the effectiveness of a 10-session cognitive therapy treatment on averting future attempts in 120 adults with prior suicide attempts in Philadelphia, Pennsylvania, during an 18-month period. Thirteen participants in the intervention group compared to 23 in the usual care group made at least one attempt. In addition, the intervention group was 50% less likely to reattempt suicide and had a significantly lower reattempt rate [39].

Based on their data analysis of the SoCRATES trial performed by Tarrier et al. [40] in the United Kingdom (UK) among 309 participants, Tarrier et al. [41] hypothesized that CBT for psychosis (CBTp) compared to other treatments would facilitate a significant reduction in suicidal behavior over 18 months. Suicidal behavior rates in the moderate to severe range diminished from 13% at admission to 6% at 18 months, and three suicides occurred comprising of one case in the CBTp group. However, CBTp had no specific effect on suicide behavior when comparisons between treatment groups were made, which could be due to the fact that CBTp aims

to reduce psychosis rather than suicidal behavior [42]. Despite the limitation, it is proposed that CBTp may contain a very modest effect on suicidal behavior via reductions in psychotic and depressive symptoms [42].

The US study illustrates the importance of modifying an intervention like CBT and evaluating its effectiveness in preventing suicide attempts. On the contrary, CBTp was not modified in the UK study to exclusively address suicidal behavior, which can explain its modest effect. Therefore, it is essential to use tailored interventions that focus on suicide to obtain observable effects. Cultural differences are worth noting. The SoCRATES trial contained a large nonethnic sample size, whereas the US trial contained a predominantly black sample coinciding with the general population in Philadelphia's urban city [39]. However, replicated studies are needed to assess if suicidal behavior rates would be expressed similarly or differently in ethnic minority samples in the UK, other racial groups in the USA, or cultures abroad using similar methodologies.

Aside from using similar psychotherapeutic interventions, both countries cited the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, fourth edition in their methodologies, which implies a sense of consistency in how mental health concerns are conceptualized and approached in clinical practice and research in these high-income countries. However, Stein and Reed [42] argued that the WHO's upcoming International Statistical Classification of Diseases and Related Health Problems (ICD) 11th edition could contribute to global mental health, inform health policy, and is more suitable for services and research in diverse global settings, especially in low- and middle-income contexts. Thus, research using the WHO's ICD could be more inclusive, drive global suicide initiatives, and assist countries where mental health is approached differently. In light of CBT's considerable variability [38] and the two major classification systems, current research findings from high-income countries are an essential starting point to assess whether an intervention can be adapted and applied to other settings to reduce suicide rates while being sensitive to sociocultural and contextual factors.

Forming the young in their life skills is another core intervention under LIVE LIFE [24], and although the overall evidence in this field is mixed, the following two articles will speak to its potential benefits. Wilcox et al. [43] investigated the effect of two universal classroom-based interventions entailing the Good Behavior Game (GBG) and Mastery Learning (ML) on the risk of suicide ideation and attempts by young adulthood among students in Baltimore City Public School System. The ML intervention's goal is to enhance academic achievement, whereas the GBG intervention aims to promote good behavior and create a social system in the classroom that is conducive to learning with lower aggressive or disruptive behavior. Significant findings in the first cohort revealed a steady and strong decrease in suicide ideation by age 19–21 in the GBG group and even lower ideation and attempt in the second GBG cohort compared to the control classrooms [43]. Thus, an intervention like GBG that can socialize children and promote classroom behavior management to lower aggressive or disruptive behavior during the primary years may reduce future suicidal behavior.

The Saving and Empowering Young Lives in Europe (SEYLE) was spearheaded by Wasserman et al. [44] to assess the efficacy of school-based preventive interventions by randomly assigning 168 schools to one of three interventions or a control group with a focus on suicide attempt(s) as the primary outcome measure. Compared to the other approaches, the Youth Aware of Mental Health Programme (YAM) manualized intervention received considerable attention in the results as it targeted students directly via role-play sessions, workshops, a booklet, classroom posters, lectures about mental health, and coping skills formation [44]. Significant differences were illustrated at 12-month follow-up. Compared to the control group, YAM was linked with a significant decline in suicide attempts and severe suicidal ideation [44]. Thirty-four students in the control group reported suicide attempts in contrast to 12 students in the YAM, while 31 in the control group versus 15 in the YAM reported incident severe suicidal ideation [44].

The GBG intervention focused on socializing students in Baltimore at a young age as they were encouraged to work in teams to obtain rewards for good behavior [43]. Thus, one may posit that adequate socialization during the primary years is a protective factor against suicidal behavior. The study also entailed a sizeable African American population, and replications in other US regions or parts of the world would be critical to assess any similarities or differences among other sociocultural groups or educational settings. The GBG and ML interventions occurred between 1985 and 1987, which calls for updated revisions to reflect twenty-first-century education reforms and contextual factors should they be implemented in future studies. Lastly, the study examined and did not find potential mediation evidence that could have accounted for the association between the GBG intervention and suicide ideation and attempt [43]. Compared to GBG and ML, the SEYLE study is more current and targets a vast teenage student population in ten European Union countries. The findings asserted that YAM could prevent one suicide attempt for every 167 students [43], yet only replicative studies around the world can substantiate this rate. Another aspect to consider is whether YAM can be adapted or tailored to reflect a country's values or be sensitive to sociocultural factors.

Interventions with Insufficient Evidence

Media reporting guidelines' effectiveness has gained insufficient or conflicting evidence as the methodological quality of available studies is poor, and findings are inconsistent across studies [25]. Contextual factors, collaborative efforts, accountability, reporting, and sustainable practices vary worldwide. For instance, Cheng et al. [45] examined the media's impact in Hong Kong on youth suicides. The team made appeals to media outlets in March of 2016 to provide more resources on suicide prevention in subsequent publications and issue less descriptive reports as student suicide cases had been rising since 2006 [45]. After the appeals, descriptive-reporting intensity declined from 600 to under 400 words per incident and remained low, yet preventive-reporting intensity did not remain constant [45]. The suicide intensity among students diminished after March 2016 but then increased by the end of the year. The rise was posited to have been attributed to the variability in preventive-reporting intensity [45].

Media reporting practices have also been examined in Bangladesh. Arafat, Mali, and Akter [46] evaluated whether online media reporting of suicidal behaviors aligned with the WHO [47] reporting guidelines. A total of 320 reports were analyzed and compiled from 8 online newspaper outlets. Results conveyed that about 85% of reports were linked to suicides, 93% on single suicidal behavior, and 82.50% on single completed suicides, while more than 90% contained the name of victims, occupation, and method of suicide [46]. Furthermore, reports did not contain suicide prevention resources such as statements from professional experts or crisis services. Thus, online media portals were considered to have poor quality since they did not align with WHO [47] reporting guidelines [46].

Compared to the Hong Kong report, the Bangladesh study did not examine the effects of poor-quality online media reporting on suicidal behaviors or rates, but it served as the first quality analysis that may inform future research, policies, or guidelines. The authors briefly discussed the lack of mental health professionals and contextual factors that could hamper a suicide prevention plan as suicide is considered a criminal act accompanied by high stigma, religious principles, and social practices [46]. In contrast to other high-income countries like the USA and UK, Arafat [48] noted that Bangladesh is a distance away from implementing or developing a national suicide prevention program. Like Bangladesh, Hong Kong had its fair share of reporting detailed accounts of suicide incidents in media outlets and sought to understand this phenomenon through research. Not only can the media have a role in suicide prevention, but it is essential to foster sustainable reporting practices through continuous and collaborative efforts [45]. Contextual factors highlighted in the article entailed low social mobility, a harsh education system, and pessimism among the youth [45], which alludes to the interaction of several risk factors that can increase the likelihood of suicidal behaviors [23].

Additional approaches possessing insufficient or conflicting evidence encompass enhanced care/follow-up, psychotherapeutic interventions aside from CBT and DBT, pharmacological interventions aside from lithium, screening, postvention, telephone-based services, gatekeeper training, substance misuse programs, general public awareness-raising, and national programs [25]. More global research from high-, middle-, and low-income countries is needed to assess whether these interventions effectively reduce suicidal behavior.

Summary

Different countries have adopted numerous efforts to decrease suicide rates with variable success. The national strategies that appear to be consistently effective include restricting access to lethal means, implementing appropriate surveillance and reporting systems, and adapting to the needs of the country or community. Restricting access to lethal means is well supported by various empirically rigorous studies and is consistently associated with a decrease in suicide rates. When surveillance systems are accurate, comprehensive, and easy to use, these reports can inform legislative action, enhancing national suicide prevention efforts. Finally, strategies should be adapted to the needs and demographics of the country, as it has been repeatedly shown that when an approach is adapted to the local context, the

community is more engaged in suicide prevention efforts and serve to decrease national suicide rates. National suicide prevention strategies can work, but it is imperative that national leadership be involved, resources be appropriately allocated, and local communities be empowered. Mental health is vital to the health of communities and ought to be addressed with international knowledge and national support.

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Suicide Prevention in Emergency Department Settings

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Naohiro Yonemoto

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Abstract

Emergency departments in medical facilities are considered a key place for suicide prevention interventions. Many patients with mental illnesses, especially those with mood and adjustment disorders, use drugs and poisons as a means of suicide, although there is variance in prevalence across countries and regions. Data from a meta-analysis showed that active contact and follow-up interventions were effective in preventing suicide attempts after 6 months of follow-up.

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However, the development of new and more effective interventions to help prevent suicide is desirable.

Keywords

Suicide attempt · Epidemiology · Intervention emergency department

Introduction

In the hospital setting, the emergency department (ED) is considered a key place for suicide prevention, because patients who have attempted suicide are transported to and treated in the ED. Internationally, various studies have shown that a history of suicide attempts is the most powerful risk factor for subsequent suicide attempts and death [2]. Therefore, it is important to provide interventions to prevent further suicide attempts for patients who have attempted suicide and are transported to the ED. In recent years, the number of hospital admissions attributable to attempted suicide and self-harm has increased globally [27]. This chapter describes the prevalence of suicide behaviors, characteristics of suicidal behaviors, screening for suicide behaviors, and interventions for recurrent suicide behaviors in the ED setting.

Epidemiology**Prevalence of Suicide Behaviors Based on ED Data**

Data from emergency care providers shows that the proportion of patients attempting suicide varies by country, regions, and characteristics of individual hospitals. For example, a study from the United Kingdom (UK) reported that approximately 220,000 patients with self-inflicted injuries visited hospitals each year [20]. A national registry study conducted in Ireland reported that the high rate of deliberate self-harm among Irish men in 2008 and 2009 coincided with the advent of the economic recession in Ireland [35]. A study from the United States (US) reported the average number of ED visits for attempted suicide and self-inflicted injuries per year more than doubled between 1993–1996 (approximately 244,000) and 2005–2008 (538,000). The report based on data from the US Centers for Disease Control and Prevention (CDC) stated that US emergency medical services data showed the rate of patients attempting suicide was 0.4% [37]. Another national US survey estimated there were approximately 412,000 ED visits for attempted suicide and self-inflicted injury each year during the 5-year period between 1997 and 2001, which accounted for 0.4% of all ED visits [13]. These data were obtained from the National Hospital Ambulatory Medical Care, which is a national probability sample of ED visits. In addition, a meta-analysis conducted in Japan involving patients who had visited emergency medical facilities showed that 4.7% (95% confidence interval, 4.0–5.6) of the 1,319,848 ED visits were patients who had attempted suicide (pooled

prevalence proportion), although there was some variation (heterogeneity) among institutions [27].

Methods of Suicide Attempts as Reported in ED Data

Poisoning was found to be the most common method used for suicide attempts, with US reports indicating the prevalence rates of 68% [13] and 72% [15]. Other research showed that the prevalence of poisoning was 86% in Sweden [6], 92% in China [5], 69% in Korea [29], and 78% in the UK [4]. A meta-analysis in Japan reported a pooled prevalence proportion of 52%, which was somewhat lower than rates in other countries [27].

The high prevalence of poisoning among patients in the ED who had attempted suicide highlights that the ED is an appropriate setting to conduct clinical studies to obtain data regarding suicide attempts by poisoning. It is known that people who attempt suicide through poisoning are a high-risk group for repeated suicide attempts after discharge from the ED. For example, it was found that 12% of patients in the ED with poisoning subsequently re-visited the ED because of poisoning within 1 year after discharge [33].

The second most frequent method used for suicide attempts as reported in ED data is cutting. Reported rates of cutting were 20% [13] and 15% [15] in the US, 12% in Sweden [6], 16% in Korea [29], and 15% in the UK [4]. The report from Japan noted the pooled prevalence was 18% [27]. Another common method of attempting suicide found among patients in the ED is jumping, with a reported prevalence of 4% in the USA [15] and 3% in Korea [29]. The pooled prevalence of jumping based on ED data in Japan was 12% [27].

The prevalence of hanging as a suicide method is reported to be less common in the US, with rates of less than 1% [13] and 2% [15]. The prevalence of hanging in Japan was also relatively low (7%), and was similar to the 6% reported in Korea [29]. Similarly, the use of burning as a method of suicide was less than 1% in the USA [15], whereas the pooled prevalence of burning as a suicide method was 4% in Japan based on ED data [27].

Among people who died by suicide, the most common method was suicide by hanging. However, those who attempt suicide by methods such as hanging, jumping, and burning (including death by suicide) tend to be less likely to be found in the ED setting than those who use drugs/poisoning. This is because people who use more lethal means of suicide more often die after attempting suicide than those who use drugs or poisons.

Psychiatric Disorders Among Those Who Attempt Suicide

It has been reported that many people who attempt suicide suffer from psychiatric disorders [3, 19]. For example, the proportion of ICD-F3 disorders (mood disorders) in Sweden was reported to be 29% [6].

The proportions of depressive disorders appeared to be relatively variations among previous studies. A US ED-based study found the proportion of depressive disorders (based on ICD code) was 18% among those who had attempted suicide [13]. A report from Japan revealed that the pooled prevalence of mood disorders (based on DSM criteria) was 35%, with mood disorders being the most common diagnosis among the DSM Axis I disorders. These findings were consistent with previous studies based on the DSM, which indicated the proportion of mood disorders in China was 44% in 2010 [5] and that in the USA was 39% [15]. In contrast, the proportion of mood disorders has been reported to be much higher in Korea at 79% [22].

A study conducted in Japan revealed that the pooled prevalence of ICD-F3 disorders was 30%, and these disorders were the most frequent psychiatric disorders among people who attempted suicide [27]. That study also revealed that the pooled prevalence of ICD-F4 disorders (neurotic, stress-related, and somatoform disorders) was 27%, with ICD-F4 disorders being the second most frequent psychiatric disorders among those who visit the ED following attempted suicide in Japan. The prevalence of these disorders reported in the Japanese study was higher than that reported in the same setting in Sweden (18%) [6].

The prevalence of adjustment disorders (DSM criteria based) in the USA was reported as 26% [15]. This rate was similar to that reported in Japan (28%), but much higher than rates reported in China (5%) [5] and Korea (3%) [22]. In addition, the proportion of ICD-F2 disorders was 6% in Sweden [6]. However, the pooled prevalence of ICD-F6 disorders was 13% in a Japan study [27] compared with the 26% reported in Sweden [6]. Another study found that the pooled prevalence of ICD-F2 disorders was 13% in people who visited the ED following a suicide attempt in Japan [27].

Japanese studies based on the DSM have reported the prevalence of schizophrenia was 19% among people who had attempted suicide [27], which was higher than rates reported in other countries. For example, ED-based studies using the DSM criteria reported that the prevalence of schizophrenia among people who had attempted suicide was 8% in China [5], 11% in Korea [22], and 5% in the USA [15].

The pooled prevalence of personality disorders (DSM Axis II disorders) was reported at 41% among those who attempted suicide in Japan [27], which was higher than rates reported in other countries (e.g., 1% in Korea) [22]. However, the prevalence of personality disorders (borderline personality disorder and antisocial personality disorders) was reported to be 34% in the USA [15]. It is important to note that care must be taken when interpreting the data in studies using DSM criteria because personality disorders are classified as Axis II disorders and assessed independently from Axis I disorders.

Among the ICD-F1 disorders as mental and behavioral disorders due to psychoactive substance use, the prevalence of alcohol abuse reported among people who had attempted suicide was 9% in the USA [13]. In comparison, the prevalence reported in a study from Sweden was 18% [6]. In ED-based studies from Japan [27], the prevalence of ICD-F1 disorders was 4% among those who attempted suicide, which was lower than rates reported for other developed countries. Another

US study reported the prevalence rates of alcohol abuse or dependence as 30% and that of drug abuse or dependence as 19% [15]. The reported prevalence of substance-related disorders (DSM criteria based) in Japan was lower than rates in other countries at 14%, although a report from China reported an even lower prevalence of 3% [5].

Most ED clinicians do not routinely assess suicidal ideation, suicidal behavior, or psychiatric disorders among their patients [7]. In addition, ED assessment of self-harm was found to be highly variable among institutions [11]. However, the NICE guidelines recommend that patients presenting at hospitals with self-harm should receive a psychosocial assessment and suicide screening before discharge [31, 37]. The high prevalence of psychiatric disorders among those who visit the ED following a suicide attempt suggests that mental health issues should be considered during the management and disposition of these patients.

In summary, research suggests that patients who have attempted suicide and then present to emergency medical services have a high proportion of psychiatric disorders associated with a range of diagnostic categories. These results suggest that treatment and support based on comprehensive psychiatric and psychosocial assessment by psychiatric staff is important for patients who have attempted suicide who visit emergency medical facilities.

Interventions

Systematic Reviews and Meta-analyses in the ED Setting

Inagaki et al. conducted a systematic review and meta-analysis of previously reported randomized controlled trials on the effects of suicide prevention interventions for people who had attempted suicide, which resulted in emergency medical situations. The results were reported in 2015 [23] and 2019 [24], with the latter being updated with new data.

That review included studies in which: (1) participants had an emergency medical visit within 1 month of a suicide attempt due to that suicide attempt; (2) interventions to prevent recurrent suicide attempts were initiated during the time participants were in an emergency or post-emergency facility; and (3) the effects of the recurrent prevention interventions were measured in a randomized controlled trial. All reports of clinical trials that were validated and met the inclusion criteria were identified. Because eligible participants were those with suicide attempts that required hospitalization, studies focused on relatively mild self-harm or participants that did not require hospitalization were excluded. Therefore, the findings targeted participants with relatively clear suicidal intentions and who had attempted suicide. For further details of the research methodology, see the relevant papers [23, 24].

In the most recent study from 2019 [24], 6520 articles were retrieved from multiple databases (e.g., medicine, nursing, and psychology databases) up to January 2015, from which 96 relevant articles were identified. Selection was based on the

exclusion criteria (e.g., studies in which not all participants were considered post-suicide attempt, interventions aimed at physical therapy, or studies in which the intervention was not initiated when participants were in an emergency care/post-emergency facility). Finally, 34 reports of 28 trials were included. The interventions in these 28 trials were categorized as: “active contact and subsequent follow-up interventions” (14 studies), “psychotherapy” (10 studies), “pharmacotherapy” (one study), and “other interventions” (three studies). A closer look at the interventions categorized as “active contact and subsequent follow-up interventions” revealed that “outreach and intensive care” was the most common intervention (six studies), including the ACTION-J study conducted in Japan [25]. Two studies used “simple intervention and contact,” three studies used “letter/postcard contact,” two studies used “telephone follow-up,” and one study used a combination of letter/postcard and telephone follow-up (Fig. 1).

The findings of the meta-analyses from both studies showed that “active contact and follow-up” had a significant prevention effect on suicide attempts at 6 months. Results at 12 months from 11 studies showed a reduction in suicide reattempts and a reduction in suicide reattempts due to the intervention, but the difference was not clear (combined risk ratio [RR] of 0.48, 95% CI 0.31–0.76). Furthermore, there was no difference at 18 and 24 months (Fig. 2).

Type of interventions	
Type of interventions	No of Trial
Active contact and follow-up	14
Intensive care plus outreach	6
Brief intervention and contact	2
Letter or postcard	3
Telephone	2
Composite of letter/postcard and telephone	1
Psychotherapy	10
Pharmacotherapy	1
Other	3
	28

Inagaki M, Kawashima Y, Yonemoto N, et al., (2019)

Fig. 1 Type of interventions

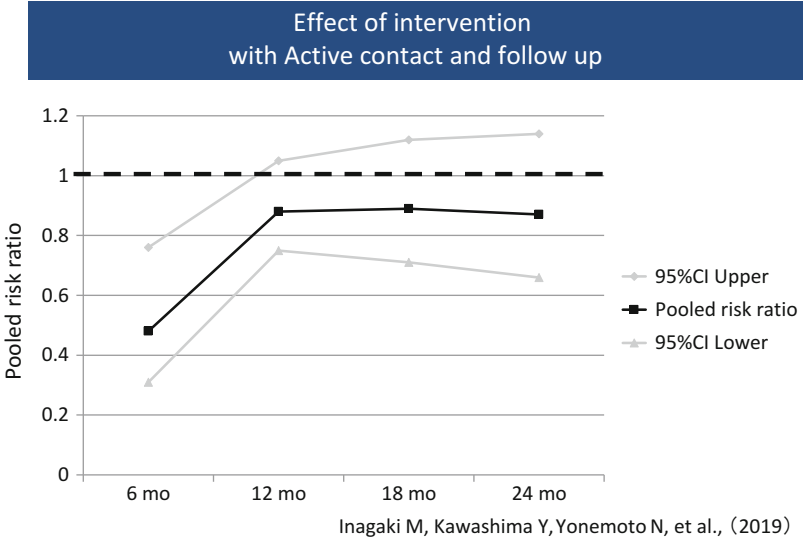


Fig. 2 Effect of intervention with Active contact and follow up

ACTION-J Study

The ACTION-J study [25] is a multicenter, randomized controlled trial conducted in Japan. The Japanese Ministry of Health, Labour and Welfare launched a large-scale research project in 2005 to develop scientifically based countermeasures and strategies to solve high-priority health problems for the Japanese population. The program was developed using clinical models from Iwate Medical University and Yokohama City University, where all people who had attempted suicide received an intervention using case management techniques in cooperation with the Emergency Medical Center and the Department of Psychiatry. The program reports suggested that the intervention was effective. The case management program was conducted by case managers and involved: (1) interviewing patients periodically during and after hospitalization and discharge; (2) collecting information on treatment status and psychosocial problems; (3) recommending receipt and continuation of psychiatric treatment; (4) recommending re-admission to psychiatric care when psychiatric treatment was interrupted; (5) recommending the psychiatrists coordinate their work with primary care physicians; (6) individualized use and coordination of social resources; (7) provision of psychological education and information; and (8) provision of information via a dedicated website.

The ACTION-J study was conducted in 17 hospitals in which the EDs and psychiatry departments were located relatively close together. Participants were adult patients with psychiatric disorders who had been transported and admitted to these hospitals following a suicide attempt. The study conducted a randomized controlled trial to examine the effectiveness of the case management intervention program. Because the study included extremely vulnerable patients in the immediate

aftermath of a suicide attempt, ethical considerations were prioritized, and there was a two-step process for obtaining consent. The intervention was also administered to the control group, meaning these participants received enhanced usual care. All patients received inpatient crisis intervention, psychoeducation, case management interventions, and community mental health-related information that contributed to suicide prevention. Patients in the enhanced usual care group received the intervention during hospitalization, and those in the pilot intervention group received the case management intervention continuously at 1 week, and 1, 2, 3, 6, 12, and 18 months after random group assignment. The primary outcome measure of the intervention effect was the incidence of first-time suicide reattempts (per person-year). This refers to the proportion of participants who were transported to the ED following a suicide attempt and participated in this study and first reattempted suicide after randomization. Information on deaths and causes of deaths was confirmed using the national Vital Statistics Death Form.

The study enrolled 914 patients who had attempted suicide; 460 were randomized to the trial intervention group and 454 to the enhanced usual care group. The trial intervention group had a lower rate of suicide reattempts. The ratio of reattempts in the trial intervention group to the rate of reattempts in the enhanced usual care group, was 1 (95% CI 0.06–0.64; $p = 0.0075$) at 1 month after allocation, 0.22 at 3 months (95% CI 0.10–0.50; $p = 0.003$), 0.50 (95% CI 0.32–0.80; $p = 0.003$) at 6 months, and 0.72 (95% CI 0.50–1.04; $p = 0.079$) at 12 months. After 18 months, the rate was 0.79 (95% CI 0.57–1.08; $p = 0.141$), with a significant decrease until 6 months later. The subgroup analyses showed the incidence of recurrent attempts was significantly lower in participants that were female, aged <40 years, and that had a history of previous suicide attempts. Furthermore, a secondary study showed a reduction in the secondary outcomes of the number of suicide attempts and re-harm. The intervention was also shown to have a constant effect on all participants regardless of their disease background (e.g., biaxial comorbidity) or means used for the suicide attempt.

Although the intervention had an effect in the enhanced usual care group, it was markedly more effective in preventing suicide recurrence in the trial intervention group. The ACTION-J case management intervention program was implemented by existing medical professionals in a real-world setting, and there was little dropout of participants, which suggests that this program is feasible to implement in clinical practice. Based on the results of that program and other studies, measures to prevent people who have attempted suicide from making another suicide attempt were developed and introduced into health insurance and medical treatment fees. In the 2013 fiscal year, training sessions were started as part of the research. In addition, a suicide attempt re-attempt prevention program was initiated in the 2015 fiscal year. [26, 28].

Self-harm is an important risk factor for subsequent suicide and repeated self-harm, and is also a common cause of ED presentations. However, there is limited evidence on interventions for individuals who self-harm in the ED setting. A secondary study [16] reported such an investigation with secondary outcomes. Patients younger than 20 years who self-harmed but were not admitted to an ED were excluded. That study showed that assertive case management following

emergency admission for a suicide attempt reduced the incident rate of repeated overall self-harm. The number of overall self-harm episodes per person-year was significantly lower in the intervention group (adjusted incidence rate ratio [IRR] 0.88, 95% CI 0.80–0.96; $p = 0.0031$). Subgroup analysis showed a greater reduction of overall self-harm episodes among patients with no previous suicide attempt at baseline (adjusted IRR 0.73, 95% CI 0.53–0.98; $p = 0.037$).

In addition, a secondary analysis study [32] investigated whether assertive case management could reduce repeated suicide attempts compared with enhanced usual care. Assertive case management had an effect on patients with Axis I disorders who had attempted suicide, and showed a similar effect on patients with comorbid Axis I and II disorders. Study participants were divided into those with comorbid Axis I and II diagnoses (Axis I + II group) and those who had an Axis I diagnosis without Axis II comorbidity (Axis I group). Outcome measures were compared between patients receiving a case management intervention and patients receiving enhanced usual care. The primary outcome measure was the proportion of the first episode of recurrent suicidal behavior at 6 months after randomization; RRs with 95% CIs were calculated at 6 and 12 months after randomization in the Axis I and Axis I + II groups. The results showed that of 914 enrolled patients, 120 (13.1%) were in the Axis I + II group and 794 (86.9%) were in the Axis I group. Assertive case management had a significant effect on the primary outcome for the Axis I group at 6 months (RR 0.51, 95% CI 0.31–0.84). The RR of the Axis I + II group was 0.44 (95% CI 0.14–1.40).

Attempted Suicide Short Intervention Program (ASSIP) Study

A study [18] at the University of Bern, Switzerland, developed the ASSIP, which was a short intervention based on early treatment contracts in a patient-centered model. In that study, three face-to-face sessions were held weekly. The first session involved interviewing the patient about the circumstances leading to suicide, their background and problem, and the current trigger. The interviews were video recorded with patients' consent. In the second session, the patient's video was viewed by the patient and the interventionist. The patient was guided to reflect on the video and a discussion was held about how they could escape the crisis situation (i.e., the stresses leading to psychological pain and suicidal behavior). This helped to identify automatic thoughts, feelings, physiological changes, and contingent behaviors. Patients received psychosocial material and completed their own comments as homework before the next meeting, and the interventionist prepared a draft of the conceptualization of the case for that meeting. At the third meeting, the patient's comments on the material were discussed, and the patient and the interventionist together revised the draft conceptualization (i.e., a summary of the problem in that case). The interventionist then worked with the patient to develop long-term goals, identify personal danger signs, and measures to take in case of problems. The conceptualization and problem-solving strategies were printed and given to the patient; importantly, these materials were shared with any other healthcare

professionals who were participating in the treatment. Patients were also provided with a compact card-sized leaflet presenting the danger signs and measures to take in case of problems, along with a card with a phone number to call if they experienced problems. That number was dedicated to them and connected to a professional support person. Finally, the patient was given instructions on how to use these resources. In addition, a semi-structured, personalized letter was sent to the study population every 3 months in the first year and every 6 months in the second year. In these letters, patients were reminded of the risk for future recurrent attempts and the need to act if they encountered problems. The letter was sent in the name of the interventionist, and included 1–2 lines of commentary on the patient and asked for feedback on how the patient was doing.

The objective of the present study was to evaluate the efficacy of the ASSIP in reducing suicidal behavior [18]. The ASSIP offers a novel, brief therapy based on a patient-centered model of suicidal behavior, with an emphasis on forming an early therapeutic alliance. Patients who had recently attempted suicide were randomly allocated to treatment as usual ($n = 60$) or treatment as usual plus ASSIP ($n = 60$) groups. ASSIP participants received three therapy sessions followed by regular contact through personalized letters over 24 months. Participants considered at high risk for suicide were included; 63% were diagnosed with an affective disorder and 50% had a history of prior suicide attempts. Clinical exclusion criteria were habitual self-harm, serious cognitive impairment, and psychotic disorders. Study participants completed a set of psychosocial and clinical questionnaires every 6 months over a 24-month follow-up period. The study represented a real-world clinical setting at an outpatient clinic of a university psychiatric hospital. The primary outcome measure was repeat suicide attempts during the 24-month follow-up period. Secondary outcome measures were suicidal ideation, depression, and healthcare utilization. Furthermore, the effects of prior suicide attempts, depression at baseline, diagnosis, and therapeutic alliance on the outcomes were investigated. During the 24-month follow-up period, five repeat suicide attempts were recorded in the ASSIP group and 41 in the control group. The rates of participants reattempting suicide at least once were 8.3% ($n = 5$) and 26.7% ($n = 16$) in the ASSIP and control groups, respectively. ASSIP was associated with an approximately 80% reduced risk of participants making at least one repeat suicide attempt ($p < 0.001$), and ASSIP participants spent 72% fewer days in the hospital during follow-up than the other study group ($p = 0.038$).

High scores for patient-rated therapeutic alliance in the ASSIP group were associated with a low rate of repeat suicide attempts. However, prior suicide attempts, depression, and a personality disorder diagnosis at baseline did not significantly affect the outcomes. Participants with a diagnosis of borderline personality disorder had more previous suicide attempts and a higher number of reattempts than their counterparts without such disorders.

The limitations of that study were missing data and dropout rates. Although both were generally low, they increased during the follow-up period. At 24 months, the group difference in dropout rate was significant: four (7%) in the ASSIP group and 13 (22%) in the usual treatment group. A further limitation was that there was no

detailed information regarding the co-active follow-up treatment, apart from participant self-reports every 6 months on the setting and the duration of the co-active treatment.

The results of the randomized controlled trial comparing the ASSIP plus conventional treatment group with conventional treatment showed the intervention group had 80% fewer recurrences than the control group. The intervention group also showed a reduced length of hospital stay during follow-up (by 72%) compared with the control group (29 days in the ASSIP group, 105 days in the control group; $p = 0.038$). The study was a relatively small, single-center (university hospital) study with 120 patients. Although statistically significant, the evidence was limited by the heterogeneity between the two study groups. It is hoped that the results may be replicated in further studies and that similar trials will be conducted at multiple sites.

The ASSIP is a manual, brief therapy for patients who have recently attempted suicide, and is administered in addition to the usual clinical treatment. This intervention appears to be efficacious in reducing suicidal behavior in a real-world clinical setting, and fulfills the need for an easy-to-administer low-cost intervention. However, large-scale pragmatic trials are still needed to conclusively establish the efficacy of ASSIP and replicate the findings in other clinical settings.

In addition, a study conducted an economic evaluation in the form of a cost-effectiveness analysis of the ASSIP [34]. The objective of that study was to explore the cost-effectiveness of the ASSIP intervention in the context of the Swiss healthcare system. This cost-effectiveness analysis was performed from a healthcare perspective between January 2017 and April 2018 using data from a randomized clinical trial conducted between June 2009 and December 2014. Participants were individuals who had attempted suicide and were receiving treatment in a psychiatric university hospital in Switzerland. The study hospital provided inpatient and outpatient services for people who had attempted suicide and were referred from an ED of a general hospital. The intervention group received three manual therapy sessions followed by regular personalized letters over 24 months. The control group was offered a single suicide risk assessment. The main economic analysis explored cost per suicide attempt avoided, which was expressed in 2015 Swiss francs (CHF). Cost-effectiveness planes were plotted, and cost effectiveness acceptability curves calculated. In total, 120 participants (mean age, 37.8 years; 55% women and 45% men) were assigned to an intervention group or a control group (each with 60 participants). At the 24-month follow-up, five suicide attempts were recorded in the ASSIP group among 59 participants with follow-up data available, and 41 were recorded in the control group (among 53 participants with available follow-up data). The ASSIP group had higher intervention costs than the control group (CHF 1323 vs. 441). At 24 months, psychiatric hospital costs were lower in the ASSIP group than in the control group, although this difference was not significant (mean CHF 20,559 vs. 45,488; mean difference: CHF $-16,081$, 95% CI $-34,717$ to 1536 ; $p = 0.11$). General hospital costs were also significantly lower for the ASSIP group. Total healthcare costs were also lower, but the difference was not significant (mean: CHF 21,302 vs. 41,287; difference: CHF $-12,604$, 95% CI $-29,837$ to 625 ; $p = 0.14$). A

base case analysis showed ASSIP was dominant, with significantly fewer reattempts at lower overall cost compared with usual care; the intervention had a 96% chance of being less costly and more effective. A sensitivity analysis showed ASSIP had a 96% chance of being more effective and less costly at a willingness-to-pay level of CHF 0 and a 95% chance at a level of CHF 30,000. These findings suggested the ASSIP is a cost-saving treatment for individuals who have attempted suicide. The findings support the use of ASSIP as a treatment for suicide attempters. However, further studies are needed to determine cost-effectiveness of this intervention in other contexts.

Emergency Department Safety Assessment and Follow-up Evaluation (ED-SAFE) Study

A relevant large observational study is the US ED-SAFE study (clinicaltrials.gov identifier: NCT01150994) [30, 36], although it was not a randomized controlled trial. That study compared three groups at different times in eight US emergency facilities. The groups were: (1) a conventional treatment group (August 2010 to December 2011), (2) a screening group (September 2011 to December 2011), and (3) a screening plus intervention group (July 2012 to November 2013). The main results showed that the screening plus intervention group had fewer suicide reattempts than the conventional treatment group, but not significant (IRR, 0.72, 95% CI 0.52–1.00; $p = 0.05$). However, there was no difference between the screening and conventional treatment groups (IRR 1.00, 95% CI 0.71–1.41).

The ED-SAFE study [30, 36] was conducted in the USA and designed to examine the effect of universal screening and an intervention in the ED setting among individuals at risk for suicide. Participants with suicidal ideation or a recent attempt were recruited from eight EDs across seven states in the US, ranging from small community hospitals to large academic centers. To increase the generalizability of the results, no participating site had psychiatric services located within or adjacent to the ED. The ED-SAFE study consisted of three sequential phases at each site: (1) the treatment as usual (TAU) phase, (2) the universal screening (screening) phase, and (3) the universal screening plus intervention (intervention) phase. For all phases, enrolled participants were observed for 1 year following the index ED visit using telephone assessments and medical record reviews. Trained blinded interviewers from a centralized call center conducted outcome assessments at 6, 12, 24, 36, and 52 weeks. If suicide risk was detected, the participant was immediately connected to the Boys Town Suicide Prevention Hotline. Additionally, using a standardized form, trained medical record abstractors at each site conducted medical record reviews at 6 and 12 months after study enrollment.

In the TAU phase, participants were treated according to the usual and customary care at each site, which served as the control for the subsequent study phases. In the screening phase, sites implemented clinical protocols with universal suicide risk screening (the Patient Safety Screener) for all patients in the ED. In the intervention phase, all sites implemented a three-component intervention in addition to universal screening. The intervention duration was 52 weeks following the index ED visit, and involved: (1) secondary suicide risk screening designed for ED physicians to

evaluate suicide risk following an initial positive screen, (2) provision of a self-administered safety plan and information to patients by nursing staff, and (3) a series of telephone calls to the participants, with the optional involvement of their significant other (SO). The structure and content of these calls were based on the Coping Long Term with Active Suicide Program (CLASP) protocol [30, 36], which is an adjunctive intervention designed to reduce suicide risk that comprises a unique combination of case management, individual psychotherapy, and SO involvement. The clinician's primary role as the CLASP contact was more of a treatment advisor than therapist. The CLASP-ED protocol consisted of up to seven brief (10–20 min) telephone calls to each participant, and up to four calls to an SO identified by the participant (if available). The calls focused on identifying suicide risk factors, clarifying values and goals, safety and future planning, facilitating treatment engagement/adherence, and facilitating patient-SO problem-solving. Multiple attempts were made to complete each scheduled call, and voicemails were left if the participant did not answer the call. If a call could not be completed, the advisor sent a personalized letter expressing concern for the patient and inviting them to call. Calls following the CLASP-ED protocol were centralized at Butler Hospital in Providence, Rhode Island, and were administered by 10 advisors (six PhD-level psychologists, three psychology fellows, and one masters-level counselor). All advisors were trained according to criteria by the CLASP developers and received weekly supervision.

Adults presenting to one of the participating EDs with a suicide attempt or ideation within the week before their ED visit were eligible for inclusion. Patients in the ED with any level of self-harm behavior or ideation were identified via a real-time medical record review and approached for eligibility screening. Patients were enrolled if they confirmed either a suicide attempt or active suicidal ideation within the past week and agreed to the study requirements. Exclusion criteria included: (1) being medically or cognitively unable to participate in study procedures, (2) living in a non-community setting, (3) being under state custody or pending legal action, (4) being without permanent residence or reliable telephone service, and (5) having an insurmountable language barrier.

Outcomes were assessed by a combination of telephone interviews using the Columbia Suicide Severity Rating Scale, and a medical record review over the 52-week follow-up period. The occurrence and timing of each outcome variable was assessed using data collected from all possible sources. Research team members reviewed data from all sources to reconcile discrepancies and eliminate overlap in identified events.

Consistent with other suicide prevention trials, the primary outcome variable was suicide attempts (both fatal and non-fatal) based on Columbia Suicide Severity Rating Scale definitions. The study analyzed both the proportion of patients who made a suicide attempt and the total number of suicide attempts occurring during the 52-week follow-up period. In addition, a broader suicide composite was analyzed based on the occurrence of any of five types of suicidal behavior: death by suicide, suicide attempt, interrupted or aborted attempts, and suicide preparatory acts. The time-to-event for each participant was defined as the period from the index ED visit

to when the outcome occurred within the 52-week follow-up period. Participants who did not have an outcome were censored at the time of withdrawal or their last follow-up interview.

In the study [36], of the 1636 patients who met the study inclusion criteria, 1376 participants were enrolled: 497 in the TAU phase, 377 in the screening phase, and 502 in the intervention phase. The median (IQR) age was 37 (26–47) years; 769 (55.9%) were female and 928 (67.4%) were non-Hispanic white. In total, 987 participants (71.7%) had a history of suicide attempts, and 459 (33.4%) had made an attempt in the week before their ED visit. Most participants had a psychiatric disorder and 69.2% had a coexisting medical disorder. Of the 1376 enrolled participants, 79.1% had at least one completed telephone interview over the 52 weeks of follow-up.

Medical record reviews were completed for all participants as secondary suicide screening. The medical record review indicated that 449 of 502 participants (89.4%) had received a suicide risk assessment from their physician, but only 17 (3.9%) that had documentation related to the ED-SAFE standardized secondary screening were included. Among those participants who completed the initial CLASP call, 114 (37.4%) reported having received a written safety plan in the ED.

Among the 502 participants in the intervention phase, 305 participants (60.8%) had completed at least one CLASP telephone call. Of those participants who completed at least one call, the median (IQR) number of completed calls was six (2–7). In addition, 100 participants (19.9%) had an SO who completed at least one call. The SOs completed a median (IQR) of four (3–4) calls.

Overall, 288 participants (20.9%) made at least one suicide attempt during the 12-month follow-up period. In the TAU phase, 114 of 497 participants (22.9%) made a suicide attempt, compared with 81 of 377 participants (21.5%) in the screening phase and 92 of 502 participants (18.3%) in the intervention phase. Five attempts were fatal, with fatalities observed in the TAU phase ($n = 2$) and the intervention phase ($n = 3$). Of participants who reported a suicide attempt, 164 (56.9%) made one attempt during the follow-up period, 53 (18.4%) made two attempts, and 67 (23.3%) made three or more attempts. When combined, there was a total of 548 suicide attempts among participants, including 224 in the TAU phase (0.45 per participant), 167 in the screening phase (0.44 per participant), and 157 in the intervention phase (0.31 per participant).

The primary analyses showed there were no meaningful differences in risk reduction between the TAU and screening phases. However, compared with the TAU phase, participants in the intervention phase showed small but meaningful reductions in suicide risk, with a relative risk reduction of 20% and NNT of 22. Participants in the intervention phase had 30% fewer total suicide attempts than participants in the TAU or screening phases. Log-rank tests indicated there were no significant differences between the TAU and screening phases. Comparisons of the TAU and intervention phases were weakly associated. Negative binomial regression analysis indicated that participants in the intervention phase had fewer total suicide attempts than participants in the TAU phase with unclear significance (IRR 0.72, 95% CI 0.52–1.00; $p = 0.05$), but there were no differences between the TAU and

screening phases (IRR 1.00, 95% CI 0.71–1.41; $p = 0.99$). There were no significant center effects or site-by-treatment interactions.

The secondary analyses with multivariable Cox proportional hazards model indicated that compared with participants in the TAU phase, those in the screening phase had no significant difference in the proportion of suicide attempts. However, compared with participants in the TAU phase, participants in the intervention phase had a significant reduction in risk for suicide attempts (hazard ratio (HR) 0.73, 95% CI 0.55–0.97; $p = 0.03$). Multivariable negative binomial regression analysis also indicated that participants in the intervention phase had fewer total suicide attempts than those in the TAU phase (IRR 0.75, 95% CI 0.57–0.98; $p = 0.04$). There were no significant effects in either of the secular trend analyses. In addition, adding calendar month to the Cox models did not yield significant seasonal effects and did not change the results of these models. Similarly, there was no evidence of trends within each phase.

There were 637 participants (46.3%) who had one or more of the suicide composite behaviors. In the TAU phase, 243 participants (48.9%) had a suicide composite outcome, compared with 187 (49.6%) in the screening phase and 208 (41.4%) in the intervention phase. Results of analyses of the suicide composite largely mirrored those for the suicide attempt variable. There were no significant differences in the suicide composite between the TAU and screening phases. By contrast, multivariate Cox (HR 0.78, 95% CI 0.64–0.94; $p = 0.01$), and negative binomial (IRR 0.78, 95% CI 0.65–0.93; $p = 0.01$) analyses indicated participants in the intervention phase had a significantly lower risk for overall suicidal behavior than those in the TAU phase.

As a part of ED-SAFE study, an economic analysis [14] conducted to determine whether the increased costs of implementing screening and intervention in ED setting are justified by improvements in patient outcomes. The study calculated incremental cost-effectiveness ratios and cost-effectiveness acceptability curves to evaluate the screening and suicidal outcomes and costs for the two interventions relative to treatment as usual. Costs were calculated from the provider perspective (e.g., wage and salary data and rental costs for hospital space) per patient and per site. Average per-patient costs to a participating ED of the universal screening plus intervention were \$1063 per month, approximately \$500 more than the universal screening added to treatment as usual. The universal screening plus intervention was more effective in preventing suicides compared with universal screening added to treatment as usual and treatment as usual alone. The findings supported that implementing such suicide prevention measures could lead to significant cost savings.

ED-SAFE 2

The ED-SAFE 2 study [8] will examine the implementation of universal suicide risk screening and a multi-component ED-initiated suicide prevention intervention. As a continuation of the original ED-SAFE study, the ED-SAFE 2 aims to explore the impact of the intervention using a continuous quality improvement approach (CQI)

to improve suicide related care, with a focus on improving universal suicide risk screening in adult patients in the ED and evaluate the implementation the Safety Planning Intervention (SPI), which is a new brief intervention, into routine clinical practice. CQI is a quality management process that uses data and collaboration to drive incremental, iterative improvements. The SPI is a personalized approach that focuses on early identification of warning signs and execution of systematic steps to manage suicidal thoughts. ED-SAFE 2 will provide data on the effectiveness of CQI procedures in improving suicide-related care processes, as well as the impact of these improvements on reducing suicide-related outcomes.

The study will use a stepped wedge design, where eight EDs will collect data cross three study phases: (1) baseline (retrospective), (2) implementation (12 months), and (3) maintenance (12 months). LEAN methods, which refer to a specific approach to pursuing CQI that focuses on increasing value and eliminating waste, will be used to evaluate and improve suicide-related care. The results will build on the success of the first ED-SAFE project, and will have a broad public health impact through promoting better suicide-related care processes and improved suicide prevention.

US National Survey in EDs

A US national survey [9] reported that most EDs sampled were in urban ($n = 1669$, 75.4%), non-teaching hospitals ($n = 1276$, 57.6%) that had high mental health staffing ($n = 1299$, 58.3%). Overall, EDs routinely provided a mean of 5.44, out of 10 specified self-harm management practices. EDs most commonly assessed patients who presented with self-harm for current suicidal intent/plans ($n = 2156$, 97.6%), past suicidal thoughts/behaviors ($n = 1989$, 90.6%), and access to lethal means ($n = 1708$, 77.7%). Provision of individual safety planning elements ranged from 24.8% ($n = 492$) to 79.2% ($n = 1710$), with two of six elements being routinely provided more than 50% of the time: lists of professionals/agencies to contact in a crisis ($n = 1710$, 79.2%) and helping patients to recognize warning signs of suicide ($n = 1075$, 52.2%). Only 15.3% ($n = 342$) of EDs routinely provided all recommended safety planning elements. There were no significant differences in emergency self-harm management practices by urban/rural status, mental health staff availability, or hospital volume. However, EDs associated with teaching hospitals were significantly more likely to provide professional contact lists than EDs affiliated with non-teaching hospitals.

Pediatrics and Adolescent Population

Suicide is the second leading cause of death among young people aged 10–24 years in developed countries, and accounts for more deaths than any single medical illness in this age group. ED visits offer a window of opportunity to deliver lifesaving suicide prevention interventions for the pediatric and adolescent population. Estimates suggest that up to 25% of patients who visit EDs after suicide attempts make

another attempt; between 5% and 10% later die by suicide and a substantial proportion of patients who die by suicide have ED visits during the year before their death. To successfully identify suicide risk, public health efforts must reach a large proportion of those at risk for suicidal behavior. [10].

Prevalence

A study using a nationally representative dataset tested the hypothesis that rising ED visits for pediatric suicide attempts/ideation would be observed nationwide in a broad, generalizable sample [10]. Because, in the US, suicide is a major public health concern and the second leading cause of death among youths aged 10–18 years, with this persisting into early adulthood. Attempted suicide is the strongest predictor of subsequent death by suicide, and many children with suicide attempts and suicidal ideation first present to an ED. Recent evidence has demonstrated marked increases in suicide attempts/ideation among children and adolescents presenting to EDs in US tertiary children's hospitals.

In the study [10], over the 9-year study period, there were 59,921 unweighted ED visits for children younger than 18 years in the NHAMCS, among which 1613 (2.8%, 95% CI 2.5%–3.0%, range 161–198) observations annually met the inclusion criteria for suicide attempts/ideation visits. The median age was 13 years (IQR 8–15 years). Most were evaluated in non-teaching and non-pediatric hospitals. Notably, 43.1% of suicide attempts/ideation visits were for children aged 5–11 years, of which only 2.1% were hospitalized. The estimated annual visits for suicide attempts/ideation between 2007 and 2015 increased from 580,000 to 1.12 million (92.1%, 95% CI 68.9%–130.3%; p for trend = 0.004). Conversely, there was no statistically significant change in total ED visits during this time (26.9 million to 31.8 million; 18.2%, 95% CI –5.4% to 42.2%; p for trend = 0.67). As a proportion of all pediatric ED encounters, suicide attempts/ideation increased from 2.17% (95% CI 1.82%–2.58%) in 2007 to 3.50% (95% CI 2.79%–4.39%) in 2015 (61% increase; p for trend <0.001). ED visits for suicide attempts only similarly increased from 540,000 to 960,000 (79.3%, 95% CI 62.2%–137.8%; p for trend = 0.02).

Screening Tool: Ask Suicide-Screening Questions (ASQ)

The ASQ was developed as a brief screening instrument to assess the risk for suicide in pediatric patients in the ED [21]. The instrument was developed in a prospective, cross-sectional study that evaluated 17 candidate screening questions assessing suicide risk in young patients. The Suicidal Ideation Questionnaire served as the criterion standard. The study was conducted at three urban, pediatric EDs associated with tertiary care teaching hospitals. A convenience sample of 524 patients aged 10–21 years, who presented to the ED with either medical/surgical or psychiatric chief concerns between September, 2008 and January, 2011 was recruited. Participants answered the 17 candidate questions and completed the Suicidal Ideation

Questionnaire. The main outcome measures were sensitivity, specificity, predictive values, likelihood ratios, and area under the receiver operating characteristic curves of the best-fitting combinations of screening questions for detecting an elevated risk for suicide. A total of 524 patients were screened (344 medical/ surgical and 180 psychiatric). Fourteen of the medical/surgical patients (4%) and 84 of the psychiatric patients (47%) were at an elevated suicide risk on the Suicidal Ideation Questionnaire. Of the 17 candidate questions, the best-fitting model comprised four questions assessing current thoughts of “being better off dead,” current “wish to die,” current suicidal ideation, and past suicide attempt. This study had a sensitivity of 96.9% (95% CI 91.3%–99.4%), specificity of 87.6% (95% CI 84.0%–90.5%), and negative predictive values of 99.7% (95% CI 98.2%–99.9%) for medical/surgical patients and 96.9% (95% CI 89.3%–99.6%) for psychiatric patients. The ASQ is a four-question screening instrument with high sensitivity and negative predictive value, and can identify the risk for suicide in patients presenting to pediatric EDs.

An approach in the USA is to screen for suicidal thoughts and behaviors in settings that may be accessed by individuals during high-risk periods, such as following ED discharge. (De Vylder, et al., 2019) The Joint Commission (TJC) released a sentinel event alert recommending suicide risk screening in all individuals being treated or evaluated for behavioral health conditions as their primary reason for care in TJC-accredited hospitals and behavioral healthcare organizations. As of July 1, 2019, this required all healthcare organizations to use validated screening tools and other procedures for patients at risk for suicide as part of the accreditation process. Despite this sentinel event alert, many psychiatric EDs rely on clinical judgment of risk for harm to self and/or others, and medical EDs are even less objective and systematic. In addition, limited data are available on the predictive ability of the suicide risk screening tools recommended by TJC.

The ASQ is a screening instrument that can be rapidly administered by hospital staff without specialized training in less than 2 min [21]. It may facilitate more widespread selective and universal screening approaches if it is shown to be associated with suicide-related outcomes compared with current procedures for identifying suicide risk. A study [1] found that when implemented as a selective screening tool for youth presenting to a pediatric emergency setting with behavioral or psychiatric problems, the ASQ identified suicide risk among youth who had not reported suicidal thoughts or behaviors. In addition, that study reported that positive screens were associated with subsequent suicide-related return visits. Furthermore, the ASQ has been reported to identify high rates of undetected suicidal thoughts among youth aged 10–12 years.

The ASQ has not yet been reported as a universal screening tool, although other universal screening methods have been found to be feasible with adult patients. While the ASQ has been tested in small convenience samples of patients with medical and psychiatric problems, to our knowledge, no study has reported on the association between results of universal suicide risk screening as routine care in a pediatric population and suicide-related outcomes before the study reported.

The study was conducted to test the association between results of the ASQ instrument in a pediatric ED (implemented through selective and universal screening

approaches) and subsequent suicide-related outcomes [12]. As backgrounds of the study, according to National Patient Safety Goal 15.01.01, all individuals being treated or evaluated for behavioral health conditions as their primary reason for care in hospitals and behavioral healthcare organizations accredited by TJC should be screened for suicide risk using a validated tool. Existing suicide risk screening tools have minimal or no high-quality evidence of association with future suicide-related outcomes. This was a retrospective cohort study of a consecutive case series of patients in the Johns Hopkins Hospital Pediatric ED from March 18, 2013 through December 31, 2018. Implementation was sequential, starting with selective screening of patients presenting to the ED for psychiatric or behavioral concerns (March 18, 2013 to December 31, 2016), and then broadened to universal screening from January 1, 2017 to December 31, 2018. Selective screening included patients aged 8–18 years with a behavioral or psychiatric presenting problem, whereas the universal screening included everyone aged 10–18 years in addition to those identified for selective screening. Nurses in the ED administered the ASQ as standard care during triage. The Johns Hopkins Pediatric ED is part of an urban academic pediatric medical center with approximately 30,000 patient visits per year. No patients were excluded on the basis of gender, minority status, or insurance type. If a patient screened positive on the ASQ, the ED physician was notified and patients received additional evaluation and referral as appropriate, including emergency psychiatric evaluations when necessary, consistent with treatment as usual for potential suicide risk. The medical record review and evaluation of impact of suicide risk screening with the ASQ as routine care was approved by the Johns Hopkins School of Medicine Institutional Review Board. Because screening was implemented as routine care, informed consent from patients was not necessary. As screening assessment, the ASQ is a four-item nonproprietary suicide risk screening instrument that can be administered to patients in the pediatric ED by nurses, regardless of psychiatric training [21]. A positive response to any of the questions is considered a positive screen, and a negative screen requires negative responses to all questions.

The study tested the association of positive ASQ screening with subsequent suicide-related outcomes in a selective screening sample (aged 8–18 years with a behavioral or psychiatric presenting problem) and a universal screening sample (aged 10–18 years with a medical presenting problem in addition to the selective screening sample) in a pediatric ED. The aims were to: (1) determine the association between ASQ screening results and subsequent return to the ED for suicide-related reasons or death by suicide; (2) evaluate whether the ASQ statistically improved the association between the presenting problem and suicide-related outcomes; (3) determine whether the ASQ identified risk among youth with no known risk for suicide; and (4) compare the effectiveness of the ASQ between universal and selective screening conditions.

The exposure variable was binary, indicating a positive or negative ASQ screen at the index visit. Suicide-related presenting problems were also considered a binary variable. Presenting problems were mutually exclusive and limited to one problem per visit. Suicide-related presenting concerns at the index visit were included in regression and survival models as an independent variable. Suicide-related

presenting concerns at follow-up visits were used as the outcome variable, combined with suicide deaths. To determine death by suicide, the ASQ database was matched with state death records for individuals aged 8–24 years between 2013 and 2018.

Additional measures abstracted from the electronic health records and included as covariates were demographic characteristics as age, gender, and race/ethnicity and disposition at initial visit, which was classified as: (1) discharged, (2) admitted or transferred, and (3) other (including leaving against medical advice). Race/ethnicity was coded as a single variable indicating non-Latino white, non-Latino black, Latino, or other.

The study main outcomes were subsequent ED visits with suicide-related presenting problems (as ideation or attempts) based on electronic health records and death by suicide identified through state medical examiner records. Association with suicide-related outcomes was calculated over the entire study period using survival analyses and at the 3-month follow-up for both conditions using RR.

The complete sample was 15,003 youths. The follow-up for the selective condition was a mean of 1133.7 days, and for the universal condition was 366.2 days. In the selective condition, there were 275 suicide-related ED visits and three deaths by suicide. In the universal condition, there were 118 suicide-related ED visits and no deaths during the follow-up period. After adjusting for demographic characteristics and baseline presenting problem, positive ASQ screens were associated with greater risk for suicide-related outcomes among both the universal sample (HR 6.8, 95% CI 4.2–11.1) and the selective sample (HR 4.8, 95% CI 3.5–6.5).

Positive results for both selective and universal screening for suicide risk in pediatric EDs appear to be associated with subsequent suicidal behavior. Screening may be a particularly effective way to detect suicide risk among those who did not present with suicide ideation or attempt. Further studies are needed to examine the impact of screening in combination with other policies and procedures aimed at reducing suicide risk.

The Suicidal Teens Accessing Treatment After an Emergency Department Visit (STAT-ED) Study

A study (Jacqueline [17]) was to investigate whether a motivational interviewing-based intervention increased linkage of adolescents to outpatient mental health services and reduced depression symptoms and suicidal ideation among adolescents seeking emergency care for non-mental health-related concerns who screen positive for suicide risk. In this randomized clinical trial, adolescents aged 12–17 years who screened positive on the ASQ during a non-psychiatric ED visit at two academic pediatric EDs in Ohio were recruited from April 2013 to July 2015. Intention-to-treat analyses were performed from September 2018 to October 2019. The Suicidal Teens Accessing Treatment After an Emergency Department Visit (STAT-ED) intervention included motivational interviewing that targeted family engagement, problem solving, referral assistance, and limited case management. The enhanced usual care intervention consisted of brief mental healthcare consultation and referral. Primary outcomes

were mental health treatment initiation and attendance within 2 months of ED discharge, suicidal ideation (assessed by the Suicidal Ideation Questionnaire JR), and depression symptoms (assessed by the Center for Epidemiologic Studies–Depression scale) at 2 and 6 months. Exploratory outcomes included treatment initiation and attendance and suicide attempts at 6 months. A total of 168 participants were randomized and 159 were included in the intention-to-treat analyses. The mean age was 15 years; 126 (79.2%) were female and 80 (50.3%) were white. Seventy-nine participants were randomized to receive the STAT-ED intervention and 80 to receive enhanced usual care. At 2 months, youth in the STAT-ED group had similar rates of mental health treatment initiation compared with the enhanced usual care group as assessed by parental report ($n = 29$ [50.9%] vs. $n = 22$, [34.9%], adjusted odds ratio [OR] 2.08, 95% CI 0.97–4.45) and administrative data from mental health care agencies ($n = 19$ [29.7%] vs. $n = 11$ [19.3%], adjusted OR 1.77, 95% CI 0.76–4.15). At 2 months, youth in the STAT-ED group and the enhanced usual care group had similar rates of treatment attendance (one appointment: $n = 6$ [9.7%] vs. $n = 2$ [3.6%], adjusted OR 2.97, 95% CI 0.56–15.73; two appointments: $n = 10$ [16.1%] vs. $n = 7$ [12.7%], adjusted OR, 1.43, 95% CI 0.50–4.11). The exploratory analyses founded that at 6 months, STAT-ED participants had significantly higher rates of agency supported mental health treatment initiation (adjusted OR 2.48, 95% CI 1.16–5.28) and more completed appointments ($p = 0.01$) than the enhanced usual care group. The findings suggested that there were no differences in any primary outcome by study condition.

The clinical question was whether a motivational interviewing-based intervention was more efficacious than enhanced usual care at increasing mental health treatment engagement and reducing suicidal ideation and depression symptoms in youth who screened positive for suicide risk during non-psychiatric ED visits. The findings showed that the STAT-ED was not more efficacious than enhanced usual care at increasing mental health treatment initiation and attendance at 2 months or reducing suicidal ideation and depression symptoms at 2 and 6 months. Unfortunately, the study founded that a brief motivational interviewing intervention did not have a significant benefit on mental health treatment engagement at 2 months and mental health outcomes at 2 and 6 months. Therefore, we would need to develop efficient interventions for suicide prevention for pediatric and adolescence on emergency settings.

Conclusion

The ED is the cornerstone of suicide prevention. The type of patients transported to the ED depends on national and local circumstances, but it remains highly likely that high-risk individuals will be transported to the ED, meaning this is a place where preventive interventions can be effectively implemented. Investing resources and practices in suicide prevention will be required in many countries. It is hoped that more efficient screening methods and powerful interventions that enable relapse prevention will be developed.

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Suicide Prevention Education for Health Care Providers: Challenges and Opportunities

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Abstract

In recent years, numerous journal editorials and professional bodies have called for an increased role for nonpsychiatric health care providers (HCPs) in suicide prevention care. HCPs, including physicians and nurses, are in the position to play an important role in detecting suicide risk and performing early intervention with patients at risk for harming themselves. Despite this opportunity, many HCPs are not adequately prepared to address suicidality in their patients. The literature on how to better prepare providers to engage in suicide prevention is not well developed; relatively few high quality studies have been published demonstrating effective means to prepare HCPs for essential suicide prevention services such as screening, risk assessment, safety planning, and effective referral practices. The current chapter surveys a range of articles that report on efforts to boost HCPs' preparedness to engage in effective suicide prevention care, and outlines the key elements that educational programs should consider moving forward. Barriers and facilitators for strengthening HCPs' engagement with patients at risk for suicide will be explored, including in the areas of time constraints, opportunities for in-person versus online trainings, and use of effective training approaches. Recommendations for improving

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HCPs' preparation to engage in effective suicide prevention care are proposed based on reviews of recent published studies and educational best practices.

Keywords

Medical education · Suicide prevention · Active learning · Simulation · Recommendations

Introduction

Despite reductions in suicide death rates in recent decades in many countries and regions, suicide continues to pose a global public health challenge. In contrast with the trend toward lower rates overall, suicide rates have remained stable or increased in several countries, including some, such as the USA and the UK, that have made substantial investments in mental health services [43]. Governmental and non-governmental bodies have recommended and pursued *an* array of different strategies to control rising suicide death and attempt rates, including increasing access to psychiatric care, strengthening mental health care services generally, expanding surveillance and research, conducting social marketing campaigns promoting help-seeking behaviors, and increasing the focus on efforts to prevent or mitigate the emergence of suicidality in at-risk individuals and populations ([27], WHO). Strengthening workforce development and training specific to suicide prevention have been proposed as key strategies for reducing suicide [27, 28, 33].

Effective prevention and treatment models for suicide have been identified, and the use of evidence-based treatments for suicidal individuals appears to be expanding [21, 36]. Some of these approaches are designed for use by mental health professionals who receive training on specific models (e.g., Collaborative Assessment and Management of Suicidality, CAMS) while other approaches, such as suicide risk screening and promoting reductions in access to lethal means for suicide, might be used by a broader range of professionals including nonpsychiatric HCPs. Still other approaches, like suicide prevention gatekeeper trainings, are designed for both nonmental health professionals and community members. The distinction between training on suicide prevention for mental health specialists and nonspecialists is an important one, since many people who are at risk for suicide may not be engaged with mental health service providers during the time they are experiencing suicidal ideation. Suicide prevention workforce and training recommendations have addressed this situation by calling for enhancing training on suicide prevention for non mental health providers, with HCPs being a key group targeted for these efforts [27, 28].

The Role of Health Care Providers in Suicide Prevention

Suicide prevention experts and professional associations widely agree that health care systems have a vital role to play in community, regional, and national efforts to reduce rates of suicide attempts and deaths. The National Strategy for Suicide

Prevention [27] contains three strategic goals concerning the treatment and support of suicidal individuals in the health care system. These can be summarized as: (1) adopting suicide prevention as a central component of health care services, (2) promoting and implementing evidence-based clinical and professional practices for the assessment and initiation of treatment for patients at risk for suicidal behaviors, and (3) providing care to patients impacted by suicide deaths (post-vention) at both the individual and community level. Progress toward each of these goals will require the development and deployment of educational programs to strengthen HCPs' knowledge, skills and confidence regarding suicide prevention. The National Strategy for Suicide Prevention (NSSP) guidance goes on to list a wide range of principles that should apply when providing care to individuals who have been identified as having elevated risk of suicide. Several of these directly apply to the education of health care providers, including employment of evidence-based practices as soon as possible after elevated risk is identified, the need for care to be culturally competent, involving patients directly in aspects of care where appropriate (e.g., development of a safety plan), and increased communication and coordination of care across different practices and service systems. The NSSP further recommends that health care organizations engage in systems-level planning and strategy development, particularly in the area of using data to inform ongoing quality improvement efforts.

Many HCPs and the systems they work in are well-positioned to identify, assess, and initiate treatment of their patients who are at risk for suicide. A large proportion of individuals who go on to die by suicide were seen in health care practices in the months prior to death, and this is particularly true for primary care and emergency department settings [1]. The fact that people at risk for suicide are often seen by nonmental health providers is likely attributable to several factors. Access to mental health care services is generally lower than it is for primary and emergency health care. People experiencing mental health crises or injuries related to suicide attempts are often seen in emergency medical settings, persons with chronic illnesses carry an elevated risk for suicide, and people feel more comfortable (less stigmatized) seeking and receiving general medical care compared to mental health services. Ideally, people presenting with elevated suicide risk who are seen in primary and other nonmental health care settings would be identified and immediately connected with mental health provider services, but this is often not the case. Despite some progress, in the USA and elsewhere there are significant barriers to providing seamless, integrated health and mental health care for people at risk for suicide [13]. Efforts that are likely to increase the successful identification and initiation of treatment for patients at risk for suicide include broad integration of screening for suicide risk as a regular part of care across different practice and provider settings, embedding co-located mental health staff in emergency medicine and primary care settings, and (where co-location is not possible) creating bidirectional integrated care pathways across mental and health care provider practices, among others. Each of these strategies has been implemented in recent years, with varying degrees of success.

To date, there is evidence that boosting suicide risk screening and initiation of mental health treatment in emergency departments can lead to improved

identification and outcomes for individuals at risk for suicide, and this has further been shown to be a cost-effective approach [7]. The evidence for the effectiveness of the broad adoption of suicide risk screening tools in primary care is less well developed. In a comprehensive review, O'Connor et al. [29] found scant evidence for the effectiveness of suicide risk screening in primary care. This review did find, however, suggestions that the use of specific tools might be linked to better outcomes for adults who were screened, as well as finding benefits when screening was associated with referral to psychotherapy. In a recent review of packaged interventions to improve suicide care specific to primary care settings, Deuweke and Bridges [5] identified HCP education as one of four major promising approaches for reducing suicide, as promoted or supported in the reviewed literature.

Barriers to Increasing Health Care Providers' Capacity for Suicide Prevention

Despite the potential positive impacts of increased identification and initiation of treatment on suicide prevention, numerous barriers exist to strengthening providers' work with patients at risk for suicide. One likely reason that training health care providers on suicide prevention is lagging is the lack of a well-developed evidence base for trainings' effectiveness. Curriculum contents are often driven by accreditation needs and the requirements of professional licensure organizations, and the lack of focus on suicide-specific care at the level of these bodies could contribute to the lack of curricular progress. Primary care providers also report feeling overwhelmed by the number of different screenings and topics they must address during brief visits. While Continuing Medical Education (CME) courses in suicide care are available for HCPs, improvements in easily accessible, distance and e-learning courses designed for suicide care in specific practice settings would likely contribute to a better trained workforce.

The paucity of practice improvement models aimed specifically at HCP education on suicide prevention care may also contribute to the slow adoption of suicide prevention education among providers. Two promising examples are the *Suicide Prevention Toolkit for Rural Primary Care Practices* [25] and the *Suicide Prevention Toolkit for Primary Care Practices* (Suicide Prevention Resource Center). Both of these were developed as collaborations between the Western Interstate Commission for Higher Education and the Suicide Prevention Resource Center [4, 39]. Key focus areas include instruction for HCPs on suicide epidemiology, detecting suicide risk factors and warning signs, conducting suicide risk assessments, and screening for comorbid mental health conditions. Specific resources include pocket cards, guidance for developing suicide care protocols, a safety planning guide and materials for sharing with patients and families, among others. The second toolkit also provides guidance on management of suicidal and depressed patients. While the evidence for the effectiveness of these practice improvement approaches is not well established, the emphasis on providing practice supports focused on changing office systems, as well as on didactic materials, represents potential strengths of this general model.

Provider change around adopting new screening protocols and initiation of treatment and referral practices can also be supported by academic detailing models and participation in focused practice improvement efforts, such as Institute for Healthcare Improvement-type collaborative improvement projects (e.g., [6]). However, these approaches appear not to have been widely applied for suicide prevention in primary care or other health care settings, with the exception of Emergency Departments [7].

The American Psychiatric Association [2] recently updated its Practice Guidelines for Psychiatric Evaluation of Adults and provides links to the Veterans Administration/Department of Defense (VA/DoD) Clinician Practice Guidelines on the Assessment and Management of Patients at Risk for Suicide [42], but psychiatry training programs have substantial autonomy and vary widely in their adherence to didactic and clinical training that is up-to-date and based on these national standards. Efforts at embedding suicide-specific care into medical school and residency training programs are likely to face an array of challenges. These curricula are extraordinarily full, so opportunities to introduce or expand existing education on suicide prevention are scarce. Suicide prevention is not a topic that has received adequate attention at these levels of education, with the exception of psychiatry clinical rotations and residency programs. Possible ways of increasing suicide teaching during medical school include integration with other content areas, for example, in neural sciences or medical humanities, “sprinkling” key aspects of suicide prevention care at key points during foundational science courses and clerkships, and using innovative didactic approaches that take less instructional time away from course faculty and may place a lower burden on students (e.g., podcasts, brief e-learning modules), among others.

It should be acknowledged that there may be persisting attitudes among some HCPs that suicide prevention is “not my job.” This can be ameliorated through education about the role of the health care system in identifying and addressing suicidality (essentially, lives will be saved as a result of improved care), along with positive peer pressure through peer champions who model the pleasures of enhanced skill and efficacy. For providers already in practice, there may be difficulties related to billing for suicide care-related services, documentation and electronic medical record challenges, lack of availability of professionals to refer to (including the inability to make warm hand-offs), and the near-ubiquitous pressure of insufficient time during visits to address all of the issues that are identified. Time pressures may incentivize providers to avoid identifying problems, especially ones they feel inadequately prepared to manage.

Specific education-related barriers contribute to deficits in HCPs’ confidence and skills in providing essential aspects of suicide care, such as risk assessment and safety planning. These deficits include fear of alienating patients by saying or doing the wrong thing, having misconceptions about risk (e.g., people who are talking about suicide may be at lower risk than those who are suicidal but *not* talking about it), and being unsure of the next steps to take in initiating care (e.g., who to refer to), among others. In some communities this constellation of challenges has resulted in providers adopting work-around solutions that are frequently suboptimal for

patients, such as referring even lower risk patients to the emergency department or initiating pharmacotherapy in the absence of a near term plan for connecting patients to appropriate mental health care treatment. While some of these barriers to effective suicide prevention care would not be addressed directly by improved education for HCPs, others, such as increased confidence and ability to recognize and respond appropriately to patient suicidality, are likely to be addressed by providing thoughtfully developed and easily accessible educational interventions.

These areas of care, which are closely related to the lack of academic and real-world training on suicide prevention, can be characterized as the HCP suicide care gap. Many HCPs simply lack the training and/or the capacity to identify and then address current or emerging suicide risk in their patients. The existence of the gap is well-established and is evidenced by the numerous editorials, calls to action, and statements by professional organizations and advocacy groups. The number of published calls to action about the need for enhanced HCP training on suicide prevention appears to outnumber the articles in the literature describing the studies of educational interventions in this area. In the scientific literature, the creation and implementation of educational interventions for HCPs that are carefully developed, employ educational best practices, grounded in didactic theory, and rigorously evaluated are sparse. Consequently, the evidence base for the effectiveness of training HCPs on suicide prevention is not well developed. The opportunity for developing new and carefully evaluated approaches for supporting HCPs to deliver better suicide prevention care is correspondingly enormous.

The current chapter explores examples of training models that have been implemented in order to strengthen HCPs' knowledge and skills relating to suicide prevention with their patients. We examine training efforts that are aimed broadly at safer suicide care (e.g., awareness) and others that target specific components of care such as screening, risk assessment, developing safety plans, making effective referrals, and other aspects of initiation of treatment. Educational efforts will be described in the context of the different types of providers the trainings are designed for, as well as the different settings in which they work. Evaluations of these studies will focus on the quality and scope of the educational interventions described and the quality of the measurement strategy used. After synthesizing our observations of this literature, we present recommendations for how provider education on suicide prevention should be developed moving forward.

Overview of Trainings for Health Care Providers on Suicide Prevention

As noted above, the scientific literature on suicide prevention education for health care providers is still in the early phases of development. Presenting a comprehensive review of this literature is outside the scope of this chapter. Instead, the focus is on summarizing and evaluating key articles from this literature, with the goal of identifying strengths and limitations of different training approaches that can be useful for advancing efforts to support HCPs' learning. In addition to evaluating the

content and delivery of selected trainings, we comment on the quality of the measurement strategies used to evaluate the trainings' effectiveness.

The studies presented were identified through searches of the PubMed, CINAHL, and PsychInfo databases using search terms related to suicide and education, and limited to the English language. The date range was from 1/1/2000 to 5/1/2020. HCP suicide training approaches from MedEdPortal were also reviewed. Each article was screened independently by two of the authors and reports that included educational content specific to suicide prevention and had health care providers as trainees were included. Data on training effectiveness had to be present for an article to be summarized. These searches yielded in excess of 140 articles, of which 75 had focused suicide prevention content and had sufficient description of the training and evaluation that they were further summarized. Many of the articles that were not given a detailed review were of the call to action type or editorials, or were reports of training efforts that did not present data.

The studies selected for summarization included a variety of educational interventions. Several studies used a combination of educational modalities, mixing in-person and remote education, or lecture-based and case-based approaches. Each modality, of course, has benefits and limitations. Based on the reviewed articles, the following section presents an overview of the different types of interventions used for improving HCPs' knowledge and/or performance on one or more components of suicide prevention care.

A classic example of an in-person educational strategy is the didactic presentation, or lecture-based approach. The benefits of this approach include that most instructors are familiar with the modality and the subject they are teaching, it requires little coordination with other instructors or students, it can require minimal technology, can be given in-person or virtually, and can be recorded for later viewing or listening. There is considerable variability in how didactic sessions are structured and delivered to learners. In general, when evaluated as a teaching means used with HCPs, available evidence does not suggest that didactic presentations are superior to other approaches as a means of engaging students and leading to sustained improvements in their knowledge and practices [37]. The lack of interactive elements in the classic didactic approach may be a drawback in terms of capturing learners' attention and allowing attendees to practice skills. An example of the didactic approach was described in Reshetukha et al. [34] who studied the impact of a grand rounds lecture on suicide risk assessment in conjunction with posting prompts in the ED. The strengths of this study include the use of an adjunctive teaching technique (prompts in the ED) and the study's measurement approach, which included looking at patterns of documentation of suicide risk factors in medical records after the training. The authors found that after the teaching session there were improvements in the documentation of suicide risk factors, and these were maintained 6 months later.

Stanley et al. [40] delivered a didactic session to medical residents addressing suicide risk assessment and management for adolescent patients. The session employed a PowerPoint presentation supplemented with instruction on using treatment protocols and a risk assessment algorithm. Four weeks after the didactic session was held, during which time the students had engaged in supervised work

with patients, students indicated high levels of knowledge and comfort related to aspects of suicide prevention care compared to before the session. Unfortunately this measurement design limits the ability of the researchers to comment specifically on the impacts of the didactic session. In another alternative to a primarily lecture-based approach, Jefee-Bahloul et al. [14] provided education to psychiatry residents through a panel consisting of people who had lost friends or family to suicide. This study found that after the panel, the learners reported changed attitudes, along with plans for changing suicide-related care as a result of the session. No baseline measures were collected, however, and longer term impacts of the impacts of this exposure were not assessed. Jones [16] studied a 3-h course that was largely didactic, and focused on the use of empathy and humanistic care in working with suicidal patients. This appears to be a relatively unique approach when compared to didactic interventions in other HCP suicide prevention education studies, which focus largely on formal risk assessment or prevention tactics. While the measurement strategy used provided no opportunity to gauge the impacts of the training other than a post training survey, this study suggests a novel and potentially impactful approach that can be incorporated into didactic trainings on suicide prevention.

In recent years the use of active learning approaches such as case-based learning, team-based learning, and the flipped classroom has received considerable attention. Most US medical schools and many schools internationally have adopted or expanded the use of active learning in their curricula. Active learning-focused educators tout the utility of this approach, which is really a collection of distinct but related teaching techniques and formats, for achieving greater engagement between educators and learners, and engagement among the learners themselves. This approach may be especially valuable for teaching people who will work in health care settings, where very often critical thinking and teamwork are essential elements of providing high quality care. A study by Heyman et al. [12] used the ASIST suicide prevention training, which incorporates elements of active learning, to teach suicide prevention skills to mental health nursing students. Feedback obtained from focus groups after the training was very positive, with participants noting that the training allowed opportunities for learners to feel emotionally supported during the training, a feature that is not often commented on in reports of HCP suicide training effectiveness. These authors suggested that addressing the emotional impacts of the training can support HCPs' confidence and effectiveness as providers of suicide care.

Team-Based Learning (TBL) has emerged as a key tool for promoting active learning for HCPs. Lerchenfeldt et al. [18] implemented a TBL exercise with three cohorts of second year medical students. Students completed individual preparatory assignments (readings and a readiness assurance test) in advance of the session, and then worked in small groups performing an application exercise that addressed suicide assessment and management. Students demonstrated overall high levels of readiness in the areas of conducting an assessment and discussing case management for a patient experiencing suicidality, as reflected in questions answered as part of the exercise. Active learning elements such as structured discussions can also be combined with lectures, as was done in a study by Tsai et al. [41]. This was a randomized

controlled study that explored a lecture- and discussion-based educational intervention involving a gatekeeper suicide awareness program. The experimental group was compared with a control group that only attended a standard continuing education class. After training, the experimental group was much more aware of warning signs (measured by a written test) and more willing to refer patients for professional counseling. In addition to using random assignment, an additional strength of this study was the use of published questionnaires that allowed for understanding changes in learners' knowledge in relation to other studies. Collectively, these studies suggest that adding active learning components to educational interventions, while requiring extra preparation and additional considerations for delivering the content, can provide considerable educational benefits to standard lecture-based teaching.

Another rapidly emerging practice that promotes active learning in medical education is the use of simulated patient encounters with actors who function as Standardized Patients (SPs). This "hands-on" approach allows learners to immediately practice the skills they are being taught, receive feedback from the SPs and instructors, and encourages students to experiment with various techniques in a lower-stakes environment compared to encounters with actual patients. Potential drawbacks of using SPs sessions are that they can be costly and time-intensive (especially in preparing the sessions), require a higher teacher-to-learner ratio, and may require additional infrastructure of the institution providing the training. Notably, the use of SPs in education often requires a specialized environment (e.g., a "sim center") in order to simulate patient care settings. Despite these challenges, simulated-patient learning scenarios have been shown to be an effective method for boosting HCP learner's competencies, including in the area of suicide prevention. Hermanns et al. [11] used an SP scenario to simulate an inpatient suicide attempt in order to train undergraduate nursing students. This simulation had a "learn-as-you-go" design, in which participants could pause to discuss and ask questions as they acted through the scenario. Students reported that this was an effective way to learn, and allowed them to think critically not just about medical management, but about how certain risk factors (such as a phone cord) could have been removed from the patient's environment. Goh et al. [10] used a lecture in combination with SP encounters to train undergraduate nurses on administering mental status examinations and suicide risk assessments. The results indicated that the use of an SP session significantly increased the students' satisfaction and confidence levels in relation to conducting a risk assessment. The authors proposed that practicing communication skills with the SPs may have reduced anxiety and bolstered confidence in the preclinical students. This study also benefited from using well-designed measurement scales designed to assess pre- versus post-training changes, although longer term assessments of the impacts of the training were not obtained.

Lu et al. [19] used an innovative SP-based learning approach in teaching nursing students. Students' encounters with a suicidal SP were recorded and played back to groups of students during a debriefing session, with the debriefing sessions also being recorded. The authors examined the debriefing sessions and concluded that

they were effective due to the emotions evoked during the session, the tight and realistic focus of the teaching (presenting short video clips of key moments recorded during the SP sessions) and noted that substitute learning was likely to occur in the context of students watching the videos and identifying the different strengths and weaknesses demonstrated during the sessions. Phillips et al. [32] taught suicide prevention to senior year medical students using a series of five simulation sessions that included direct role-playing for a few of the participants, while the rest of the learners watched and debriefed afterward. Although these methods did not allow all learners to have hands-on experience with the scenario, this approach may provide an effective model in situations where SP resources or space are limited. Students provided positive reviews of the sessions with most indicating the session objectives had been met, but no other data on the impacts of the training were presented.

One important consideration of using SP approaches that was noted in several of the studies reviewed here is the potential emotional toll they may take on trainees. There is inherent risk of causing distress in most if not all methods for delivering suicide prevention education, however those reactions may be increased in a setting that is designed to mimic patients' experiencing an acute crisis. It is crucial that educators who wish to use this format think carefully about potential negative impacts on trainees, discuss the risks, and leave ample time and space within the training for emotional processing and debriefing.

In the age of the emergence of e-learning, it is no surprise that several recent studies have explored the efficacy of online modules and other remote-learning strategies for suicide prevention education with HCPs. In terms of flexibility and convenience, this teaching modality possesses considerable advantages over other approaches. The ability to complete a training in one's own time and pacing and in one's own space are likely to increase overall participation in e-learning, especially among busy clinicians. However, there are potential drawbacks to distance learning for HCPs addressing suicide prevention. A lack of in-person, peer-to-peer, or peer-to-instructor engagement may reduce the sharing of important thoughts and ideas, and the inability to engage with the material in a truly hands-on manner could lead to decreased retention or inability to gain or apply newly learned skills. As noted above, learning about suicide can induce strong emotional reactions, which an HCP engaging in e-learning would likely have to process in different way than would be the case with a live teaching session.

In a randomized controlled trial, De Beurs et al. [3] used an educational intervention with HCPs (and mental health providers) that included both SP and e-learning modules for the intervention ("enhanced training") group, which was compared with a training as usual group. This study found that the enhanced training approach led to significant gains in learners' knowledge and confidence related to suicide prevention; however gains on structured assessment of suicide knowledge (the SIRI-2) were only statistically significant for nurses among the different types of learners. Robles et al. [35] also reported a training that included both in-person and online components. Primary care providers participated in e-learning sessions that were conducted over a 4-week period followed by in-person modules (over 3 days) that addressed the management of suicidality. Results showed increases in

knowledge and readiness to engage in suicide assessment and treatment, however one potentially serious drawback of this approach is the time required away from the providers' practices. Changes in subsequent clinical practice of suicide care related to the training were not assessed. Both of these studies that incorporated e-learning, support the promise for expanded and effective online learning for HCPs about suicide prevention. Combining online and in-person modalities could be a valuable approach that addresses the inability of many HCPs to engage in multi-day trainings, allowing trainees to complete much of the learning on their own time, and come together for shorter periods in order to sharpen hands-on skills and engage with peer teaching.

Marshall et al. [22] evaluated in-person versus online educational interventions that taught the CAMS model in a study of mental health providers, including psychiatrists and APRNs. CAMS (Collaborative Assessment and Management of Suicidality) is an evidence-based therapeutic framework designed for the treatment of suicidal individuals by trained mental health professionals [15]. The Marshall et al. study design advantage over others is clear, given the ability to make a controlled comparison of highly similar education content in two teaching modalities. Results from this study suggested that both trainings were viewed in similarly positive ways by the participants, although in-person learners indicated higher satisfaction with the training. Outcomes beyond trainee satisfaction were not measured, affecting the utility of the study in terms of understanding the efficacy of the educational interventions.

Many of the suicide prevention training for HCPs reviewed herein blended a variety of educational approaches. When time and resources allow, this can be an excellent way to present materials in ways that engage trainees who have different learning styles [20]. Furthermore, in a longer training session, using multiple teaching modalities may help avoid boredom and restlessness among learners. A variety of predesigned training programs on suicide prevention have been developed with these concepts in mind. Question, Persuade, Refer (QPR) and Mental Health First Aid (MHFA) are two examples, each using a combination of didactic, case-based, and other instructional approaches. Studies of QPR, used in Painter et al. [30], and MHFA, used in Kato et al. [17] and Nakagami et al. [26], were found to significantly increase HCPs' confidence and self-efficacy in suicide prevention. Even more innovative was a study conducted by Mutiso et al. [25], who studied a two-day training that consisted of didactics, small-group work, case-based teaching, and mock patient scenarios. This study took place in Kenya and used the mhGAP-IG, a standardized tool developed to treat a wide range of mental health disorders. When follow-up measures were collected, patients who were treated by providers trained on mhGAP-IG experienced improvement in their quality of life, reported lower levels of disability, and reductions in a variety of symptoms. In addition, suicidality was reduced in a group of patients who were treated with a combination of psychoeducation and medications compared to psychoeducation alone. These results suggest that training providers in rural and low-income areas to use treatment approaches such as mhGAP-IG may be effective in reducing the negative impacts of mental health disorders, including risk factors for suicidality. This study did not have

a comparison group, but viewed as a demonstration project this intervention offers a possible model for improving suicide-specific care through the implementation of structured mental health education efforts for HCPs.

Additional studies have used controlled trials to directly compare the effectiveness of combined versus single modality educational programs delivered in the same setting. Fallucco et al. [8] compared lecture-based, SP-based, and combined interventions for medical residents. This study found that the combination of both lecture and SP teaching formats was the only educational program that significantly increased residents' confidence in suicide risk screening and assessment abilities post-training. This was a high-quality study in many aspects, and provided supporting evidence for the utility of combined modalities of suicide prevention education. A follow-up study [9] examined subsequent changes in trainees' practices and revealed an increased likelihood among trained versus untrained providers to screen for depression in adolescents, with this group having increased likelihood of assessing for suicidality in adolescents who screened positive for depression.

Strengths and Limitations of Different Educational Approaches

Our review of trainings intended to increase the provision of effective suicide prevention care by HCPs suggests several themes, including the relative strengths and weakness of the teaching approaches used, and the corresponding strengths and weaknesses of the measurements used to evaluate the approaches. One noteworthy strength present in several of the studies relates to teaching that includes a mix of didactic and active learning approaches. Examples include lectures combined with SP sessions or application exercises in small groups. Strengths related to instruction that used SPs included live feedback from the SPs and watching and debriefing recorded practice sessions. The general practice of having teaching distributed across multiple sessions instead of "one and done" is present in several studies, and to the greatest extent possible this practice should be used to support HCPs' learning about suicide prevention to strengthen skill acquisition and retention [24]. Distributed teaching allows learners to be introduced to unfamiliar, emotionally challenging content in early stages of learning and then practice new behavioral skills at the novice level. Further supervised clinical practice is required for learners to establish consistency and competency in their clinical practice habits. Few studies on HCP education on suicide prevention evaluate skill acquisition beyond a few weeks or months post training, when skills are likely still at the novice level.

The inclusion of stories from survivors of suicide is a potentially powerful component to providing suicide prevention education, but this approach appears to be used infrequently. A promising educational approach demonstrated in one study was an emphasis on empathy and humanistic aspects of suicide prevention care, although further study is needed to assess whether this emphasis is broadly effective. Several studies successfully used e-learning as an adjunctive instructional approach to other methods, building off of the opportunity the e-learning provides around flexibly delivered learning for HCPs. A final strength seen in several of the reviewed

articles reflects that the trainings often aimed to address gaps in not just one but several interrelated knowledge and skill arenas, and for different types of providers. Most of these aimed to not only address gaps in relevant knowledge but also promote effective collaboration and the development of important skills related to suicide prevention care (e.g., communication skills, listening skills, documentation skills). Trainings that are designed for multiple types of providers may promote interprofessional care and improved communication across roles, which can be expected to benefit patients who are at risk for suicide.

Aspects of the teaching practices in some of the reviewed studies are likely to be less effective in boosting HCPs' knowledge, confidence, and skills relating to suicide prevention. These include approaches that overemphasize didactic presentations and readings at the expense of more active-learning based work. In general, instructional models that use a single teaching modality are likely to be less effective than are models that mix different approaches [20], although there is likely an upper limit on the number of different approaches that could be reasonably used. Lack of available time to address suicide prevention, especially for HCPs in busy practices, is likely to limit the number of different modalities that can be used. Many of the reviewed studies do not appear to address the importance of coordination of care, for example, across different provider types and settings, or information sharing across systems, both of which can be crucial aspects of care for people at risk for suicide. This may represent an opportunity for strengthening future trainings that place more emphasis on practice environments and systems of care for at-risk patients.

Many of the above-mentioned articles demonstrate strong evaluations of the impacts of the teaching approach that was used. The use of randomized designs with control groups is noteworthy in several of the reports. Several studies assessed impacts of learning measured out to 6 months post training, which is crucial for assessing the durability of learning. Despite some methodological limitations, some recent studies have been able to assess actual changes in the health or mental health of the patients treated by HCPs whose training experience included suicide prevention. Several studies used published and/or validated assessment tools, for example, the SIRI-2, which represents a particular strength in measurement design since it allows for comparing changes in knowledge and skills across different educational interventions. At least one study that did not assess patient outcomes directly was able to measure changes in documentation practices related to suicide care which, while not an ideal outcome measure, does serve as an indicator of the application of training-related changes in practice. Noting and promoting these positive points about how educational interventions are evaluated is crucial given the need to further develop the evidence base for training HCPs on suicide prevention. Best practice evaluation of teaching needs to be widespread and applied both for existing trainings that have already shown promise, and for trainings that are newly developed.

Common evaluation-related limitations demonstrated in some of the above studies include not having control or comparison groups, collecting post-training data only, the inability to evaluate specific suicide prevention-related components of broader educational interventions, not measuring changes in actual practices that

resulted from the training, not assessing maintenance of knowledge and skill acquisition over time, and lack of assessment of patient outcomes related to the training of HCPs. The reliance on self-reported measures of changes in confidence, knowledge, and skills is almost universal in these trainings and in many cases is entirely appropriate. However, having such measures as the primary basis for evaluating the effectiveness of a training approach is not a robust way of measuring the outcome of an educational intervention. In some reports the description of the measurement strategy was not sufficient to allow for a clear understanding of what or how changes were measured. The fact that some of the reviewed studies successfully avoided many or even most of these evaluation pitfalls suggests the potential for investigators to greatly strengthen the measures used to assess the impacts of their work training HCPs on suicide prevention.

Aside from addressing the strengths and limitations of specific studies, it is important to note the need for HCP education on suicide prevention to take into account other non-knowledge and skill-based aspects of providing high quality suicide prevention care for patients. These challenges do not involve direct teaching per se, but instead are very important to support providers in engaging in suicide prevention care. One example is having electronic medical record systems designed specifically to support the screening, risk assessment, safety planning, and other aspects of suicide care that HCPs are likely to engage in. Other examples involve changes to office systems and workflows that promote HCPs' ability to apply their suicide prevention knowledge and skills. There is also a need for HCPs and health care trainees in many settings to have adequate, protected time to engage in professional development related to mental health care, including on suicide prevention. These broader and systems-level challenges must be addressed by health system leaders who can be champions of efforts to improve the quality of suicide care their organizations deliver. The universally desired outcome of reducing suicide deaths and attempts requires a competent, confident, and caring workforce to provide effective clinical care, and provider education alone is not sufficient to achieve that goal.

Recommendations for Strengthening Provider Education on Suicide Prevention

Based on the materials reviewed and the authors' own engagement with educating health care providers on suicide prevention, the following recommendations were developed for how practices, educational institutions, and health systems might move forward to improve providers' (including future providers') readiness and effectiveness. Some of these can be considered universal, such as training on approaches to screening, risk assessment, and referral, while others apply more to specific settings and types of providers or learners, for example, medical students in a foundational science course.

Recommendation 1: Strengthen the Evidence Base for Effective Training of HCPs on Suicide Prevention Care

In considering suicide prevention education for HCPs, it is crucial to understand what makes for an effective educational intervention – in other words, how should one measure training efficacy? Ideally, this would be done in a randomized controlled trial that measures learning against well-described suicide prevention competencies. The educational intervention would be administered to a subset of learners, and improvements in these clinicians would be compared to improvements in learners who did not undergo the educational training. This raises the issue of how to best define and measure clinicians' abilities as they relate to suicide prevention care. To date there is not an accepted set of educational competencies that apply across non-mental health care providers, although some professional organizations have identified guidance for the types of care their members should engage in around suicide risk (e.g., [38]). The National Action Alliance Recommendations for Standard Care [28] would make a good starting point for developing general HCP competencies related to suicide care in non-mental health care settings. This is an area for further development by professional groups, accrediting bodies, and licensing organizations, among others.

The assessment of patient level outcomes is ultimately necessary for determining the effectiveness of an educational approach focused on suicide prevention care. However, deciding what patient outcomes to measure (and how to do that), which patients to follow and for how long, and then operationalizing these decisions represents a considerable challenge and expense for education researchers working in health care settings. While the goal of measuring outcomes is to evaluate reductions in attempts and deaths, more easily obtainable patient outcome measures might be informative, including collecting self-reported measures of suicidal ideation and risk, data regarding suicidality from other providers such as psychotherapists or psychiatrists, and self-reported suicide attempts. Unfortunately, in the absence of appropriate funding, progress toward understanding the efficacy of educating HCPs on suicide prevention will continue at a slow pace.

The vast majority of studies that evaluate suicide prevention education use outcome measures such as changes in health care provider knowledge, attitudes, or self-perceived efficacy in detecting and managing suicidality in patients. These changes are readily measured through pre- and post-intervention surveys, and often show significant improvements, making them an appealing and cost-effective substitute in place of more challenging measurement targets like changes in skills, clinical practices, and patient outcomes associated with HCP training. But a confident clinician with good declarative knowledge does not necessarily make for a clinician that can effectively address suicidality. In the absence of the possibility of collecting actual patient outcomes (e.g., reductions in suicide attempts and deaths), intermediate process or outcome measures should be collected to the greatest extent possible. Examples include changes in screening protocols, documentation practices, initiating and tracking referrals, performing risk assessments and safety counseling, and engaging in more effective follow-up with at-risk patients, among others.

Recommendation 2: Tailor Educational Initiatives The opportunity exists to develop and expand educational programs that take into account the different settings and professional responsibilities specific HCPs operate within. One example of this approach is the Suicide Prevention Toolkit for Primary Care Practices that was specifically designed for suicide prevention education in primary care, and which includes both providers and staff. The ED-SAFE collaborative is an excellent example of this tailored approach, as well [7].

Recommendation 3: Improve Training on Suicide Prevention in Medical and Nursing Schools and Residency Programs Searches for journal articles on the topic of HCP education and suicide reveal numerous calls to action and editorials about the need to strengthen providers' preparation to engage in suicide prevention care. Based on the apparent slow pace of change to curricula in education programs for HCPs, there remains an imminent need to better prepare learners in medical, nursing, and related programs on suicide prevention. For medical schools, this need can at least partly be met by integrating suicide prevention awareness and concepts in foundational science courses, courses that address public and community health, neural sciences and psychiatry instruction, and components of clerkships in primary care (pediatrics, family medicine, and internal medicine) and psychiatry, among others. At the level of resident physicians, all primary care and emergency medicine residency programs should have time dedicated to suicide screening, risk assessment, safety planning, and other key aspects of suicide prevention care. Similar to undergraduate medical education, this content could be inserted at key points throughout the curriculum, with SP encounters and other active learning approaches used as needed to further develop skills. A large number of the published studies on suicide prevention for HCPs are from nursing programs, suggesting that in many cases nursing schools are already making progress toward integrating suicide prevention care into their educational programs. Finally, there may be opportunities to expand suicide prevention as a topic in pre-health professions college preparatory courses, perhaps in the context of courses in behavioral health or epidemiology.

Recommendation 4: Supports Beyond Provider Education As noted earlier, training alone will not solve the problem of at-risk patients who are seen by HCPs but who do not receive the needed care, or even go completely unidentified. Supporting changes in office systems, EMRs, workflows and related interventions are necessary to sustain and build on changes in providers' knowledge, skills, and confidence in engaging in suicide prevention care. The SPRC Primary Care Toolkit (SPRC) and a variety of tools developed for Zero Suicide [13] are both examples of approaches that could be more broadly adopted and customized to be effective in a variety health care settings.

Recommendation 5: Incorporate Active Learning One theme that emerged from the limited review provided above is the importance of active learning approaches for HCP education on suicide prevention care. Teaching approaches that feature or emphasize active learning are recommended over approaches that are more passive

and exclusively didactic in nature. Designing self-directed courses that incorporate active learning and that also provide the flexibility of e-learning may be a critical step in expanding the reach and effectiveness of suicide training for HCPs, and these approaches should be an increasing focus of research.

Recommendation 6: Multiple Trainings Trainings that are conducted over multiple sessions and support HCPs in progressively building a set of skills and body of knowledge for suicide care will generally be more effective than single trainings [24]. For example, in some localities, Suicide Care Quality Improvement Committees may form within a practice, in which the committee functions over time to develop suicide prevention protocols, to review cases with suicide risk, and to provide ongoing didactic and case-based education to HCPs within the practice. IHI-style collaborative improvement projects also offer an opportunity for progressive scaffolding of knowledge and practice changes over time, and can be tailored to specific practice settings and types of care.

Recommendation 7: External Incentives Promote legislative approaches and financial incentives to boost health care provider education on suicide prevention. In recent years, several states in the USA have implemented mandates that health care providers receive a minimum number of CME hours in the evaluation and treatment of suicidal patients in order to qualify for renewal of medical licenses. While data on the effectiveness of these approaches is not well developed, it is reasonable to assume that such mandates will result in more providers having improved knowledge, and perhaps the necessary skills, to engage their patients at risk for suicide. It should be acknowledged that these legislative efforts are not without their drawbacks. Some mandates require only a single instance of training for any provider, and whether the trainings are of sufficient quality may not be adequately specified. Even thousands of providers participating in one-time trainings, which may not actually support improvements in key knowledge and skills, are unlikely to result in substantial decreases in suicide deaths. Legislative requirements must be tailored and specific to the greatest extent possible for different types of HCPs and the different environments they work in. Financial incentives for improving suicide-specific care, like those associated with the National Committee on Quality Assurance in the USA, may also be an effective driver of participation in suicide prevention education and making corresponding changes in care delivery systems [31].

Conclusions

Surveying the scientific literature on how to effectively train health care providers to help patients at risk for suicide suggests this as an aspect of suicide prevention work that needs further development. There is a training gap between many HCPs' knowledge and ability for providing suicide-focused care and the needs of the at-risk patients who providers serve. This gap may be seen across a wide range of

health care settings, ranging from primary care and emergency care to sub-specialty clinics. Because patients at elevated risk for suicidality are often not being seen primarily for suicidal ideation or behaviors, it is particularly important for all providers to be able to provide suicide competent care. Competence in suicide-specific care should include, at a minimum, effective risk screening, risk assessment, safety planning, and establishing a safe referral. The need for these skills is further reinforced by the fact that many providers do not have the option of making a warm handoff to colleagues who are trained in performing these essential functions. The multiple, entrenched, and interacting reasons for why the training gap has persisted would easily fill a book, although some of the barriers to improved training have been alluded to in this chapter.

In addition to improvements in HCP education, the systems supporting providers' engagement with patients at risk for suicide need to be strengthened. This may occur through changes to EHRs, practice workflows, and coordination of care. Possible models for simultaneously boosting provider skills and knowledge and making needed changes to the systems within which providers work may be found in Institute for Healthcare Improvement-style collaborative learning projects and the implementation of the Zero Suicide Model, among others [7, 39]. The movement toward the integration of primary care and behavioral health care and wellness is also likely to boost health care providers' ability to more effectively address suicidality in their patients.

The recommendations provided above are intended to inform a wide array of individuals on ways to strengthen providers' education on suicide prevention care. Education on key suicide prevention skills can be embedded at multiple levels of education from undergraduate pre-health career programs to students in medical and allied health professional schools through residency and continuing professional education. Adequate curricular time needs to be dedicated to suicide prevention and to the extent that time is not available, the suicide prevention content can be integrated with relevant existing curricula. Examples for medical schools might include teaching suicide epidemiology in neurology and pharmacology foundations courses and ensuring that screening and risk assessment skills are included in primary care and other clerkships. For primary care residency programs, the use of standardized patient encounters that include structured feedback have been shown to be effective in strengthening residents' preparation [8, 9]. For providers already in practice, there are existing and emerging CME modules aimed at boosting skills for engaging patients about suicidal ideation and behaviors. Educational programs that include a focus on active learning (including as part of e-learning) are more likely to result in improved educational outcomes for providers [37]. The adoption of defined suicide prevention competencies that are assessed in simulated and real patient encounters, along with including suicide prevention on licensing examinations, could likely help drive curricular changes.

Underlying all efforts to improve how medical providers help their patients at risk for suicide is need for an expanded evidence base for the effectiveness of the educational interventions. Pre- versus post-training evaluations that do not assess medium- to long-term learning outcomes and that lack a focus on changes in the

application of skills are common, but the field needs to adopt more sophisticated research designs. To the greatest extent possible, studies should focus on boosting specific skills and assessing patient outcomes, as well as measuring commonly assessed intermediate goals such as improvements in knowledge and comfort in asking questions about suicide.

In summary, there appears to be a tremendous opportunity to impact suicidality in people receiving health care services by further strengthening the training of HCPs. Some promising areas include the adoption of Zero Suicide framework by health care systems, which includes professional development related to suicide and using data for continuous quality improvement as core activities for achieving suicide safer care. Health care setting specific suicide prevention education and practice improvement initiatives such as ED-SAFE also represent a promising approach. Widespread adoption and mandates about depression and suicide risk screening may also lead to improvements, although the extent to which these boost providers' ability to deliver effective suicide care has not been determined. Increasing provider education, along with adopting the needed supports for improving practice, remains one of the most promising approaches for achieving sustainable reductions in suicide attempts and deaths. The main challenges at this point are to continue developing, implementing, and testing ways of making that potential a reality.

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Nursing Care of the Suicidal Patient

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Pernilla Omerov and Jennifer Bullington

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Abstract

Suicide risk assessment needs to be a crisis intervention explored together with the person in care. The crisis intervention needs to start at the first encounter with healthcare and should be salient in all ensuing encounters and actions taken during the care. A caring approach which involves qualities like being welcoming, non-judgmental, open-minded, and respectful can alleviate suffering and is crucial for assessment and forthcoming care, while an uncaring approach may cause the person to hide his or her needs, flee in affect, or refrain from seeking help during forthcoming suicide crises. Despite this, the competence required to connect and listen to another person is all too often neglected in hospital-based suicide prevention.

Nurses have an important role to play in suicide risk prevention, since they frequently encounter patients in suicidal crises. Furthermore, nurses' competence involves both the biomedical and philosophical perspective on the person's health and care which is needed for assessment and care. Recommendations for care stress the interpersonal relationships with the person's narrative as essential. However, components often described as person-centered care, such as *establishing a therapeutic relationship, showing trust and respect, facilitating communication, getting to know the person, sharing power and responsibility, and empowering the person*, require systematic education, training, and implementation. This chapter provides examples on how communication skills and rapport can be developed and applied in acts of care. The chapter also describes an approach for suicide prevention and crisis intervention that synthesizes teachings from caring science with contemporary suicide prevention.

Keywords

Mental health nursing · Caring · Suicide prevention · Communication · Person-centered care

Introduction

As described in earlier chapters, identifying and supporting patients who struggle with suicidality requires insights from different healthcare perspectives. Hospital-based care has been identified as an important arena in recommendations for care and research targeting clinical approaches to reduce suicidal attempts and deaths. The recommendations also highlight the need for development of approaches that go beyond the treatment of medical disorders [1, 2] Nurses serve an important role in preventing suicide, since they have a good opportunity to support patients who struggle with living from the initial contact through all the phases of care [3]. Nurses work on the frontline and meet a significant number of patients during times when suicide risk is especially high, for example, after a suicide attempt, during psychiatric

inpatient care, and after discharge from psychiatric care [4]. The support towards living should start with the very first encounter and must be evident throughout the ensuing chain of care, including emergency care and inpatient care [3, 5, 6].

Professional encounters may be lifesaving during times when suffering is perceived as unbearable and the person is at risk to succumbing to overwhelming feelings. Feelings of shame, guilt, despair, hopelessness, fear, and anger and rage are common. A caring approach, in such cases, may reduce the suffering and support the person towards living by making constructive choices such as sharing needs and becoming an active participant in the ensuing care. An uncaring approach may increase the person's suffering and the risk of suicide. The patient may, for example, hide problems and needs and may end the contact in affect [3, 7].

Advances in clinical suicide prevention stress that suicide risk assessment needs to be a crisis intervention explored together with the patient, with a focus upon support towards living [8]. Nurses' education and professional responsibility include both an illness and health perspective, using the caring relationship and the person's narrative as essential means towards care and recovery needs [9]. The importance of the caring relationship between nurses and the suicidal person has been described in several studies [3, 6, 7, 10]. For example, Vandewalle and colleagues' systematic review, including 26 articles on former suicidal patients' experiences of interactions with nurses in mental health and emergency services, showed that nurses can play an important role in supporting the patient's capability to cope with their suicidality. The findings showed that hospital-based nursing care during suicidality is of importance to (re)establish bonds with other persons, services, and life itself [3].

However, the same review also showed that experience of insufficient or inappropriate care was described in 22 of the 26 included studies [3]. One way to understand the insufficient care is that establishing rapport and a caring relationship is difficult, particularly during suicidality. Suicidality brings forth a number of obstacles, both from the helper and the patients' horizon [3, 10, 11]. In addition, the ability to connect and listen to another person requires specific competence that is all too often neglected in healthcare professional's education [12]. Another explanation is that communicational and therapeutic competence is less valued than competence that corresponds with a biomedical perspective when inpatient care is organized [5, 13].

Aspects in care described as "person-centered care" are often stressed in recommendation for care but not always evident in actual care. For example, finding from an overview on person-centered care concludes that "health-care providers and organizations need to promote person-centred care by engaging persons in true partnerships, shared decision-making, and meaningful participation in health system reform." [14] Similarly, person-centered care is stressed in recommendations for suicide prevention [2] but not evident in actual care interventions, which is demonstrated in a review including 101 multidisciplinary clinical practice guidelines in suicide prevention [15]. Psychiatric treatments are, without doubt, vital to clinical suicide prevention, but these are seldom enough to support the patient in the everyday living on the ward and after discharge [3, 5, 6]. The change towards a more person-centered inpatient care during suicide crises requires systematic efforts as well as a will to widen the perspective [10]. This chapter introduces an approach for suicide prevention and crisis intervention that synthesizes teachings from caring science with contemporary suicide prevention.

Nursing and Caring

“Nurses” in this chapter refers to registered nurses (RN) who have completed a Bachelor Program of Science in Nursing or Caring and RNs who have an additional Postgraduate Program in Psychiatric nursing or Mental health nursing. Nurses’ fundamental responsibilities, according to the International Council of Nurses (ICN), are “to promote health, to prevent illness, to restore health and to alleviate suffering.” Nurse’s main academic subject is caring or nursing science, but the education also puts great emphasis on medical, psychological, and social studies. A degree of nursing is required to work as a licensed nurse although caring science as an academic subject can be studied irrespective of profession [9].

The theoretical concepts and their applications in care described in this chapter are based on caring science developed in the Nordic countries [9]. This caring science approach is built upon a philosophical and ethical view of the *human being*, *health*, *environment*, and *caring* the acts of care. In this chapter the term “nursing” is used to describe applied caring science – caring carried out by nurses. The help-seeking person and the person in care are called “patient” when referring to a person needing or experiencing healthcare. The word patient also refers to the Latin word *patiens* as one who suffers, acknowledging the vulnerability associated with being a patient in the healthcare system [9, 16]. The literature presents several terms for establishing rapport and interpersonal relationship. In this chapter we use *caring approach* to describe acts of care that nurses perform in order to support their patients towards involvement with others, self, and life, and the *caring relationship* refers to when the nurse and the patient work collaboratively towards enabling the patient to lead his or her own recovery.

The View of the Human Being

In nursing theories, the human being is described as a unique person that needs to be understood in terms of wholeness [5, 9, 16]. Trying to understand the person as a cohesive whole is important, since healthcare often is organized from a biomedical perspective. In a biomedical perspective, the bodily part that causes ill health needs to be located to find helpful relief or cure. From a lifeworld caring science perspective, the body is understood as the vessel that carries the human being, with lived experiences and goals for the future. Lived experiences include both suffering and health as a natural part of life and living. The philosophical view of the human being is demonstrated in the Tidal Model using water as a metaphor [17].

Life is a journey undertaken on an ocean of experience. All human development, including the experience of illness and health, involves discoveries made on the journey across that ocean of experience. At critical points in the life journey the person experiences storms or even piracy (crisis). At other times the ship may begin to take in water and the person may face the prospect of drowning or shipwreck (break-down). The person may need to be guided to a safe haven to undertake repairs, or to recover from the trauma (rehabilitation). Once the ship is made intact or the person has regained the necessary sea-legs, the ship may set sail again aiming to put the person back on the life course (recovery) [17].

The Tidal metaphor illustrates how human beings are capable and free to plan his or her own life voyage. The metaphor also illustrates how we, as human beings, will be challenged by different situations throughout life. In these circumstances we may need support from other human beings to find our bearings and to get back on track.

The Vulnerable Human Being

The importance of being met with compassion and respect is stressed in recommendations for care of patients that have self-harmed or that may be suicidal [2]. This is also salient when multiple risk factors for suicide are present. For example, people who are homeless have been identified as a risk group for suicide that also have difficulties accessing support and care [2]. This is exemplified in a systematic review including 22 studies on homeless persons' experiences of health and social care [18]. The review showed great healthcare needs due to physical and mental health problems. In addition, the homeless persons often lived under continuous threats of adverse events like sexual abuse and other types of violence. Despite this, the experience of being alienated, discriminated, disrespected, and stigmatized when seeking healthcare was described in all the included studies. The review also included testimonies describing the additional pain when not being met as a person when seeking help in the most vulnerable state and situation. Negative emotional responses and prejudiced attitudes have also been described in studies on nurses' experiences of encountering suicidal patients [11]. For example, Clua-García and colleagues' systematic review showed that negative attitudes were common among nurses, particularly in non-mental health settings where physical health problems are paramount [11].

The ICN Code of Ethics for Nurses describes nurses' fundamental responsibilities for action based on social values and needs [19]. Respect for human rights, including the right to be treated with dignity and respect, is inherent, and nurses are urged to pay attention to vulnerable populations. Negative attitudes, discrimination, and oppression may be more prevalent towards groups of people subjected to multiple forms of exclusion. There are several groups of people who might have increased difficulties accessing support and care for self-harm or suicidality due to social determinants that also present increased risk for suicide [2]. This chapter provides examples on how advances in mental health equality can be addressed in education and care using examples related to old age, domestic violence, sexual abuse, homelessness, and human trafficking, but we also want to stress the need to pay special attention to minority groups among other groups of people often exposed to inequities, for example, groups of people with disabilities as well as refugees and asylum seekers [2].

Nurses but also care managers, educators, and researchers have an obligation to translate values like respect and dignity into actions [19]. The self-harm and suicide prevention competence framework identifies the need to increase knowledge about the impact of social inequities on self-harm and suicide. The framework also recommends reflective practice and supervision as a way to learn from experiences

in order to improve practice [2]. This has also been shown in research. For example, an education involving reflective and interactive components resulted in positive effect on nurses' attitudes towards working with patients who self-harm [20]. There are several reflection models that can be used to activate awareness in clinical practice [21]. For example, transformative learning that can be described as "learning that challenges established perspectives, leading to new ways of being in the world" is often used in health profession education to influence the formation and development of professional identity [22].

The fictive case of Tatjana below is used in education of nursing students and nurses in order to illustrate how the view of the human being can affect the nurses' approach and the patient's response. The case also highlights how a patient with many of the risk factors for suicide risks being without proper care due certain attitude towards human beings which is not focused on the persons' need.

Tatjana enters the emergency department as so many times before. Exhausted from the lack of food, sleep and agonizing pain she passes out with her bags of belongings shattered around her. The stitches in her forehead from being hit by a wine-bottle last night starts to bleed again. Blood samples are drawn, and she can hear someone saying 'the blood sugar is normal, overdose? she received antidote for acetaminophen overdose last month'. A harsh voice suggest that she should seek help at the dependency care instead.

Tatjana feels rough hands on her body [nurse searching for forbidden items in her pockets]. Painful memories pass by – memories of abuse and neglect as a child and the recent memories of the last nights assault. The feelings of fear and despair are increasing – should she run, fight, or just give up... Then, another touch. Gentle hands wiping her forehead and a voice drawing her back to the hospital bed 'My name is Victoria; I work as a nurse at the emergency department. I would like to attend to your wound, is that okay? '

The fictive case of Tatjana demonstrates how the patient at first is treated as an object with somatic parts that need medical attention rather than a human being with unknown composite needs that require a human response. Tatjana was also meet with disrespect and an uncaring attitude which can increase negative feelings associated with increased suicidality. For example, perception of defeat and humiliation related to social rejection has been identified as a factor that may exacerbate the suicidal process, i.e., the development from suicide ideation to suicide attempt [23]. The feeling of being disconnected from humanity during times of suicidality and the importance of being met as a person who belongs to this world have also been illustrated in an extensive review on former suicidal patients' experiences of interactions with nurses in mental health and emergency services [3]. One study included in the review based on 36 young men's experiences of mental health services during times of suicidality concluded that a therapeutic, supportive, and nonjudgmental attitude was a central part of the persons' reconnection with humanity [24]. Similar findings were also found in a literature review on suicidal patients' experiences regarding safety during psychiatric inpatient care. In this review, being acknowledged as a human being was associated with feeling of being safe and worthy of care as well as being receptive to help [7].

The case example of Tatjana demonstrates a person who struggles with living and how the nurse Victoria started the crisis intervention. Tatjana's increased fear and despair could have resulted in violence against herself or someone else. Tatjana

could also have fled from the care which is a risk factor for suicide [4]. Instead, Victoria's caring approach supported Tatjana to shift her focus into a constructive encounter, with care and dignity. Victoria showed respect and willingness to care and performed small acts that communicated to Tatjana that she is a person whose existence matters. Victoria also showed trust in Tatjana's capability and gently asked her permission to clean her wound, showing willingness to believe that each person does the best as he or she can. The importance of being trusted and welcomed without judgmental and prejudiced attitudes has been shown in research. For example, nurses' approaches can decrease negative emotional responses as well as increase possibilities to receive help during suicidality [3, 7].

The fictive case of Tatjana can also be used to illustrate the lifeworld of the patient, i.e., the way that the patients experience and understand their world during suffering and ill health. A lifeworld that includes both the world we have inside us and the world that surrounds us, neither is the lifeworld limited to the present time [12]. Notably, the care situation is also affected by the nurse's lifeworld. For example, previous experiences of working with suicidal patients as well as losing patients to suicide may evoke feelings that affect the nurse's willingness and ability to engage with suicidal patients [11].

The View of Health

Phil Barker advocates that health and ill health are something that the person experiences in his or her daily living. This is demonstrated in the Tidal Model where nurses are encouraged to focus on the patient's problems of living rather than problems related to mental disorders [17]. The Tidal Model can also be used to demonstrate health as an ongoing process since health, like everything else, is affected by the continuous changes that inevitably affect us all. The constant change also means that the goal of returning to previous functioning seldom is applicable. The idea of health as a balance has been developed over centuries into the models of today. For example, in Ingmar Pörn's theory on health, human beings are engaged in goal-directed actions which include a self-relation [25]. This can be described as goals that the person sets for himself or herself and then strives to fulfill. Health is then obtained when the person's abilities and environment enable the person to fulfill these goals. Self-regulation can be described as a process of (1) having goals that we have chosen and identify with, (2) trying to be true to ourselves and linking our goals to life meaning, and (3) reflecting on how realistic we are in what we strive for. The process is driven by an effort to reduce the discrepancy between the ideal self and the actual self. Confirmation from others is continuously sought in the process of self-assessment and self-regulation [26].

Health can be reached by reinforcements in the person's repertoire or environment but also by changing the goals [25]. Concerns arise when the individual's goals don't match the individual's potential – too low goals may result in missed opportunities and too high goals can result in discontent. The individual may also have goals that are associated with processes that are associated with ill health, for

example, a goal to lose weight despite anorexia [27]. The Tidal Model emphasizes that the goals belong to the patient but also that nurses temporarily need to take the helm during emotional breakdowns [5, 17]. The nurse's goal is to support the suicidal patient's emotional and physical security and provide a personal security plan if the person is a risk to themselves and others. The focus is nevertheless to always support the person towards living as full as possible in the given circumstances. Furthermore, crises that the person goes through can lead to new understandings and increased readiness after the acute phase has passed [5, 13, 17].

Health and Suffering

A person can endure great suffering when he or she believes that there is an end to the suffering, while suffering that is perceived as infinite can become life-threatening for vulnerable persons. The combination of perceived pain and hopelessness is described as a central concept for suicidal ideation in the Three-Step Theory (3ST) by David Klonsky and Alexis May [28]. In the 3ST theory, pain can be all sorts of pain, for example, pain related to physiological and psychological experiences, perceived burdensomeness, and thwarted belongingness [29] as well as defeat, humiliation, and entrapment [23]. Being overwhelmed by suffering, loneliness, and despair has been described in several qualitative studies describing suicidal patients' experiences of psychiatric inpatient care. The same studies also describe acts of care that can reduce these feelings [3, 7].

Findings from a recent meta-synthesis show that nurses often understand suicidal behavior as a consequence of suffering [11]. However, the nurse's conceptualization of suffering can differ greatly. For example, some nurses may see suffering as something that needs to be cured or fixed, while others may see suffering as a natural part of the human condition that can lead to personal growth [13].

Katie Eriksson describes the relation between health and suffering in her concept of health [16]. The concept describes three dimensions that persons move within and between. The first dimension, *Health as doing*, is a state that the person has or is striving towards by making healthy choices. The criteria for health in this dimension are based on external criteria and norms often related to illness and problem avoidance. The second dimension, *Health as being*, can be described as a search for a balance in the persons' inner state. This state emanates from the human beings striving towards fulfilling needs and desires. In this dimension, the motivation comes from within, and the goals are subjective, such as seeking well-being. The third dimension, *Health as becoming*, derives from the basic assumption that the human being is constantly developing when confronted with himself or herself and the situations in which he or she finds himself or herself. This also means confronting suffering. In this dimension the goal is to reconcile with oneself and with the challenges that life offers. Katie Eriksson describes that a person in this process has managed to integrate health and suffering. Suffering has no meaning in itself, but meaning can be perceived when the human being reconciles with his or her

suffering. Thus, there is no contradiction between health and suffering, and patient can experience freedom and zest for life even during times of suffering [16].

Stina – the fictive case below – is used in the education for nursing student and nurses in order to illustrate how life changes can overturn a person's relations with others and with oneself, leading to suffering and ill health that may become life-threatening. The fictive case also shows how a reductionistic view of health and aging can increase feelings of hopelessness and how a glimpse of well-being can occur during suffering.

Lisa hesitates at the door remembering the last encounter with Stina, the old woman who had refused to eat and talk. Today she would have to get her to shower. A feeling of hopelessness hits her. She braces herself and opens the door. The old woman is lying on the bed seemingly lifeless, with an empty packet of Tylenol in her hand.

Lisa calls 911 and follow Stina to the hospital. Thoughts are running through her head during the journey. She doesn't know much about the woman in front of her and rehearses in her head what to say. . . 'a widow that lives alone, the investigation for multiple sclerosis and depression, the increasing problems with activities in daily living'.

At the same time, a life passes by in Stina's head. Herself as a girl swimming. . . dreams about having a house and children. She smiles remembering the kids and how they celebrated when she got her exam. Their house. . . the smell of the linden trees. The long-hidden memories fill her with a joyful feeling that dispels the painful feelings of being a burden, fear of losing control and the painful loneliness and meaninglessness for a moment.

The fictive case of Stina demonstrates suffering related to several life-changing losses and other risk factors connected to suicide risk in late life. The case also shows how the focus on handling problems leads to increased feelings of hopelessness, both within the nursing aid and the patient. Findings from a review targeting mental health nurse's response to suffering illustrate how nurses' views on suffering may influence their care [13]. For example, viewing suffering as something that needs to be stopped or removed directs the focus towards handling problems, whereas viewing suffering as a natural and unavoidable part of living directs the focus towards exploring the experience. This possibility to share the story with someone can create a sense of connectedness that can oppose feelings of isolation and alienation. Putting the suffering into words can also lead to understanding and meaning-making. In this way, a narrative can become a way to relieve and endure suffering [13].

Considering this, encouraging Stina to narrate her illness and health experiences could be a way to support her with the pain and fear that torment her. At the same time, taking part of Stina's lived experiences may help the nurse Lisa to see the human being beyond the problems. Discovering the patient's narrative together with the patient provides a common space that can provide comfort and confidence. Sense of connection with others can give meaning to life during suicidality [6, 31]. Sellin and colleagues described this "communicative togetherness" as the characteristics of the recovery-oriented caring approach [6]. Stina's inner dialog also shows how lived experiences (remembered) mended the suffering, lived experiences that also can provide future possibilities for health. The possibility to use previous experiences as support in the present situation is also emphasized in Sellin and colleagues' study.

For example, Stina's appreciation for nature can provide a shared experience that can make life manageable and worth living. The shared experience can involve physical excursions but also shared memories and longings.

Longing as a health-giving power has been described by Ueland and colleagues in a theoretical model that builds upon Augustine and Kierkegaard's teachings [32]. Referring to previous teachings and studies, Ueland and colleagues describes the source of longing as beauty and gratitude. In this way, health can occur in glimpses available for everyone. The authors also suggest that the awakening of desires can help in transforming suffering perceived as unbearable into suffering that can be endured.

The View of Environment

Related to the multidimensional perspective of the human being is the conceptualization of the environment as a web of relationships including the person's inner world, the world shared with others, and the surrounding world. The way professionals give time or not to the patient contributes to how the relational world is formed [5, 17]. Dahlberg and colleagues describe how illness, suffering, and just being admitted to care change the patient's relationships, and they argue that professionals must support the person to find his or her place in the world again [33]. The importance of interpersonal relationships during times of suicidality is well-established in the literature and is further described in this chapter under *The view of Caring* [3, 6, 7, 10]. Feelings of shame after a suicide attempt are common and may prevent the person from seeking contact. The professionals therefore need to actively reach out and work towards engagement with the patient [3, 6, 7, 10]. Feelings of worthlessness or guilt have also been identified as a predictor for suicide in Madsen and colleagues' systematic review on risk factors for inpatient suicides [4]. The same review concluded that future studies of inpatient suicide need to focus on factors that can change and be changed during admission, such as feelings of hopelessness and depressive symptoms. The review also identifies the family and social situation as important for suicide prevention during inpatient care.

The reconnection with significant others is important for the assessment, care planning, and recovery. The connection can also mend the patients' suffering as well as the suffering of the significant others. Nurses play an important role in assisting suicidal people to connect with their usual network and support [3, 10, 31]. This is important, since a depressive state might block out these needed resources. Suicidal patients sometimes perceive that the world is empty and that life has lost its meaning. The person can also perceive that his or her own existence is meaningless, unwanted, or even hurtful for other persons. For example, this has been described as "perceived burdensomeness" and "thwarted belongingness" in the interpersonal theory of suicide (IPTS) [29]. The fictive case below is used in the nursing education and for nurses to demonstrate how the care environment can support the patient towards living by connecting with himself, the nurse, and significant others.

Jukka is so tired. He tries to wake up and to remember, but the thoughts are blurred and confusing. He can hear his name. The man beside him says that his name is John and that he is a nurse at the emergency department. Had he survived!? Mixed feelings rush through him. John asks him if he remembers what happened and Jukka shakes his head. John tells him that a man out walking his dog had found him at the very last minute and that it was very fortunate that there was an ambulance nearby. The tiredness is overwhelming, and he cannot keep his eyes open. Still his inner voice is pressing him to act – images of himself hanging are mixed with thoughts of his family. His racing thoughts are interrupted by John's voice that encourages him to rest.

The gentle voice reassures that he is not alone and that someone will be beside him if he needs something or if he wants to talk. Jukka has a hard time understanding the Swedish language but feels taken care of. John is still there when he wakes up and he is offered some water. John encourages him to tell what happened. Jukka starts to speak and can feel that it is getting easier to breathe and that the room doesn't feel so cramped as he proceeds. John asks him how he feels and Jukka reveals that he thinks of his family and that he feels so ashamed. John encourages him to call his partner and he manages to do so with John's support.

Safer Supportive Environments

The fictive case above demonstrates how the nurse creates a safe environment that opens up for the patient's narrative. The nurse's genuine will to care for the person and the ability to stay present provide a mental closeness, "a safe place" in addition to the physical closeness. The importance of creating a trusting relationship by showing genuine compassion and concern for the suicidal person has been described in research [3, 6, 7, 10] and in recommendations for healthcare during suicidality [2]. A systematic review on former suicidal patients' experiences of safety during psychiatric inpatient care also shows how the relational environment can support the suicidal patient against acting on suicidal impulses [7].

Previous studies show that suicidal patients often associate constant observation with negative experiences. For example, the invasiveness during constant observation may result in increased despair and suffering. However, these experiences are often mediated by the presence or absence of engagement with the observer. For example, a personal engagement with the nurse could be associated with feelings of safety and security. While a nurse perceived as absent or impersonal could be associated with the experience of increased feelings of anxiety, isolation, and objectification. Engagement perceived as unsupportive could also cause patients to hide suicidal ideation or behavior in order to end the constant intervention [3, 7]. This demonstrates that patient safety measures need to be viewed in relation to patient care in order to provide good and safe quality healthcare [34].

The fictive case of Jukka demonstrates how the nurse sees to the patient's safety by working collaboratively with the patient rather than watching him in order to prevent him from attempting suicide, which is in line with current recommendations for care [2]. However, the fictive case also shows that Jukka doesn't reveal his ongoing suicidal plans to the nurse despite their good rapport. This risk is highlighted in studies showing how some patients search for available means to attempt suicide during constant observation [7]. Access to lethal means has also been

identified as a risk factor for suicide attempt and inpatient suicide [4, 23]. This shows the need for preventing patients from acting upon suicidal impulses, for example, by restricting access to lethal means such as removing ligature points that may present openings for hanging [35]. However, despite the known risks, explicit recommendations for restricting access to lethal means are sometimes missing in guidelines for care during suicide nearness [15].

The following clinical example from a large psychiatric clinic demonstrates that safer yet supportive inpatient environments can be created. Following recommendations for patient safety, unsafe interiors were replaced by safer alternatives. For example, shower hoses that could be used for hanging were replaced with modern built-in shower heads and valves. The safer bathrooms resulted in fewer patients in need of observation when showering or using the toilet. A safer environment that enabled privacy but also spaces for connectedness was sought after. To facilitate sleep and security, multi-patient rooms were rebuilt into single-patient rooms with lockable doors to prevent other patients from entering. To enable communication and ways of distraction, each patient room was provided with safer ways to charge and use media devices like mobile phones. Entries were rebuilt so visiting rooms could be reached without the visitors going into the ward. The changes were based on patient safety regulations, research on lived experiences, and conversations with staff and former patients. The approach of combining different types of research and involving persons from the target populations in the process has been identified as essential for developing patient safety that works in reality [34].

Documentation and Communication

Further patient safety measures of importance for suicide prevention are documentation of suicide risk [36], effective communication between wards [4], and managing transitions between services [2]. The fluctuating nature of suicidality means that the suicide risk can change during the admission. For example, feelings of hopelessness and other depressive symptoms may increase with changes in the patient's relational environment [3, 4]. Documentation is important in transferring information between caregivers but also for monitoring the patient's symptoms [4, 36]. The need for identifying changes in suicidal patients' behavior was shown in a meta-synthesis on nurses' perspective on caring for suicidal patients. The study showed that nurses reported increased isolation and disconnection prior to the suicide as well as that patients sometimes seemed to be improving prior to their suicide [11].

Identifying and documenting signs and symptoms of importance for increased suicide risk requires that the persons carrying out the observation know what to look for [36, 37]. The Suicidal Patient Observation Chart (SPOC) for documentation during constant observation was developed to ensure that important observations would not go unnoticed by the observer at the bedside. Mood changes like shifts from being seemingly calm to anxiety driven could, for example, be missed by unqualified personnel or due to rotating personnel. The chart was also created to ensure that important observations were communicated to the multidisciplinary team

around the patient and throughout the chain of care. One concern raised when creating the chart was that the chart would increase the distance between the patient and the caregivers. The authors and the experts involved in the Delphi study therefore stressed that SPOC should be used to increase the patient's own involvement in the care and treatment, for example, by using the documentation as a basis for discussion together with the patient [37].

Another important aspect of documentation is to involve the patient as much as possible in the care planning. The documentation needs to aid and mirror the patient's understanding on steps that need to be taken in order to see his or her illness and health needs. Phil Barker urges nurses not to translate the person's experiences into a psychiatric language since this may turn the focus away from the person's needs [17].

The View of Caring

The philosophical and ethical view of the human being, health, and environment described earlier forms the basis for caring that becomes visible through "the art and act of caring." [9] The natural phenomenon of caring is driven by the human obligation to show compassion and mercy towards fellow human beings. This natural caring is then developed into professional competence, characterized by a willingness to respect and understand, as well as responding to patient's problems, needs, and desires. Nurses need to acknowledge the patients' world as it is lived, a world that comprises suffering and vulnerability but also a world with possibilities of well-being and health [9]. The fictive case of Tatjana above demonstrates how caring involves decreasing vulnerability and maintaining dignity in order to reduce suffering. The fictive cases of Tatjana, Stina, and Jukka also demonstrate how caring can ease the patient's suffering by providing respite or even well-being in the midst of suffering.

Caring takes place within the time and space between the caregiver and the patients [9]. All care is not caring, and some care may even be hurtful. This was highlighted by Katie Eriksson who introduced "suffering related to healthcare" as a concept describing the suffering that occurs when the patient is exposed to suffering related to care or the absence of caring [9, 16]. For example, suicidal patients often have constricting beliefs of being hopeless, worthless, and isolated, beliefs that can be mirrored and reinforced by judgmental attitudes and non-caring care. In contrast, being treated with concern, acceptance, and understanding can challenge and reduce these constrictive beliefs [3]. This is demonstrated in the fictive cases of Tatjana where the first nurse increases the sense of insecurity and abandonment, while the second nurse mediated connectedness and safety by showing genuine hospitality and will to help.

The Caring Approach and the Caring Relationship

The care relationship is asymmetrical in its nature, and the nurse needs to take responsibility for inviting the person into the caring relationship [16]. The caring

process therefore starts with the caring approach, where the nurse tries to make the patient feel welcome, safe, and valued in order to motivate the patient to become involved in the caring relationship. The caring approach consists of acts of care that the nurse initiates and addresses towards the patient. The actual caring relationship is characterized by actions between the nurse and the patients – a collaborative work. The aim of the caring relationship is to support the patient towards leading his or her own recovery [26]. Phil Barker stresses that the caring process should start directly, and he describes how nurses need to support the patients “to get going again.” [5, 17] This is demonstrated in the fictive case of Tatjana and Jukka, where the nurses support the patients to engage in the care by using their presence and small gestures such as gentle voices and hands along with carefully chosen words.

The caring process can be demonstrated by findings from the study *Psychiatric nursing care of suicidal patients described by the Sympathy-Acceptance-Understanding-Competence model for confirmatory nursing (SAUC model)*. The study used mixed methods which included narrative interviews with 29 nurses working in psychiatric inpatient care [26]. The qualitative analysis of the material resulted in 248 quotes describing concrete acts of care that the nurses perceived as being successful or unsuccessful for the patients’ caring process. Acts of care, perceived as supportive, are summarized below and discussed against current recommendations for care of suicidal patients and research involving suicidal patients and nurse’s perspective on the caring process [2, 6, 10, 11]

Sympathy-Expressing Nursing

The nurses in the SAUC model study showed carefulness, closeness, accessibility, and confirmation in order to increase the patient’s experiences of security. This was done in the day-to-day encounters, for example, by looking after the patient basic needs in a caring way, being around and available, keeping the patient company, and confirming the patient by being attentive to his or her needs. The nurses also described how they supported the patient’s involvement and insight in his or her health process in order to increase motivation [26].

The need for nurses to reach out, to be available, and to engage with the patients in a caring way coincides with recommendations for care of the suicidal patients [2, 6, 10]. The need for a caring approach is also motivated by findings based on former suicidal patients’ experiences of encounters and care with nurses in the emergency and mental health setting. For example, Vandewalle and colleagues’ systematic review shows that suicidal patients appreciated when nurses directed their time and presence to them in an open and friendly manner [3]. The examples involved nurses showing genuine interest, concern, and the will to care for the patient, for example, by trying to involve the patients in conversations and activities and by responding to the patients’ basic emotional and physical needs in a thoughtful way. This psychical and emotional closeness was associated with reduced anxiety, while nurses perceived that physical and emotional distance added to the patient’s feelings of isolation and abandonment [3]. One of the included studies in the review

also showed that “good chemistry” between the nurse and the patients was necessary for the patients to feel safe to share their suffering and suicidality [38].

Negative and positive experiences of the encounters with nurses often included the support and non-support in the daily living on the ward. For example, patient’s abilities to take care of their personal hygiene, eating, sleeping, resting, breathing fresh air, and physical activity were sometimes neglected and hampered by the nurses and the rules of the ward. In contrast, patients described appreciation when nurses attended to their basic needs at times when they were unable to do so due to despair and apathy. Furthermore, nurses’ support and encouragement that enabled the patients to attend to their own basic needs also had a positive effect on the patients’ self-worth and life rhythm [3, 38]. The need for supporting vital areas of everyday living is also stressed by Phil Barker who connects this with the aspects of sharing the world with others and a sense of belonging [17].

Acceptance Establishing Nursing

The nurses in the SAUC model study showed acceptance, nonjudgment, and openness in order to increase the patient’s sense of freedom. This was done by listening attentively without interrupting or arguing, for example, when the patient spoke about death wishes, the suicide attempt, or expressed hopelessness. The nurses also showed that they took the patient’s information seriously by showing engagement and responding to the information. The nurses also described how they supported the patient’s insight and participation in the health process in order to increase partnership. For example, the patient was supported, through conversations and companionship, to reflect upon attitudes and consequences of actions against others and oneself [26].

Showing respect for the person and the patient’s experience is deemed to be of utmost importance in recommendations for care of the suicidal patients. This involves listening to the patient’s story with an empathic understanding and acknowledging the difficulties that the person is going through [2, 6, 10, 11]. The need for nurses who try to understand what the patient is going through and who are willing and able to listen to the patient’s story and provide a supportive response are also motivated by findings in Vandewalle and colleagues’ systematic review [3]. Findings showed that confirmation and participation enable the patients to share their needs and to reach out for help. The patients valued when nurses showed genuine interest in and connection with the person behind the patient. At the opposite experience, nursing interactions focusing on medical diagnosis and treatment of symptoms or that were steered by formal procedures were associated with negative emotional responses.

Furthermore, patients valued when nurses expressed genuine concern for them and when they recognized their difficulties. Appreciation was also expressed when the nurses conveyed belief in and a positive attitude towards the patients and their recovery. However, expression of confirmation such as advice and superficial reassurances could also result in patients experiencing that their feelings were dismissed

or minimized. The balance between expressing confirmation and allowing the patients' experiences without interfering was also stressed in experts on suicide preventions' view of nursing of suicidal youths [10]. Confirming difficulties and struggles was considered helpful, as demonstrated in the following quote:

'I see that you have difficulties' or 'you look very pained' or 'when you tell this you look very sad'. Or 'am really glad that you are telling this to me. It is an effort because I know that it is difficult to describe things like this.' (Respondent 1) [10]

In Omerov and colleagues' study, reassurance that the patient was not alone with his or her experiences was also used to provide comfort [10]. However, in concordance with the patient's experiences, the experts in suicide prevention also cautioned that confirmation, like reassurance and normalization, could be experienced as diminishing or minimizing. Furthermore, the nurses also need allow for and to accompany patients in their narration of suffering in order to facilitate recovery. However, this requires that the nurses really are listening. The nurse also needs to dare to be touched by the person behind the patient and his or her suffering [6, 13]. However, this opportunity can be lost if the patient's narrative is hindered by a problem-solving approach early in the process [3, 13]. Considering this, nurses may need to resist the urge to do something and acknowledge that just being present is powerful in itself [13].

Understanding-Acquiring Nursing

It is important to listen to the patient's narrative and acquire knowledge about the patient's understanding of his or her life situation as well as his or her healthcare needs. This information can be used to help the patient come to terms with his or her current situation. The examples of this theme were dominated by the nurse's attempt to assess and understand the patient's suicidality. This was done by asking questions and having conversations focused on the patient's suicidal thoughts and plans. The nurses also described how they individualized and supported patient's insight in the health process. For example, by individualizing the care, they could increase the person's sense of uniqueness. In another example, the nurse and patient had conversations about advantages and disadvantages of choices that the suicidal patient considered [26].

The patients' narrative is central for the nurses' understanding of what's important for the person (his or her life goals) as well as what prevents the person from living as fully as possible (repertoire, environment, life goals) in order to support his or her health and illness needs [17, 26]. The co-constructive narrative is also important for the patients' meaning-making, as the patient's self-understanding is created and re-created relationally. For example, formulating and sharing thoughts can help to reveal hindrances and possibilities as well as the formation of new meanings [5, 10, 26]. Findings from Vandewalle and colleagues' review showed that patients appreciated when nurses invited them to reflective discussion where they could explore their difficulties, including their suicidality.

The importance of talking about life and death with the patients was also highlighted in the study *To Identify and Support Youths Who Struggle with Living—Nurses' Suicide Prevention in Psychiatric Outpatient Care active* [10]. The experts in suicide prevention stressed that nurses need to do a suicide risk assessment every time they encounter patients in the mental health settings. This could be done in many ways in order to suit the nurse and the patient. The experts described how they sometimes used direct questions and sometimes a more careful approach for opening the conversation about suicidality. Known risk and protective factors for suicide served as a mental reminder over factors to cover or to pay attention to.

The experts also stressed the importance of being open for and paying attention to things that were not expressed, such as activities related to living a life. Problems in daily life, such as trouble with sleeping, were followed up with questions on how the patients perceived their situation. The experts urged that feelings of hopelessness, meaninglessness, and indifference had to be followed up with question targeting suicidality. The experts also related how they sometimes used examples of common symptoms and asked if the patient recognized these. The experts also told how they used all their senses when trying to detect suicidality. This use of experience and intuition is also described in the meta-synthesis over suicidal care from nurse's perspective [11]. The experts in suicide prevention also revealed that they sometimes confronted the patients in order to detect risk of suicide.

You must react to these signals. 'What do you mean when you say like that? For me it sounds like you maybe don't want to live any longer, is that correct?' That you dare asking that question. (Respondent 4) [10]

Competence-Manifesting Nursing

The nurses in the SAUC model study motivated and explained actions in order to increase the patient's capacity to realize his or her own projects in life. For example, the nurses described how they showed trust to the patient's own resources to handle actual situations in order to support maturity. They supported the patients in their day-to-day struggles by acknowledging what they had accomplished in order to strengthen the person's self-confidence. The process of a caring approach towards increased capacity can be demonstrated in the following quote [26].

We were working intensively the first couple of days to make contact and later to get her to recognize her own symptoms before she got suicidal. She was supposed to recognize her symptoms herself, when her anxiety was increasing. She had a hard time not promising she would not hurt herself here on the ward. We had no extra observation assigned to her, but we were near her all the time, and [we] were often checking [on] how she felt [26].

The importance of providing emotional support and allowing the patient to explore difficulties in order to learn and develop alternatives was also emphasized in the findings based on former suicidal patients' experiences [3]. One of the more recent studies included in this review showed that the informants mostly had positive

experiences of the inpatient care. Nonetheless three areas were identified as areas for improvement “seeking a sense of companionship to feel safe to share their suffering and suicidality, seeking individualized treatment and care to feel recognized as a valuable person, and seeking support to promote their recovery process.” The following quote from the study demonstrate these themes [38].

She [the nurse] just came up to me and, ‘Yes, I see you are tired now, and it’s all right. Just be tired’, and I thought that was so good. And it was she who found me with [the means to attempt suicide] that night. [She] sat down and instead of in a way, it was someone I felt in a way . . . accused me a bit sometimes, not accused but sort of like, ‘it is foolishness to engage in such things’, while she was a little more like, ‘yes I understand you are in pain, or I can’t really understand how you are doing, but it will get better, I am sure you can make it’. And at the same time somehow, yeah, just was a comforting fellow human being. [38]

Findings from Vandewalle and colleagues indicate that patients need to be more involved in their own care which is also in line with recommendations for care [2]. For example, several studies described how suicidal patients lacked information as well as influence and control over their daily living and care. Furthermore, negative experiences were expressed related to rules and routines, which led to loss of autonomy and increased suffering. Findings from studies from the patients’ perspective showed that the patients appreciated when nurses engage them in their care by giving information and involving them in care decisions. The patients also appreciated when the nurses invited them to discuss and reflect upon the suicide ideation and alternative ways of coping with their difficulties [3].

The “two-experts approach” is stressed by experts in suicide prevention [10]. For example, given that youth may not have the same view of death as eternal, one expert described how she sometimes discussed different ways of thinking with the youths in order to see the benefits of choosing life over death. One expert also noted that youths may lack life experience and therefore need reassurance that “this is a temporary and you will come out of this” as well as to be invited to see a wider perspective. The experts also stressed that nurses need to support patients in their own problem-solving by developing coping strategies, including making their own suicide risk assessments, which is in line with current advances in suicide prevention [8]. Understanding the patient’s situation and how this situation relates to his or her suffering and health is the key to the care planning and the making of a crisis plan [17]. Nurses can, for example, help the patients to explore their lived experience as demonstrated in the quote below [10]:

When this has happened earlier [started to drink, have nightmares, eat fast food] you started to think about suicide, is it the same way now? Is this something we need to be aware of?
I often talk about us not you, or now you need to, but let’s work together. What can we learn about this, I am also part of this. (Respondent 6) [10]

Findings from former suicidal patients’ perspective also demonstrate the importance of and need for involving the whole family in the care planning and the safety

plan [3, 38]. The study also stressed that nurses need to support the patient's re-connection with his or her next of kin. For example, informants from one of the studies in the review described how the suicidality leads to disconnection from people and from life itself [38]. This was also emphasized by the experts in suicide prevention who urged nurses to help patients to focus on resources that may be overlooked in a depressive state [10].

Sense of connectedness, which can be described as anything that keeps the individual attached to life or interested in living, has been identified as an important mediator for increased or decreased suicide ideation [28]. Connectedness is also described as an important moderator that can buffer or amplify the development from suicide ideation to a suicidal attempt [7, 23]. The importance of connectedness during periods of suicidality is also stressed in findings based on patients' experiences of living with suicidality. For example, findings from a systematic review showed that a sense of connection with others gave meaning to life during suicidality. Connection could be an interpersonal relationship or an experiencing shared identification, for example, through culture or religion [31].

Barriers for Rapport

A meta-synthesis over studies on suicide care from the nursing perspective showed that negative feelings, thoughts, and memories cause nurses' personal distress. For example, feelings of sadness, anger, guilt, exhaustion, stress, anxiety, loss of control, doubt, disappointment, and failure was commonly described in one study [11]. Several factors contributed to the negative emotional response. Further studies showed that nurses could experience distress related to insecurity on how to approach and support suicidal patients. These findings resemble findings from a review over suicidal patient perspective of being cared for by nurses [3]. The review showed that patients sometimes refrained from talking about suicidality due to fear of re-experiencing strong emotions. They also described having difficulties describing their experiences and feeling unsure about the nurse's ability to respond and be supportive.

The patients also revealed that some nurses seemed to avoid the subject altogether or simply provide care on a superficial level. For example, patients described that nurses sometimes tried to reduce their suffering or distract them from suicidal ideation by administering medications or by initiating social conversations and activities which provided temporary relief. There were also nurses who advised against talking about suicidality since they believed it could increase the patient's suicidality [3, 38]. Some patient also perceived that their own stigma, perceived judgment, shame, and embarrassment were sometimes mirrored in the nurse's actions, which caused them to withdraw [3].

Fear as an obstacle to establishing rapport was also highlighted in the study targeting nurses' suicide prevention with youths in psychiatric outpatient care. The experts in suicide prevention in this study acknowledged that suicide and suicidality are associated with fear and avoidance in general and cautioned that professionals

may also refrain from the subject. Based on their own experiences, as well as experiences of supporting other clinicians, the experts urged nurses to engage with the suicidal youth and to believe in themselves that they are competent enough to handle the situation: [10]

It has become a mantra for me that you have to work to push oneself over the threshold, to dare seeing, to dare hearing, to dare asking and to dare talking. (Respondent 3) [10]

Clua-García and colleagues' review also showed that nurses described distress when they felt that they didn't do enough for their patients and when patients that they cared for exhibited suicidal behavior [11]. Losing a patient to suicide was associated with a mixed range of feelings related to grief, feelings of failure, and guilt [11]. The hospital-based studies in the review also reported negative emotional distress related to discovering patients who had died through suicide [11]. For example, studies show how nurses struggled with unpleasant memories from the scene of the suicide and how this can activate stressful emotional responses that affected the nurse's life and work. There was also a fear of being accused of doing something wrong.

The need to protect oneself against emotional distress can lead to insufficient or contra-productive encounters and care-related avoidance and neglect of the subject with the person in need [3, 10]. Negative emotional response can also be related to lack of knowledge and understanding of mechanisms behind self-harm and suicidal behavior or insecurity about how to proceed. Negative attitudes can also be found towards caring for suicidal patients or patients that self-harm, particularly in the non-mental health settings [11, 20].

The fictive case with Tatjana demonstrates that the interplay between the patient and the nurses' approach can have great impact on how events unfold. Professional actions may infuse or defuse aggressive behavior against others and self-harm. This is described by Len Bowels and colleagues in a model for reducing violence during healthcare [39]. The prevalence of violence differs greatly across healthcare settings. The model therefore suggests that a systematic organizational approach is needed to address this problem. The model covers aspects related to the intrapersonal and interpersonal level, including both the patient and the professionals but also relationships outside the hospital. The importance of considering effects on relational aspects is in line with recent advice to focus on triggers that might increase the risk for inpatient suicide [4].

Resembling nursing scholars who argue that attitudes towards the patients must mirror the societal view described in healthcare policies [24]. The model of Bowels and colleagues also identifies mental healthcare systems as an important factor in the prevention of violence and self-harm in relation to healthcare. For example, a custody and control-oriented approach with zero tolerance against aggressive behavior may lead to more violence and exclusion. While an understanding attitudes towards aggressive behavior and the use of interpersonal communication skills may lead to less violence and exclusion.

Structures for Caring Approaches

Recommendations of care often list components of importance on “what” with less emphasis on “how” to achieve these components. And there is often a gap between practices endorsed in recommendation for care and actual care. For example, central components of person-centered care often need to be translated into actual care which requires extensive and systematic strategies on an organization level [14].

There are interventions that harmonize with the caring science perspective and components described as person-centered care. For example, motivational interviewing (MI) emphasizes partnership, acceptance, compassion, and evocation [40]. The assumptions that each person is valuable, unique, resourceful, and capable are compatible with the actual care actions. Compassion is shown by following the patients’ needs with respect, dignity, and well-being of the other person as unconditional components. The focus is on supporting the patient’s own motivation and resources instead of trying to control or convince the person of the need for change.

There are also several psychological interventions involving cognitive therapy and strengthening the patients’ own coping strategies that have been shown to be effective in reducing suicidality [35]. Another example is the *Attempted Suicide Short Intervention Program* (ASSIP) that builds upon the therapeutic alliance and collaborative work with the suicidal person. This intervention has been tested in outpatient care, and recent research has shown promising results in reducing suicidality among individuals who have attempted suicide [8].

However, interventions like the ones mentioned above are not developed for hospital-based care, and interventions that can be used with the suicidal patient during inpatient care are needed. A promising therapeutic framework designed to reduce suicide risk during inpatient care with short treatment times is *Collaborative Assessment and Management of Suicidality* (CAMS). In this framework, enhanced therapeutic alliance and active collaboration are used to increase the person’s motivation to live through supported self-regulation, ensured living conditions, and increased problem-solving [41].

Brief Admission

Brief admission (BA) is a structured care model developed for inpatient care that can be used when increased caring support is needed [42, 43]. The brief admission is initiated by the patient when he or she needs extra care support, for example, if the person perceives that thoughts of self-harm cannot be controlled using his or her other resources or coping mechanisms. The goal for admission is to support the patient towards reclaiming control and capability using communication and collaboration as the essential means. Focus is to strengthen the person’s own resources towards constructive solutions. The background and structure of BA are further described in a study on nurses’ experiences of BA on a ward for patients with emotional instability and problems related to self-harm [42].

Findings from Eckerström and colleagues demonstrate how a structured model sanctioned by the organization can facilitate a more person-centered care [42]. The nurses in the study described how the structure helped them to create a positive atmosphere by welcoming the patients directly to the ward instead of going through the emergency department and medical assessment. The nurses perceived that BA changed the focus from handling symptoms and problems towards shared decision-making, empowerment, and constructive solutions. The nurses' display of trust in their patients' abilities fostered a caring relationship with mutual respect and a more balanced relationship.

The emphases on trust instead of control in BA harmonize with Barker's notion that professionals must acknowledge that the patient is the captain of his or her life's journey [5]. This also increases the chances that patients can also view themselves in this light. This is mirrored in the nurse's experiences who expressed that the patients acted more responsible. The nurse also experienced that the incidence of conflicts and self-harm was reduced during BA in comparison with treatment as usual. Nevertheless, refraining from observing and controlling awoke worry among the nurses who were afraid that the patient would harm themselves [42].

The positive effects of BA described by the nurses in Eckerström and colleagues' study resemble findings from previous studies on BA. The effects of BA are, however, still to be carefully evaluated. Results from a randomized clinical trial including 125 individuals admitted to inpatient care due to self-harm and suicide risk showed that BA seems to reduce the use of involuntary inpatient services but not the voluntary. Furthermore, the number of self-injuries and attempted suicide was lower in the BA group in comparison with the control group. Other possible positive effects of BA were found in daily life functioning [43].

Support to Nurses

A meta-synthesis over suicide care including 17 articles on care of the suicidal patient from nurses' perspective showed that nurses' distress often was connected with feelings of not having enough competence and fear of doing something wrong and not doing enough [11]. These findings coincide with the suicide prevention experts' experiences of supervising nurses who work with suicidal patients [10]. The experts on suicide preventions also advised that it is important to acknowledge that suicide risk assessment is difficult for everyone, in order to reduce nurses' distress. They also noted the need for acknowledging the fluctuating risk of suicide in order to reduce feelings of guilt after a patient's suicide. This is also important for restoring the nurses' confidence in doing a suicide risk assessment as well as establishing rapport with the suicidal patient.

Nurses worry about not having enough competence and also about doing something wrong [11]. This may be associated with the medical view on assessing and managing suicidality. A focus on assessment and management of psychiatric conditions inevitably makes the psychiatrist the most knowing person in charge. This could, according to experts in suicide prevention, cause nurses to refer patients to the

psychiatrist instead of continuing their assessment even when having a good rapport. The experts advised that a more person-centered approach, with shared responsibility, could reduce professionals' fear of feeling responsible for another person's life. Furthermore, applying the recommendations for a more person-centered care in care of the suicidal patients [2] may also reduce the distress related to participating in insufficient care and the feelings of not doing enough.

The emotional strain of working with suicidal patients needs to be systematically addressed, for the nurse's own health, as well as for the quality of care. Previous studies and recommendations for care stress the importance of education, support, and supervision when working with suicidal patients.^{2,10,11} Examples on how educational interventions can improve relational and communication skills as well as nurse's ability and confidence to encounter negative emotional responses and suicidality are shown in examples below. However, nurses also need to be allowed to use these competences when working with suicidal patients. This can, for example, be done by using person-centered models for care, like the example of brief admission mentioned above [42]. The use of a structured method has also shown to reduce work-related stress in healthcare staff as well as improve work satisfaction when working with self-harming and suicidal patients [44].

Developing Caring Competence

Allowing space for the patient's own voice in clinical conversations is one of the pillars in the often-recommended person-centered care [14]. Person-centered care, and the importance of communicative and therapeutic competence, is also a central part of contemporary recommendations for care of suicidal patients [2]. For example, the self-harm and suicide prevention competence framework recommends "generic communications skills," "generic therapeutic competences," "ability to undertake a collaborative assessment," and "ability to assess the persons wider circumstances" as important competences [2]. However, approaches on how to assess the patient's own health and illness experience are often absent in clinical guidelines. The traditional focus on rating scales with pre-defined factors for suicide risk assessment and management and the need for developing more person-centered approaches are demonstrated in a review including 101 multidisciplinary clinical practice guidelines in suicide prevention [15].

Healthcare professionals who are trained to observe and monitor patients from a biomedical view may have extra difficulties to open up for and to stay focused on another person's narrative. This problem was acknowledged by the sociologist Arthur Frank who coined the term "the voice of medicine" describing how the biomedical agenda tend to dictate the content of communication (symptom recitation and diagnostics), with the "the patients voice" largely ignored and discouraged [45]. Healthcare personnel may therefore need training to avoid falling into the bio-medicine question-answer routine [12]. Communication training based on phenomenological principles such as empathy training [46] and phenomenology-based communication training (PhenBCT) are examples on approaches that can be used to

increase professional's competence in allowing space for patient's narratives during clinical encounters [12].

Below is an example on how this competence is developed through systematic training using PhenBCT [12]. Basic theoretical concepts in phenomenology, [1] identification of the natural attitude, [2] implementation of the phenomenological reduction, [3] sensitivity to the intentionality (meaning-making process) of the patient, and [4] reflection on the lifeworld, are systematically applied in practical communication training that involves role-play based on fictive cases, critical reflection, and clinical practice with patients under supervision [12]. The training program also includes a questionnaire for self-assessment and assessment of the person's ability: to listen, to use open questions, to stay silent, to recognize the person's lifeworld, and to withstand impulses of giving advice or consolation and engaging in problem-solving. Such skills have been identified as important when using a narrative approach with the suicidal patient [6, 10] and when exploring suffering with patients [13].

Transformative learning has shown that improved relational and communication skills also increase professional's confidence and capability to respond to and engage in unfamiliar situations. The rationale for this is that this training involves opening up for another person's lifeworld, which also entails a different view on how to approach both the patients and the caring [22]. This is in line with the experiences of PhenBCT used in clinical practice. Students and nurses described how PhenBCT enables them to focus on the patient's narrative instead of stressing over "what to do." The generic communication skills are often described as a powerful tool in emotionally charged situations, for example, in connection to untimely death or impending suffering and death [12].

Reflective practice can also be used to transform theory into emotional engagement, when beliefs and actions need to be challenged [22]. The starting points are often clinical practice or cases that are followed up by critical reflection. The reflection can be carried out in connection with the experience or afterwards. Fictive or reality-based scenarios can also be used to reflect upon anticipated or possible challenges [21].

For example, the fictive case of Tatjana is used as a starting point in nursing education. Research is then presented to show how self-harm and suicidality as well as mental disorders, antisocial behavior, and aggression often are associated with adverse life events and difficult living conditions, such as maltreatment in childhood [47, 48] and sexual abuse as a youngster [49]. Another example of a starting point is Lukas Moodysson's film "Lilya 4-ever" that can be used to increase awareness of human trafficking. The film is based on a true life story of a 16-year-old girl from Lithuania. The main character Lilya portrays a teenage girl with hopes and dreams about leaving her poverty-stricken misery by immigrating to the United States with her mother. Instead, Lilya is left behind, deceived, and forced into human trafficking and prostitution in Sweden. The film shows how a life can unfold from difficult living conditions and adverse events into intolerable suffering and suicide. The film also demonstrates how using drugs may be the only sanctuary available when living in exclusion and vulnerability, alone in a foreign country.

The rationale for awakening the emotional response is to increase students' and nurses' willingness to care by enhanced humanistic values and increased awareness about the human condition. Awakening of sympathy, empathy, and compassion is used to increase the nurse's sensitivity to the patients' need. Experiences and outcomes of transformative learning are mostly described as positive but may also involve unsettling experiences. For example, emotions like guilt and fear can be raised by the experience or event used for reflection and by changed positions [22]. The opening up to experiencing vulnerability may counteract the human nature of distancing oneself from unpleasant or unfamiliar challenges [22]. This is in line with Arnman and colleague's notion that caregivers need to be "touched" by the patient to be able to understand and take action in caring. The same authors also describe how the ability to "see with the heart's eye" is the beginning of person-oriented approaches [9].

Postvention

The act of care described in the caring approach and the caring relationship with the suicidal patient are suitable for caring for a person in crisis. The approach is therefore also applicable when caring with bereaved persons. For example, it is important to establish rapport and to use the person's narrative as the basis for supporting meaning-making, reconciliation, and growth [13].

Experiencing the death of someone close is a risk factor for developing mental ill health and suicide risk [50].

Jordan and Anker's book chapter "Suicide in Late Life" describes how bereavement may contribute to several elevated risk factors for suicide, in addition to the emotional pain and loneliness of losing significant others, such as life partners, family members, and friends [30]. The perception of being a burden and of not belonging can, for example, be increased due to loss of identity, socioeconomic status, and abilities [30]. For example, the loss of a partner or a grown child can mean losing the identity of being a wife or a mother, as well as losing the support needed to manage daily living without professional help. Jordan and Aker describe how the sense of entrapment and hopelessness can increase a desire for death. Accumulated losses throughout life can also contribute to an increased capacity for suicide, due to reduced fear of death and increased pain tolerance.

Suicide attempts and suicides are often preceded by a stressful life event [35]. Madsen and colleagues' overview over risk estimates and risk factors related to psychiatric inpatient suicide identifies amendable changes that can contribute to lowering the high risk of suicide in relation to inpatient care. For example, nurses need to be aware of the increased feelings of hopelessness and depressive symptoms that can be associated with changes in the family and social situations before admission but also during admission. The fictive cases of Tatjana, Stina, and Jukka also show that nurses need to be open for the persons' lifeworld which can include several losses that may contribute to the increased suicide risk and suffering.

Widening the Perspectives

This chapter shows how nurses and caring science can contribute to clinical suicide prevention in emergency and mental health settings. The care recommended for suicidal patients is nothing new and is often taken for granted. This also applies to values outlined in ethical guidelines and Sustainable Development Goals. However, studies on patients and nurses' perspectives on care during suicidality show that there is room for improvement, especially for vulnerable populations that risk being without sufficient care or even being subjected for hurtful care. Communicational and therapeutic competence forms the basis for person-centered care and for the nurse's suicide preventive care. These are competences that need to be developed and nurtured. Nurses also need a mandate and encouragement so that they can use their competences. There is also a need to develop further approaches for a more person-centered inpatient care for the suicidal patients.

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Psychological Treatment of Suicidal Individuals

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Mark J. Goldblatt

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Abstract

Suicide prevention is complex and involves many approaches that have been empirically validated. Psychodynamic (or psychoanalytic) psychotherapy is practiced throughout the world and used effectively to prevent suicide in a wide range of suicidal situations. Successful psychodynamic approaches have been energized by innovative developments, which have evolved to supplement more traditional open-ended psychotherapies with emerging evidence for their effectiveness. This chapter is an appraisal of these promising new developments to provide global applications of psychodynamic psychotherapy as an important evolving method for reducing suicidal behavior. Three key areas of innovation are highlighted in this chapter: different formats for delivery of psychodynamic psychotherapies, evidence base for the effectiveness of psychodynamic

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psychotherapy in the treatment of suicidal people, and clinical contributions of psychodynamic psychotherapy to the treatment of suicidal patients.

Keywords

Psychodynamic psychotherapy · Suicide · Clinical contributions

Introduction

Suicide prevention is complex and involves many approaches that have been empirically validated. Psychodynamic (or psychoanalytic) psychotherapy is practiced throughout the world and used effectively to prevent suicide in a wide range of suicidal situations. Emerging evidence shows that psychodynamic intervention is effective in reducing suicidal behavior and intent and as a treatment for associated mental health conditions.

Successful psychodynamic approaches have been energized by innovative developments and are generating a promising evidence base for its effectiveness. New models have evolved to supplement more traditional open-ended psychotherapies. There is emerging evidence of the effectiveness of psychodynamic psychotherapies for suicidal and self-harming people, delivered in innovative and traditional forms in Europe and North America and throughout the world. This chapter is an appraisal of these promising new developments to provide global applications of psychodynamic psychotherapy as an important evolving method for reducing suicidal behavior.

Three key areas of innovation are highlighted in this chapter: different formats for delivery of psychodynamic psychotherapies, evidence base for the effectiveness of psychodynamic psychotherapy in the treatment of suicidal people, and clinical contributions of psychodynamic psychotherapy to the treatment of suicidal patients.

Psychodynamic Therapies Have Developed in Significant Ways over the Past 120 Plus Years

Historical Background

Psychodynamic (or psychoanalytic) psychotherapy recognizes the importance of the unconscious in mental functioning, including internalized unconscious conflicts. Transference (transferring thoughts and feelings from a person or situation in the past onto the therapist) and countertransference (the reactions of the analyst to the patient) are important aspects of psychodynamic psychotherapy. The symbolic meaning of behaviors, as well as the transference significance of thoughts and behaviors, is also a great interest in psychodynamic psychotherapy.

Psychoanalysis began in the nineteenth century as a way of understanding the suffering of hysterical patients. Sigmund Freud was a neurologist in Vienna, at the turn of the nineteenth century, who recognized that there was no neurological basis

for hysterical symptoms [1]. This led him to an understanding of an unconscious mental life, organized around internal drives and the need to control these urges through the ego, the component of psychic that deals with internal and external reality. “The ego represents what may be called reason and common sense, in contrast to the id which contains the passions ([2], p. 25).” Ego psychology subsequently developed into the predominant psychoanalytic theory of mental functioning in twentieth-century America.

Anna Freud published a valuable expansion of the functioning of the ego in “The Ego and The Mechanisms of Defense” [3]. She recognized the importance of the relationship between the patient and the analyst: “With due respect for the necessary strictest handling and interpretation of the transference, I feel still that we should leave room somewhere for the realization that the analyst and the patient are also two real people, of equal adult status, in a real personal relationship to each other” ([4], p. 618).

Melanie Klein and others (e.g., Fairbairn, Rank, Ferenczi, Guntrip, and Winnicott) in the mid twentieth century emphasized the role of the infant’s attachment to caretakers and the ways these relations are represented internally. This became known as in object relations theory and dominated psychoanalytic thinking particularly in the UK and some parts of Europe. Ego psychology was further developed through the work of Heinz Hartmann, Ernst Kris, and others, who stressed the adaptive functions of the ego and opened psychoanalysis up to addressing somatic and social phenomena as well as the study of behavior. Heinz Kohut developed self-psychology in the United States in the latter part of the twentieth century, suggesting that the self is the central agency of the psyche as is experienced in relationship to the establishment of boundaries and the differentiation from others. A more recent development of psychoanalytic theory has been the introduction of intersubjective theory, which was developed at the turn of the twentieth century and suggests that the patient and the analyst influence each other in a way that is comparable to the parent-child relationship and, as such, cannot be seen as separate from each other.

Psychodynamic Therapies Are Now Delivered in Different Ways

As psychodynamic theory has developed, it has opened up treatment modalities for various personality disorders and different symptom clusters, including self-attack and suicidal distress. Here are three examples of such treatments, which have been developed and used successfully in the treatment of suicidal and self-injuring patients:

Mentalization-Based Therapy (MBT) for Adults and Adolescents

Mentalization-based therapy (MBT) is derived from a developmental theory originated by Peter Fonagy and expanded clinically with Anthony Bateman. It is based on a systematic observation of infants and caretakers and anchored in attachment theory. It posits that the sense of self develops from observing oneself perceived by others as thinking or feeling. By internalizing perceptions made by others about

himself/herself, the infant learns that his/her mind interprets the world and develops the capacity to mentalize, i.e., the ability to know that he/she has an agentive mind that can recognize the presence of mental states in others [5].

In mentalization-based therapy [6] the focus is on identifying the mental state of others as a way of understanding behavior. The therapist focuses on identifying “here and now” feeling states or thoughts in their patients. Change results from the causal role of mental states in explaining behavior. MBT bridges traditional cognitive and psychoanalytic techniques by emphasizing the cognitive processes in the “here and now” with participation of the therapist.

In a randomized controlled clinical trial, mentalization-based therapy (MBT) was shown to be effective in decreasing hospitalizations, medication usage, and suicidal and self-injurious behaviors in patients with borderline personality disorder [7]. In a clinical trial of MBT with 80 self-harming adolescents [8], MBT was found to be superior to treatment as usual for reducing self-harm and depression.

Transference-Focused Psychotherapy (TFP)

Transference-focused psychotherapy (TFP) is based on contemporary psychoanalytic object relations theory as developed by Otto Kernberg [9, 10] and expanded through developmental and neurobiological research. The basic building blocks of psychic structure are units made up of representations of the self and others linked through object relations dyads. The disturbances of patients with borderline personality disorder (BPD) reflect a lack of organizing internal structures needed to manage behavior, perceptions, and subjective experience. The internal defensive mechanism of splitting is central to BPD pathology. TFP reactivates primitive object relations in relation to the therapist (transference) and contains dysregulated behavior through interpretation and the protective treatment frame [11].

Transference-focused psychotherapy (TFP) has been found to be effective in the treatment of patients with borderline personality disorder (BPD) in at least two randomized controlled clinical trials. Clarkin et al. [12] found that, after 1 year, TFP was associated with positive change in patients with BPD with regard to depression, anxiety, global functioning, and social adjustment across 1 year of treatment; these patients also showed improvement in suicidality, anger, impulsivity, irritability, and verbal and direct assault. This was replicated by Doering et al. [13], who found that TFP was effective in decreasing suicide attempts and producing improvements in borderline symptomatology, psychosocial functioning, and personality organization. There was also preliminary evidence for a reduction of suicidality and need for psychiatric inpatient treatment.

Good Psychiatric Management (GPM) for Borderline Personality Disorder

Good psychiatric management (GPM) for borderline personality disorder utilizes cognitive behavioral and psychodynamic interventions derived from Winnicott’s

[14] theoretical concepts regarding the holding environment and good enough parenting. GPM emphasizes interpersonal hypersensitivity and a dyadic model of the therapy relationship. The clinical focus is on the patient's life outside of therapy with symptom reduction and self-control secondary to the primary goal of success in work and partnerships. An explicit and consistent effort is made to connect the patient's emotions and behaviors to interpersonal stressors [15, 16].

In large-scale trials, GPM for BPD was found to be equivalent to Dialectical behavior therapy (DBT) across a wide variety of outcome measures, including suicidal and non-suicidal self-injurious behaviors [17, 18].

Survey and Discussion of the Evidence Base for the Effectiveness of Psychodynamic Psychotherapy in the Treatment of Suicidal People

Psychodynamic psychotherapies have previously been criticized for not being “evidence.

based,” or amenable to scientific evaluation. However, more recently, studies have appeared evaluating its effectiveness with regard to conditions, including depression, anxiety, somatoform disorders, and borderline personality disorder, and longer- and short-term therapy, for adults and children and adolescents (e.g., [19, 20, 21]).

A systematic review of randomized controlled trials (RCTs) of the effectiveness of psychodynamic psychotherapy for suicidal attempts and self-harm showed that both long-term and short-term psychodynamic therapies are effective in reducing suicidal impulses and behaviors, as well as reducing repetition of self-harming behaviors, improving psychosocial functioning and reducing the number of hospital admissions [22].

This review identified 12 RCTs that tested the effectiveness of psychodynamic psychotherapy as an intervention for the reduction of self-harm and/or suicidal ideation, either as the focus of intervention or as part of an intervention to improve symptoms of personality disorder. The treatments included a wide range of types of psychodynamic psychotherapy with variable intensity of the treatments.

This review found that there was some preliminary evidence that psychodynamic psychotherapies were effective in reducing attempts at suicide and self-harm and also found that these interventions produced improvements in psychosocial functioning and reduction in number of hospital admissions. Psychodynamic psychotherapy appeared to have benefit over comparators for reducing self-harm 6 months after treatment ends but not at 12 months, implying that psychodynamic psychotherapy can be used to reduce self-harm more effectively up to 6 months after the end of treatment. Psychodynamic psychotherapy appeared to decrease suicide attempts by the 12 months mark. Psychodynamic psychotherapy has a positive impact on psychosocial functioning and reducing length of inpatient admissions. The authors concluded from these reviews that results were largely similar to those of other therapies, such as cognitive-behavioral therapy (CBT),

but benefits of psychodynamic psychotherapy trials appeared to be sustained longer.

Clinical Contributions

Clinical contributions of psychodynamic psychotherapy have stressed the importance of empathic engagement of the suicidal individual's internal subjective experience, attending to the emotional dynamics of the therapeutic relationship and the role of hope in suicide prevention.

Empathic Engagement of the Suicidal Patient's Internal Subjective Experience

Suicide may be seen as an extreme solution to intrapsychic conflict (or ambivalence). For most people self-harm is a transient phenomenon, borne out of an acute experience that resolves relatively quickly. For others, suicidality persists over a longer period of time, leading to more chronic considerations. Many people respond quickly to engaging psychotherapy. However, an intellectual understanding of the particular suicide dynamics, in and of itself, is **not** suicide preventing. Rather, it is the experience of therapeutic connectedness that delays self-destructive action. The therapist engages the patients without attempting to control the patient's behavior. By tolerating his/her own emotional reactions, the therapist allows the patient to express thoughts and feelings. The therapeutic relationship can foster life-sustaining support and foster internal structural changes, especially when faced with interpersonal hostility.

The therapist engages the suicidal patient through understanding the patient's internal subjective experience and the suicidal state of mind. This fosters a connection between the patient and the therapist, which empowers the development of a therapeutic alliance and contributes to sustaining hope, which is suicide preventing. The therapist's capacity for empathic relatedness increases through his/her understanding of the suicidal process and affective engagement in the interactive therapeutic relationship. The therapeutic alliance supports the patient's coping capacities in times of stress and allows for hope to sustain the suicidal patient through times of despair. Developing a therapeutic relationship with a suicidal person can be emotionally draining and feel internally threatening to the therapist. However, the therapeutic relationship is often vital to suicide prevention.

The patient's internal subjective experience of unbearable aloneness increases suicide risk. A subjective sense of unbearable aloneness or intrapsychic desolation [23] makes some people more vulnerable to subjective distress, despair, and self-destructive actions. Interventions to address this isolation are crucial to suicide prevention. Sometimes intersession contacts in case of emergency and other

supportive measures may convey sustaining support to alleviate acute suicidal distress. At other times this may be accomplished through more intensive frequency of sessions [24]. On the other hand, therapeutic distance, arising out of countertransference hate, can be suicide inviting [25].

The Emotional Dynamics of the Therapeutic Relationship

Active Stance

One of the key issues in the treatment of suicidal people is how to engage the patient in the therapeutic process. A review of manualized treatments for suicidal patients with borderline personality disorder [26] revealed that there is general agreement in the need for an active therapist, with attention being paid to affects and safety issues in session and between sessions. However, it's not clear what exactly makes an active stance: is it questioning the reluctant patient about safety issues versus the relative passivity of allowing the internal material to surface or showing interest by questioning or allowing the patient's autonomy to set the agenda? Being actively engaged is weighed against intrusiveness and struggles for control. The therapist's ability to tolerate his/her own anxieties, affects, and wishes to control the patient's behavior is balanced with a shared interest in understanding the patient's inner world and external relationships.

The challenge for the "active therapist" is, on the one hand, to show the suicidal patient an interest in his/her thoughts and feelings no matter how uncomfortable they may appear while, at the same time, being very careful not to appear to be acting intrusively, manipulatively, or controlling. This involves an ability to tolerate anxieties and feeling controlled by the patient while remaining attentive and flexible in understanding his/her inner world. This allows the suicidal patient to begin to recognize and tolerate their *own* ambivalence, anxieties, wishes, and desires, generally, as they relate to their internal and external worlds. Active engagement and interpretation must be repeated and enacted to overcome powerful suicidal beliefs and preclude the therapist from being cast in the role of executioner [27].

Therapeutic Alliance

A specific challenge for the therapist is the need to shift flexibly between empathic listening and an ongoing suicide risk assessment. In psychodynamic psychotherapy the therapist floats between listening and observing and between subjective and objective. With suicidal patients, however, the need to attend to objective observation is heightened, and the possibility of the need for some kind of action is ever present.

The therapist makes an ongoing evaluation to assess change in the patient's status or relatedness: How is the patient doing? Has there been a change in the depth of hopelessness and desperation? How connected is the patient to loved ones . . . to me? Has there been any real or perceived rupture or disconnection between us? And if so, to what extent does this increase the degree of acute risk? Is the patient more anxious or agitated than usual, perhaps not sleeping? Do I need to act in some way to address safety, or can this be contained in the context of listening, support, and psychotherapeutic interventions?

Sustaining Hope: The Role of Hopelessness

Schneidman recognized the critical role of hopelessness in suicide. He called hopelessness the fifth commonality of the suicidal mind: “The common emotion in suicide is hopelessness-helplessness: A suicidal person feels despondent, utterly unsalvageable” [28]. This was further developed by Beck and colleagues [29], who have shown that there is a closer correlation between hopelessness and suicide than depression and suicide. Hope, a subjective feeling of a more positive state to come, allows suicidal patients to delay impulsive action to end their lives.

Suicidal patients show ambivalence, which is complex, and involves opposing cognitive wishes to die and to be saved, as well as shades of conflicting affects. *Schneidman* called ambivalence the sixth commonality of the suicidal mind: “The common cognitive state of suicide is ambivalence: Suicidal people, wish to die and they simultaneously wish to be rescued.” “The paradigm of suicide is not the simplistic one of wanting to or not wanting to. The prototypical psychological picture of a person on the brink of suicide is one who wants to **and** does not want to.”

The genuine communication of hope is very different from a sympathetic pat on the back: “all will be fine.” At the bleakest of times, the analyst holds onto hope when the patient cannot. Three pathways promote hopeful engagement with the suicidal patient and are essential to effective psychotherapy with suicidal patients: relational coping, symptom management, and recognition of a core identity [30].

Conclusion

New models of psychoanalytic psychotherapies have emerged with novel clinical applications. The evidence base for the effectiveness of psychodynamic psychotherapy in the treatment of suicidal people is growing. Clinical contributions stress the importance of the internal subjective experience of the suicidal individual, attending to the emotional dynamics of the therapeutic relationship and the role of hope in suicide prevention.

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Treatment of Suicidal Behavior for Inpatients

61

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Abstract

Serious suicidal behavior may lead to admission to an inpatient unit, and this usually happens when professionals do not see any other alternative for treatment in the community, because of the severity of suicidal intent. Questions arising in

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this situation would be: When do the risks justify admission? Does admission improve safety or will it increase suicidal behavior? What are treatment options in an inpatient unit that cannot be offered in the community? When is a patient ready to be discharged?

In this chapter we discuss the timing of an admission and where (open or locked ward) and which arguments can be used to decide on the appropriate setting (voluntary/detained).

We discuss the advantages and disadvantages of admission and means to improve safety of the patient. We give a practical, clinically used outline of a phased-care-plan, which is used on a number of acute admission wards. We present which considerations play a role when we make critical decisions about a patient's safety. This chapter combines scientific evidence with clinical experience.

Keywords

Suicidal behavior · Admission · Inpatient setting · Discharge · Severe suicidality

Introduction

Most patients who complete suicide were not known or assessed by either mental health services or professionals (including professionals from services other than mental health services, with authority to admit suicidal patients) prior to their death [1].

Within mental health services, we assess suicide risks. However, the group of suicidal people assessed by mental health services differs from the group of people who complete suicide and are not known to mental health services. For example, looking at gender and suicide, men are, for example, less often known with a psychiatric diagnosis when they die by suicide [2].

Obviously, indicators of suicidal behavior need to reach the threshold for referral to mental health services, and if the condition is serious enough to warrant admission to an inpatient unit for suicidal behavior, this needs to be arranged through mental health services.

Some patients are admitted for other reasons than suicidal behavior (e.g., serious psychotic symptoms) and, however, can be suicidal without the assessor being aware of this. Patients can become suicidal during the course of admission even when the reason for admission was not related to suicidality, and they were not suicidal at the point of admission. Because of this, one would argue that there needs to be awareness of suicidal behavior and its' progress in time, not just at the point of admission but also during admission.

A suicidal person will only be assessed or treated by mental health services after their suicidality has been recognized. We need to be aware though that – even within mental health services – suicidal behavior can be missed and there is limited attention for detailed questioning about suicidality [3, 4].

People who are admitted to an inpatient unit because of their suicidal behavior are assessed to be severely unwell and at risk of acting on their suicidal thoughts or plans.

When a patient presents with serious suicide risks, the crisis services are asked to do an assessment in most cases, and this often results in admission [3].

There are a number of therapeutic options after suicidal behavior has been assessed, with increasing level of input:

1. Watchful waiting
2. Return to referrer
3. Regular follow-up within mental health services to be arranged
4. Urgent care
5. Intense daily care in the community
6. Intensive home treatment
7. Voluntary admission
8. Involuntary admission with limited restriction of liberty
9. Involuntary admission without liberties or leave arrangements
10. Involuntary admission with strict safety measures and possibly consequent permanent observations

What ultimately leads to admission? In this chapter we show what the criteria are; however, we also need to consider the “less scientific” practical reasons affecting the choice for admission. On most admission wards, there is no tradition of research, and the approach is often practical rather than scientific. Because cultures on different admission wards vary, it is difficult to compare wards, and there is little uniformity around management of suicidal behavior.

The severity of suicidal behavior (or level of suicide risk) often triggers admission; however, this “severity” is hard to measure, and rating scales are not often used.

Other factors play a role in admission. Defensive practice may lead to responsibilities and risks being shifted to the admission ward. An admission reduces the risks for professionals in the community, who will have demonstrated that “action has been taken” by having the patient admitted. In case of a fatal outcome, judgment will be harsher in situations where little or no action has been taken and milder when professionals have tried to do “something.”

There may be excessive pressure from family and loved ones of other third parties when admission criteria have not been met. Other professionals, for example, the police, may put pressure on mental health services to admit patients and show little understanding when admission does not happen. Some patients are unable to communicate their distress effectively and cause significant disturbance in the community by acting out (see other ► [Chap. 14, “Differentiation of Suicidal Behavior in Clinical Practice”](#) in this book).

Sometimes a patient needs to be removed from an untenable situation. The community team may be exhausted or burnt out, and admission offers breathing space for the team that has deal with pressure caused by someone presenting with chronic suicidal behavior.

Of course, there can be a mix of different circumstances, but it is important to be aware that it is not just one rational, well-reasoned argument that leads to admission and it is not a single but several factors affecting the reason for admission.

Bed capacity plays an important part in decisions to admit, and an increase in the number of beds often reduces the barrier to admission. Perhaps financial motives or incentives should not be mentioned; however, the threshold for admission may be lower when bed occupancy is low. Newly formed CRHT and/or IHT teams will lead to a gradual reduction of beds and lower number of admissions, and this may result in an increased barrier to admission.

To summarize, many factors lead to admission; however, we do not know if admission increases patient safety and improves suicidal behavior or whether other factors play a role.

Additionally (except for specific academic or specialized clinics), there is a limited number of specially trained staff to detect and manage suicidal behavior on admission wards, while ideally this is exactly the location where more specialized treatment and management of suicidal behavior should be offered (e.g., Collaborative Assessment and Management of Suicidality (CAMS), Attempted Suicide Short Intervention Program (ASSIP), trauma therapy, dialectical behavior therapy (DBT), cognitive behavior therapy (CBT), etc.).

Admission wards often focus on safety and risk reduction when treating suicidal symptoms, and treatment is according to a medical model with little eye for detail when it comes to the psychosocial circumstances and drivers for suicidal behavior. Underlying symptoms like depression, insomnia, and/or psychotic symptoms are often treated with psychotropic medication.

As with most psychiatric illnesses, time heals. However we also know that admissions can exacerbate symptoms and cause a deterioration in mental state. Admission wards are conglomerations of unwell people, and often there is a wide variety of symptoms, for example, serious psychotic symptoms, mania, drug-induced comorbidity, and/or undefined psychiatric symptomatology [5].

In the abovementioned group of inpatients, suicidal behavior may have been part of the reason for admission; however, admission in most cases has been indicated for other reasons. Admission to a psychiatric ward may emphasize the stigma of “being ill” or “being a mental case.”

Little research has been done about the efficiency of admissions. There has been no randomized controlled trial looking at patients meeting the threshold for admission for “suicidality,” using a set of clinical indicators. Any study design looking at admission/no admission for suicidal patients who would meet criteria for admission, and consequently look at the difference in fatalities between both groups, testing the hypothesis that “admission reduces the number of fatalities for suicidal patients,” gambles with patient safety and patients’ lives.

On top of this, large numbers of patients are needed for research of this kind, and suicide (fortunately) is relatively rare on admission wards. Bearing in mind that little research is done on admission wards anyway, a proposal for the abovementioned kind of research will most likely not pass criteria of any ethics commission.

Over the last two decades, there has been a transition from inpatient and institutional care to community care, aided by IHT (intensive home treatment) or CRHT (crisis resolution and home treatment) teams. Based on changes in outcome, conclusions about the efficiency and value of admissions can be made.

We are unable to give reliable answers in this chapter about the best choices and admission indicators for suicidal patients. We want to try to offer a more rational approach though for the admission of suicidal patients in this chapter.

It is important to think carefully about impact on and consequences of an admission for suicidal patients or patients who present with dangerous suicidal behavior.

We also need to be aware that admission offers false sense of security and may lead to iatrogenic damage. At times though, we may find ourselves with our backs against the wall and have no other choice than to admit, which is in this case a “last resort” solution.

Indication for Admission

At what point has the risk of suicide reached a level of severity and acuteness to warrant admission?

A meta-analysis showed psychiatric inpatients (including those on approved leave and those absent without leave) had a pooled suicide rate of 147 suicides per 100,000 inpatient years, which is more than 12 times the global population suicide rate [6].

This means there is evidence of an association between current – or recent – psychiatric inpatient admission and increased suicide risk. This association is assumed to be due to the selection of patients with increased suicide risk and subsequent protective properties of admission for suicide [7].

In a previous study, detailed information from psychiatric emergency service assessments were recorded during a 5-year period; 14,705 assessments were included. Suicidal behavior was assessed in 32.2% of the cases; 42.6% of the suicidal patients were admitted following assessment; and of these patients, 15.2% were formally detained [3].

Of course, bed availability is one of the most important factors for admission rates, because of the rule of “supply determining demand.”

Offering an admission can also raise expectations with patients, family members, mental health workers, and/or other medical personnel that unfortunately cannot be met.

Professionals, loved ones, and third parties involved with the patient may decide (or exert pressure) to admit, motivated by feelings of powerlessness or frustration. The decision to admit may also stem from more defensive medical practice, transferring the responsibility from the outpatient to the inpatient team.

If expectations are not met or information about what is available in the inpatient unit is unreliable, the resulting disillusion can contribute to progress into hopelessness and result in negative effects on future treatment. The procedures surrounding

admissions, especially if they are involuntary, can lead to the patient becoming suspicious of mental health professionals. The main responsibility of the assessor is to strike a balance, both for the period before and during admission, and be aware of the effect of professional choices on the autonomy of the patient.

Post-discharge, difficult choices await us when we reach the point where we need to balance the risks and the negative impact of reduced autonomy. It has not been proven that admitting patients can prevent suicide, and it is as described before, ethically not possible to conduct a well-randomized research into the preventative or protective properties of inpatient admission [8].

Even though there are no reliable tests available to predict acute suicidal behavior, fortunately, we have some indication of the contributing factors to suicidal behavior, thanks to epidemiological studies [9].

Epidemiological research found many risk factors for suicidal behavior; however – during assessment of an acutely suicidal patient – these risk factors cannot predict the risk of immediate, life-threatening suicidal behavior in the days following assessment [10]. “For a good assessment you need to rely on recognition, knowledge, clinical experience and intuition.” The guideline below offers guidance on when to admit, based on criteria from American guidelines (Table 1) [11].

An overwhelmed support system (family, friends, neighbors) can be an indication for admission. When a support system has decompensated and is unable to participate in the care of the patient, admission is necessary. Exhausted carers sometimes attempt to push for admission and are unable to look at alternative solutions. An absent support system for the patient to fall back on in times of crisis is an indication for admission [3].

Involvement of Carers

Involvement of carers (family, friends, neighbors) in treatment and diagnosis of suicidal behavior is important; however, this often takes the back seat. We want to emphasize that it is essential for mental health professionals to do the utmost effort to involve carers in treatment and diagnosis. Refusal from the patient for carers to be involved needs to be challenged by professionals. With the establishment of a therapeutic relationship, we often find that a patient will agree for family to be included, even after initial refusal.

When there is no support system, the GP should be contacted.

Case *A 47-year-old man has tried to hang himself. He was accidentally found and required more than 15 min of resuscitation. It is not possible to get a good history from the patient. He states it was an accident and denies suicidal intent. He complains that everything inside his stomach has been destroyed and that he does not want any help. The patient recently divorced and is not in contact anymore with his ex-wife. The patient presents with severe psychomotor retardation. He stopped working in the restaurant that employed him, is not eating, does not want to do anything, and spends the day in his chair, doing nothing. He is known to health services with pulmonary*

Table 1 Guidelines for selecting a treatment setting for patients at risk for suicide or suicidal behaviors

Admission generally indicated
<i>After a suicide attempt or aborted suicide attempt if:</i>
Patient is psychotic
Attempt was violent, near-lethal, or premeditated
Precautions were taken to avoid rescue or discovery
Persistent plan and/or intent is present
Distress is increased or patient regrets surviving
Patient is male, older than age 45 years, especially with new onset of psychiatric illness or suicidal thinking
Patient has limited family and/or social support, including lack of stable living situation
Current impulsive behavior, severe agitation, poor judgment, or refusal of help is evident
Patient has change in mental status with a metabolic, toxic, infectious, or other etiology requiring further workup in a structured setting
<i>In the presence of suicidal ideation with:</i>
Specific plan with high lethality
High suicidal intent
Admission may be necessary
After a suicide attempt or aborted suicide attempt, except in circumstances for which admission is generally indicated. In the presence of suicidal ideation with:
Psychosis
Major psychiatric disorder
Past attempts, particularly if medically serious
Possibly contributing medical condition (e.g., acute neurological disorder, cancer, infection)
Lack of response to or inability to cooperate with partial hospital or outpatient treatment
Need for supervised setting for medication trial or ECT
Need for skilled observation, clinical tests, or diagnostic assessments that require a structured setting
Limited family and/or social support, including lack of stable living situation
Lack of an ongoing clinician-patient relationship or lack of access to timely outpatient follow-up
<i>In the absence of suicide attempts or reported suicidal ideation/plan/intent but evidence from the psychiatric evaluation and/or history from others suggests a high level of suicide risk and a recent acute increase in risk</i>
Release from emergency department with follow-up recommendations may be possible
After a suicide attempt or in the presence of suicidal ideation/plan when:
Suicidality is a reaction to precipitating events (e.g., exam failure, relationship difficulties), particularly if the patient's view of situation has changed since coming to emergency department
Plan/method and intent have low lethality
Patient has stable and supportive living situation
Patient is able to cooperate with recommendations for follow-up, with treater contacted, if possible, if patient is currently in treatment
Outpatient treatment may be more beneficial than hospitalization
Patient has chronic suicidal ideation and/or self-injury without prior medically serious attempts, if a safe and supportive living situation is available and outpatient psychiatric care is ongoing

problems; however, no physical cause has been found for the gastrointestinal complaints he is experiencing. When his 19-year-old son is contacted, he expresses grave concerns about his father. He can see his father deteriorating and is unable to take care of him. The team decides to admit the patient.

Open or Locked Ward?

Patients who can safety plan are usually admitted to an open ward. For a patient to be admitted to an open ward, professionals need to be able to trust a patient, and the patient needs to be able to trust themselves. As said before, this trust is usually based on recognition, knowledge, clinical experience, and intuition. Patients admitted to an open ward often demonstrate a high level of functioning and an absence of severe mental illness (e.g., a psychotic depression). Admission of patients with personality disorder may be provided as a brief admission (or respite admission) [12]. Admission of patients with depression needing pharmacological treatment will – most likely – take a couple of weeks. Serious agitation and side effects at the start of an antidepressant are reasons for extended admission [13]. When it is not possible for a patient to guarantee their safety or to safety plan, they need to be admitted to a locked ward.

Suicidality is encountered very often on a locked ward. The risk of suicide in this environment is 40–50 times higher than in the general population [14].

But in another study, no differences between suicide rates were found for an open or closed ward [15].

***Continuation of Case** The patient shows symptoms of a severe depression with suicidal intent. On top of this, the patient is minimizing and dismissing his symptoms. His son is very concerned and at the end of his tether. Patient is offered admission to a locked ward so he can be supervised, diagnosis can be completed, and treatment can be started.*

Voluntary or Detained?

A patient can agree to voluntary admission to a locked ward. “Voluntary” needs to be put in perspective because when a suicidal, voluntary patient requests discharge and cannot keep themselves safe, a detention can still be applied for. In this situation, it is possible to discuss the precise reasons for detention with the patient (and carers) in a transparent way, and the temporary nature of a detention needs to be emphasized. Involuntary admissions can be extremely traumatic and damaging, and when possible the “least restrictive option” should be considered. Autonomy and the therapeutic relationship have to be maintained throughout the process of assessment and admission.

We do not know whether involuntary admission protects against suicide because we do not know what would have happened if the patient had not been detained.

It is not ethical to conduct research with half of suicidal patients admitted to a ward and the other half not and look at differences in suicidal behavior of both groups [16]. We are convinced though that if it were not possible to admit patients to a locked ward, the number of suicides would be much higher.

Continuation of Case *The patient refuses admission and states that there is nothing wrong with him. Detention is recommended, because of the unequivocal diagnosis of depression and because of the risk to self. This is discussed with the son who agrees with an involuntary/formal admission.*

Restrictions of Liberty

Restrictions of liberty within psychiatry are strictly regulated in most European countries and the USA, and in most countries, those regulations are applied when there is serious danger because of psychiatric symptoms and when – at the time of suicidal behavior – the risk of suicide/death is high. In case of serious suicidal behavior with lack of insight and inability to consent and/or an unsafe situation at home, chances of involuntary admission are high if patients refuse to go into hospital on a voluntary basis.

Regulations about detention vary in different countries; however, generally there is a distinction between short(er) detentions for assessment and long(er) detentions for treatment.

While detained, patients still have rights, including rights around leave and liberties. These can only be restricted when risks are considered too high and too numerous, including the risk of a deterioration in mental health should the patient be allowed to leave hospital. Restriction of liberties has the potential to cause collateral damage when a suicidal patient has had previous traumatic or unpleasant experiences with detention and will try anything to prevent admission. Generally, it is important for professionals to show restraint when applying for involuntary treatment and admissions.

Continuation of Case *5 days into admission, the patient is more able to talk about his emotions and motives. The detention has been finalized. A diagnosis of depression with mood-congruent psychotic symptoms has been confirmed. A treatment and care plan has been discussed during a meeting with patient and his son, and it is decided that ECT will be given. The patient is not granted leave and is on constant observation.*

Rescinding of Detentions

Usually a patient is detained because of the risk to self and others, and mental health advocates and tribunals monitor the validity of detention.

When we are dealing with personality disorders, detentions may complicate matters rather than simply providing safety and an opportunity to treat. This occurs when suicidality is used by a patient as a way to communicate feelings of distress, perceived powerlessness, frustration, and anger, whether consciously or subconsciously [17] (or see other ► [Chap. 14, “Differentiation of Suicidal Behavior in Clinical Practice”](#) in this book).

If a patient cannot guarantee their safety – which may change or improve in due course – the only choice left may be to detain the patient, if only for a brief period; the family though may not agree with a brief detention or with rescinding the detention within a short period of time. For this group of patients, admission can be perceived as a confirmation and justification of their suicidal behavior, and – despite the risks of suicidal plans and intent – it is preferable for those patients if admission is kept brief. These ambivalent and complex situations can lead to uncertainty and resentment from the family, because patients clearly express that things are not well and put themselves at significant risk while professionals want to keep the admission as short as possible. Families are often at the end of their tether. Legal professionals involved in the procedure may feel that a patient is seriously ill and may not wish to rescind the section. To rescind a section may seem illogical but from a clinical point of view may be the best solution in the abovementioned situation. It is the responsibility of professionals to explain this clearly to the patient and their family.

Characteristics of Suicidal Patients in an Inpatient Unit

Research shows that for 29% of (psychiatric) admissions, suicidal behavior is the main driver. For 11% of the admissions, the risk of suicide is considered to be so severe that it warrants constant 1:1 observation. Most patients admitted for suicidality have a diagnosis of depression (often with psychotic symptoms). Frequently it is a first presentation patients are younger and more often female. They tend to be in employment, often end up in seclusion (in the Netherlands), and more often are recommended for/treated with electroconvulsive therapy (ECT) [5].

Treatment on Admission

Both in open and locked wards patient are treated according to guidelines. In locked and/or more secure wards, treatment tends to be more assertive for both pharmaceutical and biological treatment (like ECT).

Sometimes the route through the treatment pathways is accelerated, and some of the steps are skipped. For example, in case of a psychotic depression with psychotic symptoms and severe suicidality, treatment with ECT is often initiated quicker than advised by guidelines.

Continuation of Case *There is no improvement and patient remains suicidal while suffering with symptoms of a psychotic depression. A tricyclic antidepressant is started without effects being visible after 4 weeks. ECT is discussed with the patient*

and his son and they both consent. After four sessions, the retardation/inhibition is reduced, and the patient seems less depressed. A different TCA is prescribed, and within a couple of weeks, the patient recovers.

Suicidal patients with a bipolar affective disorder are more often treated with lithium, while suicidal patients with schizophrenia are more often treated with clozapine [18]. Starting lithium or clozapine quicker than advised by guidelines may happen because some research shows evidence of lithium and clozapine having a protective effect against suicide. For suicidal patients with other psychiatric diagnosis including anxiety disorders and personality disorders, the specific guideline needs to be followed.

Psychotherapy, if part of a guideline, more often than not does not happen during admission because patients are too unwell. Most admission wards do not have professional psychotherapeutic facilities, and adequate psychotherapeutic treatment can only start in the community. Because of this, underlying cognitive processes leading to suicidality, sustaining suicidality, or worsening suicidality are not addressed. Treatment with medication seems to be the focus when treating depression in an inpatient ward, while psychological treatment for suicidality is ignored. When – at the point of discharge – the depression has been treated and suicidality is left untreated, suicidality is likely to crop up again as an issue shortly after discharge.

Phased Treatment and Safety Plan on Acute Ward

Acute admission wards need to guarantee the safety of patients; however, assessing the need for constant observation or transfer to a locked ward can be difficult for suicidal patients, and assessment of suicide risks needs to be done throughout admission, not just at the point of admission and discharge. To improve the suicide risk assessment, we advise to work with a “phased treatment/safety plan.”

A “phased treatment plan” is a dynamic process requiring quick and appropriate action.

The importance of a phased safety plan is twofold: firstly, on admission suicidality is explicitly explored and scored; secondly, it allows for uniform agreements between professionals responsible for treatment and for information sharing with carers/next of kin.

Several phased treatment plans are available. We discuss the phased treatment plan as used on a number of acute admission wards. This plan describes five phases describing the current suicidal ideation, plans, and intent. The higher the phase, the higher the level of observation required as used in the Netherlands [8] (Table 2).

Application of Phased Treatment and Safety Plan

On admission, the patient will be mostly assessed by a medical professional, who is usually accompanied by a nurse. Assessment of suicide risk is part of the mental state examination.

Table 2 Phases during admission in a closed ward***Phase 5: Separation and camera observation***

The risk of suicide is assessed as “very high.” It is not possible to make a reliable safety plan around suicide, allowing “within eyesight observation” on the ward

This phase can also be used for patients who are emotionally detached/alooof and show inexplicable and unpredictable changes in their mental state

When patients are secluded because of suicidality, there should be constant camera supervision. Images from the camera need to be transmitted to central nursing posts

Patients need to be reviewed briefly every hour. Separation should be as brief as possible and not last beyond half a day. When a patient is mobilized, this needs to be recorded on a standardized form

Phase 4: Observation at planned time intervals

4a	No liberty and permanent observation
4b	No liberty, contact with staff at least every 15 min
4c	No liberty, contact with staff at least every 30 min
4d	No liberty, contact with staff at least every 60 min

Suicide risks are assessed as “high.” It is not possible to make a reliable safety plan around suicide allowing “within eyesight” on the ward. This may require for the patient to be within eyesight of the nursing staff during handovers. Only when appropriate and safe agreements about a safety plan can be made with the patient, the “within eyesight” observations can be reduced to 1:15, 1:30, or 1:60. The treatment team makes the decisions about the level of observation, based on a clinical assessment of the suicide risk. The nursing team proactively initiates a face-to-face contact with the patient at agreed times. Observation is noted on a standardized form. It is important to realize that 1:1 observation can only be offered if there is enough staff. If this is not the case, the patient should be put on Phase 5 observation

Phase 3: No observation, no liberty on a locked ward

This phase can commence when it is possible to safety plan around suicide and the patient is not emotionally detached. Risk is assessed as high, and safety of the ward is required. The patient has no leave from the ward

Phase 2: No observation, leave off the ward

When there is no indication for acute risk of suicide or when the patient is able to safety plan, Phase 2 can be commenced. The patient can agree with nursing staff about time spent off the ward. It may be possible for a patient to have trial leave at home for part of the day

Phase 1: No observation, ready for discharge

If there is no evidence of suicidality and the patient is able to safety plan while admission does not offer further benefits for recovery, the patient can be discharged

To assess suicide risk, stressors and vulnerability for suicide need to be reviewed; additionally, preparations made by the patient for a successful suicide need to be recorded. It is advised to get a detailed history of perceived sense of “entrapment.” Recent stressors may lead to emotional “tunnel vision,” resulting in the patient not being able to see any solution other than suicide [19].

Cases: Continuation of Case *On the day of admission the nursing staff finds the behaviour of the patient odd. He appears frightened when he sees them. In conversation he indicates that he feels he cannot go on and the only solution is to die. A noose is found in his possession. Patient indicates that he does not know how he can proceed; he is frightened and wants his sleep to improve. He cannot safety plan because he does not trust himself and –as mentioned before- ECT treatment is arranged. It is decided for patient to be placed in ‘Phase 4a’ with 1:1 observation (son is informed about this). He is prescribed sleepmedication and a nurse stays in his room during the night. The room has been completely searched and no contraband has been discovered. The patient manages to sleep. The next day –after a good nights’ rest- he is able to safety plan despite still feeling suicidal; he is given follow-up ECT.*

Patient is put in Phase 4b. Every 15 min he is seen by staff, also during the night. He recovers quickly, and the observation level is gradually reduced. Once in Phase 4d and able to explain to his psychiatrist that things are alright and he does not want to die – despite not knowing how things will be outside of the hospital – he is placed in Phase 3.

The risk assessment is based on history and collateral history, and a patient is put on the appropriate phase accordingly. Preferably this happens with patients’ consent and with involvement of the patients’ family and professionals in the community. If the patient is not under the care of a mental health community team, it is advisable to contact the GP.

The phase is recorded in the (electronic) patient file with the color of the phase and – when in Phase 4 – the observation times. The plan should be updated and handed over through a digital information system. This can be in the form of a “Digi-board” which can be projected on a screen. At every handover there is an overview of the phase and the opportunity to adjust, while adjustments need to be discussed and agreed within the team. Nurses will immediately know what is expected of them when they see the code with regard to observation levels. There is also a verbal handover between lead practitioner and nurses. The “Digi-board” is used during morning handovers. If the phase is changed, an immediate digital adjustment can take place. This way, professionals who are not able to attend the handover will still be up to date about changes.

Discharge

A patient can be discharged when safety concerns are not a reason for admission anymore. Discharge is usually after a multidisciplinary meeting has taken place and discharge has been discussed with the referring team. Sometimes the (temporarily) increased risk of suicide triggered by stress caused by discharge may be overlooked by the community team. The community team responsible for the care after discharge needs to be informed of any increase in suicidal behavior as a response to a change in environment.

Discharge is related to a high number of deaths in the early post-discharge period, which has resulted in recommendations of follow-up within a week [20].

Even when a patient does not want further treatment within mental health services, the discharge team needs to do a serious effort to arrange an outpatient appointment. Suicidal behavior needs to be addressed in this appointment. The GP and carers/next of kin need to be informed explicitly if further treatment in MHS is not possible.

Characteristics of Suicides in Mental Health

Between January 1999 and December 2012, we collated data of all patients who were treated by *Parnassia* in The Hague (a mental health trust) and died by suicide. (After 2012, the inspectorate protocol changed, and not all suicides needed to be reported anymore.)

These reports were supplemented by patient record files [21].

Data was anonymized and registered in a SPSS database (version 23.0).

Of 314 suicides, 27.4% were admitted (Table 3).

The majority of patients who were admitted and died by suicide did their fatal suicide attempt while on leave or not on the ward. Fatal attempts during inpatient admission were not significantly more often done in a locked ward (chi-square 3.186, Df = 1, $p = 0.074$). Of the patients who made a fatal attempt during admission, the majority died by hanging (Table 4).

The number of patients admitted during the 13-year episode was around 31,200, and the calculated suicide rate is around 275 suicides per 100,000 inpatient years, approximately 1.7 times higher than the rates from Walsh et al. [6].

In recent years, there have been technical modifications and adjustments to the ward environment, in order to reduce opportunities for hanging (reducing ligature risks). The most important tool to prevent suicide is to make the inpatient environment ligature free and to equip an inpatient setting in a way that – architecturally and technically – there is no opportunity for any part of the ward to be used as a “hanging tool.” Wards were also provided with “unbreakable glass” and located on the ground floor.

Table 3 Suicides in mental health and proportion of suicides during admission

Setting	Number	Percentage	N suicides on ward	% suicides on ward
Admitted	86	27.4%	29	9.2%
<i>Closed ward</i>	<i>(36)</i>	<i>(11.5%)</i>	<i>16</i>	<i>5.1%</i>
<i>Open ward</i>	<i>(50)</i>	<i>(15.9%)</i>	<i>13</i>	<i>4.1%</i>
Non-admitted	228	72.6%		
Total	314	100%		

Table 4 Method of suicide on ward during admission

Method of suicide on ward	Number
Hanging	22 (75.9%)
Strangle	2 (6.9%)
Cutting	2 (6.9%)
Intoxication	2 (6.9%)
Jumping	1 (3.4%)
Total	29 (100%)

To reduce the risk of jumping, it is important not to locate wards on higher floors and, if this cannot be avoided, to provide safety nets and to ensure no other methods are available. We all know though that determined patients will always find other creative ways to harm themselves [22].

When to Admit and When Not to Admit

Sometimes “careful watching” is the best form of action.

Some situations though can trigger suicidal behavior and increase the suicide risk. Deprivation of liberty can have iatrogenic consequences including a disruption of the therapeutic relationship, leading to disengagement after discharge. Taking away a patients’ authority can hinder recovery, and time spent in seclusion may increase low mood/a mood disorder. Generally, professionals find “careful watching” difficult. Fear of suicide may lead to defensive practice which consequently will have a negative impact on the therapeutic relationship. Juridical and disciplinary consequences may play an important part in the decisions.

Sometimes the negative impact of an admission is preferred rather than having to deal with consequences of a suicide. There are numerous examples of NoK/carers considering the lack of action by professionals as the cause of suicide and blaming professionals for the suicide.

There is a worldwide difference in *practice of observation/how observation is executed*. In case of relative understaffing, 1:1 observation is not always possible. Separation of suicidal patients in some cases is the safest option. Separation however is an undesirable intervention. It is preferable to allocate more nursing staff or invest in technology like detection systems with smart sensors to allow for constant observation. Over the last years, the first author and others introduced automation rooms on a closed ward. This technical device is used in a normal single patient room and includes different smart sensors and “visual contour detection” by a distant warning system (see Picture 1). The introduction of this system was found to reduce seclusion with more than 76% in a natural prospective design study (oral presentations, see, e.g., <https://suicidaliteit.nl/2018/CCITP/presentatieCCITP.pdf>).

Patients and staff generally commend this new technology.

Advice in this chapter is according to “what would be best in an ideal situation.” Practically, an acute admission ward can be capricious. There may be heterogeneous disorders, unclear diagnoses, and mixed symptomatology all interfering with each



Picture 1 Technical details for the automation room

other [23]. The dichotomy between taking over responsibility and allowing a patient as much responsibility as possible is not straightforward in daily practice. It remains difficult for both professionals and patients to assess how much responsibility a patient can carry [24]. Often professionals are not fully aware of the suicide risks and assessment of suicide risks. An extensive teaching program for professionals is essential. Professionals not assessing suicide or ignoring suicidal behavior on an acute admission ward are not acceptable [4].

Intensive Home Treatments

There has been a significant reduction in beds over the last few years, and admissions are replaced by “intensive home treatment” (IHT). IHT involves a team consisting of a doctor and affiliated nurses who are able to see a patient several times during the day at home. Just like on a ward, these teams play an important role in assessment and reduction of suicidal behavior. Research needs to verify the effect on treatment and the course of suicidal behavior. There is potential for IHT teams to reduce suicide risk; one concern is the possibility that suicide rates could be higher in this specific (IHT) setting than in an inpatient setting. The bed reduction leads to increase of suicide rates during treatment with the IHT, but the overall suicide rate in this population needing intensive treatment is the same [25].

Finally

The ability to connect with suicidal patient is essential for any good suicide risk assessment.

Improved professional skills will improve care for suicidal patients. It is also important to develop practice guidelines and a common vision on how to implement those guidelines within the team [26]. We advise for team members to be trained regularly in management of suicidal behavior. This will improve and develop individual skills, and it increases knowledge about suicidal behavior.

We also want to emphasize that carers of suicidal patients play a crucial role in admission, treatment, and discharge. Professionals need to involve carers when and wherever possible.

To improve assessment of suicide risk on an acute admission ward, we advise working with the phased treatment plan, which allows careful observation. Of course, carers need to be involved in this plan.

Without constant observation there is always a risk of a patient killing themselves on the ward. There are numerous ways by which patients can successfully complete suicide; however, the most common method is hanging (see before). Despite these findings, there are still newly built hospitals that do not take ligature points into consideration (like doorknobs, sliding edges on the door, strong smooth ceilings, etc.) resulting in patients hanging themselves during admission.

Risk assessment is a continuous process that starts at admission and needs to be repeated throughout the admission period [8].

Suicide risk assessment does not stop at discharge. Especially during the transition phase after discharge, monitoring of suicidal behavior is crucial.

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Anti-suicidal Properties of Lithium Treatment

62

Ute Lewitzka

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Abstract

Lithium is one of the most incredible elements in the world. It is unique in many aspects. Despite its wide usage in manufacturing, it has been a proven, effective medication in psychiatry for decades. Its mood-stabilizing effects have led to its inclusion in national and international guidelines as a gold-standard in the treatment of both bipolar and unipolar affective disorder. Suicidality is one of the most challenging syndromes in mental illness. Its prevention and treatment options for healthcare providers are extremely important. Lithium's anti-suicidal effects have been investigated in many international studies since the early 1990s. This effect was demonstrated by applying various designs, settings, and taking different statistical approaches including retrospective data analyses of suicides, suicide attempts, or suicidal behavior but also mortality data. Interestingly, this anti-suicidal effect has also been revealed in other research directions, i.e., the correlation between the lithium level in tap water and suicide rates. The following

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chapter provides a review of studies examining lithium's anti-suicidal effects, discusses clinical implications, and offers a practical guide.

Keywords

Lithium · Anti-suicidal · Prevention · Suicide · Suicide attempt

Introduction

Suicide results from different and complex social, cultural, and individual factors. It often is associated with a personal crisis in which various life events coincide, or the person experiences rapid changes in a short time (e.g., the loss of a close relative). Mental health disorders are closely associated with up to 90% of suicides [17]. Further risk factors, such as chronic pain, abuse, neglect, financial problems, loneliness, and discrimination within certain risk groups, have been well investigated and are therefore the focus of prevention activities.

Although suicide occurs all over the world, low- and middle-income countries account for 79% of all suicides. Every 40 s, someone in the world dies by suicide. In 2013 the WHO published the mental health action plan 2013–2020 [80] including the aim to reduce the suicide rate in countries by 10%. Their latest report entitled “Suicide in the World – Global Health Estimates” [81] states that suicide accounts for more deaths than deaths from malaria, breast cancer, war, and homicide combined. About 800,000 people die by suicide every year, but the number of unreported cases is certainly higher. This is due to the fact that suicide rates tend to be underreported in some countries because of poorly functioning surveillance or due to classifying suicides as accidental deaths. Another reason for underreporting is that some countries criminalize suicidal acts. In most countries, more men than women commit suicide; the global age-adjusted rate is about 13.7 per 100 000 in males compared to 7.5 per 100.000 in females. Countries with different patterns are Bangladesh, China, Lesotho, Morocco, and Myanmar, where the female suicide rate is estimated to be higher. Although people aged 70 and older reveal the highest suicide rates, about 50% of global suicides occur before the age of 45 years. Suicide is the second leading cause of death among those 15 to 29 years old. It is noteworthy that most of those adolescents (90%) were from low- and middle-income countries. The global, age-standardized suicide rate dropped by about 10% over the last decade except in the Americas that have seen an increase of about 6%. Suicide attempts are estimated to be up to 15–20 times more frequent than suicides. However, a previous suicide attempt remains one of the strongest risk factors for a future suicide.

As suicides are preventable, effective suicide prevention strategies need to be established worldwide to ensure that the tragedy of suicide not continue to cost lives, as losing a loved one has a devastating emotional impact on millions of people. National suicide prevention programs are most likely to be effective if there are focused on individual, community, and national levels [83]. Suicides were long given low public health and policy priority, probably influenced by certain myths.

As evidence-based knowledge has deepened over the last decades, it is still a major task to raise awareness and acquire resources and commitment from governments and stakeholders. As suicide is a multicausal phenomenon entailing psychological/psychodynamic, social, cultural, environmental, and biological factors, suicide prevention strategies must be tailored to the individual situation. There is strong evidence for enabling restricted access to means, responsible media reports, but also for certain awareness programs and for school-based suicide-preventive interventions, thus leading those activities as important prevention strategies on the general population level. On the individual level, the early identification and treatment of mental disorders are key for suicide prevention. As the vast majority of suicidal persons present with various physical symptoms and do not initially seek help from mental healthcare providers, the continuous education of primary healthcare workers is required. General practitioners in particular need to learn more about early identification, therapeutic interventions, support, and the referral of suicidal individuals in their community settings. Modern guidelines recommend treating people with mental disorders in focusing ideally on pharmacological, psychological/psychotherapeutic, and sociological aspects.

The following chapter summarizes findings on the anti-suicidal property of lithium salts, which have proven effective for three decades via diverse approaches. Despite different study designs, it is very important to pay close attention to the type of outcomes a study investigates, as statistical results concerning different outcomes (i.e., suicide, suicide attempts, suicidal behavior, suicidal ideation, self-harm, etc.) are very often mixed.

Lithium's Suicide Preventive Effect: More than 20 Years of Evidence

As suicidality is caused by multi-complex factors, its treatment should consider multidimensional approaches such as pharmacological, psychological/psychotherapeutic, and sociological methods. A comprehensive suicide risk assessment including risk factors like family history, history of past suicide attempts, former or recent stressful life events – especially loss, feelings of hopelessness, impulsivity traits, and substance abuse, as well as hospitalization – is key when assessing risk assessment and determining a clinical treatment approach. Psychological treatment options for suicidal patients are very important; however, the evidence-based support for effective reduction via psychosocial interventions is limited [8]. Programs such as Attempted Short Suicide Intervention Program (ASSIP) have delivered good evidence for their effectiveness [35].

The use of lithium in psychiatry, for now more than 60 years, has deepened our understanding of this natural alkali ion in the treatment of affective disorders. Patients with affective disorders exhibit 2–3 times higher mortality than the general population [43, 54, 76, 78], mainly influenced by a 30- to 70-fold higher suicide-related mortality [36]. The lifetime suicide risk associated with affective disorders ranges from 6 to 15% [79]. A recent review reported a 5–6% lifetime risk of suicide

Table 1 Predictors of a good lithium response [45]**Clinical predictors**

Mania-depression-interval sequence
 Absence of rapid cycling
 Absence of psychotic symptoms
 Family history of episodic bipolar disorder
 Shorter prelithium illness duration
 Later age at onset
 Number of episodes/number of hospitalisations prior to lithium treatment
 Family history of lithium response
 MM/MN blood group (MNS antigen system/human blood group system)

Personality and demographic factors

High social status
 Social support
 Good adherence
 Stress, Strongly expressed emotions and neurotic personality*
 Being employed
 Low number of life events

*Predictors of poor response: higher body mass index

in patients with mood disorders with patients suffering from bipolar disorder at a higher risk [40].

Lithium is not a “magic pill.” Its use is clearly determined by several response-influencing effects. Comprehensive clinical assessment provides information on how likely a patient will respond to lithium treatment. At least for bipolar disorders, several predictors (Table 1) such as the absence of rapid-cycling or a family history of bipolar disorders are known to be associated with a good lithium response [39].

Interestingly, the suicide-preventive effect seems to be independent of the response and – including tap water studies – of the dosage. Studies investigating lithium’s anti-suicidal properties included mainly patients with affective disorders. Assuming an independent effect, it would be interesting to investigate the use of lithium in other diagnoses. Only clinical cases have been reported so far and older studies examining its anti-impulsive and anti-aggressive effects [58] only detected a weak indication of lithium’s influence on suicidality in other diagnoses.

Observational Studies and RCTs in Patients with Mood Disorders

The very early studies revealing an anti-suicidal effect were conducted to investigate lithium’s mood-stabilizing effect in unipolar and bipolar disorders (e.g., [23, 33, 72, 73]). Retrospectively speaking, the researchers documented fewer deaths or suicides in those patients taking lithium than those given a placebo or an active comparative such as carbamazepine. Over 20 randomized, controlled trials delivered similar results, as did more than 20 follow-up and epidemiological studies. Lithium’s effect was proven in long-term studies starting in the early 1970s (e.g., Barraclough et al. [10],

Fieve et al. [27]). Other researchers later detected the same effects for suicide and suicide attempts (e.g., Coppen et al. [24], Müller-Oerlinghausen et al. [59, 60], Wolf et al. [82], Bocchetta et al. [14], Baldessarini et al. [5], Angst et al. [4], Collins & McFarland [20]). The so-called IGSLI studies have proven especially valuable; they involved over 40 lithium experts from around the world, conducting several large international studies investigating effect of lithium on suicide, mortality, mood-stabilizing and neuroprotective effects [37].

In 2008, the first randomized, double-blind, placebo-controlled trial [49] with suicides and suicide attempts in patients with affective disorders as the primary outcome reported three suicides in the placebo, but no suicide in the lithium group within a 1-year treatment period. The number of suicide attempts did not differ between groups. Yet no other placebo-controlled trials with the same primary outcome have been published since then, mainly for logistical and ethical reasons.

Oquendo et al. [69] investigated whether lithium offers bipolar patients presenting a history of suicide attempt greater protection against suicidal behavior than valproate. They detected no significant differences with regard to the time to suicide attempt or suicide event between their two groups.

Khan et al. [44] investigated the Sheehan-Suicidality Tracking Scale (S-STS) as primary outcome within a 4-week proof-of-concept trial via a randomized, double-blind, parallel group design. Patients were either assigned to citalopram + lithium or citalopram + placebo. There were no significant differences in mean total S-STS change scores between the two groups. Interestingly, a subgroup of patients assigned to citalopram and lithium who achieved therapeutic serum levels had significantly higher S-STS remission rates.

Findings from these studies concern mostly long-term treatment conditions. The only placebo-controlled, randomized, double-blind study investigating whether lithium exerts an acute anti-suicidal effect is still ongoing [51].

The main proof of a scientific fact is to carry out meta-analyses and systematic reviews. Several meta-analyses and reviews have been conducted for this purpose.

Baldessarini et al. [6] published a meta-analysis of 45 mostly open-label and naturalistic studies and reported a suicide or suicide attempt prevalence of 0.435% per year on lithium compared to 2.63% off lithium.

In 2009, Baldessarini and Tondo [7] published another study comparing suicidal risks during long-term treatment of bipolar disorder patients with lithium versus anticonvulsants. Although there were far too few high-quality trials includable in their meta-analysis, they demonstrated that the rates of suicidal acts were 2.86 times higher during treatment with anticonvulsants than with lithium. They also showed that not one of those anticonvulsants (valproate, lamotrigine, carbamazepine) was superior to any other.

The updated meta-analyses by Cipriani et al. [18] included data from 48 RCTs with a total of 6,674 subjects (2013) and showed that lithium was more effective than placebo and comparative drugs in preventing suicide deaths and replicated their findings in another meta-review of the scientific literature [75]. They observed that the strongest evidence was derived from RCTs, although the difficulties in conducting high-quality studies are obvious. They reported on 16 published

systematic reviews, 3 of which investigated lithium and suicide rates and 1 lithium and self-harm within an RCT setting. The authors emphasize that lithium's application is still underrepresented in clinical practice and recommend that it be more assertively incorporated within current guidelines.

It is worth noting that some investigations have shown that lithium's anti-suicidal properties appear to be independent of its mood-stabilizing effect. Ahrens et al. [2] analyzed data from lithium-treated patients, categorizing them in three groups: excellent, moderate, or poor lithium responders. They observed a reduction in suicide attempts among both the group of excellent responders and poorly-responding patients. This finding was replicated in a cohort of patients who were taking lithium, discontinued it, and then re-started taking lithium. The response rate after restarting lithium was lower in 33 patients with affective disorders; the anti-suicidal effect revealed no difference between the different time periods. Again, the authors interpreted this as evidence that lithium's anti-suicidal effect may be independent of its mood-stabilizing effect [22].

Ecological Studies

Attention was raised when Ohgami et al. published data in 2009 [67] on suicide rates and their association with the lithium level in tap water. Researchers have tried to replicate their findings since then, for example, Kapusta et al. [42], Giotakos et al. [31], and Blüml et al. [13] reported lower suicide rates in those areas with higher lithium levels in tap water. Vita et al. [77] summarized these studies in a review and proposed that a higher lithium level in drinking water may be associated with a lower risk of suicide in the general population. A more recent study [3] showed that higher lithium levels in the water supply correlate with lower rates of depression and violence in adolescents.

Despite several advantages (e.g., the use of prospectively collected, individualized data following an entire Danish adult population over 22 years) of a nationwide individual-level cohort study by Knudsen et al. [47], the authors failed to demonstrate a protective effect of exposure to lithium on the suicide incidence when levels fall below 31 µg/L in Danish tap water.

A study by Liaugaudaitė et al. [52] found that lithium concentrations in tap water were significantly negatively associated with total suicide rates in a nonlinear way and concluded that different lithium levels may affect suicide rates in some geographical areas. Oliveira et al. [68] published a study on this issue in Portugal that same year: They demonstrated no inverse relation between the tap water's lithium level and suicide rates, suggesting other factors, such as Portugal's low suicide rate and additional confounding suicide-risk variables as potential influencing variables. A study conducted in 15 Alabama counties reported that the drinking water's lithium concentration correlated inversely with the suicide rate between 1999 and 2013 [70].

A Japanese study [48] was replicated in 2020 using additional information and models, reconfirming the inverse association between lithium levels in drinking water and suicide rates predominantly in the male population. A very recent

systematic review and meta-analysis by Memon et al. [56] verified again the hypothesis of a protective (or inverse) association between lithium intakes from public drinking water and suicide mortality on the population level. The same results were published by Barjasteh-Askari et al. [9]: Lithium in drinking water is dose dependently associated with reducing suicide mortality.

Other Studies

Other study designs have also delivered evidence on lithium's anti-suicidal properties. One approach is to investigate the lithium use in psychiatric hospitals and suicide rates. A study by Neuner et al. [61] analyzed 133 clinic suicides and 133 non-suicide controls, observing that none of the patients in the suicide group had been given lithium, whereas 12 patients in the control group had undergone lithium therapy. Another study by Fülle et al. [30] investigated all hospital suicides in Saxony (Germany) and found that patients who had died by suicide had taken less lithium medication than those patients who had not attempted suicide. The latter group had received 6 times more lithium as medication.

In 2003 Goodwin et al. [32] published a study investigating bipolar patients and various mood-stabilizers (valproate, carbamazepine, lithium): Patients receiving lithium had a 1.5 to 3-fold increased risk for suicide attempts or suicides than patients receiving valproate.

Kessing's Danish research group (Kessing et al. [45] analyzed lithium prescriptions and suicide rates: Patients given 2 or more lithium prescriptions showed a 0.44-fold lower suicide rate than those given a lithium prescription only once.

Comparing two or more medications in a sample of patients diagnosed with bipolar disorders also indicated certain suicide-protective effects of lithium. Leith et al. [50] compared a newly initiated monotherapy employing either gabapentin or lithium and detected that the use of gabapentin was significantly associated with doubling the risk of suicidality over a 12-month period in their two groups (comprising 47,918 patients diagnosed with BD).

Possible Mechanism

Research in recent decades has focused on the biological aspects of suicidality with regard to psychiatric diseases. Being diagnosed with various mental illnesses (such as affective disorder, schizophrenia and other) has been suggested as an explanation for developing suicidal behavior, and the DSM V (Diagnostic and Statistical Manual of Mental Disorders) has proposed novel therapeutic approaches, namely, to address suicidality specifically, apart from a given psychiatric diagnosis.

As stated in a publication by Griffiths et al. [34] "suicide as a phenomenon (is) not entirely dependent on a particular mental disorder but as a separate construct that is a final common endpoint of many forms and paths of human suffering."

The neurobiological underpinnings behind lithium's effect (e.g., [12]) include neurotransmitter systems and cell-surface receptors. Lithium increases inhibitory neurotransmission (GABA) and reduces excitatory (i.e., glutamate and dopamine) transmission. Lithium has many other effects on transcriptional factors (second messenger systems, e.g., adenylyl cyclase, protein kinase C). Lithium is also known to inhibit inositol monophosphatase (IMP) and inositol polyphosphate 1-phosphatase activity, which can ultimately lead to the modulation of many intracellular pathways, such as stimulating autophagy. Lithium stimulates the release of neurotrophic factors (e.g., BDNF, B-cell lymphoma 2) and gene expression. There is evidence that lithium reduces oxidative stress and apoptotic processes. Those processes are discussed as mechanisms behind lithium's neuroprotective effects [26, 29].

Lithium influences the stress-hormone cycle and immunological parameters and has an impact on morphological brain alterations involved in emotional regulation such as the hippocampus, amygdala, and prefrontal cortex.

As lithium ions compete with magnesium, it can inhibit magnesium-dependent enzymatic activity, thus having a significant influence on other enzymes in intracellular pathways. The fundamental importance of glycogen synthase kinase-3 β seems most promising (GSK3 β), as it modulates multiple systems repeatedly implicated in suicide upon which lithium also exerts effects [55].

The clinical action of Li is also linked to stabilizing the circadian rhythm [57]. Interacting genetic and environmental mechanisms are obviously also important. Epigenetic mechanisms may also play a role, as lithium can modulate genes. There seems to be a hereditary component in the lithium response [1].

Relying on ecological-study findings, Szklarska and Rzymiski [74] question whether lithium is a micronutrient, and what kind of biological actions (including bioavailability and metabolism) might influence mood disorders and suicidal syndromes. They hypothesize that lithium may be required for normal metabolism and neural communication.

Other authors have discussed these effects as result of protection from environmental lead exposure [16].

Practical Aspects

As there are no studies published yet investigating practical aspects of lithium treatment and its influence on the anti-suicidal effect, its clinical use for preventing suicidality is based on its being recommended for patients with affective disorders, still considered as "experimental use" for that particular indication. Lithium remains the gold standard for treating affective disorders, and psychiatrists in many countries are experienced in prescribing lithium. However, when assessing lithium's use around the globe, it appears to be underutilized, especially in the USA. But there is discrepancy between lithium's well-established role in several guidelines and its frequency of use in other countries also. Whether this fact is a result of still existing myths and concerns about using lithium or negative publicity remains unclear. One

of the main reasons for lithium's under-use might be that lithium treatment takes more time than other pharmacological approaches. Doctors need to diagnose carefully, inform patients (and ideally relatives) about the effects (side-effects) of lithium therapy. Thorough examination including blood tests are necessary before initiating lithium therapy. Because this procedure is more complicated and time-consuming, lithium therapy is often initiated in specialized lithium clinics.

Lithium is an old drug. There is a lot of data on its long-term effects and how to avoid problems over lengthy treatment periods. The latest recommendations such as indications, contraindications, target levels, monitoring, etc. are much more detailed than they used to be (back when lithium therapy first became established). Therefore, as long as monitoring recommendations are followed, lithium is a safe medication.

Of course, it is important to acknowledge that lithium is not suitable or sufficient for every patient. After initiating treatment, clinicians must consider the subsequent interval as being limited until they have a clear impression of the patient's response. Lithium experts recommend not stopping lithium administration too early, as it can take years for its effect to become obvious. But in case of frequent recurrences of affective episodes or strong doubt about any substantial benefit, other treatment options should be considered.

The overview below describes the most important practical aspects of lithium therapy. Still more information is found in *The Essential Guide to Lithium Treatment* [11].

Indications and Contraindications

Lithium is indicated in many guidelines (e.g., [19, 62, 63]) as prophylactic treatment for bipolar disorders and in treating acute mania. It is effective in treating and preventing depressive episodes in patients suffering recurring depressive disorders. Many guidelines recommend lithium as first-line augmentation strategy for patients not responding to antidepressants.

From our perspective, lithium therapy has only two absolute contraindications: acute kidney failure and acute myocardial infarction. Other relative contraindications include cardiac rhythm disorders, decreased glomerular filtration/tubular disorders, psoriasis, Addison's disease, cerebellar disorders, myeloid leukemia, first-trimester pregnancy, and anesthesia/surgery. A prior history of thyroid disorders is not a contraindication. Of course, the initiation of lithium therapy in patients with any of these conditions requires more caution, more frequent and regular level monitoring, and in some cases, hospitalization for surveillance. However, it should be considered especially in those patients who are failing to respond to other mood-stabilizer medications.

Steps to take before starting lithium treatment:

- Comprehensive history (somatic and psychiatric)
- Physical examination (including dermatological status, height, weight and neck size, ECG, blood pressure, heart rate)
- Neurological status

- Lab tests including: pregnancy test, complete blood count, serum creatinine and creatinine clearance, glomerular filtration rate, sodium, potassium, calcium, thyroid hormones: triiodothyronine, thyroxine, thyroid-stimulating hormone, parathyroid hormone, fasting glucose levels
- If possible: ultrasound of the thyroid gland

Initiating Lithium

Different brands vary in their lithium content. The clinician should stick to the same brand. If a change is necessary, the actual lithium content needs to be considered.

Most patients tolerate sustained, slow-release formulations better. As the half-life of lithium is about 24 h, it is possible to take lithium once a day. But from the clinical perspective, patients have fewer side effects when taking lithium twice a day. According to the administration of lithium, the measurement of lithium level needs to be adapted.

Clinicians can start therapy by administering 300–900 mg/day, preferably dispersed over two daily doses. Most patients tolerate an up-titration to 750–1200 mg/day within the first week. For patients with low body weight and/or older patients, a lower daily dosage (300–450 mg/day) is often sufficient. The patient's lithium serum level can first be measured 5–7 days after starting lithium therapy, ideally 12 h after its last intake if a twice-daily regime is being followed.

The time before lithium achieves a sufficient mood-stabilizing effect varies depending on the dose target (minimum observation period: 6 months). Its augmentation effect often appears within 2–4 weeks, the antimanic effect usually within 2 weeks.

Lithium Level and Monitoring

For maintenance treatment, a lithium level from 0.6 to 0.8 mmol/l is recommended. In case of acute mania, a higher level (up to 1.2 mmol/l) may be necessary. A lithium level under 0.5 mmol/l is less effective [64, 65]; however, in case of a good response but poor tolerance, a reduction to 0.4–0.6 mmol/l can be attempted [66]. Higher levels tend to be associated with an increased risk for side effects, and certain factors like such as sex, age, renal clearance should be taken into account. The lithium level can vary in case of changes in lithium absorption and/or hydration status. In case of fluid loss, patients need to be advised to monitor their lithium level.

The following parameters should be monitored every 3–6 months: blood pressure, heart rate, lab values including complete blood count, serum creatinine and creatinine clearance, glomerular filtration rate, sodium, potassium, calcium, and thyroid hormones: triiodothyronine, thyroxine, thyroid-stimulating hormone. The patient's physical/neurological status, weight, ECG, parathyroid hormone, and fasting glucose level should be assessed annually. Certain patients may require more frequent and detailed monitoring.

Special attention is required when patients are taking other medications, as several substances are known to interact with lithium. The lithium dosage needs to be adjusted to avoid hazardous interactions. Concomitant medications such as analgesics (NSAIDs), angiotensin-II antagonists, anti-arrhythmics, diuretics,

calcium-channel blockers, muscle relaxants, parasympathomimetics, theophylline, acetazolamide, metronidazole, methyldopa, antidepressants (SSRI, tricyclics, venlafaxine), anti-epileptics (carbamazepine, topiramate), and antipsychotics have more or less potential to interact with lithium.

Side Effects

Nausea, tremor, polyuria, thirst, and fatigue are the most common acute side effects. During long-term courses, cognitive effects, tremor, polyuria, thirst, and weight gain may be observed in some patients. For strategies to influence such side effects, consult *The Essential Guide to Lithium Treatment*. Lithium exerts effects on three organ systems over the long term: The thyroid, parathyroid gland, and kidney require special attention. The pathophysiological mechanisms behind these changes are well-studied. Most of these effects are stable, and frequent monitoring, e.g., of kidney function, increases safety. As always in medicine, the risks for irreversible drawbacks due to side effects should be balanced against lithium's many potential benefits.

Due to lithium's narrow therapeutic range, the likelihood of toxic levels should be noted. Indications of lithium intoxication, regardless of their cause, should be known, and patients need to be kept informed [38]. The signs of mild lithium toxicity are apathy/lethargy, nausea, stronger tremor, diarrhea, weakness, worsening cognitive functions, and unsteady balance.

Vomiting, slurred speech, muscle twitching, gross ataxia, confusion, and drowsiness are signs of moderate toxicity. Severe toxicity is present if the patient exhibits somnolence, coma, random muscle twitching, urinary incontinence, gross confusion, and a profound loss of balance. Several medical procedures are indicated depending on the severity. Hydration is necessary for milder cases, whereas for severe cases, an intensive care approach including ABC interventions (airway, breathing, circulation) and hemodialysis are mandatory. Due to rebound phenomena, serial measurements of the lithium level (every 2–4 h) are necessary. Lithium toxicity is generally reversible provided its treatment is appropriate and timely. Possible long-term influences, e.g., on the development of kidney or brain damage, also depend on the type of intoxication (acute and acute-on-chronic and chronic intoxication).

In short, lithium, an old but highly effective medication, is safe as long as practical recommendations are followed. The errors occasionally made in practice are stopping lithium before the stabilization effect has been achieved, not recognizing signs of chronic intoxication, and poor attention to monitoring schedules. Unfortunately, when discontinued because it has failed to prevent new affective episodes, lithium's specific anti-suicidal potential is very often disregarded.

Discussion

Lithium is definitely effective in preventing depressions and/or manias; it can reduce the risk of dementia, has neuroprotective effects, and lowers the incidence of certain

diseases, i.e., seizures, amyotrophic lateral sclerosis, myocardial infarction, and some cancers [71].

There is no other medication applied in psychiatry founded on stronger data regarding its suicide-protective effect in patients with mood disorders over the long term.

Several studies have shown that lithium-treated patients carry a lower risk of suicide and reduced risk of mortality from other causes when compared with other drugs (e.g., valproate) and placebo when used in therapeutic doses. Even micro-dosages seem to exert an anti-suicidal effect, as several tap water studies made evident [77]. There is even data showing an association between a higher lithium level in the water supply and lower rates of depression and interpersonal violence in adolescence [3].

Many RCTs investigating lithium's mood-stabilizing effect also confirmed its suicide-preventing effect. Although there is no evidence yet on how rapidly this effect occurs, a double-blind, placebo-controlled, randomized trial investigating a potential acute anti-suicidal effect is ongoing [51].

It is truly remarkable that such a simple ion delivers such robust and different effects. Several mechanisms have been proposed taking the clinical perspective: patients responding well to lithium experience less severe or less frequent depressive/manic episodes, which may influence their risk for suicidal behavior. Several researchers have discussed the influence of lithium on personality traits such as impulsivity and aggression, which ultimately lead to a lower suicide risk [21]. From the neurobiological perspective, lithium exerts several effects on quite different neuronal pathways (e.g., neurotransmitters, second-messenger systems, etc.). This multiplicity of actions is important in terms of the varying clinical effects mentioned above and not just in patients with affective disorders.

More research is needed to identify causal pathways in the association between lithium use and a lower suicide risk. It would be important to know whether lithium has a suicide protective effect in other mental illnesses. Future investigations should evaluate whether a threshold or specific lithium is necessary to trigger such an effect.

It is worth noting that despite the compelling evidence for lithium's anti-suicidal effects, some studies' results have been contradictory or negative [15, 25, 28, 41, 53].

The limitations of studies covered in most reviews and meta-analyses should be mentioned. Some investigated specially chosen patient groups (e.g., patients with good adherence). Good adherence is generally associated with better coping strategies. If less selective patients were included in analyses, lithium's anti-suicidal effect was less obvious.

Because of the ethical aspects, suicide research is especially methodologically challenging. Placebo-controlled trials whose primary outcome is suicide prevention, but that cannot provide sufficient treatment are ethically unjustifiable, which is why there have been so few RCT. On the other hand, observational studies have demonstrated an increased suicide risk when lithium medication is discontinued. This phenomenon is unlikely to be a withdrawal effect (which would appear when discontinuing antidepressant medication).

In light of the lithium response's well-known parameters, we usually recommend its use in patients whose lithium response is good. If a patient reveals an only partial response while exhibiting suicidal behavior or carries a high risk for suicidal behavior, the continuation of lithium therapy should be considered. In such a case (patient has a considerable suicide risk including genetic load and/or individual history), the continuation of lithium treatment is a clinically valuable anti-suicide strategy. As suicide protection is not an approved indication for prescriptions, it needs to be prescribed for off-label administration.

Conclusion

As lithium is still underutilized in the treatment of affective disorders (especially in the USA), greater consideration of lithium use is key to preventing affective disorders and for such patients carrying a higher suicide risk. A plethora of data suggests that the probable higher overall mortality in patients with mood disorders using lithium is reduced – yet another reason to encourage more intense use of lithium in psychiatry.

Cross-References

- ▶ [Bridging the Global Mental Health Gap](#)
- ▶ [Collaborative Assessment and Management of Suicidality Approach](#)
- ▶ [Neurobiological Approach to the Study of Suicide](#)
- ▶ [Pharmacological Treatment of Suicidality in Affective and Psychotic Disorders](#)
- ▶ [Psychotherapy for Suicide Prevention](#)
- ▶ [Suicide Prevention Education for Health Care Providers: Challenges and Opportunities](#)
- ▶ [Suicide Prevention in Emergency Department Settings](#)
- ▶ [Suicide Risk Among Psychiatric Patients](#)
- ▶ [Treatment of Suicidal Behavior for Inpatients](#)

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Pharmacological Treatment of Suicidality in Affective and Psychotic Disorders

63

Thomas Bronisch

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Abstract

Pharmacological treatment of suicidality is evaluated according to empirical studies with respect to efficacy and also adverse effects and risk potential. The main focus is on acute and long-term treatment of patients with primarily depressive and manic-depressive disorders as well as psychotic disorders. The following compounds are considered: antidepressants, lithium, and mood stabilizers as well as neuroleptics, tranquillizers, ketamines, as well as electroconvulsive therapy (ECT). In addition to their antidepressive and relapse prevention

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properties, several side effects have to be taken into account for antidepressant drugs. These include impulsivity, auto-aggressiveness, agitation, akathisia, restless legs, and late dyskinesias. Only a limited number of placebo-controlled prospective studies have been performed that investigate anti-suicidal effects of antidepressants, lithium, mood stabilizers, and neuroleptics. In the case of lithium, a clear anti-suicidal effect in a series of retrospective and few prospective studies was demonstrated, which seems less pronounced for mood stabilizers. According to the available empirical studies, it is unclear whether antidepressants have a direct or indirect impact on the prevention of suicidal behavior. The risk for suicide attempts of adolescents and young adults seems twice as high compared to control groups without treatment. However, suicides have not been observed. In contrast to “typical” neuroleptics, “atypical” neuroleptics are effective in preventing suicides and suicide attempts for psychotic disorders. This is particularly the case for clozapine, whereas olanzapine, risperidone, and quetiapine are less effective in this regard. Overall, studies are lacking that investigate the impact of neuroleptics on depressive and manic-depressive disorders and their impact on suicidality.

Keywords

Suicide · Suicide attempts · Suicide ideas · Suicidality · Antidepressants · Lithium · Mood stabilizer · Neuroleptics · Tranquillizers · Prevention · Depressive disorders · Manic-depressive disorders · Psychoses

Introduction

Prevention of psychiatric disorders can be divided into three categories: primary, secondary, and tertiary prevention. (Sections of this chapter have already been published in German [8].) For the prevention of suicides and suicide attempts, the following categories are conceivable:

Tertiary prevention: individual prevention of relapses and further harmful consequences

Universal prevention: general, selective, and indicated prevention of suicidal behavior in individuals demonstrating minimal detectable signs or symptoms of suicidal behavior

For this article the definition of tertiary prevention is applied [7].

For the pharmacological treatment of suicidality, one needs to differentiate between *pharmacological crisis intervention* and *long-term treatment* [8]:

Pharmacological Crisis Intervention

Drugs used for pharmacological crises intervention are listed in Table 1 [55].

Table 1 Psychopharmacological drugs

Main groups	Desired clinical effects
Antidepressants	Elevating depressed mood, anxiolysis, sedation of agitation, dissolving of psychomotor inhibition, amelioration of drive (Antrieb), dissolution of cognitive constriction, amelioration of sleep, appetite, and libido
Neuroleptics (antipsychotics)	Amelioration of delusion, sedation of agitation, dissolving of psychomotor inhibition, amelioration of drive (Antrieb), dissolution of cognitive constriction, amelioration of sleep, appetite, and libido
Tranquilizers Ketamine	Relaxation, sedation, anxiolysis, amelioration of sleep, emotional distance, attenuation of depressive or psychotic experiences, anticonvulsive properties, relaxation of muscles

Since antidepressants have a delayed mode of action of 1–2 weeks, they are not amenable for crisis intervention. They are only prescribed for a few days and patients closely monitored by the treating doctor. Tricyclic antidepressants and other psychopharmacological compounds with safety concerns for overdose should not be given – especially in the ambulatory care setting.

- Tranquilizers enable short-term sedation and relaxation, anxiolysis, and emotional distance for the suicidal patient (e.g., lorazepam 1.0–2.5 mg). They can be used in combination with “typical and atypical” neuroleptics with sedation (e.g., perazine 50–100 mg or quetiapine 200–400 mg). Severe depressive mood should be treated with antidepressants (e.g., escitalopram 20–40 mg, amitriptyline 75–150 mg) and in most cases in combination with one of the abovementioned pharmacological groups. In the case of psychotic experiences such as delusion or hallucinations, treatment should be with “typical neuroleptics” or “atypical neuroleptics” (e.g., olanzapine 10–20 mg or haloperidol 5–10 mg, respectively). Single and repeated ketamine infusions could reduce suicidal ideation in treatment resistant depression [40]. Electroconvulsive therapy (ECT) may have a faster preventive impact on suicidality [39].

Pharmacological Long-Term Treatment

Pharmacological long-term treatment of suicidal patients is dependent of the psychiatric disorder. This chapter refers only to depressive, manic-depressive, and psychotic disorders.

Empirical Studies on the Anti-suicidal Effect of Antidepressants and Neuroleptics

Antidepressants

Functions of Antidepressants (Ads)

Remission of symptoms including suicidality

Prevention of relapses

Possible Side Effects of Ads ([44]*)

Promotion of the following:

- Impulsiveness*
- Auto-aggression (suicidality)*
- Aggressiveness (violence)*
- Agitation*
- Akathisia*
- Restless legs
- Late dyskinesias

Studies on the Anti-suicidal Effectiveness of Antidepressants, Neuroleptics, Tranquillizers, Ketamine, and Electroconvulsive Therapy (ECT)

Studies on Anti-suicidal Effectiveness of Antidepressants

The prevailing assumption is that antidepressants are successful not only for the treatment of depressive symptoms but also in the case of suicidality (suicide ideas, suicide attempts, and suicides). A great number of controlled studies could demonstrate that suicide ideas are considerably reduced during antidepressant treatment with different antidepressants [32]. However, the exclusion criterion of most of these studies was acute suicidality. The number of studies, which were placebo controlled and had investigated the anti-suicidal effectiveness, are very scant [6]. Except for a reduction of suicide ideas, a suicide or suicide attempt preventive effectiveness of tricyclics and SSRIs in comparison with placebo could not be detected in these studies [6]. Finally, in borderline patients with depressive disorders, an elevated rate of suicide and suicide attempts has been reported [45], and in borderline patients without depressive disorders, a lower rate of suicide attempts with paroxetine [51] was observed.

A series of meta-analyses of placebo-controlled studies have been performed for detecting the effectiveness of SSRIs in ambulatory-treated patients or inpatients with major depression [21–24, 47]. Here, the placebo-treated patients showed a greater number of suicides in comparison with the verum groups, however without reaching statistical significance. Meta-analyses of placebo-controlled studies in patients with paroxetine that had a diagnosis of major depression only revealed a statistical reduction of suicide ideas [1]. Gunnell et al. [17] conducted a meta-analysis of placebo-controlled studies of the pharma industry, and results have been submitted to the “Medicines and Healthcare Products Regulatory Agency” (MHRA). The study found hints that an elevated risk for suicide and suicide attempt in adults exists over a 1-year observation time period. In a cohort study, Coupland et al. [11] investigated 238.963 patients, age 20 to 64 years, who underwent antidepressant treatment in the United Kingdom from January 2000 until July 2011. This cohort was evaluated again until August 2012, while 87.7% ($n = 20.476$) of patients were

still prescribed with antidepressant. The absolute risk for a suicide attempt and suicide ranged from 1.02% for amitriptyline to 2.96% for venlafaxine. The suicide rates were highest during the first 28 days after finishing the therapy.

The analysis of FDA data of the pharmacological effect over 20 years for placebo-controlled studies of antidepressants of any kind showed a significant reduced suicide and suicide attempt rate in the verum group compared with the placebo group [15, 33, 46]. The reanalysis of randomized placebo-controlled studies of fluoxetine and venlafaxine showed a decline of suicide and suicide attempt rates in adult and geriatric patients. The suicide and suicide attempt reduction during treatment is parallel to the reduction of depressive symptoms. However, in adolescents and young adults, a reduction of suicide ideas and suicides could not be observed despite the reduction of depressive symptoms [16].

So far a reduction of suicide attempts with neuroleptic compounds could only be observed in one controlled study [35].

Studies on the topic with tranquilizers (e.g., lorazepam) do not exist so far.

Ketamine seems to result in a reduction of suicide ideas in acute treatment [40, 42].

Electroconvulsive therapy (ECT) should be especially considered for patients with psychotic depression [39].

Studies for Anti-suicidal Effectiveness of Lithium and Mood Stabilizer

Statistically valid anti-suicidal properties have so far only been shown for lithium. In a series of retrospective studies by lithium outpatient clinics (lithium ambulances), it could be corroborated that lithium significantly reduces the suicide rate of affective disorder patients compared to normal controls. This was found to be independent of lithium efficiency with regard to the course and outcome of the affective disorder, the lithium patient response, and the compliance according to surveillance by the lithium outpatient clinics with the conclusion that the suicide rate was at the level of the normal population [9, 10, 27]. Of all psychopharmacological compounds used to treat aggressive disturbances and impulsiveness, lithium is by far the most effective drug [5, 30].

Mood stabilizers can also have a suicide and suicide attempt preventive effect. However, this effect is not as robust as with lithium, and much fewer studies with mood stabilizers have been carried out compared to lithium studies with only one prospective study with valproic acid [9, 38].

Lauterbach et al. [25] investigated the effect of lithium in combination with crisis intervention and psychotherapy for the prevention of suicides and suicide attempts. In a multicenter study as part of the Competence Network on Depression, 167 patients with the diagnoses major depression or adjustment disorder with depressed mood (eventually with comorbid personality disorder) and a recently committed suicide attempt were investigated. This was a prospective randomized placebo-controlled study with lithium (84 patients) and placebo (83 patients) with a follow-up interval of 12 months. There were no statistically significant differences between the two groups with three suicides observed in the placebo group vs. no

suicide in the lithium group. Lithium was successful in reducing suicide attempts for patients without, but not patients with, a personality disorder [43].

Studies on Anti-suicidal Efficiency of Neuroleptics in Psychotic Disorders

According to the guidelines of the European Psychiatric Association on suicide prevention, clozapine is also effective in reducing suicidal behavior in schizophrenic patients [53]. De Leo and Spathonis [12] were unable to find evidence of suicide preventive effects of “first-generation” (“typical”) neuroleptics. In addition to many case reports, some controlled prospective studies were carried out that strongly suggest that clozapine could dramatically reduce the number of suicides and suicide attempts [29]. Similar evidence appears to be much weaker for any other “atypical” neuroleptics including olanzapine, risperidone, or quetiapine [29].

Studies on the Promotion of Suicidality by Antidepressants

Antidepressants and Suicidality in Adolescents and Young Adults

A series of clinical studies have investigated the effects of antidepressant treatments on children and adolescents with regard to suicide, suicide attempt rates, and suicidal ideation [3, 4, 18, 36, 49]. An increased suicide attempt rate was observed in all studies for the verum group compared to the placebo group.

Two meta-analyses of adolescents that had been treated with placebo or antidepressants showed an elevated rate of suicide attempts and more suicide ideas in the verum group compared to the placebo group that did not reach statistical significance, and no suicides were observed.

An analysis by the US Food and Drug Administration (FDA) of data from placebo-controlled studies with different antidepressants over a 20-year period demonstrated that young people 25 years and younger have a twice as much risk for suicide attempts in the verum group in comparison to the placebo group. Suicides were not observed in this study [46].

In October 2003, the FDA initiated a black box warning for antidepressants in youth and young adults following reports of several suicides. In December 2003, Great Britain followed suit when “Medicines and Healthcare Products Regulatory Agency” (MHRA) in a letter to practitioners recommended to not prescribe antidepressants for patients under the age of 18.

Several independent studies verified the FDA’s requirement for black box labels (2004–2005) for all antidepressants with the result of a significant decline (0.8% in 2003 and 9.6% in 2005) in the number of prescriptions of these drugs to patients below the age of 18 years [28]. In the case of paroxetine, the decline was 44% during the black box warning period. In the United States, suicide rates increased by 14% in 2004 and slightly decreased again in 2005 for youths 25 years and younger [13, 14, 19, 37]. A study in Great Britain (Deliberate Self-Harm, DHS) for the years 1995 to 2005 did not observe an association between antidepressant prescriptions and black box warning and rates of suicides and suicide attempts in women and men [54]. See also the statement of the FDA in the year 2007 [26].

Antidepressants and Suicidality in Psychiatric Clinics

Stübner et al. [48] assessed cases with relevant side effects of psychopharmacological compounds in comparison with the whole population including 142,090 adults that took antidepressants in 85 psychiatric clinics between 1993 and 2008.

Results:

- Suicidality
12 cases with suicidal ideation, 18 suicide attempts, and 3 suicides.
14 cases have been evaluated as probably.
19 cases as possible.
According to Antidepressants prescription.
- *Associated symptoms*
19 suicidal reactions were related to agitation.
10 with ego-dystonic suicidality.
9 with impulsivity.
3 with psychoses.
- A more frequent *incidence* was found for
SSRIs and NSRIs in comparison with noradrenergic or specific serotonergic antidepressants

Suicides and Suicide Attempts at the Beginning of Treatment

An elevated risk of suicides and suicide attempts seems to exist at the beginning of treatment, following abrupt discontinuation or changes of medication dosage, and in chronic depression in youth as well as in adults [50, 52].

Suicides and Suicide Attempts During Long-Term Treatment with Antidepressants

In a meta-analysis of 29 placebo-controlled studies ($N = 6934$ patients) with patients suffering from major depression that lasted for at least 3 months, 7 of 8 suicides and 13 of 14 suicide attempts were observed during antidepressant treatment with the majority occurring for maprotiline. No statistical differences were observed for the frequency of suicides and suicide attempts during or following antidepressant treatment when excluding this study [2].

Summary

We emphasize that only very few placebo-controlled prospective studies directly investigating the anti-suicidal effect of antidepressants, mood stabilizers, and neuroleptics exist at the present date. An exception is lithium with a considerable number of retrospective and several prospective studies [8–10, 27].

The lack of qualified investigations is primarily due to the fact that pharmacological studies have acute suicidality as an exclusion criterion. Furthermore, suicidality was used to be considered as a symptom of a depressive syndrome and hence was regarded as an independent variable. However, the lithium studies clearly demonstrated that suicidality is an independent variable in a depressive syndrome or depression. Further complicating the issue is statistical power. Suicide and suicide attempts are rare events even in high-risk studies which affect the sample size and exclude a priori statistical evaluation. An elegant solution of this methodological problem has been found in the InterSePT study, a multicenter study that included aborted suicides and suicide attempts [31]. Finally, placebo-controlled studies, designed for 4–12 weeks, have a time interval that is too short for evaluating suicides and suicide attempts.

Antidepressants reduce suicidal ideation during antidepressant treatment [1] and seem to have a suicide and suicide attempt preventive effect in adults. However, it remains unclear whether antidepressants exert a direct or indirect effect for the prevention of suicidal behavior [6]:

- A more frequent use of antidepressants in depressives correlates with a high suicide risk.
- Fewer side effects lead to more antidepressant prescriptions.
- Fewer side effects ameliorate compliance.
- Educational programs on treatment of depression change clinical knowledge.
- SSRIs are less dangerous in overdose.
- Clinical contact and psychosocial interventions are associated with the prescription of antidepressants.

Kapusta et al. [20] looked at the connection between the sale of antidepressants and the density of psychotherapists in Austria for the years 1991 until 2005. Apparently the sale of antidepressants and the density of psychotherapists had a negative correlation, even if confounding variables such as consumption of alcohol per capita of the population and the rate on joblessness were taken into account.

Plöderl [41] stated in a recent paper that especially in randomized controlled trials of long-term treatment, antidepressants do not reduce but rather increase suicide risk. Lower-level evidence from observational and ecological studies about the suicide-preventive effect of antidepressants are mixed and inconclusive. Furthermore, the most recent meta-analyses reported that antidepressants are clinically not significantly more effective than placebo, even in the case of severe depression. These results are in obvious contrast with current guidelines and clinical practice. A new evaluation of the preventive anti-suicidal effects of antidepressants is therefore mandatory.

We conclude that prospective placebo-controlled studies of acute and chronic suicidal unipolar and bipolar depressives are urgently needed [56]. However, the opportunities for performing placebo-controlled studies are limited since

antidepressants are effective in the treatment of depressive disorders and including lithium and mood stabilizers, and a placebo control group is against ethical standards [33, 34].

Recommendations

Pharmacotherapy of Suicidality in Psychotic and Depressive Disorders

Acute Treatment [8]

- Anxiolytic benzodiazepines (e.g., lorazepam): no empirical evidence; however, BZD have to be taken in consideration for forensic reasons!
- Ketamine (NMDA receptor antagonists): questionable empirical evidence only for suicidal ideation [40, 42].
- Electroconvulsive therapy (ECT): may have a faster preventive impact on suicidality [39].

Long-Term Treatment [56]

- All antidepressants in adults; however, questionable for long-term treatment of at least 3 months [2].
- All antidepressants: caution in children and adolescents; suicide attempt rate is twice as high.
- Lithium: mostly effective in preventing suicides and suicide attempts.
- Mood stabilizers: possibly suicide preventive (valproic acid).
- Atypical neuroleptics: no empirical evidence available so far for depressive disorders.
- Empirical evidence for clozapine but less effective for olanzapine, risperidone, and quetiapine for psychotic disorders.

EBM Criteria

Evidence Criteria of the Abovementioned Pharmacological Studies [8, 9]

Evidence Criteria of the International Guidelines

Ia Meta-analysis of at least three randomized controlled trials (RCT)

Ib At least one RCT or meta-analysis of less than three RCTs

IIa At least one controlled non-randomized study with high-quality design

IIb At least one quasi-experimental study with high-quality design

III At least one non-experimental descriptive study (comparable study, correlational study, case series)

IV Reports/recommendations of expert committees

Lithium

The best empirical evidence for anti-suicidal efficiency in prospective and retrospective lithium studies that show a statistical significant anti-suicidal effect with few exceptions. However, it cannot be excluded that subsequent monitoring of the patients has prevented suicides and suicide attempts.

(EBM Level Ia).

Mood Stabilizers

Less impressive are studies of mood stabilizers. Remarkable is the comparison of lithium with mood stabilizers (carbamazepine) in a prospective study for relapse prevention in recurrent major depression, which demonstrated a significant superiority of lithium in comparison with carbamazepine. Finally, superiority of lithium over valproic acid was observed in a retrospective cohort study of treatment of manic-depressive disorders.

(EBM Level III).

Antidepressants

Disregarding the lack of controlled prospective studies, a reduction of suicides was not observed in placebo-controlled studies. In general only a reduction of suicide ideas was found. There were no definite trends observed for anti-suicidal effects when different antidepressants were compared with each other in long-term studies. A suicide-provoking effect has been reported in a few single case studies.

(EBM Level Ib).

Neuroleptics

Based on only few studies, no conclusions can be drawn concerning the effectiveness in the treatment of manic-depressive disorders. Atypical neuroleptics, especially clozapine, have shown better effects in schizophrenic patients compared to olanzapine, risperidone, and quetiapine.

(EBM Level III).

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Abstract

A wide variety of psychotherapeutic interventions was found to be useful for the prevention of suicide. The aim of this chapter was to provide an updated and complete overview of all these interventions, with a description of each one and a summary of the evidence of their efficacy/effectiveness in suicide prevention.

We included and described Cognitive Behavioral Therapy (CBT) for Suicide Prevention (in particular Cognitive Therapy for Suicide Prevention and Brief CBT for Suicide Prevention), Problem Solving Therapy, Problem Adaptation Therapy, Psychodynamic Therapies (Mentalization-Based Treatment, Interpersonal Psychotherapy, Transference-Focused Psychotherapy, and Attachment-Based Family Therapy), Dialectical Behavior Therapy, Schema-Focused Therapy, Mindfulness-Based Cognitive Therapy, Mindfulness-Based Stress Reduction, Acceptance and Commitment Therapy, and Complicated Grief Therapy. Furthermore, we considered brief interventions found to be promising: Collaborative Assessment and Management of Suicidality, Teachable Moment Brief Intervention, Motivational Interviewing, and Attempted Suicide Short Intervention Program. Finally, we included Internet-Based-CBT.

As shown, all these therapies have some evidence of efficacy/effectiveness in suicide prevention. The key challenge for the future, however, is to investigate single components of the treatments targeting specific types of patients.

Keywords

Psychotherapy · Suicide · Suicide prevention · Clinical psychology

Abbreviations

ABFT	Attachment-Based Family Therapy
ACT	Acceptance and Commitment Therapy

ADM	Antidepressant Medication
APD	Antisocial Personality Disorder
ASSIP	Attempted Suicide Short Intervention Program
BCBT	Brief Cognitive- Behavioral Therapy for Suicide Prevention
BPD	Borderline Personality Disorder
CAMS	Collaborative Assessment and Management of Suicidality
CBT	Cognitive Behavioral Therapy
CBT-SP	Cognitive Behavioral Therapy for Suicide Prevention
CGT	Complicated Grief Therapy
CRP	Crisis Response Planning
CT-SP	Cognitive Therapy for Suicide Prevention
DBT	Dialectical Behavioral Therapy
FE-NST	Family-Enhanced Non-directive Supportive Therapy
IBI	Internet-Based Interventions
IPT	Interpersonal Psychotherapy
IPT-A	Interpersonal Psychotherapy for Adolescents
MBCT	Mindfulness-Based Cognitive Therapy
MBCT-S	Mindfulness-Based Cognitive Therapy for Suicidal Behavior
MBSR	Mindfulness-Based Stress Reduction
MBT	Mentalization-Based Treatment
MDD	Major Depressive Disorder
MI	Motivational Interview
PATH	Problem Adaptation Therapy
PST	Problem Solving Therapy
RCT	Randomized Controlled Trial
RFL	Reason for Living
SCM	Structured Clinical Management
SFT	Schema Focused Therapy
SPI	Safety Planning Intervention
ST-CI	Supportive Therapy of Cognitive Impaired Older Adults
TAU	Treatment-as-Usual
TFP	Transference Focused Psychotherapy
TMBI	Teachable Moment Brief Intervention

There is nothing ever having an end.
 Where roots that start from our best or most sincere self have sunk,
 there is always something alive and warm, a home. [101]

Introduction

Among the recommended elements of standard care for people at suicide risk, the use of suicide-specific psychotherapeutic interventions is of primary importance [12].

In the last decade some preliminary meta-analyses have been performed concerning the efficacy of psychotherapeutic interventions targeting suicidal risk, reporting encouraging results. In particular, they compared psychotherapy versus treatment as usual (TAU) ($k = 32$) [23], and psychosocial interventions versus TAU ($k = 55$) [47] also focusing on subjects after a recent episode of self-harm only (within 6 months) ($k = 29$) [47]. Psychotherapies, and in particular Cognitive Behavioral Therapy (CBT), were found to be efficacious in the reduction of suicidal risk. The interest of specific psychotherapies for people at suicide risk is mostly related to our capacity to prevent the emergence of suicidal ideation, with the aim of reducing cognitions and behaviors associated with an increased risk of emergence of suicidal ideas, and to create safety response patterns in case of relapse.

The main aim of this chapter was to provide an updated and complete overview of all the psychotherapeutic interventions that showed to some extent evidence for efficacy/effectiveness in suicide prevention. To this aim, we performed an update of our previous contribute [22]. For each intervention, we firstly described its theoretical background and treatment plan, and then we mentioned empirical studies supporting its efficacy/effectiveness in suicide prevention.

Cognitive Behavioral Therapy for Suicide Prevention

In his recent contribution, Craig J. Bryan enumerated the standard of care elements of Cognitive Behavioral Therapy for Suicide Prevention (CBT-SP) [17]. CBT-SP is articulated in three sequential and progressive phases. In the first phase, the clinician conducts a suicide risk assessment, develops a treatment plan, builds together with the patient a Crisis Response Planning (or Safety Planning), and provides skills trainings focused on emotion regulation and crisis management. In the second phase, the therapist and the patient focus on identifying and challenging the patient's maladaptive beliefs and self-statements – such as hopelessness, perceived burdensomeness, or sense of entrapment – which usually lead to suicidal thoughts and behaviors. In the third phase, the clinician and the patient complete a relapse prevention task to facilitate the consolidation of skills and to prepare the patient for effectively managing stressful situations in everyday life. CBT-SP is typically composed of 10–12 outpatient sessions.

A first fundamental step preceding the start of CBT-SP is the process of informed consent by which clinicians discuss with their patients about potential risks and benefits associated with treatment. Although most therapists engage in this process, they rarely talk openly and directly with patients about the frequency of suicidality among individuals who undergo outpatient mental healthcare [85]. The patient should be informed that the initiation of treatment has been associated with the emergence of suicidal risk, even though there is no causality in this relationship. This step is also essential in order to establish a high degree of trust between the patient and the clinician. The therapist assesses suicidal risk by placing the patient into the continuum of possible suicidal outcomes, taking into account also relevant

symptoms and eventual comorbidities such as sleep problems, mental disorders, or substance abuse.

As suggested by the National Action Alliance for Suicide Prevention [74], one of the main aspects of CBT-SP is represented by the Crisis Response Planning (CRP) [19] for short-term suicide risk management. The CRP is a brief procedure in which the clinician and the patient collaboratively write down a list of strategies that the individual can implement to better recognize early indicators of suicidal crises and to employ adaptive self-regulatory techniques to reduce emotional suffering [84]. In preparing a CRP, the patient provides his/her Reasons For Living (RFL) (positive aspects of life that elevate mood and provide a sense of purpose or meaning), and identifies a social support network (those people who can be contacted during crises), as well as professional and crisis services (mental healthcare providers, crisis hotlines, and emergency services contacts).

Similarly to CRP, the Safety Planning Intervention (SPI) is a hierarchically arranged written list of tools for dealing with a suicidal crisis [94]. Safety plans typically include six sections:

1. Warning signs that a suicidal crisis is developing;
2. Coping skills that patients can implement on their own;
3. People they can contact without talking in detail about the suicidal crisis;
4. People they can contact and who can, specifically, help them manage the suicidal crisis;
5. Contact information for treatment providers, hot-lines, and other emergency services;
6. A plan for the removal of lethal means.

In fact, another fundamental task for the clinician is to create together with the patient a safe and secure environment, in which the patient does not have an immediate access to the lethal means, extremely dangerous in case of acute crises. Although the restriction of access to potentially lethal means for suicide has been a recommended suicide risk management strategy for many years, researchers have started to specifically investigate how to articulate this process only recently [14].

In CBT-SP, means safety counseling unravels four steps: engaging, focusing, evoking, and planning [17]:

1. In the engaging phase, clinicians ask the patients about firearms (or other methods) by formulating open-ended questions with a non-judgmental and non-threatening approach (e.g., “You mentioned you owned firearms. What types of guns do you have?”).
2. In the second phase, clinicians proceed focusing the attention on safety topic, again using a non-threatening open-ended question (e.g., “What are the safety procedures you use at home for your gun?”).
3. During the evoking phase, patient is encouraged to freely talk about means safety, respecting her or his opinion and preserving her or his autonomy. Clinicians formulate questions to better understand patient reactions and perspectives (e.g.,

What are your thoughts about individuals having easy access to a gun when they are struggling with suicidal thoughts? If it's not safe to have access to a gun while suicidal, how would that apply to you?").

4. Lastly, clinicians and patients collaborate to create a specific planning in order to reduce access to lethal means. Some possible questions may be: "Given the importance of safety to you, what are some of the changes you think you could make at home to increase your safety?"

A central role in CBT interventions is usually played by emotion regulation and cognitive flexibility skills trainings. Emotion dysregulation is composed of two primary factors: difficulty identifying or labeling one's emotions, and difficulty changing one's emotional state [42]. Emotion dysregulation is strongly linked to both suicidal ideation and suicide attempt [83]. Similarly, difficulties in modulating negative emotional states are implicated in non-suicidal self-injury [29, 30]. In order to achieve better control over one's emotional states, specific strategies can be taught to the patient such as relaxation techniques or mindfulness, which will be explained more specifically later in this chapter.

Cognitive rigidity (or inflexibility) is the second predisposing factor for suicidal thoughts and behaviors that is targeted in CBT-SP. This construct includes a lack of awareness of available options and alternatives; a refractoriness to adapt to life situations; and a lack of perceived self-efficacy regarding one's ability to be flexible within the situation [66]. Cognitive rigidity was found to be a predictor of suicidal ideation both in college students [60] and in adults with a previous history of suicide attempt [71]. CBT-SP provides specific tools to stimulate higher flexibility and better critical thinking in the patient, as close as possible to objective reality (e.g., ABC Worksheets, Patterns of Problematic Thinking Worksheets, and Challenging Questions Worksheets).

CBT interventions usually conclude with a relapse prevention task, in which patients are facilitated in skills consolidation and mastery. Practically, patients are asked to imagine themselves effectively responding to a suicidal crisis [17]. This step is essential for the individual to perceive to be effectively able to cope with a critical situation in an adaptive way, even after the period of therapy has ended.

Two similar versions of CBT-SP, both evidence-based, will be illustrated in more detail: the Cognitive Therapy for Suicide Prevention [106] and the Brief Cognitive Behavioral Therapy for Suicide Prevention [18].

Cognitive Therapy for Suicide Prevention

Cognitive Therapy for Suicide Prevention (CT-SP) by Gregory K. Brown and Aaron T. Beck, which was firstly described in the mid-2000s, is based on Aaron Beck's cognitive-behavioral model.

In 1996, Beck theorized the concept of "modes" to describe the "synchronous interactions" that occur among the cognitive, affective, physiological, motivational, and behavioral systems of personality [8], and which can lead to the

activation of what he called the “Suicidal Mode.” Specifically, in a person with some predisposing factors to suicide risk – such as genetic vulnerabilities, personal history of abuse, impulsive traits, or previous suicide attempts during lifetime – some events like job loss, relationships problems or financial issues, could work as triggers and thus activate the Suicidal Mode. Cognitively, core beliefs of worthless, helplessness, and sense of failure can be also activated. The principal emotions and affects that could be experienced are shame, guilt, anger, depression, or anxiety. There is even a physiological dysregulation, which could be expressed through agitation, sleep disturbances, or physical pain. Motivationally, thoughts about death, suicide, and suicide plans begin to appear. All these elements could be translated into behavioral impairment, which manifests itself through social withdrawal, substance abuse, or non-suicidal self-injury. These maladaptive behaviors, in turn, contribute to increase negative affectivity and negative thoughts about themselves or others. The main aim of CT-SP is, thus, to de-activate this Suicidal Mode.

CT-SP is specifically addressed to individuals who had previously attempted suicide or had experienced intense suicidal ideation during lifetime. The primary aims of this intervention are to teach patients alternative and more adaptive thinking and behavior strategies which may be implemented in case of acute crisis episodes, and to build, in a collaborative perspective together with the patient, a richer social support network which can be useful in terms of future suicide attempts prevention [16]. The treatment protocol consists of a number of therapy sessions between 10 and 16 of 50 min each, to which the patient undergoes once or twice a week according to her/his particular needs. The treatment is subdivided into three different phases: early, intermediate, and late.

In the early phase (sessions 1–3) the therapist introduces the treatment and the cognitive model which it is based on. It is fundamental to explain in a clear, precise, and direct way how the therapeutic process will be articulated, to make the patient feel more involved in it. It is also important to reassure the patient that her/his condition can be changed, and that she/he can share her/his problems in a safe and protected context supported by a professional whose only interest is to increase her/his well-being, providing an active and non-judgmental listening [105]. In this phase, therapists also encourage patients to “tell their story,” trying to stimulate a suicide narrative in which the patient highlights what she/he thinks to be fundamental in order to understand what happens during her/his suicidal crisis. As patients are describing these events, therapists specifically ask about the psychological factors that contributed to the decision to attempt suicide (e.g., “What was running through your mind at that moment?”, “When you had that thought, what did you do next?”). Patient and therapist, thus, try to identify which proximal thoughts, images, and core beliefs were activated prior to the suicide attempt and, using a collaborative approach, draw up a list of problems and objectives to be achieved through therapy and aim to develop the previously described SPI.

On the basis of the cognitive and behavioral case conceptualization, and the treatment goals formulated in the first phase, during the intermediate one

(sessions 4–7), therapist implements strategies to help patients build skills that are helpful to reduce the likelihood of future suicidal risk [105]. These skills-building trainings are mainly focused on the acquisition of adaptive skills like problem solving, hope, impulse control, and emotion regulation, developing treatment compliance and a social support network. These abilities are supposed to help patients to face the crisis without harming themselves, trying to modify their assumptions of hopelessness and their feeling of being oppressed by an unbearable life condition. Therapist aims for a cognitive restructuring, a systematic process of identifying, evaluating, and modifying maladaptive beliefs by targeting the cognitions that are most directly related to the suicidal crises. The recurring themes in these assumptions usually concern a sense of worthlessness, helplessness, and unbearability. Specific techniques that cognitive therapists implement to address these cognitions are represented by Socratic questioning (e.g., evidence for, evidence against), behavioral experiments, and future time-imaging (i.e., developing concrete mental images of the future 1, 5, and 10 years forward).

The later phase (sessions 8–12) is mainly composed of four elements:

1. Reviewing and consolidating skills acquired during the intermediate phase.
2. Conducting the relapse prevention protocol, in which patients apply these skills in guided imagery exercises.
3. Reviewing gains and progresses toward treatment goals.
4. Formulating dispositions following the treatment (i.e., continuation, referring for other treatment, or termination).

The relapse prevention task includes five steps: preparation, review of the indexed attempt or suicidal crisis, review of the attempt or suicidal crisis using skills, review of a future high-risk scenario, and debriefing and follow-up [95]. All of these steps are helpful in terms of consolidation of the skills learned in the previous phases, in order to avoid an eventual relapse. A crucial part of the task is for patients to anticipate when and how they can autonomously implement the skills learned in therapy in future situations that occur in real life.

A randomized controlled trial (RCT) conducted by Brown and colleagues in 2005, reported the efficacy of CT-SP in a group of 120 adult patients who have attempted suicide in the previous 48 h [16]. Specifically, participants were randomly assigned to either CT-SP or to a TAU group for outpatient treatment following hospital discharge. Follow-up results showed that in individuals who underwent CT-SP, the risk of suicide attempts decreased by 50% compared to patients who received TAU. It was detected, indeed, that after 18 months 13 participants (24.1%) in the CT-SP group and 23 participants (41.6%) in the TAU group attempted suicide at least once. Also levels of depression and hopelessness were significantly lower in CT-SP group than patients who received TAU. However, no significant discrepancies were found between these two groups regarding the presence of suicidal ideation.

Brief Cognitive-Behavioral Therapy for Suicide Prevention

Another CBT treatment based on the theoretical framework of the Suicidal Mode is the Brief Cognitive-Behavioral Therapy (BCBT) for Suicide Prevention, ideated by Craig J. Bryan and M. David Rudd in the context of the National Center for Veterans Studies in the University of Utah.

The treatment is composed of 12 therapeutic sessions that take place on a weekly or biweekly basis, and it is subdivided into three phases, each with specific goals to be achieved and skills to be acquired in order to proceed in the therapeutic process.

The specific focus of the first phase is represented by the acquisition of adaptive strategies useful in terms of emotional regulation, by working on patient skills of crisis management and distress tolerance. Specifically, therapist clearly describes the treatment to the patient, explaining the cognitive approach, the sessions structure, the subdivision in three phases, and the role played by family members and/or supportive others. This kind of information is helpful to consolidate alliance between therapist and patient, and to reduce eventual patient's anxiety toward the treatment.

The patient is asked to describe the chronology of events for the suicidal episode that led up to treatment urging him to talk about what happened during the crisis episode, through the use of direct questions like "Let's talk about the day you attempted suicide. Can you tell me what happened on that day?". Thoughts, emotions, physical sensations, and events are assessed and put in chronological order based on how they happened over time, what came before and what came after. In this phase also other suicide attempts can be discussed, always focusing on patient intent (e.g., "What did you hope would happen?", "Did you want to die?").

All the information collected thanks to these first steps are reviewed in light of the Suicidal Mode, of which the patient receives an adequate and understandable description and within which he can insert his own personal experience. Patient is also asked to draw mode in treatment log, on which he can write down what he learns during the sessions.

At this point, therapist and patient collaborate to build a CRP, helping the patient to recognize warning signs which may indicate the onset of an imminent crisis, identifying adaptive self-management strategies and social support, and suggesting effective behaviors to implement in case of emergency.

Reflecting hierarchically on which symptoms should be mainly treated, specific treatment goals are established. These goals must be measurable, and behavioral in nature.

In order to empower patient emotional regulation abilities, therapist provides specific skills-trainings on which the individual can practice during the safe context of the sessions and that he may generalize to everyday situations. Specifically, skills-trainings are focused on:

- Relaxation training.
- Mindfulness training.

- Reasons For Living (RFL) list: consists in providing patients with an index card and asking them to think, and practice thinking, about what is worth living for.
- Survival kit: patients, under therapist supervision, create a container in which they can put items that cue positive emotional states (e.g., quotes, pictures, souvenirs, gifts).
- Developing sleep hygiene and stimulus control abilities: this step includes some specific tasks:
 - Educate patient about healthy sleep habits
 - Identify sleep behaviors for potential modification
 - Develop plan and commitment for changing sleep behaviors
 - Provide sleep diaries to track progress

The second phase of the treatment is primarily focused on cognitive restructuring of suicidal belief system. In order to pursue this aim, specific tools and strategies are implemented:

- ABC Worksheets, that encourage patients to identify the Activating event which may have triggered the crisis, their Beliefs developed during this crisis, and the Consequences of their suicide attempt.
- Challenging Beliefs Worksheets, which allow the individual to reflect in a more systematic and rational way on their own assumptions.
- Behavioral Activation interventions, that are aimed to identify and gradually re-activate behaviors and activities considered enjoyable and meaningful for the patient by creating a list and a specific plan.
- Coping Cards.

The third and last phase is mainly aimed to avoid any relapses: therapist has to assure that patient has learned skills trained during the whole treatment and that he is able to implement those abilities autonomously.

To test BCBT efficacy, Rudd and colleagues conducted an RCT study including 152 active-duty militaries from Fort Carson, Colorado, in 2015 [86]. The sample was randomized, 76 soldiers were assigned to a TAU group, while the other 76 were assigned to the BCBT group. The 24-month follow-up results showed a reduction of about 60% of the suicide attempts in the soldiers who belonged to this second group, compared to those that had been assigned to the TAU. In particular, eight participants of the BCBT (13.8%) attempted suicide at least once, while among those of the TAU group, 18 carried out one or more suicide attempt (40.2%). However, no significant differences were found between the two groups regarding the severity of psychiatric symptoms.

Problem Solving Therapy

Problem Solving Therapy (PST) is a psychosocial intervention firstly developed by D’Zurilla and Goldfried, within a cognitive-behavioral framework. Stress and

sufferance, in PST perspective, arise from distal factors and early life stress, that can produce biological and psychological vulnerabilities, that can make people more susceptible to negative health outcomes. The main goal of this therapy is teaching patients sets of cognitive and behavioral skills that can enhance their ability to deal effectively with life events (especially life stressors) and anything that can lead to negative mental and physical outcomes [75]. Techniques and strategies typical of this therapy are focused upon increasing emotional regulation and problem solving, useful to improve resilience to stress. There are two main components of this therapy: problem orientation and problem-solving style [9]:

- Problem orientation includes a set of cognitive-emotional schemas, and it aims to improve motivational functions in social problem solving.
- Problem solving style refers to the cognitive and behavioral activities used by the client to find solutions to normal problems and coping with them.

PST was found to be effective in reducing self-harm in adults [46]. In this meta-analysis, different studies comprising CBT and PST were analyzed. Fewer participants repeated self-harm in CBT/PST group, compared to TAU group, at 6-month and 12-month follow-up. Moreover, there were significant improvements in depression, hopelessness, suicidal ideation, and problem solving.

A study compared PST and supportive therapy in older adults diagnosed with depression and executive dysfunction. After 12 weeks of treatment, the PST group showed higher improvement of suicidal ideation, compared to the supportive therapy group [43].

PST was used not only in western countries, but also in Africa and South America. The first study was performed on a sample of people diagnosed with common mental disorders in Zimbabwe and treated with either PST or enhanced usual care. PST delivered by lay health workers was found to reduce common mental disorder symptoms among people with suicidal ideation [73]. The second study, an RCT, tested the efficacy of PST in reducing suicidal risk in Brazilian adolescents [109]. Compared to the control group, the PST group had lower levels of suicidal risk. Moreover, depressive symptoms decreased and there were lower suicidal plans and attempts. These results were found at posttreatment and 6-month follow-up.

Summarizing, PST may reduce suicidal risk both directly and indirectly, through the reduction of psychopathological symptoms. Therefore, it can be implemented as part of programs to prevent suicide.

Problem Adaptation Therapy

Problem Adaptation Therapy (PATH) is a home delivered method, developed by Dimitris N. Kiosses, to deal with older adults who suffer from major depressive disorder, cognitive impairment, and disability [57]. It is based upon problem solving approach, integrated with compensatory strategies, environmental adaptations, and caregiver participation. Its goal is to improve emotion regulation and reduce the

impact of negative behavior and functional limitations. PATH recommends the presence of a caregiver that can participate in treatment, whose help can improve patient's emotion regulation. There are five strategies adopted by PATH to regulate emotions [56]:

1. Situation selection (selecting the situation to be exposed to).
2. Situation modification (changing situations that can elicit emotions).
3. Attentional deployment (shifting the attention within a situation).
4. Cognitive change (changing how a person thinks about a situation).
5. Response modulation (trying to modify one's emotional responses to a certain situation).

An RCT compared PATH to Supportive Therapy of Cognitive Impaired Older Adults (ST-CI) in dealing with older adults suffering from major depression, dementia, and disability. PATH group reported higher improvement in depression respect to ST-CI. Moreover, those with high social support showed better results. Concerning suicidal ideation, both treatments performed the same [56]. The same team found that the PATH group, compared to the control one treated with ST-CI, showed higher improvement in negative emotions, that predicted reduction in suicidal ideation [57].

These promising results suggest that PATH can be used to prevent suicidal ideation in older adults. However, further research by different research teams is recommended.

Psychodynamic Therapies

Psychodynamic and psychoanalytic therapies are often regarded as not suited to treat suicidal patients due to the fact that they are not evidence-based, but some recent studies support their use [13]. Two systematic reviews and meta-analyses investigated the efficacy of psychodynamic psychotherapies for suicidal populations. Cristea et al. found that psychodynamic approaches, together with Dialectical Behavior Therapy, were more effective in dealing with borderline-relevant outcomes (borderline symptoms, self-harm and parasuicidal behavior, and suicide), compared to control interventions [26]. Unfortunately, effects were small, inflated by publication bias and unstable for follow-up.

The second study ($k = 12$) found that psychodynamic therapies, along with psychoanalytic ones, were effective in reducing the number of patients attempting suicide [13]. Psychoanalytic therapy is the classic intensive therapy, with several sessions per week and long-term treatment, even for years. Psychodynamic therapy derives from psychoanalytic theories but treatment is usually shorter than psychoanalysis, with one session per week and not always the therapist is a certified psychoanalyst [1]. Reduction of self-harm was observed at 6-month follow-up, but no reductions were observed for suicidal behaviors. Moreover, improvements in psychosocial functioning were observed in patients. However, these results are limited by the small number of trials and moderate quality of evidence.

Thus, promising results were reported about the efficacy of psychodynamic psychotherapies, but further research is needed considering the limited number of studies and the heterogeneity among psychodynamic therapies.

Here, we will illustrate some specific psychodynamic therapies showing evidence for efficacy/effectiveness in suicide prevention.

Mentalization-Based Treatment

Mentalization-Based Treatment (MBT) is a therapy initially ideated to treat patients with personality disorders. The concept of mentalization is a deeply social construct, and refers to the process by which a subject has a sense of identity and is able to make sense of the other person in terms of subjective states and mental processes [38]. Problems in this capacity are present in different mental disorders and usually lead to misinterpret motivations of other people, with consequences in terms of quality of interpersonal relationships [38].

MBT duration is comprised between 12 and 18 months [7], with a first assessment phase, followed by therapy sessions, and a final phase [5, 6]. The initial phase aims to engage the patient in the therapy by evaluating mentalization capacity, attachment style, interpersonal functioning, providing psychoeducation and establishing a therapeutic contract. During therapy sessions, which include individual and group sessions, the therapist tries to stimulate the capacity of mentalization through different techniques according to the patient's attachment style. To engage the patient into the therapeutic process, generic psychotherapy techniques (like empathy, support, and clarification) are used; then, the therapist can proceed with more specific interventions [5]. The final phase serves to review the patient's improvement and to progressively prepare her/him for the end of the therapy.

For reviews focusing on the efficacy/effectiveness of MBT see [64, 102]. Two original studies are of interest concerning MBT and suicide prevention. In the first, patients with Borderline Personality Disorder (BPD) showed higher reduction in self-harming behaviors and suicide attempts when treated with MBT than with TAU [2]. These results were maintained in the MBT group even after 5 years [3]. The second study [4] found that patients diagnosed with BPD and Antisocial Personality Disorder (APD) treated with MBT had a higher reduction in rates of suicide attempts, self-harming behaviors, and hospitalization, compared to a control group treated with structured clinical management (SCM).

MBT was also found to be more effective than supportive therapy in dealing with BPD symptoms, non-suicidal self-injury and suicidality [54]. Moreover, in a randomized trial the efficacy of MBT was compared to SCM's one in treating patients with comorbid BPD and APD. Subjects treated with MBT showed a significant reduction of antisocial personality features (e.g., anger and hostility). Moreover, MBT showed to significantly reduce the frequency of both self-harm and suicide attempts [7].

Summarizing, MBT was found to be more effective compared to other therapies in reducing suicidal behaviors in patients with personality disorders, especially BPD

and APD. Further research is needed to test its efficacy in suicide prevention in patients suffering from other disorders.

Interpersonal Psychotherapy

Interpersonal Psychotherapy (IPT) was developed for the treatment of depressed patients by Klerman and Weissman [58, 104]. The focus is on the present, and events occurred in remote past are not analyzed. In particular, therapists work on the connection between the appearance of depressive symptoms and current interpersonal problems, divided into four categories: interpersonal conflicts, role transitions, grief, and interpersonal deficits.

IPT includes three main phases. The first phase focuses on the evaluation of the problem and setting the treatment framework. To do so, the therapist investigates every important aspect, including psychiatric history, recent symptoms, and depression diagnosis. Important is the assessment of the patient's recent social functioning and current relationships. In the second phase, the therapist uses strategies specifically chosen for the problematic area of the patient. For example, to treat grief the therapist facilitates mourning and helps to find new activities and relationships to overcome the loss. There is a strong focus on the actual issues, instead of childhood and developmental problems. The final phase is focused upon consolidating patient's achievements and the development of strategies to recognize depressive symptoms and deal with them.

There is a variant of IPT designed for depressed adolescents with suicidal risk (IPT-A), which results are promising. It performed well reducing symptoms of adolescent depression and improving social functioning [72]. Regarding suicide, compared with a group treated with TAU, adolescents who underwent a therapeutic path with IPT-A showed lower levels of depression, suicidal ideation, anxiety, and hopelessness [97].

A meta-analysis ($k = 7$) reported that IPT, compared to control conditions, was more effective in reducing symptoms of depression at posttreatment and follow-up in adolescents [80]. Moreover, IPT improved their quality of life. However, there is no evidence of a reduction of risk of suicide in patients treated with IPT ($k = 2$).

Also, an adaptation of the IPT for elderly subjects (60 years old or older) at risk of suicide was developed and studied. Research found that participants of this study experienced significant reduction of suicidal and death ideation, a reduction in depressive symptom severity and an increase in psychological well-being [51].

Kumpula et al. analyzed the effectiveness of three therapies (IPT, CBT, and ACT) in reducing suicidal ideation on military veterans. IPT was found to be effective for both female and male veterans, with a higher reduction of suicidal ideation in male veterans [61].

Moreover, IPT was indicated, together with CBT, among treatments that may be useful for prevention of postpartum suicidality [59].

Summarizing, IPT showed to effectively reduce suicidal ideation in different populations, as well as other symptoms like depression and anxiety.

Transference-Focused Psychotherapy

Transference-Focused Psychotherapy (TFP) is a psychoanalytic therapy, developed by Clarkin and Kernberg, used to treat patients with personality pathology. Its main goal is modifying the personality structure of patients with personality disorders (mostly BPD, but also narcissistic, paranoid, schizoid, and schizotypal personality disorders) [55].

In this perspective, a determinant of BPD is seen in “the failure of psychological integration resulting from the predominance of aggressive internalized object relations over idealized ones” ([55]; pp.97). TFP is usually performed with two or three face-to-face sessions a week. The TFP aims at promoting integration of the patient’s internal world through the analysis of his ongoing relational experience with the therapist. By facilitating the activation of split-off internalized object relations in the transference, TFP therapists can observe and systematically interpret them in terms of dyadic units composed by a self-representation, an object representation, and a dominant affect connecting them. This systematic interpretation allows to gradually link the dissociated positive and negative transferences, which leads to an integration of split-off idealized and persecutory segments of experience.

In an RCT with a sample of BPD patients, TFP efficacy was compared to community psychotherapies [35]. Patients treated with TFP had fewer suicide reattempts, compared to control group. Moreover, patients had improvements in borderline symptomatology, psychosocial functioning, personality organizations, and psychiatric inpatient admissions. But there were no changes in self-harming behavior levels.

BPD patients were treated either with TFP or SFT for a period of 3 years, with sessions twice a week, to determine which was better for this population. Both treatments were effective in reducing borderline and general psychopathology, and also suicidal ideation; overall, SFT performed better in all fields compared to TFP [40].

In summary, TFP performed well in reducing suicidal behavior in patients with BPD. Further research is recommended, however, to strengthen these results.

Attachment-Based Family Therapy

Attachment-Based Family Therapy (ABFT) is a treatment developed by Guy Diamond to deal with adolescent depression, traumas, and suicidality [33]. The attachment theory of Bowlby represents the theoretical basis: children and parents establish relationships, where children use parents to soothe fears and anxieties, learning how to regulate negative affect states and how to properly deal with vulnerable emotions [11]. Growing up, adolescents have to gain their independence and maintain attachment with parents; if something goes wrong, abilities like problem-solving and emotion regulation could not properly develop. In this context, ABFT aims to strengthen the relationship between adolescents and parents.

ABFT is divided into five therapeutic tasks [33]:

- Task 1: moving the attention from the patient's symptoms to improve the relationship between parents and adolescents, using a relational reframe.
- Task 2: knowing the interests and strengths of the subject at first, and then helping the adolescent to develop an attachment rupture narrative.
- Task 3: building an alliance with parents, at first discussing about recent difficulties and then analyzing parents' histories of attachment ruptures.
- Task 4: the adolescent expresses her/his anger in a mature way, to substitute the negative expectations of parents and replace them with secure relationship.
- Task 5: often called the autonomy-promising task, helps family members practicing new relational skills and consolidating the secure base. Therapist helps the adolescent to take responsibilities of herself/himself and at the same time finding the balance between support and encouragement.

A review focused on the efficacy of ABFT was published [33]. In a randomized study, adolescents treated with ABFT showed higher and faster reductions in suicidal ideation, compared to enhanced usual care, during treatment and higher rates of clinical recovery on suicidal ideation at posttreatment. ABFT was also found to be slightly more effective in preventing future suicide attempts and also reducing attachment-related avoidance for both mothers and fathers [31]. The same research team tried to adapt ABFT to use it with suicidal lesbian, gay, and bisexual adolescents. Results suggested that this population can be treated with modified ABFT: significant decrease in suicidal ideation, depressive symptoms, and maternal attachment-related anxiety were reported. But still, these results are preliminary and need further support [32]. However, in a recent RCT, the comparison between ABFT and family enhanced non-directive supportive therapy (FE-NST) showed no differences in efficacy. Both treatments lead to reduction in suicidal ideation and depressive symptoms, but, in contrast to expectations, ABFT did not perform better than FE-NST [34].

Summarizing, promising evidence was found concerning ABFT. Its potential in dealing with suicidal adolescents and LGBT community should be further tested.

Third Generation Therapies

Dialectical Behavior Therapy

Dialectical Behavior Therapy (DBT), introduced by Marsha M. Linehan in 1991, is the most studied therapy for the treatment of patients at risk of suicide, and belongs to the third wave of CBT. It is a manualized treatment that combines treatment techniques from behavioral, cognitive, and supportive psychotherapies [62]. The theoretical assumption on which DBT is based is that, pervasive emotional dysregulation leads the subject to implement impulsive and maladaptive behaviors, both self-directed and within the relationship with others, making the range of responses to life events much less wide, less flexible and less

dialectic. This difficulty in emotional regulation derives both from a genetic emotional vulnerability, and from the presence of an invalidating environment that tends to trivialize, criticize, or simplify the emotional activation of the individuals, not teaching them to implement adaptive and functional self-regulation strategies.

This treatment is composed of weekly individual and group therapy, flanked by telephone coaching interventions and a supportive team for the therapists. The main goal of DBT is helping patients to build effective skills useful to adaptively face emotional situations, firstly within a structured and safe therapeutic context, to then be able to generalize these abilities to daily life. Skills trainings address specific areas such as awareness of one's mental and emotional states (mindfulness), interpersonal effectiveness, emotional regulation, and distress tolerance [62]. While mindfulness and distress tolerance skills are targeting acceptance-based skills, emotion regulation and interpersonal effectiveness represent change-based skills [20].

- Mindfulness is an intentional process of observing, describing and participating in reality with a non-judgmental approach, in the moment and with effectiveness [63]. Goal of the mindfulness module is to reduce suffering, increase happiness and experience reality as it is. This meditative technique helps to stop the continuous flow of executive functions to allow the deforming thoughts that lead to acting out to emerge.
- The primary focus of interpersonal effectiveness module is to consolidate assertiveness skills, learn to decline when necessary, and deal constructively with interpersonal conflicts.
- Emotion regulation module includes learning to manage especially hard and painful emotions by understanding and addressing correctly emotional states, reducing emotional vulnerability by decreasing oversensitivity and increasing positive feelings. Specific skills are taught to the patient to reduce emotional suffering.
- Distress tolerance aims crisis management and skills regarding accepting the reality as it is, by teaching skills such as distraction, self soothe, relaxing [63].

During the treatment, patients are asked to keep a personal diary: they use the diary cards to write down and score some physical and psychological sensations, reporting every day of the week how they feel. Cards also help to identify target behaviors, of which patients together with therapists will provide a functional analysis.

DeCou and colleagues have recently published a meta-analysis work that includes 18 controlled (non-randomized) clinical trials with a specific focus on DBT [28]. The results highlighted how this type of treatment) has proven to be effective in terms of reducing self-directed violence and access to intervention services for psychiatric crises. On the contrary, no significant effects of DBT on suicidal ideation were detected. However, the effect size is quite modest.

Schema-Focused Therapy

Schema-Focused Therapy (SFT) (known also as Schema Therapy) was developed by Young combining elements of cognitive behavioral, attachment, object relations, and emotional-focused models [110]. SFT was developed to treat people with chronic personality problems [10], focusing upon early maladaptive schemas, that are dysfunctional, emotional, and cognitive patterns developed in early stages of life. SFT intervenes upon four classes of early maladaptive schemas: child modes, maladaptive coping modes, maladaptive parent modes, and healthy adult mode. Attention is devoted to the relationship between the therapist and the patient, using it in two ways. First, it is used to analyze and modify schemas and behaviors. Second, it is used to treat early deficits in parental behavior or low fit between the patient's personality and the environment [81].

There are a few studies that analyze the effects of SFT on suicidal behaviors. Different reviews underline its general efficacy. In a review about therapies for BPD by Oud et al. [78], specialized psychotherapies (including SFT) were found to be more effective than TAU in reducing SI. Furthermore, moderate effects suggested that specialized psychotherapies reduce self-injury as well. At last, they were well tolerated by the patients, with less than 38% chance of dropout compared to non-specialized approaches. Both therapists and patients evaluated some aspects of this therapy to be useful, like the highly committed therapeutic relationship, the specific schema therapy techniques and the clear theoretical model. On the other hand, 50 sessions were considered not enough by both patients and therapists [27].

In a multicenter randomized trial, SFT was compared to TFP in BPD patients, SFT group had higher improvement in suicidal behavior, and borderline and general psychopathology [40].

Promising but only few results were found on SFT reduction of suicidal behavior, so the research should focus on SFT in the future.

Mindfulness-Based Approaches

Mindfulness-Based Cognitive Therapy

Mindfulness-Based Cognitive Therapy (MBCT) was developed by Segal Zindel, Mark Williams, and John Teasdale as a method to deal with relapse and recurrence of depression [87]. It is part of the "third wave" of cognitive-behavioral psychotherapies, characterized by strong emphasis on both acceptance and change [48]. The program consists of eight consecutive weekly sessions that last 2 h. Early sessions present guided meditation, the last ones are focused upon the development of an independent practice of the techniques and expanding mindful awareness to mental events. Homework is important, and patients are recommended to practice mindfulness activities 45 min a day [92].

MBCT's theory stands upon cognitive therapy and training in mindfulness meditation. Participants have to develop formal and informal meditation practices.

The formal ones concern “set periods of mindfulness meditation such as sitting and focusing attention on the breath, a body scan, mindful walking and stretching, and yoga” ([108]; p. 22). Informal practice focuses upon the use of mindfulness in everyday life.

On the other hand, cognitive therapy techniques used in MBCT concern knowledge about depression, negative thoughts and how unhelpful cognitions and emotions (like rumination, avoidance, suppression, and struggling) can perpetuate distress and not resolve it.

Final goal of the participants is learning to recognize signals of plans to deal with potential crisis, depression, hopelessness, and suicidal ideation.

Raj et al. tested the efficacy of MBCT on life satisfaction and life orientation of adolescents with depression and suicidal ideation. After a pre-test measurement, the subjects received 8 weeks of MBCT. An increase in life satisfaction, life orientation, and family functioning were observed, together with a reduction in suicidal ideation and depressive symptoms [82].

A comparison between MBCT and maintenance antidepressant medication (ADM) for patients with major depressive disorder (MDD) over a 24-month period revealed that MBCT is less expensive than ADM (\$15,030.70 versus \$17,255.37) with a slightly better outcome for MBCT [79]. Considering the suicide-related costs, MBCT can be an effective treatment for MDD. Results are interesting but they were obtained in the Canadian health system, so they are not generalizable to other countries.

Also, there is a group version of MBCT plus TAU (individual treatment by psychiatrist or psychotherapist) that was compared to TAU alone, to evaluate effects on depression symptoms [39]. A reduction of suicidal ideation was observed for MBCT + TAU, but not for TAU alone. The effects were of small to medium size and independent from other depression symptoms, so further research is needed.

There is also a version of MBCT specifically designed to prevent suicidal behavior, called MBCT-S. In a study by Chesin and colleagues, 15 subjects who were treated with MBCT-S were interviewed to know their opinion about it. MBCT-S seems to be acceptable and feasible, and capable of improving emotional regulation; only a minority of subjects found it a source of increased emotional distress and a trigger for suicidal thinking. This study can be useful to improve this treatment [25].

MBCT had potential in dealing with suicidal ideation, but some results previously cited are not generalizable. So, future research is recommended.

Mindfulness-Based Stress Reduction

Mindfulness-Based Stress Reduction (MBSR) was developed by John Kabat-Zinn, adding the Buddhist concept of mindfulness to western psychology. Techniques included in MBSR are: sitting meditation, body scan, and hatha yoga. The body scan is a process of analysis of the entire body, moving from one region to another. Hatha yoga is composed of a series of stretches, postures, and breathing exercises that should relax and strengthen muscles and bones. It includes also a stress education

and a training in coping strategies and assertiveness [65]. MBSR focuses upon the development of a series of attitudes, like becoming an impartial witness of self-experiences, acceptance of the present and the things as they are, and letting thoughts to go, not censoring them.

MBSR was used to treat a sample of military veterans suffering from depression and anxiety [88]. After treatment, anxiety, depression, and suicidal ideation levels were reduced, and mental health functioning improved, on the other side.

This therapy can be used not only to treat psychiatric patients, but also for certain working categories. Several therapies were tested (MBSR included) to treat doctors. Indeed, practice of medicine can lead to mental distress, like emotional exhaustion, self-isolation, burnout, depression, and suicidal ideation. Primary care physicians treated with MBSR showed improvements in personal well-being and burnout, both variables connected to reductions in suicidal ideation. Moreover, mindfulness training for therapists improves outcomes in their patients [41].

Summarizing, MBSR performed well in this context and for different populations. There are still few studies about this topic, and many of them are relative to small samples. So, further research should fix these problems.

Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) belongs to the “third wave” of behavioral therapies [49]. In this perspective, causes of psychopathology have to be searched in the tendencies to remain in a problem-solving mode when it is not helpful. As a result, subjects tend to avoid and escape from aversive events (like emotions, thoughts, memories, and bodily sensations), in a process called “experiential avoidance.” People entangled in this process lose contact with the present, sticking to past and future, and they have narrow and rigid patterns, based upon inaction, impulsivity, and avoidance. All this factors, called “psychological inflexibility,” limit the opportunities of people. The goal of ACT is training the clients to reach psychological flexibility, a status of knowledge of the situations and how to face them. In order to do so, therapists teach the client sets of behaviors ad hoc for various situations [50]. ACT works on six core processes [49]:

- Acceptance, as an alternative to avoidance and as a method to increase value-based action.
- Cognitive defusion. ACT tries to change how the client interacts with thoughts, and not modifying them, by creating a context where unhelpful functions are reduced.
- Being present, promoting non-judgmental contact with events that occur, to improve the client’s behavior flexibility.
- Self as a context. The self has to emerge, to become aware of the flow of experiences without attachment.
- Values. With a series of exercises, ACT helps the client to choose life directions in various contexts (like family, career, and so on).

- Committed action. The development of larger patterns of action and the development of concrete goals. This process is based upon therapy work and homework, divided in short, medium and long-range behavior change goals.

A systematic review about the efficacy of ACT in dealing with suicidal ideation and self-harm [99] presented interesting but insufficient evidence in favor of this therapy. One study reported a non-significant reduction in suicide ideation levels, because ACT group and TAU group did not differ in post treatment results [98]. Another study, made with a sample of veterans, reported a significant reduction in suicide ideation [103]. Ducasse et al. performed a study upon a sample of patients diagnosed with suicidal behavior disorder (SBD) treated with ACT. ACT reduced the levels of suicidal ideation in patients with SBD. Moreover, patients found the treatment acceptable [36]. The same team [37] conducted an RCT comparing ACT versus relaxation treatment with a sample of patients suffering from SBD. The rate of change of suicidal ideation posttreatment was higher in ACT group; similar results were found also for depression symptoms and anxiety, psychological pain, hopelessness, anger, and quality of life. Moreover, ACT effectiveness remained stable at the 3-month follow-up.

In summary, there is still insufficient evidence in favor of this therapy, and further studies are needed.

Other Treatments

Complicated Grief Therapy

Complicated Grief Therapy (CGT) is based upon attachment theory and IPT and CBT approaches, and it was created to treat those who suffer from the death of an attachment figure, a person who represents a source of support and reassurance [107]. When an attachment figure dies, the subject feels a series of painful emotion and a sense of disbelief [89]. There are two ways in dealing with grief: following a path of successful mourning that leads to integrate the grief in one's life and acknowledging the loss, resolving the loss with emotions becoming more positive; or complicated grief, if the grief is not successfully accepted: a person who suffers from it experiences painful emotions for long periods of time, usually rumination and self-blame, usually accompanied by maladaptive behaviors [90].

As said before, CGT is based upon IPT and CBT. CBT techniques focused upon the loss-related processes and painful memories symptoms and behavioral avoidance. IPT elements are used in helping clients to re-establish relationships and life goals. CGT consists of 16 sessions, and the treatment is divided in three main phases [107]:

1. The first phase (usually the first three sessions) is used to establish the therapeutic alliance, obtain the client's history of relationships and describe the treatment.

2. The intermediate phase (sessions 4–9) is focused on the client performing a series of exercises (both during the sessions and outside of them) designed to let the client dealing with the loss and restoring the ability to feel satisfaction.
3. The final phase (sessions 10–16) is used to complete the work and consolidate the achieved objectives. Usually, both therapist and client decide what has to be done during these final sessions.

In a randomized clinical trial, CGT's efficacy was tested along with or without citalopram administration (CIT). There were four groups: one with citalopram, one with placebo, one with CGT plus citalopram, and the last with CGT plus placebo. The group CGT + placebo performed better than placebo alone, and the addition of citalopram did not significantly modify the outcome. Moreover, citalopram was related to higher reduction in depressive symptoms and introducing CGT improved citalopram outcome. On the other hand, CGT treated patients had greater reduction in suicidal ideation rates, regardless of the assumption of citalopram [91].

People diagnosed with prolonged grief disorder treated with CGT (in both conditions, with placebo and with citalopram) showed significant better outcomes compared to those who were not treated with CGT. The level of maladaptive thoughts, their relationship with suicidality and the efficacy of CGT were considered. The efficacy of CGT + citalopram versus citalopram alone, and CGT + placebo versus placebo alone were compared. In both situations, groups treated with CGT showed a decrease in maladaptive beliefs level and also in their association with suicidal thoughts [93].

There are few data about the efficacy of this therapy, but still promising. Future research is recommended.

Brief Interventions

Collaborative Assessment and Management of Suicidality

A further type of evidence-based treatment for suicide prevention was introduced in the mid-1990s by the Suicide Prevention Lab of the Catholic University of America (Colombia) led by David Jobes: the Collaborative Assessment and Management of Suicidality (CAMS). This intervention can be articulated into five steps that describe its clinical procedures [52].

Step 1: Preliminary risk identification. Already from the first minutes of the first session, it results fundamental to specifically focus on suicidal thoughts that are verbally reported by the patient. The individual should be able to identify the so-called “suicidal drivers,” those specific elements that led him to attempt suicide.

Step 2: Collaborative Assessment with the use of the “Suicide Status Form” (SSF). It is a self-report questionnaire that the patient is asked to fill sitting next to the therapist, in order to increase the sense of collaboration between these two. The

first part of the SSF includes different scales, qualitative assessments, and scores that the subject should attribute to specific items. The SSF Core Assessment consists in giving a score from 1 to 5 to the following constructs: Psychological Suffering, Stress, Agitation, Despair, Self-directed Hatred, and Overall Suicide Risk.

Step 3: Collaborative Treatment Planning. Clinicians and patients must plan the course of the treatment by setting specific goals, starting from what emerged from the SSF. A personalized plan for crisis management is then collaboratively developed.

Step 4: Clinical monitoring of Suicide Status. At the beginning of each session, the patient quickly completes the SSF questionnaire so that, at the end of the encounter, any progress may be highlighted and/or other problems may be introduced as therapy targets.

Step 5: Clinical resolution of Suicide Status. Once the suicide risk has been mitigated, in the final stages of the treatment, patient and clinician discuss about what worked during the therapy, in order also to develop a plan to face eventual future crises.

Over the past few years, several retrospective studies have been conducted to evaluate the effectiveness of the CAMS approach on suicide attempt; however, the majority are non-randomized trials. A certain effectiveness of this type of intervention has been detected in terms of a rapid reduction in suicidal ideation, an increase in RFL and an improvement in containment ability. Specifically, a retrospective study performed on suicidal outpatients compared this specific type of intervention to TAU [53]. Outpatients assigned to the CAMS group ($n = 25$), experienced a reduction in suicidal thoughts and behaviors consistently faster than the TAU group ($n = 30$). CAMS was also proved to be effective in terms of decrease of medical healthcare utilization in the 6 months following the beginning of suicide-related mental health treatment.

Teachable Moment Brief Intervention

Stephen S. O'Connor introduced in 2015 a brief intervention for suicide prevention: the Teachable Moment Brief Intervention (TMBI). The TMBI is specifically addressed to suicide attempt survivors, and is usually implemented 2 days after the suicide attempt [76]. The theoretical context on which it is based is distilled from more comprehensive approaches to suicide treatment, such as the previous mentioned CBT-SP, BCBT, CAMS, and DBT. The TMBI is based on the premise that patients report elevated levels of protective factors such as motivation, hope, and RFL shortly after a suicide attempt because emotion is increased, perceived risks related to suicide and positive outcomes related to living are being weighed, and self-concept/social role is more defined. Thus, in this sense, suicide attempt is seen as an opportunity for the treatment. In the weeks and months after a suicide attempt, these cognitive and emotional factors decrease, which then brings to a reduction of protective factors. Thus, the aim of this intervention is to keep the factors active

after a suicide attempt elevated for a longer time span, in order to maintain higher levels of motivation, hope, and RFL. A greater level of these proximal protective factors is then theorized to lead to higher engagement in outpatient treatment where patients acquire more effective skills to identify the direct drivers of suicide ideation, and they are also more involved in interpersonal relationships. The TMBI is composed by a single encounter that usually lasts 30–45 min. The main components of this intervention are represented by:

- Establishing a relationship and introducing the intervention.
- Identifying drivers, functional analysis, what is lost and gained from SA.
- Document short- and long-term plans for risk reduction, and making a summary of the session.
- Discuss about patient's connections with outpatient mental health services.

In 2018, O'Connor and colleagues conducted a pilot RCT with hospitalized suicide attempt survivors to evaluate the acceptability and practicability of the TMBI. Patients that were assigned to this intervention were more likely to show motivation and engagement toward the mental health services even after 3 months compared to a control group assigned to TAU [77].

Motivational Interviewing

In the context of University of Rochester Medical Center and Department of Veterans Affairs (VA), Center of Excellence for Suicide Prevention at the Canandaigua, Britton, and colleagues developed an intervention to help individuals with alcohol-related problems to find the motivation to change their problematic drinking behavior. The Motivational Interviewing (MI) is mainly focused on resolving the predominant ambivalence that usually characterizes this type of patients: despite they often have reasons to change their use (e.g., medical, legal, or relational issues), they also have strong reasons to continue drinking, such as the reluctance to change one's habits or the social benefits of substance use. In a paper published in 2011, Britton et al. proposed an integration of MI and Self-Determination Theory with CBT-SP, since motivation and ambivalence play a central role also in patients that are at risk of suicide. Ambivalence occurs when the individual starts thinking about suicide, feeling on the one hand the will to die, but on the other hand also the desire of living without experiencing pain and suffering. The aim of this intervention is therefore to shift the motivation away from suicide ideation and toward living and recovery.

MI is articulated in three different phases:

1. Explore the presenting problems (with a specific concern for reasons for dying, which may represent a trigger for the exploration of the reasons for living).
2. Build the motivation to live.
3. Reinforce the commitment to living.

It is good to note that, in this specific intervention, clinicians strategically attend to both sides of ambivalence to be sure that clients feel that they understand and respect the complexity of the situation which they are experimenting.

In 2012, Britton and colleagues published an open trial of MI with psychiatrically hospitalized veterans. The aim of this study was to evaluate the acceptability of MI to address suicide ideation. Participants who underwent this brief intervention reported a consistent reduction in suicide ideation severity both at posttreatment and at 60-day follow-up assessment [15].

Attempted Suicide Short Intervention Program

Attempted Suicide Short Intervention Program (ASSIP) has been developed by Michel and Gysin-Maillart to answer the demand for a short intervention to treat suicide attempters [69]. ASSIP usually lasts three sessions of 60–90 min, one session per week. If it is necessary, a fourth session can be added. The first session unfolds in a narrative interview to know how and the reasons why the client attempted suicide. The aim is the understanding of psychological pain mechanisms, vulnerabilities, and trigger events that are linked to suicide attempts. The session is video registered.

In the second session, the therapist and the client watch part of the interview. The patient has to watch everything with the observer's eyes, and the therapist gives a reconstruction of the path full of pain that lead to suicidal action. At the end of the session, a handout is given to the patient, with the homework to write a feedback about it. This is done to see if the patient and the therapist has the same view of the suicidal behavior, and in case of discrepancies they can discuss about it. The therapist, then, prepares a draft of the case conceptualization.

In the last session, patient and therapist discuss about the feedback written by the patient and then revise the case conceptualization, which includes vulnerabilities, suicide triggers, and safety strategies for future crisis. The case conceptualization is then printed and given to patient and, if involved in the case, also to other health professionals. Also, a leaflet with long-term goals, warning signs, and safety strategies is given to the patient, with instruction to always carry it around with him, in the eventuality that a crisis occurs.

ASSIP therapists send semi-standardized letters to their patients in the 2 years following the treatment, 3-monthly in the first year and 6-monthly in the second year. Patients do not have to respond to these letters, they are just a remind of long-term risk of future suicidal crises and safety strategies. If they want, they can write a feedback about their situation, which will be used as basis for the next letter.

In an RCT study, patients who attempted suicide were treated with ASSIP or with TAU. During a follow-up period of 24 months, suicide reattempting rates were 8.4% for ASSIP group and 26.7% in the control group. Moreover, ASSIP participants spent less time than control patients in hospital during the follow-up period and the higher therapeutic alliance was associated with lower rates of suicide attempts [69].

In another randomized controlled trial, focused upon the development of coping strategies for suicidal crisis, the ASSIP + TAU group showed 11% less dysfunctional

coping, compared to the control group treated with TAU only (6%). Moreover, in the ASSIP group active coping and substance use were negatively associated with suicide ideation [45].

Finally, patients who attempted suicide and treated with ASSIP showed a risk of repeated suicide inferior of 80% compared to patients who attempted suicide and treated with TAU [44]. Moreover, patients in the ASSIP group spent fewer days in hospital, compared with patients in the TAU group.

In conclusion, ASSIP performed well in dealing with subjects with a history of suicide. Moreover, because of its short length, it can be used rapidly and with major numbers of patients.

Internet-Based Interventions

Internet-Based Interventions (IBIs) are a promising way to improve treatment accessibility and availability. In the case of mental health, IBIs may also help overcoming the stigma. However, there is limited evidence on the efficacy/effectiveness of new internet-based cognitive-behavioral psychotherapeutic treatments (IB-CBT) for the prevention of suicide. Recently, IB-CBT were found to be associated with significant reductions in suicidal ideation compared with control conditions (wait list, attention-control, TAU) ($k = 6$) [21]. However, data on suicide attempts and suicide deaths were lacking. In another meta-analysis, self-guided IBIs were found to be effective on suicidal ideation with small but significant effect ($k = 16$) [100]; furthermore, self-guided IBIs directly targeting suicidal ideation ($k = 10$) were compared to indirect interventions (targeting depression) ($k = 6$) and were reported to be effective immediately post-intervention while indirect interventions failed to reach significance.

Conclusion and Future Perspectives

Together with the use of the antisuicidal pharmacological armamentarium, we have now more solutions than ever to prevent suicide. In fact, a high number of therapies have shown some evidence of efficacy/effectiveness in suicide prevention and in the treatment of suicidal risk.

Evidence-based strategies should now lead us to organize care specifically for suicidal patients. These strategies include (but are not limited to) adaptations of CBT and DBT, as described, and new brief interventions based on SPI and enhanced engagement in care and follow-up [68, 70, 96].

Some issues that need to be further addressed in the future may be:

- The reasons why therapies directly targeting suicide are more effective than those targeting depression (indirect ones): therapies effective immediately post-treatment (psychosocial and behavioral) are ones directly addressing suicidal

thoughts and behavior [67] and the same results were recently reported also for self-guided IBIs [100].

- Adverse effects: treatment emergent suicidal ideation/behavior during psychotherapy need to be investigated in the same way as the case of antidepressants. The potential link between psychotherapy-related adverse effects and clinicians' emotional responses to patients at suicide risk warrant some investigation [24].
- The severity of the patients included in psychotherapeutic trials: are they comparable to the ones included in pharmacological trials? Are they severely suicidal as the patients included in recent pharmacological trials or are they less severe because outpatients? What about the severity of their suicidal ideation and past or recent suicide attempts?
- The outcome trajectories (e.g., rapid versus slow recover, duration of the period free from suicidal ideation, relapse): what about the dynamics of the improvement of suicidal risk? Are psychotherapies useful in short/long term in decreasing suicide risk? Do we have a signal for a decrease in suicide rates or suicidal ideation only?

Psychotherapy and pharmacotherapy are often combined in the treatment of suicidal patients but there is little knowledge of the best conditions to start, maintain or interrupt the combination. Some populations particularly at risk of suicide deserve specific therapies for their needs that are less often addressed: antisocial personality disorder, patients with comorbid addictions, family survivors, therapists surviving to patient's suicide. The key challenge for the future is to understand which components of the interventions mentioned in this chapter perform better and on which specific types of patients. The comparator group to study the efficacy of psychotherapeutic programs in clinical trials is mostly TAU. This kind of comparison does not allow to control for the common factor in every psychotherapy: the nonspecific effects based on empathy, emotional support, and the creation of a therapeutic alliance. Besides, direct comparison between psychotherapies would give us more insight about the interest of the different sub-components.

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Community Prevention: Improving Suicide Prevention Through the Creation of Local Suicide Prevention Action Networks

65

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Abstract

Worldwide there is a growing conviction that many and perhaps most suicides can be prevented. However, little progress has been made in reducing suicide rates. The lack of success in reducing suicide rates highlights the need to rethink current suicide prevention strategies. Shifts in trends require national as well as

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local approaches. This chapter describes the need of using evidence-based suicide prevention approaches on multiple levels and illustrates a multilevel community approach to prevent suicide in the Netherlands: SUPRANET Community, based on the European Alliance Against Depression. There is growing evidence that multilevel approaches to prevent suicide are indeed effective. However, there are various challenging factors that should be taken into account.

Keywords

Multilevel intervention · Suicide prevention · Community prevention · SUPRANET Community

Introduction

Suicide is not just the result of individual factors, such as a psychiatric disorder, a neurobiological vulnerability, or personality traits. Suicide rates also depend on external factors. Rates differ over time, between countries, and also between people with different incomes or ethnicities. The living environment, social situation, and the economic cycle within countries play a major role. This shows important opportunities for universal prevention, such as interventions that focus on identifying suicidality and break down the taboo to openly discuss it, promoting social cohesion and combating stigma. Apart from universal prevention, the World Health Organization recommends suicide prevention efforts on subpopulation and individual levels, as single stand-alone interventions cannot make enough impact on an issue as complex as suicide [40].

Worldwide there is a growing conviction that many and perhaps most suicides can be prevented. However, little progress has been made in reducing suicide rates compared to other health problems like cancer, AIDS, and coronary heart disease. The lack of success in reducing suicide rates highlights the need to use the best evidence-based suicide prevention approaches. A recent meta-analysis of Fox and colleagues showed that after nearly 50 years of research, the literature of 591 unique RCTs indicates that existing suicide prevention interventions have only small effects on self-injurious thoughts and behaviors (including suicide) and have not improved over time [11]. A systematic review of Zalsman and colleagues also points out that no single suicide prevention intervention clearly stands above the others [42]. Since suicide is a complex phenomenon in which environmental and biological factors interact, multilevel suicide prevention approaches are preferred, with combinations of evidence-based strategies at different levels ([36, 38]; WHO).

This chapter describes the need for multilevel approaches and illustrates a multilevel approach to prevent suicide in the Netherlands: SUPRANET Community, based on the European Alliance Against Depression [18].

Community Prevention

Single Prevention Interventions Have Only Small Effects

The additive and synergistic effects of integrating multiple interventions have been shown to be effective. Reason's view on quality and safety improvement is to build protective barriers to prevent unsafe behaviors or mitigate their harmful effects [29]. To achieve safety, multiple layers are required (Fig. 1).

An example of successfully reducing adverse events with the use of multiple barriers, implemented simultaneously, is road safety. A combination of barriers, including seat belts, driving license, traffic lights, alcohol controls, roundabouts, and airbags, caused a large reduction in the number of fatal traffic accidents. While this example shows that a multilevel risk reduction strategy is much more effective than single prevention interventions, knowing the pathways and mechanisms involved (i.e., knowing which barriers to use) is essential to be successful.

Prevention activities are typically categorized on three levels: universal prevention, selective prevention, and indicated prevention. Universal prevention interventions target an entire population (e.g., public awareness campaign). Selective prevention strategies focus on groups within a population that are known to be at a greater risk, and indicated prevention strategies are aimed at individuals who show signs of problems. Universal, selective, and indicated prevention approaches are fundamentally different, but all three are needed to reach an effect.

Multilevel Approaches to Prevent Suicide

Preventative measures taken simultaneously on different levels, thus providing multiple protective barriers against suicide, potentially increase the success in

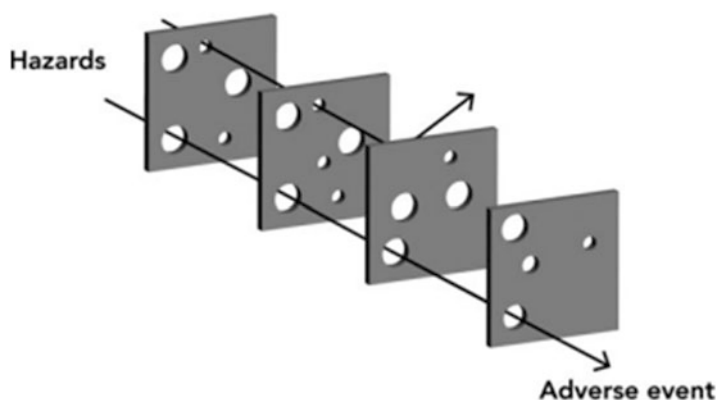


Fig. 1 Reason's (2000) Swiss chesse model

reducing suicide. While rarely evaluated within RCTs with suicide as an outcome, there is growing evidence that multilevel approaches to prevent suicide are indeed effective [2]. These multilevel approaches combine interventions on multiple levels. Best practice elements of multilevel suicide prevention strategies include training general practitioners to recognize and treat depression and suicidality, improving access to care for people at risk, and restricting access to means of suicide [36]. Given the many factors that contribute to suicide, the development and implementation of a national strategy with preventative interventions on multiple levels in which health and social sectors collaborate is recommended [41]. In these strategies, local communities play a central role since they can organize collaboration between healthcare settings, municipalities, police, schools, hospitals, and others for social support and continuity of care [1].

Examples of multilevel approaches to prevent suicide worldwide include programs conducted in mental healthcare institutions, which had success in lowering suicide rates [22, 38]. The Air Force program in the United States consisted of 11 community and healthcare components and was shown to be effective in preventing suicides in the Air Force [23]. Community-based multilevel interventions have shown to be effective in, for example, Japan [26]; however, no evidence was found in New Zealand [6]. Hofstra and colleagues conducted a systematic review and meta-analysis and found that multilevel suicide prevention interventions are effective in preventing both suicides and suicide attempts, with a significantly higher effect related to the number of levels in the intervention [20].

A four-level intervention program targeting depression in Germany called the Nuremberg Alliance against Depression (NAAD) significantly reduced suicide and suicide attempts [18]. NAAD was a 2-year action program preventing depression and suicide in Nuremberg. It consisted of interventions on four levels: (1) increasing the awareness of depression by local media campaigns; (2) training local gatekeepers, such as police officers; (3) targeting high-risk people in the community; and (4) training and support of professionals in primary care settings. The intervention resulted in a significant decline in suicidal acts (completed and attempted suicides combined) of 24% compared to baseline [16–18].

This community-based, four-level intervention has since been adopted by more than 70 regions in Germany within the German Alliance against Depression and has led in 2004 to a European-wide collaboration funded by the European Commission, the European Alliance against Depression (EAAD; [18]). The European Commission recognized this prevention program in 2005 as a “best practice” approach to reducing suicide [7]. Up till now, this intervention has been implemented in more than 115 regions worldwide. The research project OSPI-Europe (Optimising Suicide Prevention Programmes and their Implementation in Europe) has evaluated the intervention in four European cities in Germany, Hungary, Portugal, and Ireland and replicated a significant effect of the intervention on suicidal acts in Portugal, but not in the other countries [19].

Since 2017 the EAAD model was introduced in the Netherlands as part of the National Agenda for Suicide Prevention of the Dutch Ministry of Health, coordinated by the suicide prevention center in the Netherlands “113 Suicide Prevention.”

It consists of four levels: (1) increasing the awareness of suicide by local public awareness campaigns; (2) training local gatekeepers; (3) targeting high-risk persons in the community; and (4) training and support of professionals in primary care settings. The implementation started in six pilot regions, where each region was designated as a SUicide PREvention Action NETwork (SUPRANET Community). The following parts of this chapter describe the SUPRANET Community program components in detail and the evaluation of the impact of SUPRANET Community.

Multilevel Approach in the Netherlands: SUPRANET Community

A SUPRANET Community is defined as a network of local multidisciplinary organizations with shared ownership and responsibility for preventing suicide within a region. In January 2017 SUPRANET was launched in six regions in the Netherlands [12]. The shared multilevel approach is based on the EAAD model which was based on a successful regional intervention in Germany called the Nuremberg Alliance against Depression (NAAD).

Although both the EAAD and SUPRANET Community consider suicidality to be an important outcome measure, the communication strategy differed significantly. While EAAD is primarily focused on depression, SUPRANET Community addresses suicide directly.

The multicomponent multi-setting suicide prevention package of SUPRANET Community consists of the same four components as the EAAD: mass media campaigns, training of local gatekeepers, targeting high-risk groups, and support of professionals in the general practice (see Fig. 2). A summary of each component is outlined below.

The four-level intervention was implemented in each SUPRANET community, specified and tailored to local circumstances. It is a combination of a top-down and bottom-up approach that maximizes and complements what was already in place, which is in line with the EAAD literature [13]. Tailoring is an incentive for participants to become involved in the process and the SUPRANET intervention. It included the option for a region to fine-tune each of the four components and to enrich them with local strategies.

Level 1: The Public Awareness Campaign

The public awareness campaign *The question of your life* (“*De vraag van je leven*”) carried the message that asking one question can make a difference. The campaign was aimed at breaking the taboo on talking about suicide, recognizing the signs of suicidality, giving practical tips and guidelines on how to manage suicidality, and attending people to the Dutch helpline “113 Suicide Prevention.” The campaign was based on a national campaign launched by 113 Suicide Prevention and had three waves in 2017: the first started in February, the second in May, and the third in September. Based on this national awareness campaign of 113 Suicide Prevention, the SUPRANET communities started additional, tailored, regional public awareness campaigns in their own communities. This included the release of more posters and



Fig. 2 The four-level approach of SUPRANET Community, based on the European Alliance against Depression (EAAD)

(social)media presentations, whereby the text on the campaign materials was specifically tailored to each community. For example, the title was altered containing the name of the region, or the text was altered to the most common dialect in that region. Results of a study on the effectiveness of the campaign strengthen the idea that a public awareness campaign is of added value, as it contributed to more openness towards seeking professional help and more familiarity with the Dutch helpline 113 Suicide Prevention (Van der Burgt et al. [34]).

Level 2: Training Local Gatekeepers

In a gatekeeper training, community workers are trained to identify suicidal risk, to make contact, and to “open the gates” for help-seeking behavior [21, 27]. Community workers can play a crucial role in responding to suicidality because they meet a diversity of people, including people who do not seek help themselves. The gatekeeper training which is most referred to is based on the method of Question, Persuade, Refer (QPR). In 2012 the gatekeeper training was introduced in the Netherlands [32], and since then many community workers, such as teachers, police officers, railway employees, and healthcare professionals throughout the country have been trained. The training in the Netherlands has shown to be effective in different employment sectors (education professionals, healthcare professionals, employees in the socioeconomic sector, and other professionals such as security, transport) in improving participants’ knowledge on suicide and addressing suicidality and in their self-confidence to conduct a dialogue on suicide and suicidal thoughts [33].

Level 3: Targeting High-Risk Groups

Within this component, SUPRANET regions implemented interventions for specific high-risk groups, which are known to be particularly vulnerable to develop suicidality. In some regions, this included an intervention for people who are lesbian, gay, bisexual, or transgender (LGBT+). Other regions preferred to target youth or middle-aged people (especially men). Examples of interventions include providing the theme suicide prevention in courses at schools to target youth and establishing contacts with organizations providing benefits to target people who are unemployed. Another example is “The Way Back” intervention, which includes a method for people who have attempted suicide and ended up in the emergency room of the hospital [4].

Level 4: Support of Professionals in the General Practice

The final component of SUPRANET Community included supporting primary care professionals (PCPs) to stimulate the signalling and exploration of suicidal ideation and concrete suicide plans among patients. Various clinical guidelines for depression and suicide prevention recommend physicians to explore suicidal feelings during consultations with depressed patients [3, 8, 28, 37]; however, the extent to which this happens in the Netherlands varies greatly and is dependent on which general practice patients attend [9].

In the SUPRANET regions, a suicide prevention training was offered to the PCPs, based upon the multidisciplinary guideline for diagnosis and treatment of suicidal behavior [37]. Apart from the training, additional materials were offered, like a checklist to use during consultations with (possible) suicidal patients, flyers and posters aimed at patients to encourage talking about suicidal thoughts, and modules on suicide and medication to inform about which medication might induce or reduce suicidality and which medication is often used for suicide attempts by patients [10].

Evaluation of SUPRANET Community

To evaluate the SUPRANET Community program, two studies were done: (1) a repeated cross-sectional design studying attitudinal changes in the general public in SUPRANET regions compared to the general public living outside these regions and (2) a qualitative study providing insights on how primary care professionals (PCPs) evaluate the SUPRANET intervention.

Evaluation 1: A Repeated Cross-Sectional Design Studying Attitudinal Changes in the General Public in SUPRANET Regions Compared to the General Public Living Outside These Regions

This study with a repeated cross-sectional design used general population surveys to measure attitudinal variables over time. The surveys were conducted in the six SUPRANET regions ($N = 2,586$) and in the Netherlands as a whole ($N = 4,187$). The online survey had four measurements (before the SUPRANET intervention, just after the implementation of the public awareness campaign, and 1 and 2 years after the start of

the intervention) and included questions on socio-demographic variables, brand awareness of the Dutch suicide prevention helpline, perceived taboo on suicide, and attitudes towards depression and towards help-seeking (van der Burgt et al. under review).

The goal of the study was to gain insight into the effectiveness of the SUPRANET Community program. Due to the interaction between components and the synergistic effects that might arise within the complexity of a multilevel prevention program, it was not possible to define the reach and contribution of each individual component in the totality of this intervention [14, 15]. Furthermore, the level of implementation of the SUPRANET Community program varied across the six intervention regions, with most of them missing fully implemented components of the EAAD model. In only one region, in the north of the Netherlands, the intervention was implemented as intended in the studied timeframe (2 years) and therefore marked as “high exposure” region. In this region, they had managed to train general practitioners and gatekeepers, to widely spread the public awareness campaign, and to target high-risk groups, which was in this region focused on LGBT+ youth. The remaining five intervention regions were labeled as “medium exposure,” and the Netherlands (the control region) was categorized as “low exposure” since people outside the SUPRANET regions solely had been exposed to the national public awareness campaign.

Results of our quasi-experimental study looking at the impact of SUPRANET Community on attitudinal changes in the general public by studying the exposure-response relationship revealed that respondents in the SUPRANET regions were more likely to be familiar with the Dutch helpline 113 Suicide Prevention, considered professional help to be more valuable, and showed less personal and perceived stigma towards depression than respondents in the control region. The exposure-response analyses showed that, although the ‘high exposure’ region appeared to score better on multiple outcomes, differences were too little to yield statistically significant results. While effects in the ‘high exposure’ region did not significantly differ from the ‘medium exposure’ regions, the study did provide evidence for the effectiveness of the SUPRANET Community program on creating attitudinal change in the general public between the SUPRANET regions compared to the control region. The results revealed that the attitudinal change and brand awareness of the Dutch helpline among the general public was greater in the intervention regions compared to the control region, which is an important step for people with suicidality to seek help. Raising awareness and fighting stigmas is crucial as research shows that stigmas related to mental health disorders and -services are an important reason for insufficient help-seeking [5, 30, 31]. For this reason, focusing on attitudinal factors is a key aspect of suicide prevention strategies.

Evaluation 2: A Qualitative Study Providing Insights on How Primary Care Professionals (PCPs) Evaluate the SUPRANET Intervention for PCPs

Since supporting primary care is appointed as the most effective suicide prevention strategy within a multilevel approach [24], we evaluated this specific component

separately. Semi-structured interviews were carried out with primary care professionals (PCPs) and nonclinical professionals from SUPRANET regions in the Netherlands [10].

Various challenging and facilitating factors were established regarding the effectiveness of SUPRANET Community in applying suicide prevention practices. One important barrier to assess suicide risk refers to the complexity and unpredictability of suicide. PCPs argued it is difficult to recognize suicidality and patients do not often disclose their suicidal feelings unsolicited. Failing to recognize a patient's suicide risk in time impacted PCPs' feelings of competence:

I have lost someone who was in care in a mental healthcare institution but who had also visited me just before. [...] I felt like maybe I should have... even if she had come to me about her little toe, maybe I should have kept asking further. Asking her how she was really doing. I failed in that. (GP)

Other limiting factors were related to the burdensomeness of suicide. Addressing suicidality stresses PCPs; they feel pressured and sometimes even responsible for their patient's life. Additionally, managing patients in a suicidal crisis may take up a lot of their time and energy, especially if crisis services or patients' relatives are not directly available. Time represented another barrier, both with regard to participating in training or research activities (such as SUPRANET Community) and in addressing suicide risk. Regardless, to a large majority, patients' well-being prevailed over time constraints:

A couple of times, it has happened that consultations take a bit longer, which is really annoying if it's scheduled for 10 minutes. But in the end, these patients say, 'Thank you, thank you for taking the time.' And then, those 10 minutes extra are suddenly a great gift. (GP)

Another major limitation to effective suicide prevention was the collaboration with mental health services. Most critiques referred to difficulties in getting patients reviewed by or granting them access to mental health services and failure to communicate. An often expressed desire was to support each other and to work towards a common goal, instead of in professional isolation:

It would be very helpful if they would welcome us in a friendly way, not just the patients, but us too as fellow caregivers. Because we can get at ease from these conversations, 'Have you already thought of this or that?'. That can make a big difference. Often, we don't need crisis services to take over but just to provide backup. (mental health support staff)

On the contrary, the mental health support staff positively influenced suicide prevention practices in primary care, because they have more time available with patients and they are specialized in and focus solely on mental health problems. It was argued that their role could even be enlarged with regard to suicide prevention.

This study also assessed to what extent this SUPRANET Community component itself helped in applying suicide prevention practices in primary care. Especially the

suicide prevention training was positively evaluated by the PCPs, who argued it improved their knowledge about and their awareness of suicide prevention and it contributed to their communication skills:

Asking about patients' feelings of despair and just carefully listen, without thinking of a solution straight away, were two eye-openers, which I applied the next day. [...] and it worked. The lady said: 'I am so happy that I could tell my story, that you just listened to me'. So, I thought, 'This works well'. (GP)

The other elements of this SUPRANET Community component did not contribute as much as the training; nevertheless, some found the materials useful to educate colleagues about suicide prevention or to refresh their own knowledge. Even though PCPs expressed a pressing need for improving collaboration within the chain of care, especially with mental health services, this has not been fulfilled due to lagging implementation.

Educating PCPs seems beneficial but is not sufficient for effective suicide prevention. Effective suicide prevention requires improved liaison between mental health services and primary care, and this should therefore be the focus of suicide prevention strategies aimed at primary care. Addressing this will facilitate the implementation and effectiveness of this SUPRANET community component and further engage PCPs in suicide prevention.

Conclusion

There is growing evidence that multilevel approaches to prevent suicide are indeed effective. A focus on implementing multilevel interventions is needed due to their greater effects and synergistic potential. However, the implementation of multiple interventions in the community is challenging. Self-perceived incompetence of professionals, burdensomeness of suicide, and lack of time and workload are important barriers. Although there are difficulties in the process of implementation of multilevel interventions in the community, in particular, a public awareness campaign and a suicide prevention training appear most easy to implement in communities and useful strategies to improve suicide prevention practices. The public awareness campaign contributes to more openness towards seeking professional help, and the training increases professionals' awareness and knowledge of suicide prevention, which facilitates the recognition of suicidality. However, providing a campaign or education alone is absolutely not sufficient for effective suicide prevention.

There is a pressing need to improve our knowledge on what combination of barriers we need to implement to successfully reduce suicide rates. Each of the three prevention approaches (universal prevention, selective prevention, and indicated prevention) has an important role to play in suicide prevention, and all three are needed. We also need to improve collaboration in the chain of care (general practitioners, mental health services, hospitals, etc.). More effectively addressing this will facilitate the implementation and effectiveness of multilevel suicide

prevention interventions. Furthermore, as suicide is surrounded by stigma, shame, and misunderstanding, community engagement is vital.

Although complex multilevel interventions are commonly used to address other health problems, up till now, this is not the standard in the field of suicide prevention. While the example of the prevention of traffic accidents shows that a multilevel risk reduction strategy is much more effective than single prevention interventions, knowing the pathways and mechanisms involved (i.e., knowing which elements within a multilevel intervention are effective) is essential to be successful. However, small sample sizes and lack of replication studies and randomized controlled trials with suicide death as an outcome make it difficult to draw firm conclusions about which elements to use. Evidence of recent proven elements to prevent suicide include education of primary care physicians in the diagnosis and treatment of depression, education of youths on depression and suicidal behavior, follow-up of discharged and other acutely suicidal patients with active outreach, treatment with cognitive-behavioral therapy, and implementation of means restriction [25].

The three levels of prevention underscore how important everyone is to prevent suicide. Looking at the three levels of prevention in totality and the many possible preventive barriers within each level, there are many people who are needed in so many sectors of our society to overcome the challenge to reduce suicide rates.

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Assessment of Infrastructure Relating to Suicide Prevention

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Abstract

A key aspect of addressing suicide prevention as a public health issue is focusing on population-level strengths and challenges. In recent years there has been an increased focus on treating suicide prevention as a public health problem that requires new approaches and ways of thinking about prevention. Effective population-based suicide prevention efforts rely on a wide and interwoven array of services, systems, partnerships, programs, and other elements. Suicide prevention work happens at many different levels of the systems involved. The underlying structures that enable these systems to function can be termed suicide prevention infrastructure. To date little attention has been paid to the issue of how to assess suicide prevention infrastructure, even though understanding

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infrastructure may be crucially important for understanding gaps in the systems that serve people at risk for suicide. The current chapter presents an overview of different conceptualizations of suicide prevention infrastructure followed by a summary of attempts to comprehensively assess state-level infrastructure. The development, implementation, and impacts of the *Infrastructure Assessment* are described. This tool and a follow-up version are proposed as filling an important niche not otherwise addressed in systems-level surveys aimed at understanding suicide prevention services.

Keywords

Suicide · Prevention · Infrastructure · Systems · Evaluation

Introduction

The network of different service systems that support preventive, treatment, and recovery services for individuals at risk for suicide is generally complex, even within a single state or region. The complexity can be due to interplay between multiple agencies with different mandates and eligibility for services; the overlap between distinct systems and provider types (e.g., healthcare and mental healthcare); different levels of services offered across agencies and systems; how well-integrated health, mental health, and related services are; and the needs of the populations being served, among others. In many countries there are significant barriers to accessing suicide prevention care [18]. Reasons for this include lack of availability of services due to financial limitations, inequities in insurance that covers these services, some services only being offered outside of public systems, social and cultural factors (e.g., stigma), and inadequacy of the workforce supporting suicide prevention. Even relatively well-resourced systems of care may face these challenges. In many parts of the United States, despite considerable federal- and state-level investments in mental health and related services in the past two decades, consumers' experiences often include challenges accessing a fragmented system in which services are offered in distinct "silos" of care, some of which are unavailable to them [4].

Moving between these care silos can be difficult, and communication between provider systems that exist across these silos may be deficient. A person experiencing distress is that they are seen during acute crisis in a hospital emergency department (ED), receive a psychiatric evaluation, and subsequently are discharged with a referral for follow-up care. Alternatively, the person may be deemed too high a risk to discharge and be kept in the ED (stays of several weeks for mental healthcare are not unknown in the United States) until an alternative placement is found or they are safe enough to discharge. After discharge, the patient may seek the prescribed follow-up care, but wait times for outpatient mental health services may be prohibitive. Communication with primary care (including around medications) may be spotty or not occur at all. In this example the patient is essentially not receiving treatment during the crucial days and weeks after the crisis, placing them at

higher risk for a range of negative outcomes. These outcomes might include recurrence of the crisis and readmission to the ED, encounters with law enforcement, self-harming behaviors, and possibly death by suicide. Financial impacts of lost employment and costs associated with ED care and medications for patients can be very real and contribute to negative outcomes. From a systems point of view, the outcome of this scenario results from a breakdown of service systems at several different places and ultimately represents a failure of prevention.

The public health approach to suicide prevention emphasizes the need to understand patterns of risk and protective factors, reduce risks, and work toward preventing the emergence of suicidality. Suicide prevention is seen as a problem that exists in populations or groups of people and that is tied closely to what is happening in communities [1]. Public health as applied to suicide requires a different mode of thinking than does the typical clinically driven approach to treating someone who has been identified as suicidal [5]. The public health emphasis on individuals living in their communities is important, since this is where the person lives and is where prevention is most likely to be effective. The CDC in the United States, in promoting the public health perspective for addressing suicide, also points out that prevention of suicide is inherently multidisciplinary and requires multiple organizations and partners working in coordination. These partners may not exist within the actual healthcare or mental health systems but instead be part of schools, community groups, the criminal justice systems, and faith communities, among others.

For all of these reasons, attempts to reform or strengthen service systems and prevention efforts will benefit from understanding the landscape of suicide prevention services. This understanding should reflect not only the perceptions of leaders and experts who work within, or immediately adjacent to the systems, but also the experiences of community members and people who are “on the ground” providing services. The inclusion of non-mental health or non-healthcare providers, for example, social service agencies and local nonprofit organizations whose work touches on suicide prevention, may in fact be crucial to efforts to reduce suicide attempts and deaths. Surprisingly, examination of the published literature and review of websites of governmental and nongovernmental mental health authorities suggests that conducting this type of assessment in a formal way is uncommon.

Provider agencies and networks have conducted scans of their functioning and generated reports and recommendations with regard to serving people at risk for suicide, but these examples tend to have a limited scope and do not take a comprehensive approach to assessing suicide prevention across systems. Often such reports do not take into account the perspectives of consumers or community members. The Zero Suicide approach [14] offers an excellent tool, the Organizational Self-Study, which is completed as a collaborative exercise in order to examine care processes for clients at risk for suicide within the organization or system implementing the Zero Suicide model. The benefits of engaging in this type of self-study are potentially great, especially if it can lead to planning and implementation of changes to support better care. There is also a potential benefit of examining service systems and networks that are outside of the organization but which may be crucial partners in driving good outcomes for individuals and groups who are at elevated risk for

suicide. These organizations might include schools, primary care practices, social service agencies, and the criminal justice system, to name a few. One goal of conducting an infrastructure assessment is to help clarify those relationships among elements in the system, in order to understand the different ways they are (or are not) functioning to prevent suicidality in individuals and populations.

A common and useful metaphor used for when service systems fail to provide adequate care for someone at risk for suicide is “falling through the cracks.” This requires imagining a loosely linked system of services in which the patient is at risk for different types of failures of providing care, ranging from not being identified as having risk, to not having the risk assessed or addressed through safety planning, to not having access to adequately prepared providers, to lack of effective treatment planning, to not receiving evidence-based care or follow-up, among others. One possible factor underlying these cracks is the lack of a broad focus on preventing of the emergence of suicide risk. The cracks metaphor suggests that every patient should have access to a pathway to care, which is a central feature of improving suicide prevention in many settings and systems (e.g., Zero Suicide). The idea of a pathway suggests a route through a network of possible routes that leads from identification of risk at an early stage (ideally prior to the emergence of any signs of suicidality) all the way through treatment, through discharge from active treatment, and through early and long-term recovery. All of these cracks are not likely to manifest in the same system, yet many of them will show up at different times and in different settings.

A recent report by the National Action Alliance for Suicide Prevention [7] offers a comprehensive description of the gaps in care that may occur relating to suicide prevention care, specifically in healthcare system. Many of these deficiencies can be expected to occur in other settings as well, e.g., failure to appropriately screen for suicide risk. An effective infrastructure assessment could help identify many of these cracks, some of which may be seen at local levels but not be obvious when looking at broader systems levels. Other cracks might be entirely invisible to consumers but seen at the level of managers, program directors, or funding organizations. Characterizing and understanding the infrastructure supporting suicide prevention may be essential in redesigning or reconfiguring systems in order to better serve at-risk populations and individuals and strengthen prevention efforts generally. The overall importance of suicide prevention infrastructure is summed up in a 2017 report on progress in the United States toward national suicide prevention goals, in which the authors propose that the lack of a robust suicide prevention infrastructure is likely to impair suicide reduction efforts “. . .to a significant degree.”

Definitions of Infrastructure Supporting Prevention

Multiple and varying definitions of the infrastructure needed for effective prevention have been proposed over the past two decades. The US National Research Council and Institute of Medicine [8] described, at a national level, key aspects of the infrastructure supporting the prevention of mental, emotional, and behavioral health

disorders. In this framework the essential elements of infrastructure are the development of research-based innovations, a service delivery system characterized by improved coordination and effectiveness, and increased numbers of providers (of many different types) who are prepared to address prevention of disorders with their clients. While the authors do not offer an explicit definition of infrastructure, as described the infrastructure consists of the systems (and investments in the systems) that make the three key domains possible. Orwin et al. [9] provided a description of a well-developed infrastructure as having "...a unifying theory of prevention and a logic model for implementing the theory, effective leadership, collaboration among organizations and agencies, a set of consistent working definitions of key terms (for example, 'evidence based prevention'), comprehensive and effective strategies that affect individuals and environments, monitoring and evaluation, workforce development (e.g., training or accreditation), cultural competence, marketing, and sustainability." While this does not constitute a definition of infrastructure, this description offers a useful way of thinking about infrastructure characteristics.

In recent years Suicide Prevention Resource Center (SPRC) has expanded its focus on the assessment and development of suicide prevention infrastructure [11, 13]. A working definition of infrastructure is given as "A state's concrete, practical foundation or framework that supports suicide prevention-related systems, organizations, and efforts, including the fundamental parts and organization of parts that are necessary for planning, implementation, evaluation, and sustainability" [13]. A set of infrastructure recommendations were developed with the aim of supporting states to better understand the different aspect of infrastructure supporting suicide prevention services, including identifying gaps and areas where additional resources or new policies were needed to strengthen service systems. The SPRC team also noted the potential for a focus on infrastructure to lead to identifying new partners to support suicide prevention efforts. Infrastructure recommendations were organized into six elements: authorize (e.g., a lead organization for suicide prevention), lead (e.g., funding specific staff positions or training), partner (e.g., build partner's capacity to incorporate aspects of suicide prevention in their work), evaluate (e.g., collect and using data to inform changes), build (e.g., strengthen prevention strategies), and guide (e.g., provide resources further development of training and other key prevention efforts). Regarding evaluation of infrastructure at the level of states, Quinlan et al. [11] propose that "rigorous evaluation of infrastructure development could provide more information about the sustainability of prevention efforts serving individuals throughout the lifespan across multiple dimensions of health and offer additional perspective on service provision in underserved or high-risk populations."

Well before the recent SPRC infrastructure efforts took place, two of the authors of the current chapter (TD and JT) were beginning to explore the importance of infrastructure for state-level suicide prevention efforts and engaged colleagues at SPRC for help. The resulting definition described infrastructure as the "...policies, programs, practices and partnerships that produce a sustained, effective, and comprehensive approach to preventing suicide." This definition fit very well with the four areas we were hoping to learn more about as we designed a statewide

assessment of infrastructure: (1) learn from a wide variety of people and agencies how they are involved with suicide prevention, (2) learn what they believe are the key needs for further developing suicide prevention efforts, (3) learn what resources they have that might help meet those needs, and (4) distill the findings into a document that would be used as a blueprint for how different partners can work together to sustain and expand statewide efforts to prevent suicide. The specificity of the definition with regard to factors to assess (policies, programs, practices, and partnerships) along with what the assessment should inform (a sustained, effective, and comprehensive system) was beneficial and served as the starting point for developing the *Infrastructure Assessment* described below.

Example Infrastructure Assessments for State-Level Systems

A recent effort to assess state-level infrastructure across multiple systems and settings related to substance abuse prevention can provide a model for how suicide prevention infrastructure might be assessed. Piper et al. [10] evaluated the US SAMHSA initiative called Strategic Prevention Framework State Incentive Grant (SPF SIG) and developed an assessment approach aimed at describing state-level infrastructure for substance abuse prevention efforts. A key premise of this effort is that there is a state-level substance abuse prevention system made up of multiple agencies and organizations and they work together in different ways in the course of providing services. The foundation upon which this system works is the state's substance abuse prevention infrastructure, which consists of more than simply different funding streams and organizational structures, although those are important influences on infrastructure. Infrastructure in this model is both the different organizational structures in the system and the functions that those organizations perform [10]. Being able to describe and understand the functioning of the infrastructure is important if there are to be efforts to strengthen aspects of the wide-ranging and multilevel prevention system elements that the infrastructure supports. This work was conducted as part of a cross-state evaluation of substance abuse prevention efforts in the United States, and the approach to characterizing infrastructure used seven domains of systems functioning that were then assessed using a tool developed by the research team.

The infrastructure assessment developed by Piper et al. [10] was the *State Infrastructure Interview*, consisting of 113 open-ended and fixed response items organized according to the 7 prevention domains. The domains corresponded to organizational structure, strategic planning, use of evidence-based approaches, collection and use of data, workforce development, cultural competence, and evaluation [10]. Interviews were conducted with between 1 to 5 participants and for 26 states and territories, with most participants being directly connected to the state's lead substance abuse prevention agency. Interviews were conducted over seven sessions. Results were tabulated as domain scores (higher noting better functioning) for scored items and analyzed qualitatively for open-ended items. Participating states varied considerably in their domain scores, with certain domains tending to correlate with

each other across states, for example, strategic planning and data systems were strongly correlated at $r = 0.55$ [10]. The study also revealed relationships between how state systems were structured and the overall strength of their domains, with states having single decision-making entity with authority across substance abuse agencies having higher domain scores than states with authority across multiple agencies. While it did not assess systems that are typically considered central to suicide prevention work, the Piper et al. [10] study demonstrates the strong potential of this type of combined qualitative and quantitative approach to assessing multiple agencies functioning within a complex service delivery system.

Orwin et al. [9] published a follow-up study to this work that examined changes in prevention infrastructure that occurred over the course of the SPF SIG grants. A second wave of interviews was conducted using an updated version of the state infrastructure instrument, with notable changes including it being shorter (93 items) and collected over five interviews instead of seven at each participating site. The results of this study supported the conclusion that infrastructure relating to substance abuse prevention improved between the first and second assessments. Improvements were seen in the use of evidence-based approaches, strategic planning, and workforce development, and states that had scored lower in the first assessment showed greater improvements than did states that scored higher on the first round. Additional gains were noted in the extent to which systems within domains became more integrated during the project and in organizational development related to substance abuse prevention. Taken together, these two studies strongly support the conclusion that infrastructure is a measurable and important construct for understanding the functioning of complex service delivery systems. The Orwin et al. [9] follow-up study further demonstrates the possibility of detecting meaningful changes in infrastructure over time.

To our knowledge there have only been two statewide assessments of suicide prevention infrastructure conducted in the United States, both in the state of Vermont. Vermont is a small population (~600,000), racially homogeneous and largely rural state in the Northeastern section of the country. In recent decades the state has had suicide death rates that increased more rapidly than rates in the overall United States [16]. The assessments primarily consisted of surveys (questionnaires) that were conducted over 2013–2014 and in 2020. The development and implementation of both assessments were an attempt to inform infrastructure strengths and needed improvements at different levels of existing service systems and across a wide array of partners. Both surveys included community members in the data collection. The surveys used a mix of open-ended narrative and scaled response items, with the 2013 data being summarized using descriptive and inferential statistical analysis and the narrative data then subjected to a thematic content analysis [6].

The development of the 2013 *Infrastructure Assessment* and its successor both surveys was influenced by several sources, including SPRC, the work of Piper and Orwin and colleagues (2012, 2014), and the US National Strategy for Suicide Prevention (NSSP) report [15]. Key guiding points from the NSSP document were that “Suicide prevention efforts should engage multiple partners and sectors, focus on the entire lifespan, and provide services that are culturally and geographically

appropriate” (pp. 41–42) and have an emphasis on including input from community members as well as experts and leaders in the developing suicide prevention efforts. The NSSP also cites the importance of data collection and using data to inform systems change. Both of the statewide assessments adhered to guidance in the NSSP report, for example, in developing the approach and the assessment tools with multiple partners and collecting input from a wide array of professionals, experts, and community members about how the findings should be used. The survey also included a focus on individuals’ and organizations’ access to, and use of, data on suicide prevention.

Assessing potential gaps and strengths of suicide prevention systems and services for historically disadvantaged populations was an important focus of both administrations of the *Infrastructure Assessment*. In our state these groups include racial and ethnic minorities, New Americans (including refugees and asylum seekers), and people living in the United States without documentation, Native Americans, and others. We assessed infrastructure relating to services for these populations using items such as “To the best of your knowledge, what programs, policies or partnerships are in place to specifically help individuals from racial and ethnic minorities who might be at risk for suicide?” in 2013 and “Thinking about different groups of people in Vermont, what is a group or population of people you think need additional outreach or services (beyond what is currently provided)?” in the follow-up 2020 survey. The 2013 *Infrastructure Assessment* was completed by 33 of the 50 individuals who were invited to participate in the study (66% response rate). A detailed description of the survey items, methodology, and findings is available as a report and falls outside the scope of the current chapter [2].

Impacts of the 2013 Infrastructure Survey

Our experience of sharing the findings of the *Infrastructure Assessment* shows that the work was helpful in multiple and important ways. The findings of the 2013 survey were disseminated throughout the suicide prevention community in the state, as well as with leaders in state government departments and funding agencies. Key findings were that respondents perceived suicide is a serious problem and were able to identify strengths in the existing prevention infrastructure. Some of the strengths identified were that many organizations had policies and procedures in place for preventing and/or responding to suicide, some organizations already had partnerships in place for working with clients at risk for suicide attempts or death, and many respondents identified programs and resources that they could connect to and that were related to suicide prevention and promoting mental health. Respondents also identified areas for improvement in how suicide could be addressed, including the need for a more coordinated approach to the state’s suicide prevention efforts (e.g., breaking down “silos” within and across systems), the lack of a dedicated organization with suicide prevention as the core focus of its work, and multiple workforce development needs along the lines of training on evidence-based suicide prevention practices and broad scale gatekeeper trainings. Survey respondents cited that for both

professionals and community members there was a need for additional training, outreach, awareness, and stigma reduction related to identifying people at risk for suicide and promoting their help-seeking behaviors. Analysis of open-ended items suggested that suicide prevention efforts should be more targeted toward specific age ranges, for example, strategies for youth should not be the same as those for older adults. An important theme that emerged in the summary was that in general, existing suicide prevention efforts in the state were not designed for, and may not be effective for, the growing racial, ethnic, and linguistic minority populations who may need services.

Vermont has a robust suicide prevention coalition, and the survey developers were able to present the findings to the coalition for the purpose of that group helping to understand the meaning and implications of the findings and then develop recommendations for advancing suicide prevention efforts within and across different service systems based on the themes identified in the report. Members of the coalition participated in exercises where they first individually identified action steps related to each major theme identified in the survey and then jointly discussed the action steps with the whole coalition. This work was then synthesized by the researchers and developed as a series of recommendations that were shared back with the coalition, funders, and state government leadership. Specific recommendation made included the following:

Expanded Training: The state needs to further develop and expand the scope of training that relates to mental health promotion, suicide prevention/risk factors, and appropriate responses/changes in response to risk factors in individuals and communities.

Leadership and Coordination: The state needs an organization whose primary mission is to provide advocacy, outreach, education, resource promotion, and statewide coordination of efforts related to suicide prevention, including a focus on stigma reduction. This organization should be tasked with meeting the suicide prevention-related needs of clinicians, communities, agencies, and other organizations and systems.

Data: The state needs to collect, analyze, and clearly communicate information about suicide prevention that is useful, timely, region-specific, focused on specific issues, and broadly disseminated.

System of Care: The state needs to strengthen the mental health system of care related to suicide prevention and do so in a way that is person focused (rather than systems focused), emphasizes prevention, and effectively uses case managers and others to conduct outreach and connect people who are at risk to needed services.

In a 3-year period following the development of these recommendations, substantial progress was made in three of the above areas, driven largely through collaboration between the state Department of Mental Health, a statewide Suicide Prevention Coalition, a statewide nonprofit agency that was the lead agency on two Garrett Lee Smith Youth Suicide Prevention Grants from US SAMHSA, and other partners. Training efforts were expanded by increasing the number and varieties of

suicide prevention gatekeeper training available, which included sharing example protocols designed for specific professional groups (e.g., mental health providers, clergy and law enforcement, etc.) A series of two day-long trainings were developed and conducted with six predominantly rural communities and included a wide array of community-based providers and community members. These trainings consisted of 1 day focused on prevention and 1 on suicide postvention. Notably, the state adopted the Zero Suicide model in the fall of 2015 as a pilot project in three community mental health agencies (subsequently spread to seven agencies), with this effort having a strong focus on training and workforce development, including clinician training on the Collaborative Assessment and Management of Suicidality (CAMS), a best practice treatment model for suicidality, and promotion of the Counseling on Access to Lethal Means training, among others [3, 12]. In terms of leadership development, the report on the *Infrastructure Assessment* helped make the case for state government to financially support the development of the VT-Suicide Prevention Center, a public-private partnership that coordinates suicide prevention activities, training, and advocacy throughout the state. Along similar lines, state government strengthened its internal commitment in this area by clarifying the designation of a departmental leader as the point person in government for suicide prevention. This period also saw the development and sharing of the updated Vermont Suicide Prevention Platform [17] that promoted statewide leadership relating to prevention across the lifespan. The *Infrastructure Assessment* also contributed to the further development of a focus on improving surveillance of suicide attempts and non-suicidal self-injury and more broadly to use data to drive decision-making around suicide prevention efforts.

2020 Follow-Up Infrastructure Assessment

The 2020 version of the *Infrastructure Assessment* maintained most of the elements of the earlier statewide survey while expanding the scope in several ways. Items were added in the areas of the relationship between substance misuse and suicide-related services, lethal means safety, and use of formal tools for suicide risk screening and assessments, among others. Recruitment was aimed at a similarly broad range of individuals whose work touched on suicide prevention, and use of a small monetary incentive helped increase the number of responses slightly compared to the first effort. One significant change was that while the 2013 *Assessment* was largely focused on suicide prevention related to youth and youth adults, the later survey did not target a specific age range. Reporting the findings of this survey is outside the scope of the current chapter, but we anticipate the findings will be published. Similarly to the first *Assessment*, the results will be reviewed with partners and synthesized into a comprehensive report that will then be shared with the state Suicide Prevention Coalition and state government.

One advantage of having administered a very similar survey twice across 7 years is that comparing the results can provide a window into important changes that have taken place in the intervening years. In the years since the first infrastructure

assessment, there have been considerable developments related to suicide prevention infrastructure, most notably the creation of a state-level organization with a dedicated suicide prevention mission, the adoption of the Zero Suicide model in more than half of the public mental health agencies throughout the state and administrative (e.g., changes to licensure requirements), and legal (e.g., more strict laws on firearm sales), among others. In the context of evaluating public policy, comparing the results of the two surveys can be a form of evidence for the impacts of these changes. Notably, the timing of the 2020 infrastructure survey also allowed for assessing (in three items) the impacts of COVID-19 on respondents' practices regarding working with individuals who are (or may become) at risk for suicide.

Challenges for Assessing State-Level Infrastructure

As a result of reviewing other infrastructure assessments and conducting two statewide assessments, we identified challenges in conducting this type of assessment. One challenge is that all areas that are crucial to supporting and developing suicide prevention infrastructure may be adequately assessed, for example, the financing of services. This is partly due to the need to narrow or define the breadth of the assessment of complex service systems so that individual respondents are not pressed to comment on issues outside the scope of their work or experiences (e.g., federal-level policy on funding for public mental health agencies). Many people working in mental health at different levels are understandably frustrated by inadequate funding of their work, and conversations about services can quickly derail into discussions of political situations and wrong-headed policy making. A main reason for conducting an infrastructure assessment is so that the results can be used to inform systems change efforts, for example, at the level of a state or regional government, which *would* have the mandate and capacity to implement systems changes, including addressing financing of services. For these reasons, the *Infrastructure Assessment* does not address the issue of the financing of mental health and related services, despite this being a crucial issue.

Despite being carefully designed and pilot tested, the implementation of the *Infrastructure Assessment* was faced with challenges that may have affected respondents' participation in the study. Several of the survey items asked questions that could be seen as asking respondents to provide criticism of the programs, organizations, and service systems they are employed in, as well as acknowledging shortcomings in their own work. While the survey instructions did provide an assurance of confidentiality, it is conceivable that some respondents did not fully trust this statement and as a result did not provide fully candid responses. Arguing against this possibility is the fact that most respondents did provide information on the items asking to identify needed changes or improvements in services. Similarly, social desirability bias seems unlikely given that the survey was anonymous and that many respondents (including clinical service providers) rated themselves as less than ideal in terms of their work with people at risk for suicide. In our experience with previous program evaluations with providers who work with at-risk populations, a high

proportion of clinicians acknowledge inadequacy of their preparation to effectively identify and intervene with clients who are at risk for suicide and typically are motivated to obtain additional training and supervision in this area. Unfortunately, the fact that the survey was completely anonymous prevented the ability of the researchers to follow up with individual respondents in order to gain clarification or expansion of their answers. The possibility of selection bias exists in that almost all of the respondents were identified by the research team and or recommended by the statewide coalition. Selection was on the basis of working or volunteering in an organization or community effort related in some way to suicide prevention while also trying to balance the roles of respondents (e.g., not wanting to overrepresent psychiatrists and underrepresent suicide loss survivors). Some people that would have provided important perspectives may not have been included because they were unknown to the team or belonged to a group that was already well represented in the dataset.

Perhaps a greater challenge than confidentiality concerns was that of survey length. The *Infrastructure Assessment* was relatively long (40 items) and contained a higher proportion of open-ended responses than most self-completed questionnaires do. However the number of items is substantially lower than that used in the Piper [10] and Orwin [9] assessments and presumably were faster to complete than were the series of interviews used in those studies. The *Infrastructure Assessment* used a questionnaire format but contained open-ended questions which are associated with higher cognitive load and may lead to fewer people providing answers on these items and increased numbers of people who do not complete the survey. Arguing against this having a major impact on the *Infrastructure Assessment* results are that most respondents provided at least some responses (more than single words) on the open-ended items that applied to their role in suicide prevention organizations. Also, most of the people invited to participate in the *Assessment* were already identified as having some role in suicide prevention and as such may have been more likely to be invested in the topic and more willing to make the effort of answering narrative questions. The vast majority (greater than 80%) of respondents completed the entire survey, also arguing against high cognitive load and survey length as barriers to completion. The inclusion of a small financial incentive may have lessened any impact associated with the survey taking too much effort.

It is possible that conducting a series of semi-structured interviews such as used in the SPF SIG evaluations represents a stronger assessment approach than was used in the *Infrastructure Survey*. Interviews typically provide more detailed and nuanced information and allow for probing and follow-up questions, which in turn could provide better information about suicide prevention infrastructure in a state or region. However, drawbacks to the interview approach may include increased time required (including from busy clinicians) and the corresponding difficulty in recruitment, training, and paying interviewers, the possibility of introducing bias on the part of the interviewer or interviewee, the need to record an interview, and the potential for reluctance in providing information that reflects poorly on oneself or one's organization being greater in a live interview than for a questionnaire. The *Infrastructure Assessment* attempted to find a balancing point between the two

methods, using an email-based survey that incorporated scaled response items typical of surveys but also extensive open-ended narrative items that are more in line with how interviews collect information.

Finally, the amount of time and resources taken in developing, conducting, processing the findings, and then sharing the results of an assessment like we conducted are considerable. The Piper et al. [10] effort was supported through a multiyear federal grant that budgeted specifically for an evaluation that was innovative and wide ranging. The 2013 *Infrastructure Assessment* was also conducted in the context of a federal grant and was a collaboration between a university-based evaluation team and the organization that was administering the grant activities. Beyond the time and labor involved, conducting this type of an assessment requires a high degree of buy-in from partners in different service areas and at different levels of systems, ranging from agency leaders to front-line workers in small not-for-profit organizations to suicide attempt and loss survivors. In the SPF SIG example, there was extensive engagement of organizations involved with substance abuse treatment and their partners, representing a substantial commitment of time and resources to be part of the assessment. While the number of examples of developing and implementing infrastructure assessments is small, there are at least suggestions that the investment may pay important dividends.

Conclusions

The public health approach to achieving reductions in suicide attempts and deaths requires examination of the functioning of complex and interrelated mental health, healthcare, and related service systems, with a particular focus on enhancing prevention. Assessment of infrastructure supporting suicide prevention can help accomplish this goal, along with identifying critical gaps in service systems. Approaches to assessing the complex array of services and systems supporting suicide prevention are rare in the scientific literature, and the current summary presents a synthesis of recent efforts to fill this gap. Systems supporting suicide prevention have received increased attention in recent years from communities, provider agencies and networks, nonprofit organizations, and local, state, and national governments, typically with the aim of improving systems and outcomes. In some cases this has led to increased funding or adopting reform efforts to provide care that is more effective in helping at-risk populations. Sustainability of improved suicide prevention and treatment services is a key consideration for these efforts, given the sometimes precarious funding, organizational, and political environments that impact public health and mental health initiatives. Building off of a common understanding of the different components of services systems can be beneficial to improving systems: the extent to which systems improvements can be designed and effectively implemented is likely to be strongly influenced by our understanding of how systems are functioning in the first place. Wide-ranging systems assessments may also inform inequities in service delivery systems, for example, by purposefully asking about

specific groups that historically have had less access to mental health and related services.

Assessments like the *Infrastructure Survey* and others described above are likely to be informative for systems change efforts, such as the infrastructure development work promoted by SPRC and the implementation of Zero Suicide approach in healthcare and mental health organizations. Organizations engaging systems improvement and redesigns could benefit from having a more complete understanding of the broad landscape of efforts and services that are impacting the populations they serve. Mental health and healthcare authorities that are charged with delivering and improving high-quality mental health services and achieving population-level goals (e.g., reductions in suicide deaths) would also benefit from additional perspectives about which aspects of systems and communities may be struggling and could possibly learn about previously unknown gaps in care. As demonstrated by Orwin et al. [9], conducting infrastructure studies in sequence can provide valuable information about how aspects of service systems are making improvements over time and potentially how those improvements were accomplished. Further research is needed to improve the validity and applicability of systems level assessments, and the work described here represents a starting point for those efforts.

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The Evolution of Charcoal Burning Suicides in Hong Kong, 1997–2018

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Abstract

Introduction Charcoal burning suicides emerged in Hong Kong in 1997. Since then, it has increased rapidly to 321 deaths in 2003 and has remained in the community despite its reduction in number. Previous studies examining the trend of charcoal burning suicides in Hong Kong are outdated, and limited research has identified and compared the patterns and characteristics of charcoal burning suicides with other suicides across time. The objective of this study is to

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demonstrate the evolution of charcoal burning suicides in Hong Kong from 1997 to 2018.

Methods Data of the suicide deaths (1997–2018) and detailed Coroner's Court reports of suicide cases (2002–2017) were obtained. Graphical methods were employed to depict the overall, gender- and age-specific trends of suicide rates and the distributions of suicide methods across time. Age and gender distributions of charcoal burning and non-charcoal burning users across time were compared. Bivariate and multiple logistic regression analyses were conducted to compare the characteristics between charcoal burning and non-charcoal burning suicides in different phases of charcoal burning in Hong Kong.

Results The rate of charcoal burning suicides dropped from the peak in 2003 and remained steady until 2016. A slight rebound was observed from 2016 to 2018. The age pattern of charcoal burning suicides has been changing, and signs of spreading to the older age groups were observed. Compared to non-charcoal burning users, charcoal burning users were younger and male, had fewer physical and psychiatric illnesses, lived alone in public housing, less likely to be married, and often experienced financial, relationship, and family problems.

Conclusion Charcoal burning users had a distinct profile, and it remained consistent across time. There was a potential age and cohort effect on people who died by charcoal burning. It is difficult if not impossible to eradicate charcoal burning suicides in Hong Kong. Multidisciplinary community efforts are required to ensure effective charcoal burning suicide prevention.

Keywords

Charcoal burning · Suicide prevention

Introduction

Since the early 1980s, suicide has become a major public health problem in Hong Kong [2]. During the period of economic recession in 1997 in the East/Southeast Asian region, suicide rates in Hong Kong rose with the elevated unemployment rate [2, 4]. In the same year, a new suicide method, charcoal burning in closed environment by carbon monoxide poisoning, has emerged in Hong Kong. After extensive media reporting of a 35-year-old woman who died from this non-violent, easy, and comfortable means in November 1998, charcoal burning had widely spread and soon became the third most common suicide method in Hong Kong [3, 13]. Thereafter, the method was disseminated to other places in Asia [5, 11, 14].

Extensive studies documenting the trends of charcoal burning suicides in Hong Kong after its first emergence in 1997 showed that charcoal burning suicides dramatically increased from one person in 1997 and reached the peak to 321 persons in 2003 but has been declining since then [5, 6, 9, 16, 19]. However, the most updated research only showed trends of charcoal burning suicides in Hong Kong until 2013 [6]. It is not known if the trend would continuously decrease as previous trend or increase like South Korea, as recently, charcoal burning has become more

prominent [10, 21]. Limited studies have explored and compared the changes in age and gender distributions among charcoal burning users and non-charcoal burning users across time.

Previous research has found that compared to suicide victims using other methods, charcoal burning users were younger and more likely to be male [20, 24]. Also, they were physically healthier and less likely to have mental illnesses [6]. A mixed-method study exploring charcoal burning suicides in the early stage in Hong Kong found that charcoal burning was associated with financial troubles [3]. To better inform suicide prevention programs, it is therefore crucial to understand the most recent characteristics and pattern of charcoal burning suicides.

The objectives of this study are to (1) depict and update the overall and age- and gender-specific trends of charcoal burning suicides in Hong Kong from 1997 to 2018; (2) investigate the changes in the distributions of age and gender among charcoal burning users from 1997 to 2018; (3) compare the characteristics of suicide victims who died by charcoal burning and other methods within the period of study; and (4) identify the unique profile of charcoal burning users in Hong Kong after its first emergence.

Methods

Data Source and Procedures

Demographic data of registered suicide cases between 1997 and 2018 in Hong Kong were obtained from the Census and Statistics Department. Information including year of the incidents, primary method of suicide, and age and gender of the victims was obtained. Detailed Coroner's Court reports of the suicide victims were also available between 2002 and 2017. The report contained detailed descriptions on the demographic background, medical history, police reports, and family interviews of the suicide victims. Population statistics in Hong Kong from 1997 to 2018 were obtained from the Census and Statistics Department [22]. The number of residents by age group (below 25, 25–44, 45–64, and 65 or above) and by gender were also retrieved.

For all the suicide cases between 1997 and 2018, they were classified into four age groups: below 25, 25–44, 45–64, and 65 or above. The primary suicide method was categorized into jumping, hanging, charcoal burning, poisoning, and others. For the suicide victims between 2002 and 2017 when full Coroner's Court reports were available, variables of interest extracted from the reports included sociodemographic background (age, gender, marital status, employment status, and type of housing), whether the victims left suicide notes, medical history on previous physical and psychiatric problems, and family reports (whether the deceased lived alone, whether the deceased experienced negative life events including family, work, relationship, and financial problems prior to death). The primary method of suicide was dichotomized into charcoal burning and other methods. The overall study period (2002–2017) was divided into three phases based on the patterns in the rates of

charcoal burning suicides in Hong Kong: peak period (2002–2004), decline period (2005–2010), and steady period (2011–2017).

Statistical Analysis

Overall and method-specific suicide rates per 100,000 population by year (1997–2018) were calculated by the number of fatal suicide cases (overall or by primary method) divided by the number of populations in Hong Kong of the year. Age- and gender-specific suicide rates were further calculated. The proportions of age groups and gender distribution of charcoal burning and non-charcoal burning users each year were calculated. Graphical method was used to illustrate the temporal changes of suicide rates and age and gender distributions between 1997 and 2018 in Hong Kong.

In each phase, differences in the characteristics of the charcoal burning users and non-charcoal burning users were examined using independent t-tests (for continuous variables) and chi-squared tests (for categorical variables). The number of cases in each variable of interest varied because some information was missing in the reports. Binary logistic regressions were used to test the differences between people who died by charcoal burning and other methods in the three phases adjusting for age, gender, and district of living. Adjusted odds ratios (aORs) with 95% confidence intervals (95% CIs) of the variables of interests were reported. The significance level was set at $p < 0.01$ to reduce type I error, and all the statistical analyses were performed using SAS (version 9.4; SAS Institute, Inc., Cary, NC).

Results

Trends of Charcoal Burning Suicide in Hong Kong, 1997–2018

In Hong Kong, from 1997 to 2018, there was a total of 21,019 cases of suicide deaths, 3469 of which died by charcoal burning (16.5%). The first case of charcoal burning suicide was documented in Hong Kong in 1997. The number of cases of charcoal burning then increased until reaching a peak in 2003 (321 cases among 1264 cases overall) and decreased to 110 cases in 2016. There was a rebound in the number of charcoal burning cases since 2016, rising to 128 cases in 2017 and 150 cases in 2018.

The overall suicide rates per 100,000 population and suicide rates by methods of suicide from 1997 to 2018 are shown in Fig. 1. The overall suicide rate in Hong Kong increased from 1997 (12.03) and reached the peak in 2003 (18.69). It gradually decreased until 2011 (12.19) and remained steady. After 1997, the rate of charcoal burning suicide increased drastically from 0.24 in 1998 to the peak of 4.74 in 2003. Then, the rate of charcoal burning suicides declined until 2010 (1.77) and remained relatively steady. Nonetheless, there was a slight rebound in the rate since 2017.

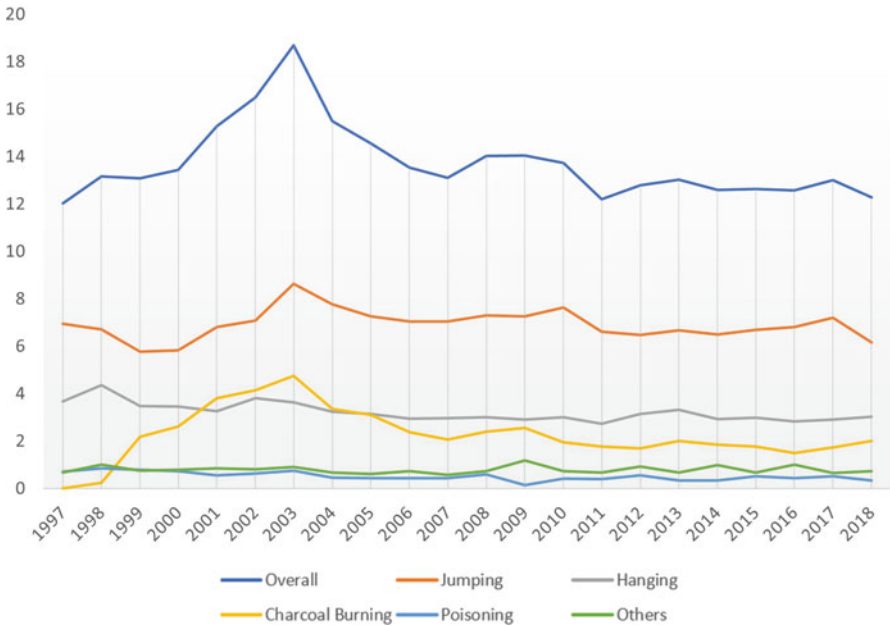


Fig. 1 Suicide rate per 100,000 population by suicide methods in Hong Kong, 1997–2018

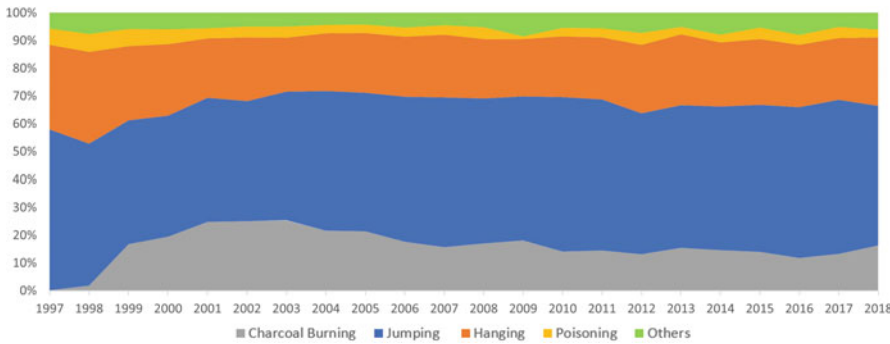


Fig. 2 Proportion of suicide methods per year in Hong Kong, 1997–2018

The proportion of different suicide methods each year varied across time (Fig. 2). The top three methods comprised about 85% of all suicides. Jumping was most common from 1997 to 2018. After the emergence of charcoal burning in 1997, it soon surpassed hanging and became the second commonly used suicide method in Hong Kong between 2001 and 2004. Then it remained the third commonly used suicide methods ever since. It appears that charcoal burning suicides are not going to disappear in the community.

The overall gender- and age-specific suicide rates and suicide rates by methods between 1997 and 2018 are depicted in Figs. 3 and 4. The change in suicide rates of charcoal burning suicides among male was similar to the overall pattern with the highest rate in 2003 (7.16). For female, the rate of charcoal burning suicides was higher than that of hanging from 2001 to 2003, and the highest rate was observed in 2001 (2.61). It remained close to that of hanging from 2004 to 2009. The rate of charcoal burning suicides dropped and remained at a low level after 2011. Charcoal burning suicides were relatively uncommon among victims aged 25 or below and 65 or above. Among the victims aged 25 to 44, charcoal burning was widely used from 2001 to 2003 and since then had remained the second commonly used method of suicide for most of the years among that age group. The rate of charcoal burning was akin to that of hanging among victims aged 45 to 64 from 2003 to 2010 and remained lower than hanging after 2001.

Distributions of age groups and gender among people who died by charcoal burning, other methods, and overall are shown in Figs. 5 and 6. The trends of age and gender distributions of non-charcoal burning users resembled that of the overall cases across time. However, the charcoal burning users had distinct patterns. Specifically, since 1998, the gender pattern remained consistent with approximately 70% of the charcoal burning victims and 60% of non-charcoal burning victims being male. Regarding age distribution, the proportions of charcoal burning users aged 25 or below and 65 or above were low and remained relatively steady at below 10% from 1998 to 2018. There was a slight increase in the proportion of older people who died by charcoal burning since 2013. However, the proportion of people aged 25 to 44 who died by charcoal burning gradually decreased throughout the study period from 87.5% in 1998 to 34% in 2018, whereas the proportion of people aged 45 to 64 increased from 12.5% in 1998 to 44% in 2018. For non-charcoal burning users, age distribution remained stable across 22 years, and approximately 30% of the non-charcoal burning users who died of suicides were the elderly people.

Characteristics of the Charcoal Burning Users, 2002–2017

In total, there were 3413, 5720, and 6355 suicide cases in the peak (2002–2004), decline (2005–2010), and steady (2011–2017) phases, respectively, among which 816, 987, and 858, respectively, were charcoal burning cases. The mean age of people who died by charcoal burning suicides ranged from 39.85 in the peak phase to an older age of 44.53 in the steady phase. Approximately 70% of all charcoal burning cases were male in all the three phases. The baseline characteristics of the suicide victims using charcoal burning and other methods in the three phases were compared and summarized in Table 1.

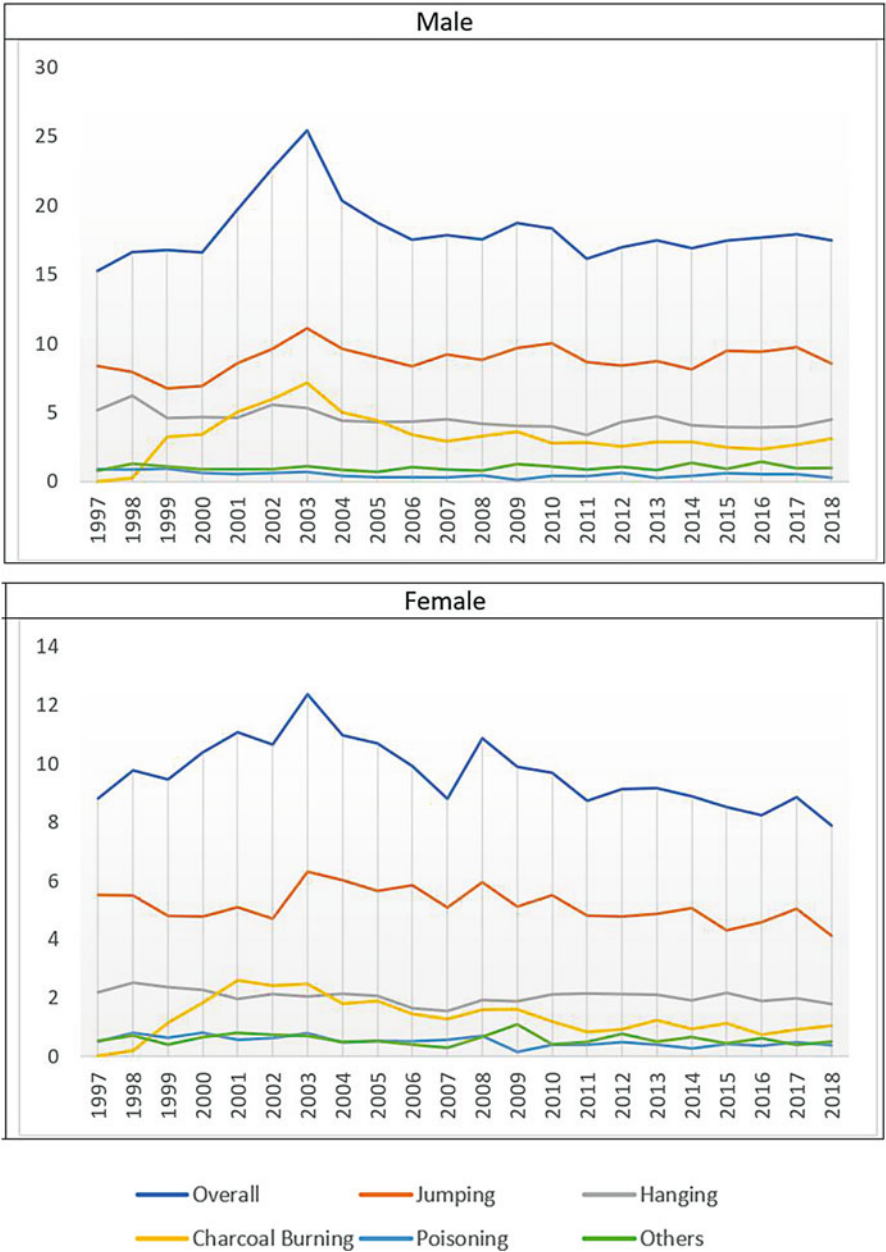


Fig. 3 Suicide rates per 100,000 population by suicide methods and by gender in Hong Kong, 1997–2018

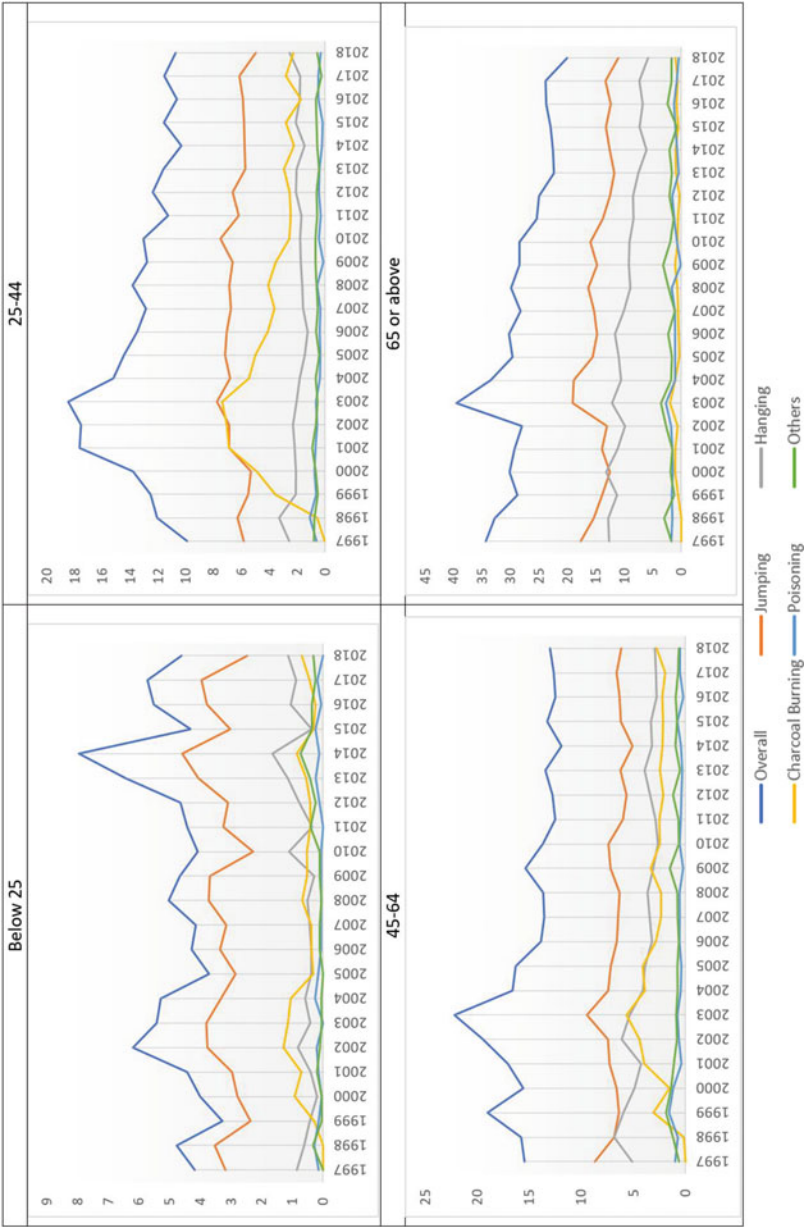


Fig. 4 Suicide rates per 100,000 population by suicide methods and by age groups in Hong Kong, 1997–2018

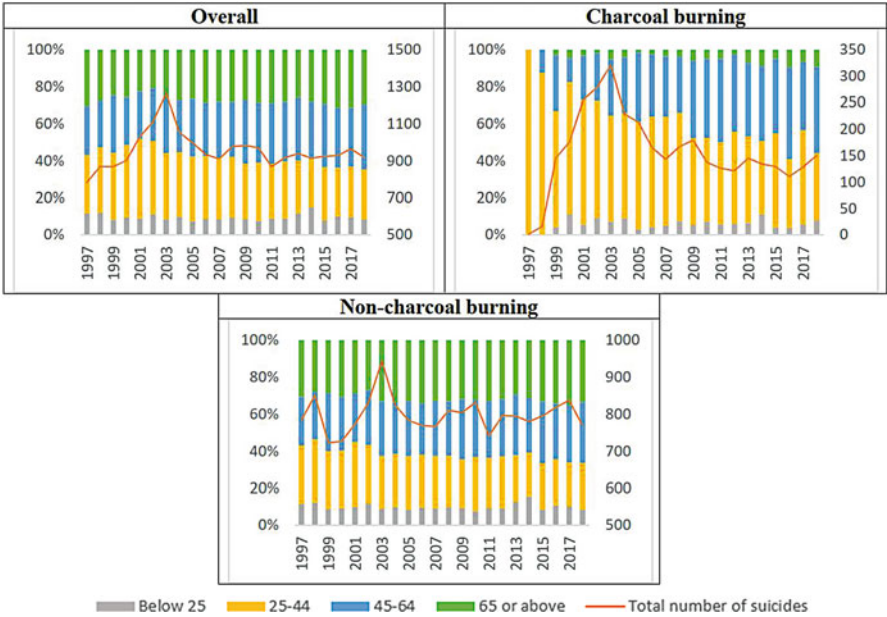


Fig. 5 Age distributions of charcoal burning and non-charcoal burning suicides in Hong Kong, 1997–2018

The bivariate analyses showed that compared to suicide victims who died by other methods, those who died by charcoal burning were younger and more likely to be male ($p < 0.001$). They were less likely to suffer from physical and psychiatric illnesses ($p < 0.0001$). Furthermore, compared to non-charcoal burning users, charcoal burning users were more likely to live alone in private housing, being employed, and less likely to be married or widowed ($p < 0.0001$). Also, they were more likely to leave suicide notes ($p < 0.0001$) and experienced negative life events such as family ($p < 0.01$), relationship ($p < 0.0001$), and financial issues ($p < 0.0001$) prior to death. The patterns were consistent across all the three phases.

The multiple logistic regressions further confirmed that suicide victims using charcoal burning remained systematically different from those who used other methods across all the three periods. The results are summarized in Table 2. The effect sizes remained significant after adjusting for age, gender, and the district of living except for marital status, which showed different patterns across the phases. Compared to their counterparts who adopted other methods, people who died by charcoal burning were more likely to be cohabiting (peak and steady phases) ($p < 0.001$), married but separated (decline and steady phases) ($p < 0.0001$), and divorced ($p < 0.0001$) and less likely to be never married ($p < 0.0001$).

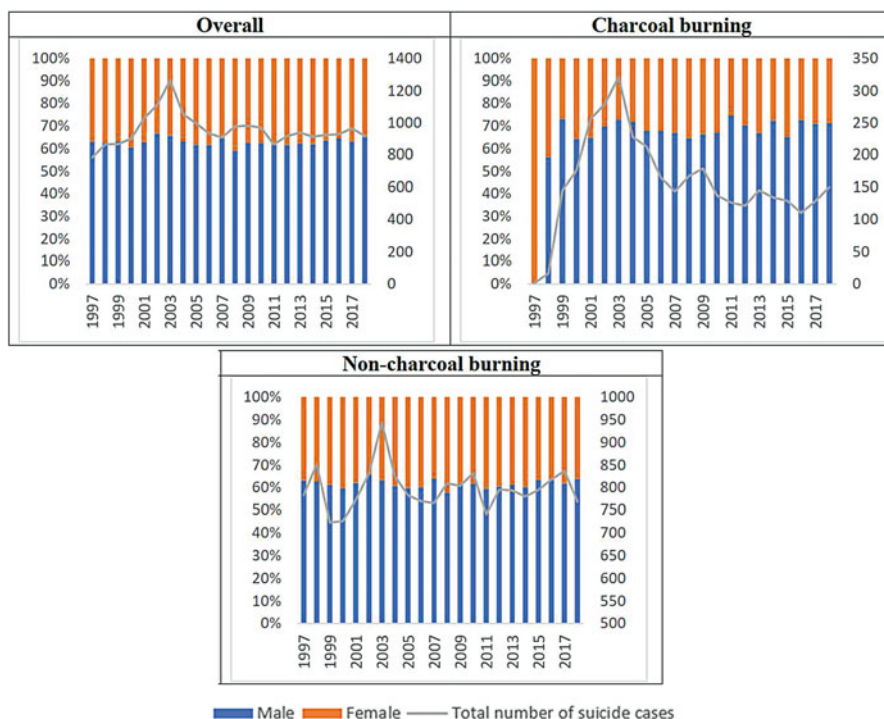


Fig. 6 Gender distributions of charcoal burning and non-charcoal burning suicides in Hong Kong, 1997–2018

Discussion

This study examined the trends of charcoal burning suicides in Hong Kong between 1997 and 2018 and whether the pattern varied by age and gender. Age and gender distributions of charcoal burning users and non-charcoal burning users across time were calculated and compared. The characteristics of people who died by charcoal burning and other methods during the peak, decline, and steady phase in Hong Kong were also compared. It is one of the most comprehensive research that documented the trend of charcoal burning suicides and investigated the characteristics and changes of charcoal burning users in Hong Kong with the longest study period of 22 years.

The rate of charcoal burning suicides reached a peak period during 2002 to 2004 after the continuous elevation from 1998. The rate declined afterwards from 3.35 in 2004 to 1.94 in 2010 and then remained relatively steady onwards. Charcoal burning remained the third most common suicide method in Hong Kong from 2005 and attributable to around 12%–16% of suicide deaths in Hong Kong since 2010.

Table 1 Characteristics between charcoal burning and non-charcoal burning suicides during peak, decline, and steady phases in Hong Kong, 2002–2017

Subject Characteristics	Peak phase (2002–2004)				Decline phase (2005–2010)				Steady phase (2011–2017)			
	Charcoal burning	Non-charcoal burning	N	p-value	Charcoal burning	Non-charcoal burning	N	p-value	Charcoal burning	Non-charcoal burning	N	p-value
	Mean ± SD/N (%)	Mean ± SD/N (%)			Mean ± SD/N (%)	Mean ± SD/N (%)			Mean ± SD/N (%)	Mean ± SD/N (%)		
Age (years)	39.85 ± 11.91	51.39 ± 19.91	3407	<.0001	42.04 ± 11.57	52.90 ± 20.24	5712	<.0001	44.53 ± 12.80	53.86 ± 20.35	6347	<.0001
Gender (female)	231 (28.31)	950 (36.58)	3413	<.0001	330 (33.43)	1845 (38.98)	5720	0.001	253 (29.49)	2111 (38.41)	6354	<.0001
Physical illnesses			1869	<.0001			4767	<.0001			6153	<.0001
0	323 (72.42)	672 (47.22)			520 (66.16)	1677 (42.13)			548 (64.78)	2343 (44.15)		
1	79 (17.71)	247 (17.36)			141 (17.94)	908 (22.81)			182 (21.51)	1201 (22.63)		
2	26 (5.83)	184 (12.93)			52 (6.62)	526 (13.21)			68 (8.04)	779 (14.68)		
3+	18 (4.04)	320 (22.49)			73 (9.29)	870 (21.85)			48 (5.67)	984 (18.54)		
Psychiatric illnesses	337 (19.02)	479 (29.19)	3413	<.0001	392 (39.72)	2490 (52.61)	5720	<.0001	218 (25.41)	2362 (42.97)	6355	<.0001
Left suicide notes	455 (57.96)	671 (27.09)	3262	<.0001	554 (58.75)	1244 (28.48)	5311	<.0001	466 (57.04)	1583 (30.76)	5963	<.0001
Living alone	260 (37.30)	444 (21.62)	2751	<.0001	380 (43.13)	818 (21.09)	4759	<.0001	330 (40.10)	1020 (20.86)	5712	<.0001

(continued)

Table 1 (continued)

	Peak phase (2002–2004)				Decline phase (2005–2010)				Steady phase (2011–2017)			
	Charcoal burning	Non-charcoal burning	N	p-value	Charcoal burning	Non-charcoal burning	N	p-value	Charcoal burning	Non-charcoal burning	N	p-value
Housing types			3356	<.0001			5523	<.0001			6223	<.0001
Public housing	277 (34.41)	1232 (48.29)			322 (33.68)	2214 (48.48)			294 (34.71)	2234 (41.56)		
Public subsidized sale flats	57 (7.08)	186 (7.29)			85 (8.89)	497 (10.88)			93 (10.98)	873 (16.24)		
Private permanent housing	363 (45.09)	825 (32.34)			437 (45.71)	1526 (33.41)			395 (46.64)	1909 (35.51)		
Others	108 (13.42)	308 (12.07)			112 (11.72)	330 (7.23)			65 (7.67)	360 (6.70)		
Employment status			2880	<.0001			4775	<.0001			5555	<.0001
Employed	314 (45.51)	575 (26.26)			445 (51.74)	1073 (27.41)			274 (35.04)	837 (17.54)		
Homemaker	26 (3.77)	239 (10.91)			25 (2.91)	252 (6.44)			40 (5.12)	315 (6.60)		
Unemployed	311 (45.07)	744 (33.97)			327 (38.02)	1357 (34.66)			234 (29.92)	1296 (27.15)		
Retired	39 (5.65)	632 (28.86)			58 (6.74)	1162 (29.98)			60 (7.67)	1754 (36.75)		

Others	0 (0.00)	0 (0.00)		5 (0.58)	71 (1.81)			174 (22.25)	571 (11.96)		
Marital status											
Married	299 (40.90)	1111 (49.22)	2988	<.0001			5474	<.0001		6177	<.0001
Cohabiting	61 (8.34)	58 (2.57)									
Never married	258 (35.29)	681 (30.17)									
Divorced	96 (13.13)	180 (7.98)									
Widow	17 (2.93)	227 (10.06)									
Married but separated	0 (0.00)	0 (0.00)									
Family problem	302 (48.48)	733 (38.06)	2549	<.0001			4843	<.0001		6355	0.004
Work problem	63 (10.11)	194 (10.07)	2549	0.977			4372	0.003		6355	0.621
Relationship problem	114 (18.30)	150 (7.79)	2549	<.0001			4395	<.0001		6355	<.0001
Financial problem	453 (64.16)	669 (32.86)	2742	<.0001			4781	<.0001		6355	<.0001

Note: Bold and italics indicate that the *p*-value is significant (i.e., *p* < 0.01)

Table 2 Multiple logistic regression of charcoal burning victims versus non-charcoal burning suicides (reference group) adjusted for district of living, age and/or gender in the peak, decline, and steady phases in Hong Kong, 2002–2017

Subject characteristics	Peak phase (2002–2004)		Decline phase (2005–2010)		Steady phase (2011–2017)	
	aOR (95% CI)	p-value	aOR (95% CI)	p-value	aOR (95% CI)	p-value
Age (year)	0.96 (0.96– 0.97)	<.0001	0.97 (0.97– 0.97)	<.0001	0.98 (0.97– 0.98)	<.0001
Gender (female as reference)	1.52 (1.26– 1.82)	<.0001	1.36 (1.17– 1.58)	<.0001	1.50 (1.27– 1.76)	<.0001
Physical illnesses						
0	(reference)		(reference)		(reference)	
1	0.84 (0.62– 1.14)	0.255	0.72 (0.57– 0.89)	0.003	0.78 (0.64– 0.95)	<.0001
2	0.45 (0.28– 0.72)	0.0008	0.56 (0.40– 0.77)	0.0004	0.52 (0.39– 0.69)	<.0001
3+	0.23 (0.13– 0.39)	<.0001	0.53 (0.39– 0.70)	<.0001	0.32 (0.23– 0.46)	<.0001
Psychiatric illnesses	0.51 (0.43– 0.60)	<.0001	0.55 (0.48– 0.64)	<.0001	0.41 (0.34– 0.48)	<.0001
Left suicide notes	3.35 (2.81– 3.99)	<.0001	3.26 (2.80– 3.79)	<.0001	2.81 (2.40– 3.28)	<.0001
Living alone	2.58 (2.10– 3.17)	<.0001	3.31 (2.80– 3.91)	<.0001	2.85 (2.41– 3.36)	<.0001
Housing types						
Public housing	(reference)		(reference)		(reference)	
Public subsidized sale flats	1.30 (0.92– 1.83)	0.136	1.16 (0.88– 1.52)	0.287	0.84 (0.65– 1.09)	0.186
Private permanent housing	1.84 (1.50– 2.25)	<.0001	1.98 (1.66– 2.37)	<.0001	1.41 (1.17– 1.70)	0.0003
Others	2.02 (1.49– 2.74)	<.0001	2.54 (1.94– 3.31)	<.0001	1.28 (0.94– 1.74)	0.1232
Employment status						
Employed	(reference)		(reference)		(reference)	
Homemaker	0.34 (0.21– 0.56)	<.0001	0.36 (0.23– 0.58)	<.0001	0.58 (0.39– 0.86)	0.007
Unemployed	0.80 (0.66– 0.97)	0.026	0.64 (0.54– 0.76)	<.0001	0.58 (0.47– 0.70)	<.0001
Retired	0.23 (0.15– 0.36)	<.0001	0.21 (0.15– 0.30)	<.0001	0.13 (0.09– 0.19)	<.0001
Others	a	a		0.0002		0.795

(continued)

Table 2 (continued)

Subject characteristics	Peak phase (2002–2004)		Decline phase (2005–2010)		Steady phase (2011–2017)	
	aOR (95% CI)	p-value	aOR (95% CI)	p-value	aOR (95% CI)	p-value
			0.17 (0.07– 0.43)		0.97 (0.78– 1.21)	
Marital status						
Married	(reference)		(reference)		(reference)	
Cohabiting	2.05 (1.36– 3.10)	<i>0.0006</i>	1.62 (1.06– 2.48)	0.026	1.93 (1.35– 2.78)	<i>0.0004</i>
Never married	0.62 (0.49– 0.78)	<i><.0001</i>	0.64 (0.53– 0.79)	<i><.0001</i>	0.66 (0.53– 0.83)	<i>0.0004</i>
Divorced	1.72 (1.28– 2.31)	<i>0.0003</i>	2.38 (1.90– 2.98)	<i><.0001</i>	2.57 (2.07– 3.19)	<i><.0001</i>
Widow	0.83 (0.48– 1.44)	0.507	0.64 (0.53– 0.79)	0.044	0.73 (0.47– 1.15)	0.175
Married but separated	a	a	3.36 (1.91– 5.91)	<i><.0001</i>	4.70 (3.12– 7.08)	<i><.0001</i>
Family problem	1.59 (1.31– 1.93)	<i><.0001</i>	1.80 (1.53– 2.11)	<i><.0001</i>	1.37 (1.13– 1.64)	<i><.001</i>
Work problem	0.70 (0.51– 0.95)	0.023	1.10 (0.83– 1.44)	0.518	0.65 (0.47– 0.91)	0.013
Relationship problem	1.56 (1.17– 2.07)	<i>0.002</i>	1.51 (1.18– 1.92)	<i>0.0009</i>	1.76 (1.37– 2.25)	<i><.001</i>
Financial problem	2.76 (2.27– 3.34)	<i><.0001</i>	3.00 (2.55– 3.53)	<i><.0001</i>	3.85 (3.26– 4.55)	<i><.0001</i>

Note: Bold and italics indicate that the p -value is significant (i.e., $p < 0.01$)

^aUnable to generate aOR due to the low number of subjects available for analysis

Reduction of charcoal burning suicides from the peak in 2003 and the steady rate of charcoal burning suicides after 2010 may be due to multidisciplinary efforts in Hong Kong in the past two decades. Media played an important role in disseminating information around the communities in Hong Kong. It is important to advocate for caution and empathy among media reporting on suicide news, as sensational and inappropriate reporting of suicidal behaviors by charcoal burning was associated with copycat acts of suicides by the high-risk population [7, 17, 24]. The media have been recommended to comply with the World Health Organization (“WHO”) guideline to “balance the public’s ‘right to know’ against the risk of causing harm” [23]. On the other hand, means restriction has been demonstrated to be one of the most effective measures in reducing charcoal burning suicides [26]. An intervention study in this aspect has been conducted in Hong Kong [25]. Two geographical adjacent districts, Tuen Mun (intervention site) and Yuen Long (control site), have been selected where all barbecue charcoal packs in the major retail chains in Tuen Mun were locked up in a container during the 12-month period of study. Customers who would like to purchase the charcoal packs have to seek assistance from the

salespeople. Despite the limitations suggested, the intervention was successful in reducing charcoal burning-specific and overall suicide rates in the intervention site. A further study in Taiwan has also shown the effectiveness of means restriction in reducing charcoal burning suicides [8]. Nonetheless, despite reduction of the overall number of suicide cases and suicide rate in recent years, a rebound in both numbers and rate of charcoal burning suicides after 2016 was observed, meaning that the suicide prevention programs targeting charcoal burning reduction might need to be rebooted. A more concerted effort involving community stakeholders might then be needed to make an impact [15], and the cooperation of the supermarkets and other selling outlets is also crucial to materialize it as well.

In Fig. 5, potential age effect of using charcoal burning is observed. Charcoal burning was less common among those below 25 and 65 or above. This can be explained by the availability-acceptability theory of suicide which suggested that the availability of preferred means is crucial to suicidal behaviors [18]. It was hypothesized that those below 25 years of age were restricted by time and space required to prepare for charcoal burning suicides as the young people were still living with their family members in Hong Kong. Similarly, for those aged 65 or above, they might be less likely to be physically capable with the skill sets and time left unattended to prepare for charcoal burning suicides. Therefore, these two age groups may prefer other methods of suicide instead of charcoal burning.

Age distributions of the overall suicide and non-charcoal burning suicides shared similar patterns across time, but it was observed that there was a change in pattern of age group in adopting charcoal burning from 25–44 to 45–64 throughout the period of study. This could be due to a potential cohort effect in charcoal burning suicides. It is possible that during the early 2000s when charcoal burning suicides reached the peak and were widely reported, that suicide method might have made an impression on the public. As time passes, those who were suicidal might choose to kill themselves using this method as they learned it when they were young. Although charcoal burning is now uncommon among the elderly, it should be noted that after 20 years when the 25–44 cohort in the early 2000s ages, charcoal burning may disseminate into the older population. Thus, the increase of charcoal burning suicides among the age group of 65 or above may provide an early warning signal, since the older persons in the current generation might be more physically capable than those before [1]. Caution should also be taken that although the below 25 age group might not be capable to kill themselves by charcoal burning, they can still adopt the method when they grow up and have financial independence and their own housing.

The present binary logistic analyses suggested that charcoal burning suicides had distinct profiles compared to their non-charcoal burning counterparts and the differences were consistent over time, regardless of the phases of charcoal burning epidemics in Hong Kong. Those who died by charcoal burning were more likely to be male and were younger, which was consistent to that in Taiwan [9]. People who died by charcoal burning were less likely to have physical and psychiatric illnesses. This may be because compared to other suicide methods, charcoal burning required a more careful and timely preparation such as

purchasing the charcoal and using tapes to seal the windows, etc., all of which required the suicide person to be physically and mentally capable. This may also explain why charcoal burning users were more likely to leave suicide notes since the process was well-planned. Also, they were less likely to be married and more likely to be living alone or divorced. This may provide them with the opportunity to prepare and kill themselves without being found in a timely manner. Furthermore, those who killed themselves with charcoal burning were more likely to have financial problems compared to those using other methods. It was consistent with the results from the previous study [3]. In addition, it is observed that a higher proportion of charcoal burning victims had relationship and family problems compared to their non-charcoal burning counterparts.

The results from the multivariable analyses further support the cohort effect. The results indicated that the charcoal burning users were different from non-charcoal burning users, and they all shared similar characteristics across time. It is also discovered that charcoal burning users were getting older across the period of study. The mean age of the charcoal burning users has increased from 39.85 in the peak phase and shifted to an older age of 44.53 in the steady phase; also, the rate of increase in the mean age was faster than that among the non-charcoal burning users (51.39 to 53.86). This may further indicate that those who died by charcoal burning across time were from the same cohort. Therefore, those people with the abovementioned characteristics were vulnerable to charcoal burning suicides, and they still chose this method to kill themselves even after getting older.

There are numerous strengths in this study. The Coroner's Court report is a highly reliable source for suicide research since every suicide death is required to be reported to the Coroner's Court for investigation in Hong Kong [12]. The long study frame of 22 years since the year of 1997 with the first case of charcoal burning suicide allowed an updated, comprehensive understanding and examination of the temporal changes of the method offering insights in suicide prevention regarding charcoal burning suicide in Hong Kong and other regions. Despite the strengths of the study, there are several limitations. Firstly, the detailed Coroner's Court records of suicide victims prior to 2002 were not available. As a result, no more details of the charcoal burning users could be provided other than the information available in the death records from the Census and Statistics Department. This has made the investigation of the characteristics of charcoal burning users during the early phase in Hong Kong difficult. Secondly, some of the information is missing in the Coroner's Court's report due to unknown information, change in coding, and the lack of police and family reports, etc. Lastly, although the current research compiled 22 years of suicide cases, temporal and casual relationships between the different characteristics of suicide people and the suicide methods used cannot be established, and also, the pathways or reasons suicide people chose charcoal burning are unknown as well, though some anecdote information was available [3]. Future longitudinal studies and qualitative research to explore the motivations and determinants of the suicide survivors using different methods could provide a better understanding on the underlying mechanisms of charcoal burning suicides in Hong Kong.

This study documented the temporal changes of the rate of charcoal burning suicide since its first case in 1997. Although charcoal burning suicides have been reduced from the peak in 2003, they remain the third common method of suicide and are still responsible for taking more than 100 lives every year in Hong Kong. A rebound in charcoal burning suicide in recent years is disturbing, and this has indicated that more substantial efforts of suicide prevention are required to further reduce charcoal burning suicide in the community. It seems that there is an age effect, as throughout the past two decades, suicides by charcoal burning have been uncommon among the young and the elderly. However, the situation should be monitored closely as the 25–44 cohort in 1997 is aging, and this may affect the age pattern of charcoal burning suicide due to the potential cohort effect. The recent increase in charcoal burning suicides among the elderly and the older mean age in the steady phase may have already indicated some early signs of the transition. Middle-aged and older male who were exposed to the charcoal burning epidemics in the early 2000s, are living alone, and have financial, relationship, or family problems are particularly vulnerable to charcoal burning suicides. Suicide prevention programs should thus be designed accordingly to address the needs of this high-risk group.

Since the first case of charcoal burning suicide emerged in Hong Kong in 1997, it has quickly become the third most common suicide method in the community. From the experience in Hong Kong, it is important to eradicate the new emerging suicide method at an early stage. Once the suicide method has secured its foothold in the community, it is difficult if not impossible to get rid of it. Therefore, it is necessary to monitor diligently on innovative suicide methods and prevent them from spreading around the community. The present study documented the temporal change of overall and age- and gender-specific rates and patterns of charcoal burning suicides in the 22-year period. Further analyses suggested that there were substantial differences between charcoal burning and non-charcoal burning suicides. The distinct pattern of charcoal burning users and the potential age and cohort effect may also help identify the high-risk groups and predict future charcoal burning suicide trends. Future suicide prevention programs should thus consider the uniqueness of this vulnerable population to ensure the effectiveness of the intervention strategies.

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The Police Negotiation Cadre of the Hong Kong Police

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Abstract

When suicidal individuals are in a crisis mode and an extremely dangerous physical position, a structured and intentional way of communication to facilitate the person-in-crisis from being highly emotional to rational in a very short time is very challenging. The revised Behavioral Influence Stairway Model (BISM-2) provides the method by which law enforcement officers or negotiators reestablish social support of person-in-crisis through effectively dealing with emotions, demonstrating empathy, establishing rapport, and initiating behavioral change through influence and credibility of the negotiator during the negotiation. In Hong Kong, the Police Negotiation Cadre (PNC) routinely deals with a unique form of suicide where persons-in-crisis frequently choose jumping off high-rise buildings

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as their preferred means of suicide. This chapter aims to introduce the BISM-2 model and its implication in suicide crisis negotiation. A real case study is included to illustrate the efficiencies and usefulness of the BISM-2 for suicide by jumping from a height. The chapter will end with a recommendation of how post-crisis intervention should be recognized as an essential suicide prevention initiative.

Keywords

The revised Behavioral Influence Stairway Model (BISM-2) · Suicide crisis intervention · Negotiation · Hong Kong · Case study

Introduction

Globally, there are approximately 800,000 people who complete suicide on an annual basis. Asian countries account for approximately 60% of all suicides, but there is a great mismatch in the region between the scale of the problem and the resources available to prevent suicide in these countries [52]. Hence, in addition to the limited availability of medical and mental health professionals, non-allied health professionals such as law enforcement officers play important task-sharing roles in suicide prevention in the community. The existence of easy access to lethal means in Asia, e.g., pesticide and high-rise buildings, contributes to many impulsive suicidal behaviors that require the immediately available measures from non-clinical professionals.

Hong Kong is one of the world's most populated cities with a population density at 6930 persons per km² (with an area of 1106.8 km² sustaining a total population of more than 7.5 million). Inevitably, more than 90% of the residents live in high-rise buildings [5]. Unofficial figures find that Hong Kong ranks first in the world in numbers of both skyscrapers and tall multistory buildings with more than 7832 existing buildings [27]. There were about 910 suicides (12.2 per 100,000 in 2018) in Hong Kong [6], and jumping from a height is the most common method for suicide mainly due to easy access to buildings.

Wong et al. [50] examined suicide by jumping in Hong Kong that occurred between January 1, 2002 and December 31, 2007, using Coroner's Court death files, and found that the Coroner recorded 6125 suicides with known ages and places of death and jumping accounted for 2964 deaths (48.4%). The vast majority (2521 or 85.0%) of suicide by jumping in Hong Kong occurred at residential locations: 1501 (50.6%) occurred from within the decedent's apartment, 292 (9.9%) from the same floor, and 552 (18.6%) from the same building or housing estate. Only a small percentage involved jumping from heights in public areas (5.3%): hospitals (1.1%) and holiday houses (1.6%). The very high proportion of suicide by jumping occurred from decedents' apartment, or nearby residential settings is consistent with other research findings where high-rise buildings are prevalent [7].

Means restriction is one of the most highly effective evidence-based methods of suicide prevention [7]. It is documented that erecting physical barriers in public areas, such as bridges and railways, can reduce the number of highly public (“iconic”) suicidal deaths occurring at those sites around the world [16, 26, 49]. With regard to reducing the overall suicide rate in Hong Kong, suicide by jumping however should be considered as an entirely different phenomenon than jumping suicides at public or iconic places because most suicides in Hong Kong are ecologically embedded and occur at the residence of the deceased. This phenomenon, along with the ubiquity of high-rise residential buildings in Hong Kong, highlights the inability of implementing restriction of means as an effective suicide prevention strategy for residential suicide-by-jumping incidents. Moreover, the proximity of residential high-rise buildings often thwarts the effective use of suicide prevention equipment such as air mattresses.

A characteristic of residential suicide-by-jumping incidents is its high visibility. Most suicidal individuals typically climb out of a window or balcony from his or her own apartments or go to the roof of the building to jump, where they are easily seen from the ground and other buildings. Most of these incidences occur because of interpersonal crises and oftentimes the suicidal person has not yet decided to jump. This hesitation makes the act even easier to be noticed by others and reported to the police. Hence, this creates an opportunity for law enforcement officers, especially the police negotiators, to engage the suicidal persons by using suicide crisis intervention communication. Therefore, police negotiators in Hong Kong play a significant role in suicide prevention during the window of opportunity presented by the suicidal person-in-crisis’ indecision and dilemma on whether to live or die at the height. This chapter aims to explain and illustrate with a very recent real case study on how the Police Negotiation Cadre of the Hong Kong Police Force use suicide crisis negotiation base on the revised Behavioral Influence Stairway Model (BISM-2) to prevent suicides by jumping from residential buildings in Hong Kong.

The Police Negotiation Cadre of the Hong Kong Police

The Police Negotiation Cadre (PNC) of the Hong Kong Police Force (HKPF) provides 24 h callout services to resolve imminent crisis situations through negotiation. The cadre is composed of specially trained police officers with a wide spectrum of expertise within the HKPF who voluntarily assemble to resolve crisis situations through negotiation. The PNC was established in 1975, originally as a segment of the HKP counterterrorism response mechanism, making it the second oldest police negotiation team in the world; only the New York Police Department has an older police negotiation team [21].

To become a PNC member, interested police officers must go through a 1-day selection program that includes the ability to listen, participate in impromptu communication, and resolve simulated crisis situations, such as suicide and barricaded incidents. Thereafter, candidates are assessed on their performance, and they must pass a psychological examination. Successful candidates undergo an intensive

2-week training program that emphasizes the ability to perform under stress and fatigue. The training involves over 120 h of lecture, skills practice, and role-playing with special emphasis on crisis and suicide negotiation. Upon successful completion of the training, each new member participates in callouts under the direction of an experienced negotiator [21]. The PNC continually conducts in-house training for their negotiators using specialists from other overseas crisis negotiation teams such as the US Federal Bureau of Investigation (FBI), the UK Metropolitan Police, Scotland Police, Australian Federal Police, and the Singapore Police [21].

Crisis Intervention in Theory

Caplan [2] and Carkhuff and Berenson [3] described a crisis as that which a person perceives as presenting overwhelming obstacles to achieving desired goals or outcomes but cannot be managed through the usual problem-solving methods. In most, if not all crisis situations, the involved individuals are characterized by having irrationality and overly expressive behavior from the perspective that emotions, rather than reason, are driving behavior [31, 34]. Moreover, the persons-in-crisis often perceive a loss or fears the loss of something of value or a need, i.e., grievance and injustice, rejection from significant others, loss of employment, a decline in health status, financial reversal, or loss of freedom [17, 18, 24, 25, 29, 35, 44], and the blame for that loss is usually placed on a person, group, or organization.

Hence, a crisis state has the following general characteristics: (1) the person-in-crisis behaves at an intense emotional and irrational level (rather than at a rational/thinking level in clinical settings) in response to a situation that is perceived as overwhelming, (2) the situation has usually occurred within the past 24 to 48 h, and (3) the event is seen as a threat to one's physical, psychological, and/or social well-being [34, 45]. The crisis state is frequently the result of confronting situations that the person-in-crisis has never encountered with feelings of helplessness, hopelessness, and powerlessness and perceived absence of social support [31, 34].

Before the persons-in-crisis enter the crisis stage, they may have sought help from people in their social support networks. When no one is willing or can assist, then the person goes into a crisis mode. Accordingly, his/her normal functioning driven by rationality is disrupted, and the problem-solving cognitive process is now dealt with on an emotional level which further enhances the volatility of the crisis [45]. Therefore, restoring the ability of a person to cope through the reestablishment of baseline functioning levels is the primary purpose of crisis intervention [19, 23, 33, 44, 48].

The Revised Behavioral Influence Stairway Model (BISM-2) in Crisis Negotiation

Crisis intervention is a specialized and intentional process that involves the venting of emotions and building credibility between the negotiator and the person-in-crisis to a point process of assisting the person-in-crisis in returning to his or her normal

functioning level, and the negotiator becomes part of the social support network of the persons-in-crisis in a very short period of time [13, 34].

The original Behavioral Change Stairway Model (BCSM) was developed by the FBI's Crisis Negotiation Unit [47] and is comprised of five stages that lead to behavioral change of the person-in-crisis. These stages occur in a specified order: (1) active listening, (2) empathy, (3) rapport, (4) influence, and (5) behavioral change [22, 42, 43, 45]. It is important to note that these stages occur in sequence and one stage cannot be skipped to get to the next stage faster. For example, a negotiator cannot skip from Stage 1 (active listening) to Stage 4 (influence) without first having developed empathy and rapport (Stage 2 and Stage 3) with the person-in-crisis [42, 44]. The most important thing to remember is that if the negotiator is not making progress, it is always best to go back to Stage 1 and start over again. Another critical aspect of the BCSM is the importance of frame of reference [28, 33, 44]. In this context, the negotiator must be aware of when to stay in the person-in-crisis' frame and when to transition to the negotiator's frame [28].

Due to the rather inflexible nature of the stairway structure of the BCSM, the model was revised with respect to reorienting active listening as the foundation of the stairway (rather than just the first step), focusing on negotiator influence rather than person-in-crisis behavioral change, and emphasizing the development of a relationship between the negotiator and the person-in-crisis as the basis for generating instrumental behavior on the part of the subject [12, 22, 32, 45].

Recently, the Behavioral Influence Stairway Model (BISM) [46] was further improved that makes a distinction between rapport and trust as the transition point between moving from the person-in-crisis' frame of reference to the negotiator's frame [28]. In addition, another improvement of the BISM-2 was changing "relationship" to "credibility" as a better descriptor of the person-in-crisis' perception of negotiator expertise and trust [20]. The BISM-2 (see Fig. 1) graphically depicts and explains the process of influencing instrumental or rational behavior on the part of the person-in-crisis and building credibility on the part of the negotiator in an effort to establish an environment where the person-in-crisis voluntarily accepts and acts upon the suggestions and directions of the negotiator [44]. The negotiator tries to prompt the person-in-crisis to have the responsibility for generating instrumental behavior to help oneself [13, 22, 32, 45].

The Revised Behavioral Influence Stairway Model (BISM-2)

Stage 1: Core Active Listening Skills

Persons-in-crisis have a universal need to have their unique stories or narratives be heard and understood [2, 3, 33, 38, 44]. Active listening attends to these needs from the standpoint of the person-in-crisis, and it is the first step in diffusing intense negative emotions and developing negotiator credibility that will ultimately lead to behavioral change and an end to the crisis [33, 34, 39, 40]. Active listening encourages the person-in-crisis to ventilate emotions, and the negotiator tries to

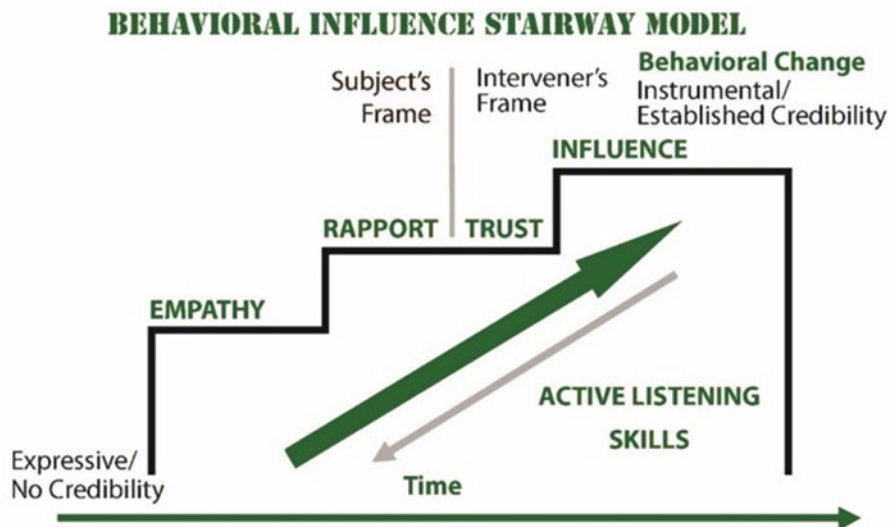


Fig. 1 The revised Behavioural Influence Stairway Model (BISM-2)

create a safe environment for the persons-in-crisis to discuss the underlying issues of event(s) that resulted in the crisis, and it provides the foundation for influencing the person-in-crisis to voluntarily comply with the suggestions and directions of the negotiator [15, 32, 44]. Therefore, it is the responsibility of the negotiator to determine the needs and concerns of the person-in-crisis from his or her perspective and empathetically echo those needs and concerns back to the person-in-crisis in their frame of reference based on the limited available information the negotiation team may have at the onset of the negotiation [38].

To examine the core needs and concerns of the person-in-crisis, the negotiator must “draw” out these elements without asking them directly [15] and hopefully with the support from other negotiators at the back to triangulate the information. This amounts to staying in the person’s frame of reference and ensuring that it is “all about the person-in-crisis” and not about the negotiator [42]. For example, if the negotiator simply states, “I know you’re hurt because your wife left you,” the response from the person-in-crisis may be something like, “You don’t know anything about me, just go away.” In this example, the negotiator left the frame of the person and spoke from his own point of view, which is an obstacle to negotiation. If, for example, the negotiator had said, “you sound really hurt about your wife leaving you,” this keeps the negotiation in the person-in-crisis’s frame of reference; thus, the person-in-crisis may reply: “I am hurt, because I really love her.” In this example, the negotiator stays in the person-in-crisis’s frame, which demonstrates empathy and further credibility on the part of the negotiator [15, 22, 42, 43, 45]. The ability of the negotiator to “step out of the conversation” and remaining in the person-in-crisis’ frame creates a perception of safety while mutual purpose and mutual respect are developed [32].

Active listening skills form the foundation of the BISM-2 and are comprised of core and supplemental groupings. The core group comprises the elements of mirroring, paraphrasing, emotion labeling, and summarizing [36–38, 39–42, 44]. The supplemental group consists of minimal encouragers, open-ended questions, effective pauses (silence), and “I” statements [36, 37, 39–42, 46]. Although there are no hard or fast rules, supplemental active listening skills should be used when necessary to enhance the effectiveness of the core skills towards influencing behavioral change [22, 39, 40, 42, 43, 45].

Mirroring is the first core active listening skill employed because it demonstrates attentiveness on the part of the negotiator and it “draws” out elements of what is important to the person-in-crisis, which can then be used to determine the most important concerns and needs of the person-in-crisis [22, 42, 43, 45]. Mirroring refers to repeating the last few words or keywords of what the person-in-crisis has used. By repeating the last few words of the person-in-crisis, the negotiator encourages the person-in-crisis to keep on talking, which results in drawing out “new” material for the negotiator to work with that is relevant to the person-in-crisis. Mirroring ensures that the discussion content is provided solely by the person-in-crisis rather than by the negotiator, thereby keeping the conversation in the person-in-crisis’s frame of reference, thus furthering the negotiation [28]. Here is an example of a mirroring exchange between the person-in-crisis (P) and the negotiator (N):

P: “They just don’t care.”

N: “They don’t care.”

P: “Yeah, that’s why I got fired.”

N: “You were fired.”

P: “Yeah, I got fired because management doesn’t care about me and wanted to hire Robert.”

Paraphrasing is a process where the negotiator restates what has been said in his or her own words back to the person-in-crisis [47]. Paraphrasing is used by the negotiator to restate the content of what the person-in-crisis said during the mirroring process to ensure that the negotiator understands the information from the perspective of the person-in-crisis [38]. This demonstrates to the person-in-crisis that the negotiator is trying to understand his or her specific situation from a cognitive or content perspective. When a negotiator paraphrases what the person-in-crisis said in his or her own words, it is perceived as empathy by the person-in-crisis and demonstrates that the negotiator is engaged, cares, and is listening [22, 42, 43, 45]. Here is an example of paraphrasing: “You were fired because Gilbert decided to let you go because they wanted to hire Greg.”

Emotion labeling is the key to reestablishing a sense of rationality to the person-in-crisis, which must be present before problem resolution can occur [22, 42, 43, 45]. Emotion labeling refers to the negotiator identifying the emotion(s) that the person-in-crisis is feeling and simply relaying it back to the person-in-crisis [47]. This gets at the heart of what the person-in-crisis is experiencing because

most content issues are surrounded by emotion(s). Labeling the person-in-crisis' fear of loss and inability to cope diffuses his or her power, and it interrupts the person-in-crisis' feeling pattern, which provides the opportunity to generate newer feelings, such as safety and well-being [47]. Even if the negotiator misidentifies the emotion, it still demonstrates to the person-in-crisis that the negotiator is trying to understand the situation, which tends to deescalate highly volatile emotions. Here is an example of emotion labeling: "You sound angry," "You seem frustrated," or "I hear disgust in your voice."

Summarizing combines the content of the paraphrase with the feeling identified by emotion labeling into the negotiator's own words [47]. This process is a final clarification by the negotiator of what the person-in-crisis is experiencing, and it assures the person-in-crisis that the negotiator understands the situation from the perspective of the person-in-crisis [22, 38, 42, 43, 45]. An example of summarizing would be: "Let me make sure I understand what you're saying. You lost your job because they wanted to hire Greg and that made you angry, Paul. Am I right?"

Supplemental Listening Skills

Unlike the core active listening skills, the following supplemental active listening skills (minimal encouragers, open-ended questions, effective pauses, and "I" statements) are not used in any specified order but are used to enhance the efficiencies and effectiveness of the core active listening skills [22, 42, 43, 45]. Minimal encouragers are verbal and nonverbal cues to the person-in-crisis that the negotiator is being attentive to what he or she is saying and experiencing [8, 9]. They also demonstrate that the negotiator is psychologically present with the person-in-crisis and that the negotiator is genuinely trying to understand the perspective of the person-in-crisis [47]. Minimal encouragers are used while the negotiator is listening [22, 42, 43, 45]. Verbal encouragers are comments such as "uhhuh," "yes," "right," and "okay." Nonverbal encouragers are actions such as nodding the head, tilting the head, leaning forwards, watching the person-in-crisis's eyes or mouth as they speak, or mirroring the nonverbal behaviors of the person-in-crisis.

Open-ended questions prompt the person-in-crisis to expand on his or her concerns and perspective and encourages clarification, which is used by the negotiator in employing more primary active listening strategies (mirroring, paraphrasing, emotion labeling, and summarizing) all in an effort to bring the person-in-crisis to a more rational state of mind [22, 42, 43, 45]. Open-ended questions do not limit the responses to *either-or* or *yes-no* answers but require elaboration and detail on the part of the person-in-crisis. Open-ended questions may include questions that start with "what" or "when" or statements such as "tell me more about. . . ." Open-ended questions can also be used by the negotiator to take the conversation in a specific direction, such as assessing the degree of threat to another person. For example, if the person-in-crisis has relayed that he lost his job because "my horrible boss fired me," then the negotiator could move the conversation towards determining the status of the boss by asking "tell more about your boss."

Effective pauses or silence before or after meaningful comments by the negotiator provides the person-in-crisis the ability to focus on what the negotiator is saying

[22, 42, 43, 45]. Pausing just before or after saying something important tends to cause the person-in-crisis to listen to the content of the message because the pause breeds anticipation (if done before the meaningful comment) and reflection (if done after the meaningful comment). Effective pauses are especially good when used following an open-ended question, which sets up a quid pro quo situation where the longer the pause, the more tempting it is for the person-in-crisis to respond. For example, the negotiator could use an effective pause in this way: “Tell me about where you grew up. . . (pause)” or “Let me know if I have this right. . . (pause). . . you are angry with your mother because she never showed you love” or “You sound angry about the loss of your father. . . (pause). . . tell me more about that.”

“I” statements are the only time a negotiator should consider leaving the person-in-crisis’ frame of reference during Stage 1 of the BISM-2 [44]. “I” statements can be used sparingly to generate empathy or to neutralize verbal attacks by the person-in-crisis [22, 28, 42, 43, 45]. To generate empathy, “I” statements are used by the negotiator in the form of appropriate self-disclosures within the context of what the person-in-crisis is describing. For example, the negotiator may say: “I am a father too, but I can’t imagine what it must be like to lose a son. It must be terrible.” When being verbally attacked, the negotiator can use the “I” statement to gently point out a person-in-crisis’s counterproductive behavior. For example, the negotiator could say: “When you say that I don’t care, it frustrates me because I am trying to understand your situation and I really want to help you.” Once the negotiator has completed the “I” statement following the person-in-crisis’s verbal attack, he or she should immediately return to the person-in-crisis’s frame, for example: “Now tell me more about when you lost your job.”

It is noteworthy that for active listening to be effective, the person-in-crisis must maintain a sense of ownership over the outcome of the crisis, which can only be accomplished via perception management and remaining within the frame of the person-in-crisis [28]. In many cases, the negotiator is the only person in the life of the person-in-crisis who has tried to understand and respond to the crisis in the person-in-crisis’s frame of reference [28]. In these cases, the negotiator becomes the missing social support in the person-in-crisis’s life, and it is this support that takes the person-in-crisis out of crisis, eventually providing the negotiator an opportunity to suggest coping strategies and ultimately solutions to the crisis [44].

Stage 2: Empathy

Empathy implies an identification with and understanding of another’s situation, feelings, and motives [22, 42, 43, 45]. The negotiator uses empathy to see through the eyes of the person-in-crisis [15, 38]. An example of an empathetic statement would be: “It is understandable how you would be angry over that.” In crisis intervention, the goal is not to feel pity for the person-in-crisis but to establish credibility through effective communication whereby positive and constructive steps can be taken towards resolving the crisis in a collaborative fashion [38]. A person-in-crisis will not care about what the negotiator has to say until the person-in-crisis is convinced that the negotiator genuinely cares and wishes to help [20].

An important consideration with regard to developing empathy is the importance of tone [44]. Tone indicates attitude and genuineness through inflection and pitch, and it expresses emotion, demeanor, and projected sincerity. Tone influences how the person-in-crisis perceives the meaning of what the negotiator is saying. It is this perception of meaning that counts the most in effective crisis intervention, whether the perception is based in reality; therefore, all strategies and tactics must be based on their impact upon the person-in-crisis. The way a negotiator says something is far more important than the content alone. Empathy seeks to first understand and then to be understood on the part of the negotiator, which form the building blocks of rapport and trust [15, 22, 38, 42, 43, 45].

Stage 3: Rapport-Trust

Rapport and trust can be built simultaneously; however, there are important differences for negotiation. Rapport focuses on establishing a bond or connection between the negotiator and the person-in-crisis that is characterized by smooth, in-sync communication, mutual affinity, and respect [20]. Rapport requires the negotiator to remain in the person-in-crisis' frame of reference, as most people enjoy talking about themselves, especially with respect to their values, feelings, and thoughts [20, 28]. Good rapport is characterized by the ability of the negotiator to make the person-in-crisis comfortable in talking about his or her concerns and needs through proper pacing [20]. Pacing is the process of matching the person-in-crisis in conversation. For example, if the person-in-crisis is exhibiting anger, the negotiator should also become angry (but only briefly) in order to sync with the person-in-crisis, thus allowing the negotiator to lead the person-in-crisis out of his or her negative frame [20, 28]. Another aspect of pacing is matching the rate of speech, as people speak at a rate that is consistent with their thought processes and internal representations [20]. Persons-in-crisis process information through feelings and emotions and tend to speak slower than normal; therefore, it is important for the negotiator to match the person-in-crisis's rate of speech to be more effective in gaining rapport [20, 33, 34].

As rapport increases, it transits into trust, where the person-in-crisis believes that the negotiator is reliable, is truthful, and will act on what he or she says. It should be noted that as trust is established, the negotiator necessarily transitions into his or her own frame of reference in order to guide the person-in-crisis to an acceptable resolution [15, 28]. Once trust has been developed, the person-in-crisis is poised and ready to listen to what the negotiator suggests and, as a result, the person-in-crisis is ready to be influenced by the negotiator to act. Trust leads to person-in-crisis compliance provided it has been established before the request is made [8, 9].

Stage 4: Influence

Once the negotiator has demonstrated interest, care, and an understanding of the person-in-crisis' problems, as well as mutual affinity and confidence with the person-in-crisis, then the negotiator has established influence [22, 39, 40, 42, 43, 45]. Influence is the act or power of producing an effect without apparent force or direct authority, that is, the negotiator is now able to lead the negotiation [20]. Influence can be affected by the negotiator through careful applications of positive affirmations, a

cooperating and helpful attitude, and reciprocation [8, 20]. Positive affirmations are non-patronizing or non-placating compliments based on facts that the negotiator makes to the person-in-crisis to demonstrate reverence and respect. For example, if the person-in-crisis is a father and has indicated that he loved his children, then the negotiator could comment, “Paul, it seems that you really love your kids and that makes you a good man.”

Being cooperative and helpful is the basis of why negotiation works because this element allows the negotiator to end the crisis by becoming the person-in-crisis’ “social support network.” The negotiator should use keywords such as “we” and “us” when referring to helping the person-in-crisis. Reciprocity breeds influence because of the human tendency to return favors. This quid pro quo obligation develops when the negotiator is kind and understanding, and it is cemented once the person-in-crisis trusts the negotiator. The very fact that the negotiator is trying to help the person-in-crisis is oftentimes enough to compel reciprocation, as it is challenging to remain difficult with someone who is trying to help [8, 15].

Keep in mind that at this stage in the BISM-2, the person-in-crisis has left the irrational and emotional stage and is ready to entering into a rational state of mind and the negotiator has established credibility with the person-in-crisis to the point where the person-in-crisis is willing to accept the suggestions and act upon the directions of the negotiator as a prelude to behavioral change [15, 22, 42, 43, 45]. In other words, the negotiator has earned the respect to suggest a course of action to the person-in-crisis, and they work together to identify solutions and alternatives that are mutually acceptable. Once influence is established, the negotiator builds themes, defense mechanisms, minimizations, or blending concepts that serve as precursors to ending the crisis [17, 18, 24, 25, 29, 33, 35, 44]. Themes comprise reasons that would explain, justify, mitigate, or excuse the crisis, and it addressed distorted thinking by putting a “different narrative” on the situation. Defense mechanisms use rationalization and projection of blame to reduce volatile emotions, whereas minimization downplays any negative behavior exhibited by the person-in-crisis. Blending is where the negotiator and person-in-crisis agree where they can without conceding, reduce real or perceived differences, and find common ground.

Stage 5: Behavioral Change

Behavioral change will occur only if the previous four stages have been successfully completed and credibility has been formed on the part of the negotiator with the person-in-crisis. It cannot be stressed enough that the key to behavioral change and successful crisis intervention and negotiation is a positive relationship between the negotiator and the person-in-crisis, via the implementation of active listening, empathy, rapport-trust, and influence strategies and tactics [22, 42, 43, 45]. It is only at this point that the person-in-crisis will do as the negotiator suggests for no other reason than the fact that the negotiator asked the person-in-crisis to do so.

Special Considerations During Suicide Crisis Negotiations

There are several behavioral and verbal clues that indicate potential suicidal tendency and severity of the person-in-crisis, and the negotiator must be aware of them

through the stages of negotiation. The behavioral clues may include (1) giving personal items away, (2) putting affairs in order, (3) writing a note, (4) tested or trialed with the particular suicide means, (5) slowed thinking or indecisiveness, (6) mood changes, (7) sudden elation-hyperventilation, and (8) withdrawal or reckless or impulsive behavior. Some direct and indirect verbal clues may include the following: (1) "You won't have to put up with me any longer."; (2) "I can't go on."; (3) "I will resolve my problem my own way."; (4) "I'll make _____ suffer."; (5) "They'll be better off without me."; (6) "All of my problems will end soon."; (7) "I just wish it would all end."; (8) "I wish I were dead."; (9) communicating in the past tense, and (10) a verbal will [36, 37, 43].

There are questions that negotiators can use to explore the suicidality of the person-in-crisis explicitly: (1) "Are you having thoughts about killing yourself?"; (2) "Do you have a plan for committing suicide?"; (3) "What are you planning to do?"; (4) "How long have you been planning it?"; (5) "Have you ever had thoughts about killing yourself before?" "When?" "What stopped you before?"; (6) "Have you ever tried to kill yourself?" "What happened?"; and (7) "Have you been drinking or using drugs?"

Also, when speaking to a suicidal person-in-crisis, the negotiator should encourage talking openly about the finality of death. Efforts should be made to find out what is meaningful and valuable to the person-in-crisis and use these "hooks" to identify other options and alternatives. The negotiator should emphasize reasons against suicide such as the following: (1) foster the belief that the person-in-crisis can eventually cope with and survive the crisis or loss; (2) point out the grief or hardship on their family; (3) concerns about the effects of suicide on their children, if appropriate; (4) pain of dying and unknown consequences about the finality of death; (5) social disapproval; (6) moral, religious, and ethical reservations; and (7) emphasize that *suicide is a permanent solution to a temporary problem* [43, 44].

Uniqueness About Crisis Negotiation with Suicides-by-Jumping

According to Dalfonzo [11], most suicidal individuals choose jumping from a height as the suicide means for several reasons: (1) convenience, (2) high visibility causes greater chance for intervention, (3) dramatic public spectacle, and (4) making a statement and getting a response from others. Dalfonzo [11] classified jumpers into two categories: (1) suicidal individuals and (2) subjects with other motivations (SWOM). Suicidal individuals are those individuals who have decided to end their lives by jumping from a height. Intervention with suicidal individuals usually involves verbal or physical distraction of the person-in-crisis while the negotiator or other individuals physically prevents the person-in-crisis from jumping for the prevention of accidental slipping. SWOMs, which account for approximately 84% of jumpers, are those individuals who use threats of suicide as a *cry for help* in obtaining attention and resolution to other problems relating to the family, work, or other relationships [11, 12]. Having said that, given the prevalence of suicide by jumping and easy access to high-rise buildings in Hong Kong, the jumping from a height suicidal phenomenon would have a mixture of multiple reasons and explanations that may be different to the situation as described by Dalfonzo [11].

Since most suicide-from-height negotiations involve face-to-face negotiations, the negotiator should make sure they are physically safe and attempt to describe the safest way for the person-in-crisis to come down from their dangerous position. This should be done very early in the negotiations and in a non-threatening and nonjudgmental manner. For example, the negotiator may say: "It seems that you are not ready to come down or you are in such a dangerous position that you cannot come down by yourself, when you do want to come down, could you please accept the help by the fire service officers. . . ." It should be noted that while person-in-crisis are on the ledge, they may experience a feeling of power and control over others, including the negotiator. As such, the person-in-crisis may make threats. It is important that the negotiator understand the difference between offensive and defensive threats [12]. Offensive threats involve threats of action taken unilaterally by the person-in-crisis, such as threatening to jump because of something that happened. Defensive threats involve threats of action taken if the negotiator does something, such as "If you try to grab me, I will jump." The negotiator has little control over offensive threats; however, the negotiator has much control over defensive threats. Also, the physical positions of the negotiator must also be concerned to protect the safety of the negotiator. If the negotiator is in a rather dangerous and energy-consuming position, other negotiators on the scene may take turn to talk to the person-in-crisis with his or her acknowledgment.

There is another group of people called baiters who may affect the outcomes of the suicide crisis intervention. Baiters are individuals who taunt, jeer, or even encourage the person-in-crisis to jump and are usually present in large crowds, or when the crowd is a substantial distance from the person-in-crisis, which is particularly common in the context of Hong Kong. The removal of the crowd can be used as a tactic to gain influence with the jumper [11, 12]. For example, the negotiator might say, "Paul, the people down there seem to agitate you and are getting in our way. Would you like me to have them removed?" Other tactics the negotiator can use is to minimize the "drama" of the event by removing bystanders, emergency vehicles, news reporters, and other visual or auditory stimuli from the person-in-crisis's view. This is also called "normalizing the perimeter," and it is effective in getting the person-in-crisis to consider other alternatives to suicide. The negotiator should "soften" his or her appearance by wearing plain clothes and concealing any weapons or police equipment and formulate delivery plans that require the person-in-crisis to come down to receive the item (food, cigarettes, water, etc.) even if the person-in-crisis only comes down temporarily.

However, indicators of progress that the negotiation is working can be subtle but visible and may include the following: (1) the person-in-crisis facing the negotiator or making eye contact, (2) the person-in-crisis allowing the negotiator to get closer, (3) the person-in-crisis telling the negotiator he or she is tired or afraid, and (4) the person-in-crisis disclosing what he really wants, be it tangible (i.e., a bottle of water, a cigarette) or intangible (i.e., a wish to talk to a family member) [11, 12]. Suicide can be the result of change, choice, control, self-punishment, punishment of others, or mental illness. Suicidal feelings, thoughts, and behavior are almost always associated with symptoms of depression, anxiety, or the result of medical problems

involving a chemical imbalance [10, 36, 37]. Negotiators should always be concerned and relay compassion when the possibility of suicide is raised, and it is important to take immediate steps to address it by practicing the above.

A Real Case Study in Hong Kong

This case study happened in Hong Kong in April 2020 and the negotiating team spent about 13 h to persuade the 16-years-old to be rescued by the fire service officers and the young person was finally persuaded to abort his suicide attempt. The following case illustration includes information collected at the scene, discussions and interviews with the involved police officers, and an interview with the parents of the young person about 3 months after the event. The inclusion of the case study in this chapter aims to document and explain how the BISM-2 is implemented in a very imminent risky real-life situation.

The person-in-crisis was a 16-year-old male who was born in the Mainland China and moved to Hong Kong about 4 years ago. He lived with his mother and elder sister at the time when he attempted suicide, and his father was living in Yunnan, China, because he disliked the idea of living in Hong Kong. The person-in-crisis had been receiving neuropsychological treatment from a public hospital with no known psychiatric disorder for several months before the attempt. A day before the attempt, the young man had a dispute with the mother over the heavy use of computer and Wi-Fi during the school lockdown due to the COVID-19 situation, and the young man had locked himself in his room for almost 40 h after the dispute. At around 1400 h on a Saturday, the young man climbed out of the window from his room and sat at the building ledge of the 18th floor (see Picture 1) after hours of seclusion in his room.

The incident was then reported to the police and officers from the Hong Kong Police Force and the Fire Services Department arrived. The fire services officers assessed the situation and indicated that given the height (18th floor) and the dangerous location (at a very narrow windowsill) of the young man at the building ledge, rescue could only be made if he were cooperative. In other words, any physical rescue (i.e., air mattress) would not be effective and suicide crisis negotiation appeared to be the only option for resolving this incident. Accordingly, the Police Negotiation Cadre (PNC) was summonsed and 10 PNC team members arrived at the scene and started to negotiate with the young person. Below shows the process of the negotiation and the usage of skills of the BISM-2 model.

Timeline	Explanations	Verbal questions or nonverbal gestures/skills used
1240 – Fire Services Department (FSD) referred the “person lock-in” case to police	Before the PNC team arrived, the person-in-crisis climbed out of the window and FSD assessed the safety of the person-in-crisis and the surrounding and decided that negotiation may be the most appropriate way to help given	

(continued)

Timeline	Explanations	Verbal questions or nonverbal gestures/skills used
	the dangerous position of the person-in-crisis	
1344 – PNC was summonsed		
1430–1440 – PNC members arrived	For division of labor, one member was assigned as the negotiate person. Other members are responsible to liaise with person-in-crisis's family, friends, or other significant people to gather more information about the person-in-crisis. In this case, the father (through WeChat because he was in China), the mother, the sister, the neuropsychologist, and a friend were either contacted by phone or talked directly	Active listening and teamwork
1442 – A female PNC member proposed to deliver a can of soft drink to person-in-crisis but was refused	To initiate conversation and for rapport building. However, the person-in-crisis probably saw accepting the offer was a sign of accepting the help by PNC. To maintain the control over the police, he refused to accept the offer. The female PNC also asked a few questions to break the ice, but the person-in-crisis refused to say anything as well	Empathy – Offering the soft drink was used to show a caring attitude
1450 – A male PNC member took over the negotiation	Since the person-in-crisis refused to talk to the female PNC, it was thought that changing to a male member might help	Active listening skills, mirroring – PNC member mirrored the person-in-crisis's behavior, e.g., sitting, to create a sense of coherence
1545 – An additional male PNC member joined the negotiation	The person-in-crisis did not say much nor responded to the PNC even when different topics were brought up	Rapport-trust building – with an additional PNC member, they could take turn of finding to get the person-in-crisis to respond
1700 – The female negotiator offered the person-in-crisis a pizza but was refused again	According to the mother, the person-in-crisis might like a piece pizza especially in a rather chilled temperature at the windowsill almost 40th floor outside the building	Empathy – Offering the pizza was used to show a caring attitude
1735 – The female PNC member handed a can of soft	With this offering by a female PNC member, and the two	Active listening skill, open-ended question – Some

(continued)

Timeline	Explanations	Verbal questions or nonverbal gestures/skills used
drink to the person-in-crisis but was not collected	male PNC members negotiating, it was hoped that a sense of caring by a larger group of people would be enhanced	question used: "Do you want to guess how old I am?" "Do you like playing computer games?" "How did you come out?"
1735 – The two male negotiators continued with the negotiation	The other arrived PNC members were searching information about the person-in-crisis. More information about the person-in-crisis's challenges at school and dispute between parents were identified as issues that could be brought up to engage the person-in-crisis	Throughout the process, all supplemental active listening skills were used
1915–1930 Time out		
1930 – The involved male negotiator and a new negotiator restarted to engage the person-in-crisis but with the negotiation tone enhanced	Although the person-in-crisis sometimes responded by looking at the PNC but still decided to take control of the situation by not saying much to the negotiators, the tone was raised a bit to make the person-in-crisis realized that it had been almost 6 h of negotiation and not much was achieved	
2000–2015 – The neuropsychologist who had been seeing the person-in-crisis for a few months was contacted and she stated that the person-in-crisis had not suffered from any diagnosed mental problems/illness and recommended that the PNC members should avoid talking about any family issues	The neuropsychologist was contacted because the PNC members would like to know if he was affected by any psychiatric illnesses and wish to get to know more professional information about the person-in-crisis	Triangulation of information
2010 – Time out		
2020 – The two male negotiators continued negotiating with the person-in-crisis	The person-in-crisis has a few responses and talked about the pricing of houses, investment, and life as an immigrant in Hong Kong	Active listening and rapport-trust building continued to be used. The person-in-crisis started to have some responses with the negotiator because one of the negotiators shared his own personal experience as an immigrant from Mainland China to Hong Kong. It seemed that

(continued)

Timeline	Explanations	Verbal questions or nonverbal gestures/skills used
		the person-in-crisis had finally found something he thought it was worthwhile to talk about. Hence, the negotiator talked about the challenges and his way of overcoming the issues in young adulthood and how and his perspective of being a policeman was shared with the person-in-crisis
2035 – The female negotiator once again delivered a jacket to the person-in-crisis. The person-in-crisis took it but threw it to the male negotiator	The mother told the PNC members that the person-in-crisis loved that jacket. Hence, given the sudden changed of weather, the jacket was given to the person-in-crisis. However, since the person-in-crisis did not develop the rapport with the female negotiator, to maintaining the control over the situation, he refused it	Empathy
2115 –The person-in-crisis was suggested to go back to his room with the help of the fire services officers	The person-in-crisis insisted on staying on the windowsill and refused to return to safely place even though it started raining heavily had become very windy. It was worried that the rain and the wind might create an even more dangerous situation for the person-in-crisis. Therefore, the negotiation tone was raised	Active listening continued to be used with an attempt of finding a person-in-crisis that the person-in-crisis might be interested. Influence was used to see if the person-in-crisis could change his mind
2144 – A relieving plan was proposed given that the team had been negotiating with the person-in-crisis for the entire 8 h shift	After 8 h of execution of the negotiation, in general, another team would be asked to take over to avoid burnout or fatigue	It was later discovered that some observers of the police team reported that the person-in-crisis appeared to be quite anxious and was checking and looking where the negotiators were. The observer suggested that the person-in-crisis might be looking for the negotiator to chat more
2300 – The team members decided to remain in the negotiation	Instead of talking to the person-in-crisis, the negotiator attempted to engage the person-in-crisis by	Tried a nonverbal way to engage with the person-in-crisis

(continued)

Timeline	Explanations	Verbal questions or nonverbal gestures/skills used
	playing mobile game on his phone to see if that could get the attention of the person-in-crisis	
2320 – His mother was briefed and invited to talk to the person-in-crisis together with the negotiator	After very careful deliberation, the whole team agreed to invite the mother to join the negotiation because the person-in-crisis seemed to have some responses when family issue was mentioned a few times during the whole negotiation. The mother had started to talk about the study plan in overseas with the person-in-crisis. She also talked about the arrangement of the whole family, including the father, with the person-in-crisis. The person-in-crisis started to cry out very loudly and started to talk back to the mother. The negotiators provided guidance to the mother and suggested to use silences throughout the conversation to allow the person-in-crisis to ventilate his emotions	Teamwork. The mother was briefed on what to and what not to say. The negotiators also provided advices along the way. The sister was also comforted by the female negotiator in the apartment. All four core skills of the BICM-2 were used simultaneously because the person-in-crisis had started to respond. The other PNC members who were not involved in the talking process were starting to plan out the physical rescues plan with the fire service officers
0050 – The person-in-crisis agreed to return to the apartment with the assistance from the fire services officers		Influence and behavioral change
0115 – Rescue completed, and PNC had their debriefing		Teamwork and for future improvement

The Sad News and the Need for Post-Crisis Suicide Prevention Work

Given that this case study was probably one of the longest suicide crisis negotiations had been exercised by the PNC, the involved negotiators were eager to visit the person-in-crisis and his parent and sister again within weeks after the incident. The aim of the visit was to attempt to provide further assistance, if necessary, for the family and for capacity building for the PNC. Hence, the corresponding author was also invited to the post-crisis visit by the PNC to provide on-site professional counseling advices. However, due to the social unrest situation and the intense

occupation of work-related issues, the involved negotiators and the corresponding author had yet to visit the person-in-crisis and his family.

Very sadly, about 3 months after, we received the news that the person-in-crisis had jumped from a height and completed suicide. The PNC contacted the family immediately and arranged to meet with the parents to provide brief bereavement support and offered the opportunity for the parents to ask questions about the negotiation process. The four involved negotiators and the corresponding author visited the parents in a different apartment about 1 month after the person-in-crisis had completed suicide. The father had moved to Hong Kong immediately after the person-in-crisis attempted suicide and hence he was involved in the visit. The visit lasted for about 3 h, and the parent mainly talked about several issues: (1) the events happened in a few hours before the person-in-crisis jumped to death; (2) the reasons leading to the person-in-crisis attempted and his final suicide from their perspectives; (3) the aftermath of the suicide and the impact on them and the sister; and (4) the suggestions for preventing other youth suicides in Hong Kong.

In general, the parents told that the father had a temper outburst towards the person-in-crisis over the heavy use of Wi-Fi minutes before the young man jumped to his death. The father broke the Wi-Fi router and yelled at the person-in-crisis. The mother tried to separate them, and while the father was going into his room and the mother was trying to get a towel for the person-in-crisis, the person-in-crisis jumped out of the balcony. The parents told that after the suicide attempt, the person-in-crisis appeared to be normal but was receiving private psychiatric intervention. During that month, the family did discuss about leaving Hong Kong to Canada and with the hope that the person-in-crisis and his sister could have a better study environment.

It was told that the person-in-crisis was a very intelligent and righteous young man. In the academic year of 2018–2019, he was honored as one of the top students in the school. He also represented for the Hong Kong Ski Team and interested to be an e-sport athlete. However, during the school lockdown in the pandemic, he felt that the education emergency policy had been unfair to many students, especially those with no adequate equipment for online learning. Hence, he decided not to show up during the online lectures organized by his school despite that the school had given him several warnings. Also, since he could not participate in any physical training due to the closure of all sports facilities, the time he spent on the Internet was much increased and that initiated most of the arguments with the parents. The arguments had made person-in-crisis became more emotional unstable and aggressive to his father whom he cared a lot especially during the time that he could live with his father again after 4 years of separation. Hence, the last very heated argument with the father was the leading incident towards his suicide.

This sad incident has demonstrated the importance of post-crisis intervention. Previous research has indicated that, once the crisis has been mitigated and the person-in-crisis has been returned to his or her pre-crisis state, it is important to initiate and maintain open lines of communication as a preventative measure against these individuals engaging in future suicide attempts. The belief that

someone who has survived a suicide attempt is unlikely to try it again is a grossly inaccurate assumption when, in fact, the opposite is true. Between the first 3 and 12 months after a suicide attempt, individuals are at their highest risk for making a second suicide attempt, which is likely to be more successful than the first one [1]. An analysis of research data regarding successful suicides revealed that among those individuals who had made previous attempts, 1 in 25 people had engaged in a fatal attempt within a 5-year period [1]. Although the evidence for post-crisis suicide prevention is limited, there are several studies that the readers may be interested.

Motto and Bostrom [30] experimented with 843 patients who had all refused ongoing care and who were randomly divided into an experimental and control group. The experimental group was contacted by letters at least four times per year over the course of 5 years, and the control group received no contact during the study period. The results revealed that when comparing the groups, the patients in the experimental or contact group had a lower suicide rate during all 5 years of the study with a particularly significant reduction during the first 2 years but the differences diminished over the course of 14 years. Motto and Bostrom [30] concluded that the implementation of a systematic program of contact or communication with individuals who are at risk for suicide seemed to provide a significant preventative impact. A similar study conducted by Carter et al. [4] found that when postcards were sent to the experimental group at 1, 2, 3, 4, 6, 8, 10, and 12 months following their discharge from the hospital, the number of repeated suicide attempts among the control group was much higher within that 12-month duration. Wong, Kwok, Michel, and Wong [51] conducted a study involving individuals who aborted their suicide attempts after negotiating with the PNC in Hong Kong. A sample of the individuals was contacted 1 month and 3 months following the aborted suicides. The results indicated that 88% of the individuals felt positive about being contacted and talking about the suicide attempt. Moreover, 75% of the individuals rarely or occasionally thought about killing



Photo 1 The dangerous position of the person-in-crisis

themselves and 63% did not expect to make another suicide attempt [51]. These studies generally show that even the follow-up is done by a simple letter, a post-card, or a phone call, the risk of repeating suicide can be reduced among the discharged individuals from hospitals.



Photo 2 The suicide crisis negotiation in action

Conclusion

In conclusion, the book chapter has introduced how the BISM-2 and its components, especially active listening skills, can be used by law enforcement officers in crisis situations to help deescalating the emotions volatility of persons-in-crisis to be more rational persons who can be influenced for behavior change accordingly. In other words, in situations where health professionals may not be appropriate to provide suicide prevention interventions, law enforcement officers play a very important role as part of the suicide prevention force. Although it is sad to include a case study who eventually completed suicide, this hours-long suicide crisis negotiation shows how active listening skills are used as the foundation throughout the negotiation process. Equally important, the team spirit, division of labor, and patience among a team of negotiators are contributing factors to the outcome of the negotiation. By involving the non-officers, i.e., mother in this case, after careful consideration may also help to change the situation rapidly and positively. It is understood that after the suicide crisis negotiation is completed, law enforcement officers are not obligated to continue post-crisis intervention with the persons-in-crisis. The important learning lesson of this case study and previous studies on following up of discharged suicidal individuals from hospital has highlighted the needs for such follow-up as another form of suicide prevention initiative. If the responsible officers may not have the time and resources for the post-crisis interventions, with the consent of the saved persons-in-crisis, they may consider collaborating with suicide prevention centers or suicide prevention researchers and bridging them with the person-in-crisis and that will bring mutual benefits to all involved parties (Photos 1 and 2).

Acknowledgments The year 2020 marks the 45th Anniversary of the PNC, and the motto of the PNC – “Who Cares Wins” – is synonymous and symbolic to the cadre’s commitment to selflessly saving lives. The commitment of PNC members is self-evident in everyday lives. Without the sustained dedication of the support of a wide spectrum of mental health professionals and academia, the accomplishments of the PNC could never be realized.

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Suicidal Behavior from a Complex System Perspective: Individual, Dynamical, and Contextual

69

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Abstract

Suicidal behavior is the result of the complex interaction between many different components that interact over time. Still, traditional study designs operationalize suicidal behavior as static behavior, without any room for individual differences. But it seems times are changing. Novel technology such as data collection via apps and the collaboration with other disciplines such as ecology have resulted in an exciting new line of research within the field of psychopathology. These developments can also have an impact on how we think about, treat, and study suicidal behavior. By introducing complex system science within the field of suicide prevention, we hope to open up a whole range of novel concepts and testable hypotheses that can help us study suicidal behavior from a different perspective: individual, dynamic(al), and contextual.

Keywords

Suicidal behavior · Complexity science · Network analysis · Ideographic · Context

Introduction**Times Are Changing**

Suicidal behavior is the result of the complex interaction between many different components that interact over time, ranging from genetics, individual psychological factors, to environmental factors [46]. Still, suicide prevention such as crisis hotlines tends to focus mostly on the management of single risk factors, such as the reduction of suicidal thinking [19, 37]. Suicidal behavior is also argued to be highly individual; however, most studies rely on group averages [2]. Finally, suicidal behavior is highly dynamical, although almost all studies assess patients only a few times during a period of years [23, 31, 32, 40]. No wonder it remains difficult to predict suicidal behavior [10, 19].

All these arguments do not only hold for the field of suicide prevention but for psychopathology in general [20, 28]. Both clinicians and researchers have realized since long that there is no such thing as an average patient, that a patient changes over time, and that the context matters [2]. However, research has remained focused on cross-sectional studies based on mutually excluding DSM diagnoses or on randomized trials that tried to control for any difference between persons via randomization [18]. But it seems times are changing.

The last years saw the rise in the appreciation and understanding of the complexity of psychopathology [8, 20, 28, 41, 48, 49]. One of the signs on the wall was the enthusiasm with which the network perspective of psychopathology was received by scientists, clinicians, patients, and funding bodies. The network perspective states that psychopathology is the result of the complex interaction between symptoms [4].

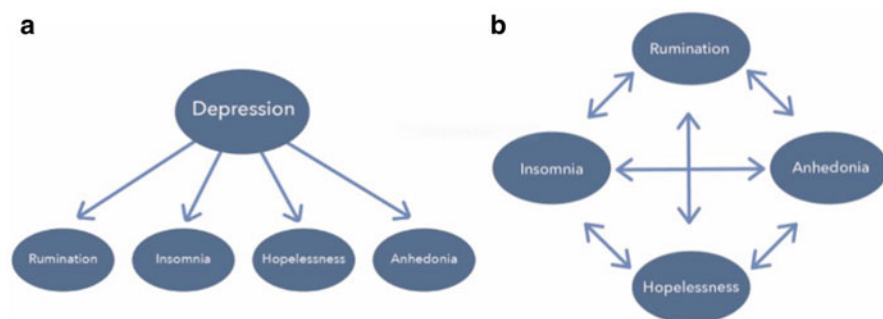


Fig. 1 (a) Psychopathology is the result of a brain-/genetic-related latent construct that causes symptoms. (b) Psychopathology is the result of the interaction between symptoms

This is a radically different theoretical starting point when compared to the traditional medical model, in which a latent factor is a single cause that causes symptoms (Fig. 1). Many papers have since been published using network analysis to better understand the complexity of depression, PTSD, and eating disorders and, recently, also suicidal behavior [15, 42].

In this chapter, we will introduce the latest insights from this new line of research, with a focus on suicide prevention. We will point out that network analysis is only the starting point for a more complex understanding of the development of psychopathology. By introducing complex systems science within the field of suicide prevention, we hope to open up a whole range of novel concepts and testable hypotheses that can help us study suicidal behavior from a different perspective: individual, dynamic(al), and contextual.

Complex Systems Are Everywhere

We encounter complex systems every day [1, 43]. Complex systems exist of many different variables that are highly interconnected and which interactions change over time when stress is added or just as the result of time moving on. Well-known examples of complex systems are the weather, coral reefs, shallow lakes, bird flocks, and also population growth and the outbreak of pathogens [43].

Nobody would think that predicting tomorrow's weather would be possible by just considering one variable, such as the amount of rain on the day before. Rather, we rely on models that take into account numerous variables including the interactions between these variables and how they change over time. One could think of temperature, wind, solar input, and pressure that are influenced by forces such as gravity, gas laws, and radiation laws. Still, human behaviour, which is arguably the most complex system in the world, is mainly studied with relative simple models only [20]. For example, psychiatry and psychology often rely on experimental designs, copied from physical science, studying one to two isolated factors that

could be manipulated predominantly in lab settings in which all other variables were controlled. In the diagnostic and statistical manual of mental disorders (DSM), the complexity of mental health is reduced to a set of fictional bounded disorders, based on a restricted number of symptoms.

Within the traditional medical model, symptoms of psychopathology, such as worrying or suicide ideation, are caused by some specific neurobiological condition [4]. However, we still have no solid understanding of what a mental disorder is. This has prompted researchers to look for alternative models or a paradigm shift. Within the network perspective, there is no latent construct (i.e., a single cause), located in the brain that causes symptoms such as rumination or insomnia. Rather, it is the symptoms themselves that interact with each other over time and trigger other symptoms, resulting in a mental health condition ([4]; Fig. 1).

What holds for general psychopathology also holds for suicidal behavior. Although never categorized as a DSM diagnosis (although some have been arguing for that [39]), suicidal behavior has also been studied from a narrow focus, for example, by focusing on cognition or problems with self-regulation [37]. Epidemiological studies also keep on showing the same risk factors for suicidal behavior (such as a previous attempt), but a meta-analysis showed that our ability to predict suicidal behavior has not improved since the first longitudinal epidemiological study was done in 1965 [19]. To gain a better understanding, it has been proposed to also study suicidal behavior from a network perspective [12, 17].

Both a Symptom and the Result of the Interaction of Symptoms

Suicidality can be seen as a continuum, ranging from mild suicidal thoughts to actual (fatal) suicide attempts. From a network perspective, we argue that suicidality can be both part of a network and the result of a network. For example, (mild) suicide ideation can be seen as a symptom, such as rumination, that interacts with other symptoms and subsequently trigger other symptoms to in the end cause psychopathology. Take, for example, a dormant, stable network (Fig. 2, phase one). Due to the influence of stress, rumination gets activated, which triggers a sad mood and feelings of guilt. These variables enter a positive feedback loop, thereby increasing one another. When a certain threshold is reached, the node suicide ideation gets activated. Suicide ideation then becomes part of the feedback loop, affecting the other symptoms and being affected by them mutually. We pose that from this dynamical network of interacting variables, more severe suicidal ideation or even a suicide attempt might emerge. A suicide attempt or severe suicidal ideation is then conceptualized as the result of the interaction between the different variables over time and their circular feedback loop. Whether this line of reasoning holds true is an empirical question that needs to be tested in the coming years.

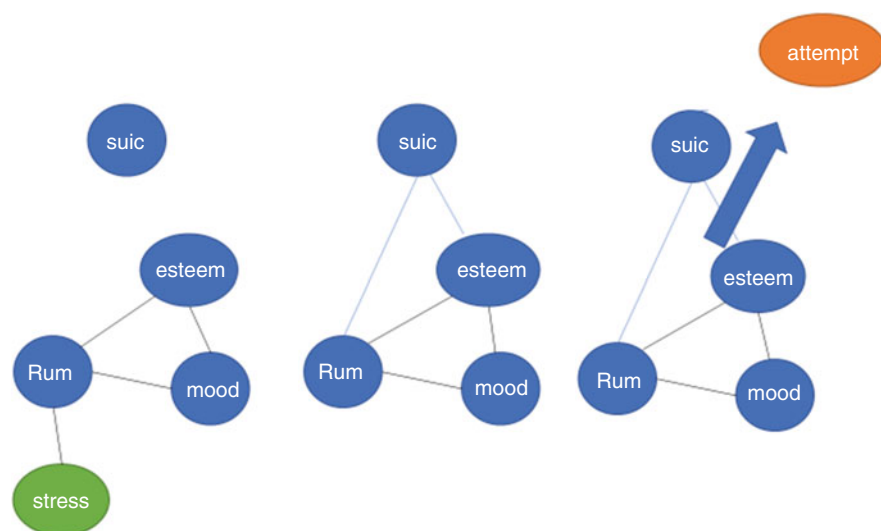


Fig. 2 Suicide attempt emerges from the interaction and feedback loops of risk factors: In phase one, stress activates rumination, which in return activates mood and sleep. After some time, the interaction between rumination, mood, and sleep also activates the node suicide ideation. In phase three, a suicide attempt *emerges* from the interaction between the four risk factors

Vulnerability for Psychopathology as the Result of Network Structure

One of the proposed hypotheses from the network perspective was that people that are more vulnerable to psychopathology have more densely connected networks [5]. Consider the two individual networks from Bob and Alice. Within the network of Bob, a stressor activates the feelings of rumination and worthlessness that activate feelings of entrapment and suicidal thoughts. Within the network of Alice, one sees that suicide ideation is never activated because there is no direct link of stress (Fig. 3).

The first study to empirically support this theoretical notion was done by van Borkulo et al., when they showed that patients who were still depressed at 2-year follow-up indeed had stronger connected networks compared to patients who did not have depression at follow-up [47]. However, a replication failed to find similar effects [44]. Within the field of suicide prevention, the first paper applying the network perspective tested the hypothesis that, indeed, participants treated for a recent episode of self-harm with a higher density of risk factors at baseline where at higher risk for future suicidal behavior at follow-up [14]. Using data collected from several hospitals in Glasgow, the baseline networks of the items of the Beck Scale for Suicide Ideation of patients with and without suicidal behavior at follow-up were estimated and compared.

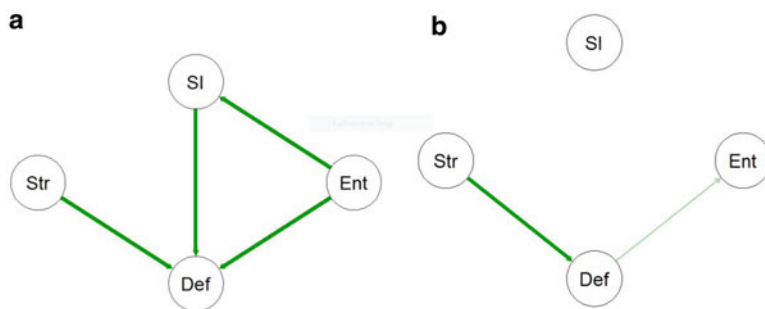


Fig. 3 (a) The symptom network of Bob, in which all symptoms are connected. (b) Symptom network of Alice, in which no symptom is connected directly to suicide ideation. Str, stress; Def, feelings of defeat; ent, feelings of entrapment; si, suicide ideation

However, no differences between network densities were found between the groups. It is still an empirical question whether this null finding was due to a small sample size or whether there indeed is no difference between the baseline network structure of the two groups.

The Role of the Most Central Symptom

Network analysis has a longer tradition in sociology where they estimate networks, for example, of the relationship between peers. An important metric within these social networks is called centrality [38]. Centrality relates to the connection a node has with other nodes in the network. A node that is highly connected (i.e., has strong direct links with other nodes) is argued to be most important. This node has the best potential to influence other nodes. For example, in the earlier mentioned study, de Beurs et al. estimated the network structure of the 19 separate items of the Beck Scale for Suicide Ideation. We found the item “I have a desire to kill myself” was most central in the network [14]. One could argue that targeting this node results in the most effect, as it will impact all surrounding nodes. Others suggest that the most central nodes are actually most difficult to target, because other nodes will trigger the central nodes quickly. And, importantly, in psychiatry we scarcely have interventions that focus solely on one symptom only. Finally, the whole concept of centrality within psychopathology is up for debate [9]. The metric comes from social sciences, where associations represent actual relations, such as the number of friends one has. Within psychopathology, the relation between, for example, worrying and rumination cannot be directly counted and must be indirectly estimated using statistics. Therefore, centrality means something different within the social sciences than in psychiatry, and nobody is yet sure what centrality entails within the field of psychopathology.

Using Networks to Test Theory

Network analysis can also be used to test theoretical models. For example, using a cross-sectional data from the Glasgow well-being study, de Beurs et al. used network analysis to examine the relation between the core components of the interpersonal theory of suicidal behavior (thwarted belongingness and perceived burdensomeness), the core components of the integrated motivational volitional model (internal and external entrapment and defeat), and suicide ideation (Fig. 4: [16]). As the IPT states that thwarted belongingness and perceived burdensomeness cause suicide ideation, one would expect only these variables to be directly related to suicide ideation. When adding the core components of the IMV, network analysis showed that both internal entrapment and perceived burdensomeness were directly related to suicide ideation and the other variables only indirectly.

As argued by several authors, a next step would be to more accurately quantify the relation between any two nodes over time ([24, 41]. Do they affect each other in a linear way? Is a sigmoidal function more appropriate? These kinds of modeling require the input from not only psychiatrists or psychologists but also from mathematicians or computer systems scientists.

Ecological Momentary Data

It is interesting that the network *theory* focuses on individual differences, while most network studies to this day rely on cross-sectional group networks [42]. While cross-sectional analysis can definitely learn us about the co-occurrence of symptoms on a

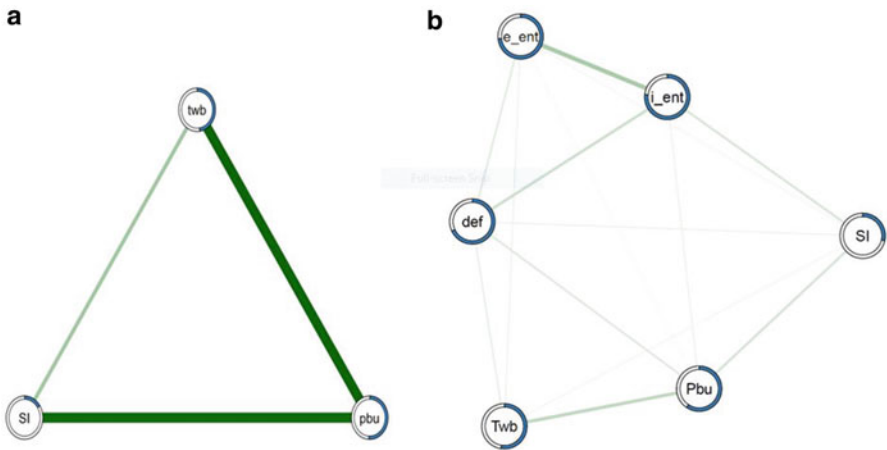


Fig. 4 (a) A network of the core components of the IPT model. (b) A network of the core components of both the IPT and the IMV model

group level and help to develop a novel testable hypothesis, the unique added value of the network analysis lies in the *dynamical* interaction of symptoms over time [8]. Only then do networks really offer more than a pretty picture, as often vocalized by its critics. Theoretically, networks of symptoms are not some stable entity but rather ever-changing systems with a highly individualized dynamic [1]. There are several reasons why despite the logic to study individual differences, this has not taken off yet within the field of psychopathology [2]. For one, there just are not so much good-quality individual person data sets available. This field, called ecological momentary assessment, has been gaining momentum as mobile phones have been more readily available and the software more stable [45]. Still, available apps are still under development, with no real stable app that everybody seems to use. It remains difficult to let patients fill in momentary data, especially for a longer period. Methodologically, there is no consensus as to how to best analyze ecological momentary data. An original study offered the same individual patient data set to different international research groups [3]. The results showed a disturbing lack of similarity in chosen methods, and more worrisome, a disturbing lack of similarity across reported results.

Within the field of suicide prevention, some extra challenges arise [13, 36]. For one, patients need to have a certain kind of risk for suicidal behavior, making inclusion of patients more challenging. Also, we do not know the effect on a patients mood of frequently answering items on suicidality, although some initial studies found no negative effect of continuously assessing suicidality [11, 30]. A challenge from a methodological perspective is that to learn about transition phases between somebody who is stable, and somebody who either suddenly or gradually becomes suicidal, enough suicidal episodes during the assessment periods need to have taken place.

The few ecological momentary studies among suicidal patients that have been conducted show that suicide ideation fluctuates heavily over a short period of time [23, 31]. Up until now, only one paper has applied network analysis to study the network structure of risk factors for suicidal behavior over time [40]. As the data per person consisted of 60 beeps, we were only able to estimate a group dynamical model. So, the results present the *average* network structure over time of 74 patients. A total of 74 patients answered 10 assessments a day for a period of 6 days. The average time between beeps was 1.5 h. Within the average timeframe of 1.5 h, the best predictor of suicide ideation was suicide ideation itself. Classical risk factors such as hopelessness or depression did not predict suicide ideation at the next time point. When studying the nontemporal, cross-sectional relation, these risk factors were related over time. This might indicate that all risk factors interact at a much faster pace than 1.5 h. It would be interesting to test the even longer-term dynamics within individuals as compared to several control groups, including healthy control groups. Hopelessness might predict suicide ideation a day or a week later. Currently, we are in the process of analyzing ecological momentary data over a much longer period of time, hoping to learn about the longer-term dynamics of suicidal behavior [36].

Suddenly or Gradually? The Move from Networks to Complexity

Networks are interesting on their own, but only one of the building blocks of which complex systems are built [1]. As psychological scientists became more interested in the dynamics of networks over time, they landed on the field of complex system theory, dynamical systems theory, or catastrophe theory. One academic field that has studied complex systems for a much longer time is the field of ecology, a branch of biology that studies the interaction between organisms and their environment [43]. One of the leading experts in complexity within the field of ecology, Marten Scheffer, noted that the principles that applied to different ecological systems such as shallow lakes might, on a high abstraction level at least, also be applicable to a range of other fields such as economics, sociology, and recently mental health [43, 48].

As an expert on shallow lakes, Sheffer studies the transition from clear to turbid lakes. Lakes do not gradually become turbid but, suddenly, as the result of a positive feedback loop of the interaction between various variables that made the system unstable. In 2013, Professor Borsboom, who introduced the network perspective within the field of psychopathology, teamed up with Marten Scheffer to apply these principles of complexity as found within ecology to better understand the etiology of psychological disorders. Analogous to the results in shallow lakes, they argued that persons with strongly connected networks of symptoms might be more vulnerable to reach an alternative stable state after an eternal stressor such as new measurements impact the network.

Consider again Bob and Alice who are in the same stable state A, i.e., they are both relaxed, and not depressed. When both listened to the same press conference on new corona restrictions, Alice starts to ruminate a bit, causing a small increase in experienced stress and a lowering of mood. However, after some hours, when she discussed the impact of the restrictions with her family, her stress level gets back to normal. Bob, on the other hand, cannot stop ruminating after the press conference; he starts losing sleep and starts feeling fatigued, which makes him ruminate even more. After a week or so, although the initial stressor moved to the background, the symptoms keep reinforcing themselves, resulting in even more worrying and less sleep. After some time, the system of Chris reaches a tipping point. His mood does not get back to his normal healthy state but instead gets pushed into an alternative stable state in which Bob cannot stop thinking about killing himself. So, even though the baseline state was similar, as was the stressor, for Bob the stressor activated a positive feedback loop among symptoms, which causes the transition to an alternative state.

Critical Transitions

If this is indeed how suicidal behavior develops over time, at least for some patients, this offers unique possibilities for prevention. As is shown in the field ecology but also in the field of depression in at least one study, transitions to alternative stable states are preceded by so-called early warning signals [49]. Critical slowing down

means that when a system (or in our case, a suicidal person) nears a tipping point for a transition, the system shows slower recovery after a perturbation. The proof for critical transitions and critically slowing down in psychopathology has been limited to one case study, in which a mental healthcare user monitored himself for 239 days during gradual discontinuation of antidepressant medication. Future studies should examine whether any critical slowing down occurs before a new suicidal crisis [35].

Context

We discussed the individual and dynamic(al) perspective, but not yet the contextual. This is a growing field in suicidology, as contextual factors on the group level traditionally were hard to incorporate in models. Of course, background factors such as life events and childhood trauma are often shown to be of importance, even so much that a recent paper argues it overrides genetic effects [33]. However, to fully understand the day-to-day dynamics of an individual over time, one needs to take the specific dynamical interaction between context and for example psychological risk factors into account. Psychological factors, genetics, social economic status, family factors, the economic situation, and friendships, all these factors influence each other over time and limit the generalizability of our current laboratory-based, static research strategies that focus on group averages.

There is of course a very good reason not to focus on the many factors including contextual factors including the interactions and dynamics over time. It makes the data collection and analysis very complicated. Advances in unobtrusive methods to collect data with mobile phones might offer new opportunities. Modern phones can collect physical activity, location, and even social activity via Bluetooth. Within the field of social geography, interesting studies investigate the impact of geographical locations, mobility, and suicidality [25]. Advances in complex systems science enable us to integrate the factors, their interaction, and the dynamics over time.

The literature suggests various environmental characteristics possibly being associated with suicide mortality. These can be broadly grouped into two domains: the social and the physical environment. The former includes, but is not limited to, deprivation and social fragmentation [22], while the latter includes green space [34], air pollution, etc. [7]. However, empirical results on how the social and physical environment is associated to suicide mortality turned out to be inconclusive. Taking green space as an example, an ecological cross-sectional study in the Netherlands found a protective association of exposure to green space against suicide [26]. This finding was supported by stress reduction theory and attention restoration theory arguing that people's psychological and physiological functioning is positively stimulated by greenery (Hartig et al. 2014) and therefore makes people less vulnerable to suicidal thoughts. As suicide and greenery data was considered only on a municipality level, the possibility of confounding from using ecological inference was substantial due to disregarding person-level factors. Reassessing the suicide-green space associations based on individualized neighborhoods in a case-control setting did not confirm earlier findings [27].

Bringing It All Together

If we expand the current psychological networks with genetic, biological, social and environmental variables, they become to large and uninterpretable [29]. One suggestion is to work with multilayered networks [21].

However, no such longitudinal data set with detailed information at the individual level is yet available, and one wonders if it will ever be possible to fully study human behavior in all its complexity. Developments are going fast, and funders seem interested to support studies that push the field of psychiatry more towards complexity. One suggestion would be to add one extra layer at a time. Several studies showed that it is feasible to collect information on psychological factors of suicidal patients for a longer period of time. A next step would be to add, for example, location data or information on social contact via Bluetooth [25]. Then hopefully, step by step, we will learn how to understand suicidal behavior from an integrated individual, dynamical, and contextual perspective, in order to find new target points to preventive suicide.

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Military Suicide: Theoretical Understandings and Responses

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Abstract

Although military and Veteran suicide rates have recently been highlighted as a precarious problem that needs more attention, it is not a new phenomenon. In 2008, suicide deaths among US Army Active Duty personnel surpassed that of the adjusted national civilian average (Kuehn B, JAMA 301(11):1111–1113, 2009). Historically, reactions and programmatic resolutions to this problem have been introduced on small- and large-scale levels within the military. Attempts to better organize and centralize information on military suicide data, prevention programs, and the latest theories may help to better inform new efforts to develop research and clinical programs. A detailed understanding and critique of current programs will be introduced, and other alternatives will be explored in this chapter.

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Military · Service Members · Suicide · Suicide reporting · Suicide prevention programs

Military Suicide: Theoretical Understandings and Responses

Suicide prevention in the US military has been receiving much more attention than it has in the past. Historically, suicide deaths among Active Duty military personnel has fluctuated since early reporting began in the 1800s [58]. Over 30 years ago, Rotherberg, Ursano, and Halloway [55] highlighted suicide and suicide attempts as a problem within the military as the military's third leading cause of death. However, as military suicide rates have surpassed those from the United States overall, pressure for the implementation of reporting measures and intervention programs have increased, though the number of suicides within the Active Duty, Reserve, and National Guard has not decreased since 2008 [13, 32].

Using the National Vital Statistics System (NVSS), Hedegaard et al. [28] reported that in 2018, the national number of suicides per 100,000 rose to 14.2 and has been rising at a rate of 2% annually from 2006 to 2018. While these numbers are both significant and alarming when contrasted with current suicide data from the Department of Defense, the public health issue within today's military shows the need for increased alarm. In the latest Department of Defense Suicide Evaluation Report (DoDSER), numbers per 100,000 suicide deaths reveal that a total of 21.9 Active Duty deaths by suicide occurred in 2017 [51]. Accordingly, Active Duty Air Force suicides totaled 19.3 deaths, followed by 20.1 suicides in the Navy, 23.4 suicides in the Marines, and 24.3 in the Army. The total military Reserve suicide rates totaled 25.7 suicide deaths and the National Guard forces that include Airmen and Army Soldiers equaled 29.1 suicides in 2017 alone. It is important to note that this DoDSER data collection in 2017 provided suicide numbers of Service Members on Active Duty status only, which does not account for suicides that happen outside duty for Reservists or National Guardsmen. It appears that in years to come, this data may be included in these reports [51]. Lastly, it is worth mentioning that sex and age differences account for some of the disparity between the military and US general population suicide rates [51]. As males are at increased risk for suicide, the military is a particularly vulnerable population and an important focus of suicide prevention efforts.

Brief History of Suicide in the Military

Through studying past military suicide statistics and prevention programs, new insights can be made using longitudinal data collected over several decades to clarify patterns and missing information and to inform more modern prevention practices [58]. In 1840, Lawson published one of the first known investigations into the deaths

of Service Members [58]. This report, known as *Sickness and Mortality in the Army of the United States* housed a compilation of medical reports from 1819 to 1839 to understand the geography and type of death of Soldiers at this time. Suicides were reported by military base along with other causes of death, and reporting on suicide did not begin until 1829 [33]. A very small number of reported suicide deaths were observed and it is hypothesized that reasons for this could be due to stigma, mis-designated causes (i.e., drowning or non-designated), unreliability in collecting data, and uncertainty around cause of death [31, 58].

Jones [31] questioned the validity of early reports for suicide trend analysis in the 1800s due to gaps in reporting whether they were intermittent, underreported, or not reported at all. However, he referenced Smith et al.'s [58] saying that this lack of data could be useful. For example, Smith et al. [58] noted that between 1880 and 1915, the suicide rates were much higher than they are today, with 40 suicide deaths per 100,000 during that time despite the lack of reporting and known initiatives to prevent suicide deaths until after World War II. This alarming number means that the suicide rate may have been much higher at this time.

Suzuki [60] brought attention to an overlooked United States Armed Forces suicide prevention effort directed toward the Japanese forces during World War II. This early government program directed its efforts toward research and informed propaganda to prevent ritualistic suicides from Japanese Service Members and civilians that were carried out to prevent capture from the US military. This program was labeled a success at the time.

This brief knowledge of history of military suicide may put the current issue of suicide into perspective. In the 2000 census, there were 1.2 million Service Members reported [64]. This is the lowest number of serving military personnel since World War I, with their roster of over 4.7 million Service Members [17]. The recent climbing rate of suicides with less people serving should help us as we try to understand the mistakes and successes of suicide prevention programming as well as the complexities of the theoretical underpinnings of this phenomenon.

Theories and Understandings of Suicide in the Military

Rojcewicz [54] stated that there is clear history of suicide decrease during times of war. He postulated that this could be due to increased social cohesion, purpose, meaning, and other societal influences. Additionally, he suggested that higher suicide rates seen during peacetime could be due to the decreased speed of promotions that usually occur more during war.

The Vietnam War highlights specific stressors that Service Members endured that differed from prior wars [1]. Adams et al. [1] used data from the Southeast Asia Combat Area Casualties Database (SACACD) to find Active Duty troops that completed suicide in Vietnam between 1957 and 1973. Some significant factors of those that died by suicide included Service Members that were older, served longer in country, were in the Army versus other branches, were Active Duty versus reserve, and single. This list is not all inclusive and there were several gaps in

reporting methods, demographic data, and circumstances in which Service Members killed themselves [1].

Joiner's [30] interpersonal theory of suicide suggests that perceived burdensomeness, feelings of not belonging, and capability to engage in a lethal act, taken together, may result in an individual's death by suicide. Nademin et al. [43] found that while these three factors together contributed to the Air Force Service Member death, and after controlling for each of these factors, capacity to complete suicide was the most significant predictor of suicide death and helped confirm the importance of studying Joiner's capability theory within the military setting. Increased firearm availability within the military increases this capability [56].

Other factors have also been researched in the twenty-first century that may help identify risk factors for current Service Member suicide. Rozanov, Mokhovikov, and Stiliha [56] describe several factors that may impact most military units. They explained that militaries are restrictive to some of the freedoms that civilians can engage in (e.g., grooming standards). They also described them as masculine collectivist groups that view aggression as part of mental-strength training, making large demands on young people's personality development from their late teenage years. This personality change may also incorporate the traumatic events involved with being a Service Member. Service Members are indoctrinated into a culture of ethos that is different from civilian culture and is solidified throughout their time in service [7]. Being a masculine organization, compassion toward mental health is not necessarily fostered both internally and toward other members of the group [56]. Additionally, Ramchand et al. [52] inferred from prior research that an individual's history of suicide attempts, mental and substance use disorders, traumatic brain injury histories, possible suicide clustering, hopelessness, and impulsivity were all risk factors for Service Members. They also suggested that while little is known about the impact of life events prior to enlistment, it is an area for further exploration. A large issue found within both the United Kingdom and the United States is the effect of stigma related to receiving mental health care, especially by Veterans [9, 26]. Bryan et al. [7] characterized stigma as stemming from the effects of a collectivist culture and traditional efforts to empower Service Members to seek help reinforce feelings of weakness and vulnerability that goes against the military's strength-based values. Understanding the above theories and risk factors, both historically and currently may help clarify and focus our ability to create better suicide programs for our Service Members.

Programmatic Resolutions

While military suicide has been highlighted as a problem since the 1980s [55], the creation of a centralized location for military suicide data is a recent effort [58]. The first Annual Report of the DoDSER was developed in 2008 to systematize a military-wide surveillance program [44]. Maslowski, Vescera, and Bongar [36] asserted that quarterly and annual suicide tracking reports by branch were inconsistent with the DoDSER at the time of their publication, leaving crude numbers and rates of suicide

vague and unclear when assessing the closest-to-actual numbers of suicides for each branch of service.

In 2018, the first Annual Suicide Report (ASR) was published to fulfill a requirement by the Department of Defense (DoD) to establish an official documentation of suicide numbers within the military and to promote an open and reliable data source for public consumption [12]. The focus of current suicide prevention programming within the DoD is on teaching life skills and monitoring and responding to crisis on social media platforms. This public health approach primarily targets younger, enlisted Service Members, National Guardsman, and families using a public health approach that supports National Guardsman living in remote areas [12]. It helps families identify suicide risk, properly store lethal means, and crisis intervention skills [12] and mirrors demographic risk factors discussed above. Thus, the community and family systems are encouraged to take active roles in military suicide prevention and will be discussed after federal approaches to suicide, below.

DoD Approaches

Prior to 2018, congress mandated the creation of a task force in 2009, which was utilized to gather information about suicide deaths in all branches and make recommendations to the Secretary of Defense. The DoD Task Force on the Prevention of Suicide by members of the Armed Forces published a report in 2010 with a recommendation to centralize data analysis of suicides between branches and effectively established the Defense Suicide Prevention Office (DSPO) within the DoD [12]. DSPO was developed in 2012 and uses interdisciplinary approaches for prevention, intervention, and postvention phases of military suicide [10, 12]. Examining these three phases may allow for increased intervention possibilities.

DSPO set the following goals for itself: Data Surveillance, Program Assessment, Advocacy, Policy Oversight, and Outreach and Education [10]. Again, this illustrates numerous opportunities to understand and prevent military suicide. Gathering data and evaluating in-place measures likely serves as a baseline evaluation of efforts to prevent suicide while advocacy and policy oversight allow for the creation of new measures based on results from the program evaluation phase. Lastly, outreach and education allow for the decrease in stigma and more current knowledge of best practices in suicide prevention.

In service of these goals, five initiatives were developed to address suicide across branches. First, each branch employs a Suicide-Prevention Program Manager (SPPM) that gathers to form a committee known as the DoD Suicide Prevention and Reduction Committee to brainstorm new ideas and policies to aid in suicide prevention [52]. Perhaps the collaboration from each could allow for the examination of branch differences and the sharing of information to combat suicide. The second initiative was the development of the Real Warriors Campaign primarily aimed at increasing awareness to reduce stigma related to mental health [52]. Perhaps reducing stigma and increasing awareness may build the foundation for peer monitoring programs, as discussed below. Thus, this initiative directly targets these

ideals. Another initiative is the creation of a congressional task force called the Task Force on the Prevention of Suicide by Members of the Armed Forces [52]. This task force's job is to understand best practices relating to suicide prevention. The report written by the task force consists of observations from mental health providers and Service Members, and details over 75 recommendations to address any problems noted [5]. The fourth initiative is the use of the DoDSER to monitor and better understand military suicide [52]. Finally, the last initiative is the joint-sponsored suicide prevention conference held by DoD and the US Department of Veterans Affairs [52]. This annual conference features talks and trainings by subject matter experts and increases global awareness of the prevalence of military and Veteran suicide through social media [11].

Branch Differences

Army

The Army seems to represent most of the research and initiatives to increase mental health support and decrease suicide. This branch appears to have adopted a similar framework to the DoD as a whole, with a suicide prevention task force, annual report, and policy of assessment into suicide risk factors [14]. Since 2015, the Army has had the highest rate of suicide out of all branches [51]. These authors suggest that this could be due to their higher compliance with DSPO reporting standards.

One initiative is the ACE program: Ask, Care, Escort. It is a training model offered to anyone in the Army or with connections to Soldiers that emphasizes the importance of recognizing warning signs, directly asking about suicidal thoughts, involving oneself in the other's experience, and providing mental health resources [65]. The message of this model broadly focuses on taking care of fellow Soldiers and assuming responsibility for their well-being.

The Army also implements Master Resiliency Training as part of its comprehensive Soldier fitness program, designed to increase both strength and resilience. The 10-day training stems from the University of Pennsylvania's positive psychology program [53]. The training appears to consist of reframing challenging situations and avoiding stuck points. Specifically, the modules involve resilience psychoeducation, building resilience, identifying strengths, and strengthening relationships [53]. As with the other Army initiatives, there is an emphasis on teaching others the model, thus the structure is for leaders to take the training and then learn how to teach members of their squadron the material. This reinforces the Army's emphasis on peer responsibility.

Indeed, for years the Army and Marines have used what is known as "unit watch," or "suicide watch," to underscore the importance of taking care of fellow Service Members to keep the unit operating as a whole [50]. This consists of the Soldier/Marine keeping eyes on the peer in question at all times. Indeed, within the service there is an ideal of "being as strong as our weakest member." Unit watch consists of monitoring the at-risk Soldier/Marine and ensuring they receive evaluation/treatment [50]. Literature is mixed as to whether attending these trainings may increase a

Soldier's/Marine's sense of gatekeeper efficacy [3]. Therefore, the desire to protect and improve the unit must outweigh discomfort related to mental health.

Marines

The Marine Corps stresses the importance of monitoring fellow Marines and recognizing warning signs for suicides [35]. This method of peer gatekeeping may provide increased vigilance; however, it is unclear how likely Marines are to report on a fellow Marine's mental health. Given the possibility for jeopardizing another's military career and the stigma surrounding mental health, it is suggestible that despite recognizing warning signs, there may be hesitancy in reporting suicide risk.

Perhaps the Marine Corps was aware of these reporting issues, and in 2010, they developed an anonymous peer hotline called the "DSTRESS" line. It is a 24/7 Marine-to-Marine phone and chat opportunity to speak with a Marine, someone with a connection to the Marine Corps, or a licensed counselor to regulate stress [35]. This incorporation of peer support likely helps to combat stigma while also decreasing isolation, which is commonly conceptualized as a risk factor for suicide. Indeed, the Marine Corps as a branch has had the second highest suicide rate since 2015, with a slight increase occurring from 2016 to 2017 [51].

Air Force

Similar to other military efforts that arose in response to the increased military suicide rates of the 1980s, the Air Force developed its suicide prevention program to use trickle-down training starting from higher leadership while also placing responsibility on the Service Members for their comrades' well-being [37, 57]. This branch places high importance on suicide prevention and addressing mental health stigma through making tangible changes to policy. The Air Force's prevention program is known as the Integrated Product Team (IPT) and it both prioritizes issues pertaining to suicide prevention and suggests policy changes to increase safety [37, 57]. Policy changes may include increasing mental health awareness training and incorporating mental health into fitness to serve [37, 57]. These awareness trainings systematically provide Airmen with psychoeducation about warning signs and advocates for the use of mental health resources [57]. This may look like posters hung in dormitories, or regular mental health screenings. To aid in the use of these concepts, the LINK acronym was formed: *Look* for possible concerns, *Inquire* about concerns, *Note* level of risk, and *Know* referral resources and strategies [57]. Similar to the Army's ACE framework, it requires Airmen to be familiar with warning signs and overcome any discomfort to ask directly about suicide. This protocol is pervasive across four levels of each Airman's social networks: fellow Airmen, unit leaders, helping-professionals, and medical professionals [57]. This increases the number of people able to notice and intervene when an Airman is struggling. Also similar to the Army's ACE protocol is the assumption of responsibility for a fellow Airmen's mental health by leaders [57].

The Air Force also acknowledges that traumatic events can lead to lasting psychopathology and developed the Critical Incident Stress Management (CISM)

protocol. Acknowledging that adverse reactions can occur following a stressful event likely helps to normalize psychological distress. CISM involves multidisciplinary teams collaborating to respond to potentially traumatizing events [57]. An additional prevention arm of this program is dedicated to anticipating traumatic events and trying to build coping skills and resilience to a suicide-related event [57].

Navy

As part of the Navy Suicide Prevention Program, the Navy has the following policies listed in their Suicide Prevention Handbook: the Suicide Prevention Program, the Operational Stress Control Program (OSC) (a communality with several other branches), Suicide Prevention and Response: Sailor Assistance and Intercept for Life, and Guidance for Reducing Access to Lethal Means through Voluntary Storage of Privately Owned Firearms [66]. While this handbook outlines these policies in detail, the OSC and suicide prevention program policies are directly distributed to Sailors. The OSC program aims to treat and prevent stress responses while Sailors are deployed to build resilience. The Suicide Prevention Program is different in that it is largely psychoeducational and focuses on warning signs, resources, and crisis planning [15, 16]. Other programs mentioned above are detailed in the handbook and sections describe role expectations for commanding officers, suicide prevention coordinators, and other leadership positions [66]. These role expectations are reminiscent of the Army's and Marine Corps' gatekeeping strategy. The handbook also defines good mental and physical habits through the lens of whole health and fitness for duty, stresses the importance of communication and suicide awareness, and discusses lethal means safety planning with resources for disposal of medications and firearm surrendering [66].

The Navy also has a special team, which assesses for suicidal ideation (among other physiological and psychological reactions) after a crisis. The Special Psychiatric Rapid Intervention Team (SPRINT) is deployed after a traumatic event to stabilize the environment and try to prevent traumatized reactions from occurring while Sailors are deployed [42]. This demonstrates the branch's understanding of the negative impact of stress on mental health and performance. The SPRINT arrives to triage and engage in preventative work. Qualitatively, SPRINT members have received feedback from recruits and officers that the option is appreciated and useful in changing ship morale when a request for the team is made [42].

Other Initiatives

In addition to the DoD and the individual branches of service, national initiatives exist, which are dedicated to understanding and preventing suicide in service members. One such organization is the Military Suicide Research Consortium (MSRC), which exists in collaboration with organizations including the DoD, VA, Florida State university, and MIRECC (Mental Illness Research Education Clinical Center) [39]. The MSRC was created with goals that revolve around monitoring

suicide research, empirically supported suicide prevention efforts, and serving as a liaison for interdisciplinary suicide prevention efforts across both military and community organizations [40]. There are a number of research topics currently in progress at the consortium, including interventions to increase treatment seeking behaviors, crisis safety planning for couples, and detection of suicide through various means [41].

In regard to the consortium's finished projects, several contributions to suicide prevention efforts have been funded by MSRC. One project used text messaging to augment ongoing treatment in order to reduce suicidal ideation and attempts, finding modest effects in this intervention [8]. The MSRC is also responsible for the creation of a risk assessment measure known as Common Data Elements (CDEs) which assess suicidal ideation and suicide risk behaviors, as well as psychosocial risk factors [59]. This measure is used in all MSRC projects and has found to be an adequate model for assessing risk in both Service members and Veterans [59].

General Feedback

These writers note that each branch has multiple programs in place to monitor and decrease the risk of suicide. One noteworthy trend that extends across branches is the incorporation of peer monitoring programs, and we suggest the following considerations. First, peers may be hesitant to report risk of suicide due to fears about jeopardizing a fellow Service Member's military career. Second, stigma and discomfort about conversations around mental health may prevent Service Members from asking about suicide. Third, in addition to other stressors of military service, asking Service Members to assume responsibility for noticing suicide risk and acting appropriately may be an added stressor.

We wish to emphasize that each above consideration has a rebuttal, such that it is difficult to truly evaluate the feasibility of peer monitoring. Peers who hesitate due to concern about jeopardizing another's career may also be capable of prioritizing the overall mission over one individual's career path. A Service Member who recognizes that a fellow member's mental state may be unreliable or threaten a mission would likely be able to overcome hesitation and report the behavior. Next, stigma about mental health may be prevalent in the military, but as discussed, each branch incorporates awareness training and is working toward newer approaches to stigma reduction. This may help to normalize psychopathology and increase Service Members' self-efficacy in asking about suicide. Lastly, while it may be inappropriate to ask Service Members to shoulder the burden of monitoring their peers, it is likely that Service Members may prefer this over additional injury to oneself or others due to another Service Member's mental health concerns.

These writers recommend that programs be regularly evaluated for effectiveness and modified as needed. Additionally, continuing to prioritize a decrease in mental health stigma would be most beneficial. Decreasing stigma could make duties of peer monitoring easier, if not eliminate the need for this approach. It is also important to consider cultural factors such as gender and ethnicity, which outside of the DoDSER

was not addressed in the literature. Perhaps peer monitoring program training could incorporate elements of what makes some individuals more at-risk than others, in addition to broad warning signs.

The Use of Community Resources by Service Members

It is arguable that numerous factors could influence a Service Member's decision to seek mental health care in the community. There may be external barriers such as access, internal barriers such as stigma, or both, as discussed in [27] study based on the Army. Literature suggests a general lack of trust in mental health providers among Service Members [27]. This could be due to fears that negative evaluation may lead to separation from the military or demotion. In examining whether educational background influences Soldier's perceptions of providers, Hartman et al. [27] found that Soldiers were more interested in working with licensed professional counselors (LPCs) than other providers (psychiatrists, licensed marriage and family therapists (LMFT), licensed clinical social workers (LCSW), and psychologists); however there is currently no occupational option for LPC's in the Army. Therefore, Soldiers may venture into the community to see a provider they trust rather than use Army service-connected mental health professionals.

Community Service Organizations for Service Members and Their Families

The first organization that provided assistance to Military families was established in 1794 as a relief fund for widows of Service Members [2]. Programs like these have continued to provide financial, medical, and emotional support for families and have extended to individuals who are currently serving or have previously served in the Armed Forces [2]. In this section we will explore five organizations that are available for members of Active Duty, Reserve, National Guard units, and their families. The following organizations are not inclusive and provide a small glimpse into programs for those seeking resources, support, or opportunities for volunteering their time.

Military OneSource

This organization is directly affiliated with DoD and provides support and services to Active Duty, National Guard, and Reserve military personnel and can be found at <https://www.militaryonesource.mil>. Military OneSource provides a wide range of different services. This website features connections to mental health professionals and options for telehealth. They provide resources on how to manage and live through each level of the military from basic training to transitioning back to civilian life [38]. Other services include housing, financial, legal, education, employment, among other recreational activities. Military OneSource provides articles to enhance knowledge on topics such as practicing self-care, promoting resiliency, and how to challenge problematic patterns of thinking (cognitive distortions) [38]. This site also

provides many resources such as research and statistics from the Department of Defense regarding the Military community and can be accessed confidentially by members of all military branches and their loved ones [38].

Give an Hour

Give an Hour strives to connect military personnel, Veterans, and their families with mental health professionals in their respective communities who provide free mental health care through the <https://giveanhour.org> website. Give an Hour was founded in 2005 by Barbara Van Dahlen after spending time with individuals who had been suffering from posttraumatic stress disorder [23]. This nonprofit organization has offered over 311,000 h of mental health care with licensed professionals [25] and offers a wide array of therapeutic modalities and services. They provide resources that can assist in trauma work, suicidal ideation, and many other mental health services aimed toward supporting those who currently serve and those who have served in the military [24]. Resources for mental health providers on ways to register to volunteer their time to this organization are also accessible from this website.

Fisher House Foundation

The Fisher House Foundation was founded in 1990 by Zachary and Elizabeth Fisher to provide free housing for military and Veteran families of patients receiving medical care at military and Veteran Affairs (VA) medical centers across the country [19, 20, 22]. As of 2019, there are 21 houses nationally near treatment centers that families can utilize while waiting for their loved ones to heal [19]. This foundation has saved over 400,000 military families more than \$500 million in lodging and transportation costs [19, 20]. Fisher House has also developed Hero Miles, which allows people to donate frequent flyer miles to military families in service of being closer to their injured loved one [21]. Information regarding these resources and to find the closest Fisher House can be found on the website, <https://fisherhouse.org/>.

Operation Care and Comfort and Operation Gratitude

Both nonprofit organizations, **Operation Care and Comfort (OCC)** and **Operation Gratitude** provide opportunities for volunteers to donate items that are sent to Service Members in conflict regions. Through viewing the OCC website at <https://www.occ-usa.org>, one can find information on several volunteer opportunities for civilians and Service Members. OCC has shipped over 1,000,000 pounds of care packages to military personnel who are currently deployed and offers the opportunity for military families to be “adopted” by volunteers that provide toys, gift cards, and other items that fit their specific needs or requests [45, 46]. OCC also accepts donations in the form of tickets that are given to military families and Veterans free of charge [46].

Operation Gratitude is a large organization that also provides volunteer services to Service Members, Veterans, first responders, and military families [49] through their website, <https://www.operationgratitude.com>. With their volunteer force, they have sent over 2.7 million care packages and have several additional volunteer opportunities for individuals, groups, and businesses [47, 48]. It is assumed that

these two organizations may provide indirect psychosocial support through giving back and engaging Service Members in activities that can increase resilience.

Tragedy Assistance Program for Survivors (TAPS)

Many of the resources and organizations in this chapter focus on military personnel and their loved ones during deployment, reintegration, and financial assistance. TAPS' primary focus is assisting families who have lost loved ones who have died as a result of military service [62]. TAPS was founded by Air Force retiree Bonnie Carroll in 1994, after her husband died during a military training accident [61]. Since its creation TAPS has provided around-the-clock free support nationally by connecting surviving families and loved ones to grief counseling and a peer support network [62]. In 2019 alone, TAPS provided these resources to 90,000 individuals seeking help and support [62] through the website <https://www.taps.org/>. Their suicide postvention support helps family transition through all phases of the grief process [63].

Recommendations and Considerations

This is not a comprehensive list of all programs available to support Service Members, Veterans, and military families. The organizations outlined here can provide valuable benefits to both members and their communities. Individuals seeking support should be wary of unverified organizations that can take advantage of support seekers and volunteers [18]. In addition to specialized resources available to Service Members, community mental healthcare is evolving to accommodate Service Members who for whatever reason are seeking care outside of the military's healthcare system. Some reasons for Service Members seeking care in the community include convenience (anyone living off-base may find it easier to seek care in the community), different levels of insurance coverage (between Active Duty Service Members and Reservists), and stigma [4]. In particular, the avoidance of stigma can motivate Service Members not only in terms of individual experiences of shame, but also systemic perceptions of seeking mental health treatment and fitness for duty [29]. The anonymity provided by community providers may be motivation enough for Service Members to avoid going to military healthcare systems for support. Further, it is suggestible that because many of the above organizations are peer-based, they present as less stigmatizing and/or intimidating than a medical office or even exam room.

Conclusion

Each suicide reflects an individual and complex series of factors that contribute to the larger public health issue the military faces today [34]. Therefore, interventions should reflect this complexity through multiple, multidisciplinary approaches. This includes looking at historical trends and approaches toward a more comprehensive

suicide data reporting system and subsequent programming based on reported conclusions. Also needed is both the recognition of individual branch efforts to decrease suicide, as well as ways in which the branches may learn from each other and collaborate to implement new prevention strategies. In addition to peer- and branch-level monitoring, community-level screening for suicide can also be used in prevention efforts, given the prevalence of Service Members seeking care outside of federal systems.

This chapter focused on large-scale responses from the DoD and community-based resources toward suicide prevention; however, present research has also focused on perceived military unit climate that can have influence on treatment seeking behaviors and barriers, stigma, and overall attitudes toward mental health [6]. Such research is equally important to consider as another area of focus for DoD suicide prevention programming.

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The Role of Social Workers in Suicide Prevention Among Military Veterans

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Joshua Levine and Leo Sher

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Abstract

Suicide is a major public health and social problem in the United States and around the globe. Every year more than 800,000 people die by suicide. This means that every 40 s a person dies by suicide somewhere in the world and many more individuals attempt suicide. Significant data suggest that the presence of psychiatric physicians in a region is associated with lesser suicide rates. However, a lot of areas in the world have very few psychiatric physicians. Therefore, non-psychiatrists including mental health and non-mental health social workers need to be engaged in suicide prevention work. Suicide is an important issue among veterans in the United States and other countries. Veterans are 1.5 times

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more likely to die by suicide than individuals in the United States who never served in the military. Throughout the history of the social work profession, social workers have worked with US military veterans. Social work practice with military veterans and their families may consist of reducing psychosocial stressors, diagnosis of mental disorders, psychotherapy, case management, gate-keeper training, and suicide prevention and postvention. This chapter will discuss the role of social workers in suicide prevention among military veterans.

Keywords

Social work · Suicide · Military veterans · Public health · Depression

Introduction

Suicide Is a Social and Medical Problem

Suicide is a major public health and social problem in the United States and around the globe [1–3]. The US Centers for Disease Control and Prevention (CDC) has reported that from 1999 through 2017, the age-adjusted suicide rate in the United States rose 33% from 10.5/100,000 in 1999 to 14.0/100,000 in 2017 [1]. The suicide rate rose 53% from 4.0/100,000 in 1999 to 6.1/100,000 in 2017 among females and 26% from 17.8/100,000 in 1999 to 22.4/100,000 in 2017 among males [1]. Suicide rates are also significant around the world [2, 3]. Every year more than 800,000 people die by suicide around the globe [3]. This means that every 40 s a person dies by suicide somewhere in the world and many more individuals attempt suicide [3]. It has been suggested that the number of individuals who attempt suicide is about 10–15 times the number of individuals who die by suicide [3]. Suicide death and suicide attempts have a profound effect on families and communities.

Suicide is a very extreme type of behavior. Suicide is usually a complication of a psychiatric disorder which is present in over 90% of suicides [2, 4, 5]. Suicide is most commonly associated with mood disorders, present in about 60% of cases [2, 4, 5]. Suicide is also associated with schizophrenia, cluster B type personality disorders, substance use disorders, and neurological disorders including Huntington's disease and epilepsy [5]. The lifetime mortality due to suicide is estimated at approximately 20% for bipolar disorder, 15% for unipolar disorder, 10–17% for alcoholism, and 5–10% for personality disorders [5]. These numbers apply to sicker patients treated in teaching hospitals. The lifetime rates of suicide attempts and suicides are much higher in these disorders than in the general population.

Most patients with psychiatric disorders do not commit suicide, indicating other factors influence risk [2, 4, 5]. Suicide attempters have a tendency to make more than one suicide attempt, sometimes with increasing lethality in succeeding attempts [6].

At the same time, other persons with the same level of objective severity of major depression may never make a suicide attempt suggesting that some individuals have a predisposition to suicidal behavior. Most vulnerable patients with a mood disorder who make a suicide attempt do so early in the course of illness [4, 5]. It has been suggested that suicide is not just a logical response to severe stress. A stress diathesis model of suicidal behavior has been proposed [4, 5]. Characteristic stressors associated with suicidal behavior include the psychiatric disorder and often also acute use of alcohol or drugs that may disinhibit individuals, sometimes an acute medical disease especially affecting the brain, and also stressful life events. The diathesis or predisposition to suicidal behavior is a crucial aspect that distinguishes psychiatric patients who are at high risk versus those at lower risk. Although the objective severity of the psychiatric illness does not assist greatly in distinguishing patients at high risk for suicide attempt or suicide from those who are at low risk, suicide attempters react differently to the same objectively determined level of severity of depression and life events. Suicide attempters suffer more subjective depression, despair, and suicidal ideation than psychiatric controls.

The vulnerability or diathesis for suicidal behavior is influenced by genetic factors, parenting, and medical illness, especially affecting the brain, e.g., epilepsy, migraine, Huntington disease, alcohol and other substance use disorders, cholesterol level, and other psychological and biological factors [4, 5]. Some of these factors may be interrelated. Diathesis (vulnerability) determines how an individual reacts to a given stressor and depends on factors that form personality such as environmental and genetic factors, childhood experiences, etc.

Over the past several decades, there has been increasing research evidence that diathesis for suicidal behavior has a biological component [2, 4]. The neurobiological observations can be a combination of state- and trait-related effects. The trait-related effects may signify the diathesis, whereas the state-dependent effects may be related to acute psychiatric illnesses or stressors. The investigation of the neurobiology of suicide can yield new understanding of the diathesis or what contributes to susceptibility for suicide, may eventually assist in improved screening of high-risk patients, and permit development of new treatment modalities to prevent suicide. Thus, the neurobiological studies of risk for suicide may not only potentially improve identification of patients at high risk for suicide but also suggest new approaches for therapeutic intervention.

Significant data suggest that the presence of psychiatric physicians in a region is associated with lesser suicide rates [7]. However, a lot of areas in the world have very few psychiatric physicians. Many psychiatric patients including suicidal patients do not have access to psychiatrists [8, 9]. Therefore, non-psychiatrists including mental health and non-mental health social workers need to be engaged in suicide prevention work. The National Association of Social Workers (NASW), a professional organization of social workers in the United States, reports “there are more clinically trained social workers – over 200,000 – than psychiatrists, psychologists and psychiatric nurses combined” [10]. Social workers are an undervalued and underused suicide prevention resource.

Suicide Among Military Veterans

There are a lot of military veterans all over the world [11]. The veteran population is a big and diverse group. In the United States, the full veteran population comprises men and women who served during World War II, the Korean War, the Vietnam War, the Gulf War, Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND). Military experience of veterans varies widely. A psychobiological state of combat veterans is different from non-combat veterans. Combat exposure demands long periods of extreme arousal and awareness and fast assessment of threats. Combat soldiers are chronically distressed because they are at constant risk for injury or death. Also, combat veterans are exposed to chemical, physical, and environmental hazards.

Suicide is an important issue among veterans in the United States and other countries [11–14]. From 2007 to 2017, the rate of suicide among veterans in the United States increased nearly 50% [15]. Veterans are 1.5 times more likely to die by suicide than individuals in the United States who never served in the military [15]. For female veterans, the risk factor is 2.2 times more likely [15]. The rate of suicide among veterans 55 and older is about 25/100,000 individuals [15]. Among 18- to 34-year-old veterans, that figure is higher, nearly 45/100,000 [15].

The highest rates of suicide among veterans mirror those of the general population: being male, White, and elderly [16]. Likewise, the most frequent methods used in suicide deaths for the general population and veterans are firearms. Firearms are an especially important method for suicide among the veteran population, taking into account their military experience and significant knowledge of firearms [16]. Firearms account for a disproportionate amount of suicides among veterans in comparison to firearm use among suicide victims in the US general population. For example, during fiscal years 2007–2008, among veterans using Veterans' Health Administration services, 69% of suicides among men involved firearms, while 38% of suicides among women involved firearms [16]. By comparison, the proportion of suicides involving firearms in the US general population was 56% among men and 30% among women in 2008 [16].

Studies and experts suggest that suicidal behavior among veterans is related to post-traumatic stress disorder (PTSD), traumatic brain injuries (TBI), depression, misuse of prescribed and illegal drugs, financial problems, family issues, combat experiences, and other factors [11–14]. Reduction of suicides among veterans requires interdisciplinary approach. Social workers can play an instrumental role in suicide prevention among veterans.

The Role of Social Workers in Mental Healthcare Including Suicide Prevention

Social Work Labor Force

The social work profession is a considerable, diverse, and educated labor force. There are approximately 650,000–672,000 practicing social workers in the United

Table 1 National Center for Health Workforce Analysis [19]

Behavioral health occupations	Estimated number of providers providing mental health services in 2016
Psychiatrists	39,180
Psychiatric nurse practitioners	10,250 (trained at the master’s or doctoral level)
Psychiatric physician assistants	1400
Clinical, counseling, and school psychologists	93,000 (trained at the doctoral level)
Addiction counselors	87,690 (trained at the associate, bachelor’s, master’s, or doctoral level)
Mental health counselors	140,400 (trained at the master’s level)
School counselors	108,130 (trained at the master’s or doctoral level)
Social workers	232,900 (trained at the master’s level)
Marriage and family therapists	52,860 (trained at the master’s level)

States with at least a bachelor’s degree [17]. Further examination reveals that 43% of these social workers possess a non-social work bachelor’s degree, 12% possess a bachelor’s degree in social work, and 45% possess a master’s or doctoral degree in social work [17]. Social workers are employed in a variety of settings including hospitals, schools, ambulatory healthcare services, mental health and substance abuse clinics, community development corporations, child welfare and human service agencies, individual and family services, settlement houses, private practices, and local, state, and federal government organizations [18]. The National Center for Health Workforce Analysis identifies social work as the largest behavioral health occupation in the United States [19]. Table 1 illustrates the estimated number of behavioral health providers providing mental health services in the United States in 2016 [19].

Social workers do not only play a role in the United States; they are prevalent in many societies.

The World Health Organization (WHO) collected data from different countries on the following mental health workers: psychiatrists, psychologists, nurses, and social workers. Table 2 illustrates some of this data and specifically the number of social workers working in the mental health sector per 100,000 population [20].

Social Work Education

Social work education programs are influential in preparing new social workers to successfully enter the labor force. This section will provide an overview of social work education programs’ contribution to evidence-based practice (EBP) in mental health, practice with military veterans, and suicide prevention.

Evidence-Based Practice in Mental Health Including Suicide Prevention

Social workers who enter the field of mental health require knowledge and skills of EBP interventions to treat psychiatric disorders. Social work education programs are needed to train graduate social work students on EBP interventions. However, research on social work education and EBP is limited and usually concentrates on

Table 2 World Health Organization [20]

Country	Year	Social workers working in mental health sector (per 100,000 population)
Antigua and Barbuda	2016	4.003
Belgium	2013	17.435
Brazil	2016	6.608
Canada	2017	145.400
Cook Islands	2016	17.193
Costa Rica	2016	76.957
Finland	2017	2.754
Greece	2016	3.459
India	2016	0.065
Italy	2015	2.591
Japan	2016	8.328
Mexico	2016	0.530
Monaco	2016	102.592
Nicaragua	2017	3.568
Panama	2016	9.221
Republic of Korea	2016	8.404
Russian Federation	2015	2.404
Saudi Arabia	2016	3.955
Turkey	2016	1.643
United States of America	2016	60.338

the structure of education program curricula [21]. A dilemma that many social work education programs face is the balance between promoting lifelong learning and critical thinking skills and where to include EBP in the curriculum [21]. Furthermore, there are difficulties determining the specific EBPs that should be focused on and how to effectively teach the skills and steps needed in the EBP process [21]. In response to these dilemmas, Drisko and Grady [21] suggest that social work programs educate students on multiple practice theories and focus on enhancing their critical thinking and clinical assessment skills. This will allow the student to effectively select and deliver an appropriate EBP intervention based on their patient's individual treatment needs [21].

In addition to coursework, field education is an essential component of a social work student's learning experience. The Council on Social Work Education (2015, cited by Drisko and Grady) considers field education the "signature pedagogy" in social work. Graduate social work students are assigned to a field placement setting where they gain hands-on experience working with patients, and they are given the opportunity to integrate their coursework into direct practice. Training on EBP interventions can occur at a social work student's field placement setting under the supervision of a clinical social worker. Unfortunately, clinical social workers often struggle with effectively utilizing EBP [21]. Drisko and Grady [21] recommend that

social work professors train field advisors and instructors, so they can better educate social work students.

Several researchers report that social work education programs often provide inadequate training on suicide intervention and prevention [22–24]. A US survey of 598 masters-level social work students revealed that 79% of respondents had not received formal suicide-related education, and 67% had believed that they had received insufficient suicide-related education [22]. Ruth et al. [24] conducted a similar study that reviewed survey responses of directors and deans from US graduate social work programs. Key findings of the study were that most graduate social work students receive 4 or less hours of suicide education, and many of the faculty had no intention of modifying their curricula [24]. Obstacles that were identified consist of deficits in didactic education and other curriculum requirements taking precedence over suicide-related content [24]. Social work education programs should supplement their curricula with suicide-related education to better equip social work students in suicide prevention [23].

Education on Military Veterans

The military veteran population faces unique experiences and challenges that can elevate their risk for mental health problems or suicide. Social workers who practice with military veterans require the knowledge and skills necessary to meet these complex needs. However, social work schools often fail to incorporate this content into their curricula [25]. There is a growing demand for social work education programs that have specialty tracks tailored towards military veterans [25, 26]. Wooten [26] proposes an integrated model of intellectual capital that can guide military social work education. The model would integrate knowledge from customer, human, social, structural, spiritual, and technological capital and be overseen by an advisory council [26].

Education on social work practice with military veterans can also occur within the US Department of Veterans Affairs. The US Department of Veterans Affairs is the largest employer of masters-level social workers in the United States [27]. Social work graduate students who are interested in working with military veterans can apply for a field placement in a VA healthcare system [26].

Social Work Research

Social work researchers have contributed research to the areas of mental health, suicide prevention, and practice with military veterans. Despite this, research in these areas is often limited and seldom evaluates social work practice interventions. This section will provide an overview of social work research in the areas of mental health, military veterans, and suicide prevention.

Mental Health Studies Including Research on Suicide

Kreisberg and Marsh [28] examined the 100 most cited European and US social work articles from 2000 to 2009 in the *British Journal of Social Work*. The authors found that only 3% of the European articles and 15% of the US articles evaluated the effectiveness of a practice intervention [28]. Another study [29] reviewed social

work literature from 1993 to mid-1997 and established that “only 3% of published articles (53 of 1849) could inform a practitioner of how to implement reliably the intervention that was studied” (p. 12).

A systematic review of social work research published between 1980 and 2006 found that 0.2% of the articles focused on suicide research [30]. Furthermore, only 7.6% of these suicide research articles consisted of control studies that analyzed suicide prevention interventions [30]. Maple et al. [31] conducted a scoping review of 241 suicide research articles authored by social workers that were published between January 2003 and December 2013. The authors concluded that 57% of the retrieved articles were explanatory in nature, 33% were descriptive, and only 10% were control studies that could guide a social worker’s practice [31].

Research on Military Veterans

Bloeser and Bausman [27] conducted a scoping review of 536 publications related to social work practice with US military veterans. A few notable findings from the review include 50% of the articles were descriptive in nature, and only 9% were empirical and evaluated social work practice interventions. Descriptive articles can also contribute to our knowledge of social work practice with military veterans. Additionally, 62% of the literature was authored by a social worker, and 28% was not authored by a social worker, but analyzed interventions were administered by a social worker [27].

The Role of Social Workers in Mental Healthcare

In the United States, in order for a social worker to engage in clinical practice at the independent level, he or she must fulfill his or her state’s clinical license requirements. This requires having a master’s degree in social work, 2 or 3 years and approximately 2000–3000 h (depending on the state) of supervised clinical experience, and passing the clinical licensing exam [19]. The clinical license qualifies a social worker to diagnose mental disorders and independently treat them with psychotherapy [19]. A nonclinical social worker can still practice psychotherapy, but it must be under the direct supervision of a clinical social worker.

Diagnosis of Mental Disorders

Clinical social workers diagnose mental disorders such as mood disorders, psychotic disorders, stress-related disorders, anxiety disorders, substance use disorders, sleep disorders, and personality disorders [23]. Social workers play a vital role in providing mental healthcare in outpatient and inpatient settings. The identification of a mental disorder is important, because it is extensively documented that the presence of a mental disorder can increase suicidality [23, 30, 32]. In fact, mental disorders were prevalent in approximately 90% of suicides [32]. Levine and Sher [23] recommend that efforts be directed towards enhancing a social worker’s diagnostic abilities by improving social work education and training programs.

Psychotherapy for Mental Disorders

Once the presence of a mental disorder is established, the patient and social worker can formulate a treatment plan. The treatment plan will likely include some form of psychotherapeutic intervention, because psychotherapy is effective in the treatment and management of mental disorders [33]. This section will discuss evidence-based psychotherapeutic interventions that social workers could utilize with specific mental health disorders.

A meta-analysis identified interpersonal psychotherapy, behavioral activation, cognitive behavioral therapy (CBT), problem-solving therapy (PST), psychodynamic therapy, and supportive counseling as effective interventions for the treatment of depression [34]. Miziou et al. [35] conducted a systematic review of psychotherapeutic interventions for bipolar disorder. The researchers found that certain interventions could have effects on the specific aspects of bipolar disorder. For example, evidence suggests that interpersonal and social rhythm therapy and CBT might have positive effects during an acute bipolar episode [35]. Mindfulness interventions were found to reduce anxiety symptoms in bipolar disorder [35]. Additionally, CBT had encouraging results in decreasing anxiety symptoms in bipolar spectrum disorders [36]. A systematic review and meta-analysis that examined interventions for chronic PTSD identified trauma-focused cognitive behavioral therapy (TFCBT) and eye movement desensitization and reprocessing (EMDR) as first-line treatments [37]. Cognitive behavioral therapy for insomnia (CBT-I) was identified as an effective treatment for primary insomnia [38]. Another study reports that CBT and motivational support for healthy lifestyle changes could be effective in treating insomnia in combat veterans [39]. Polese et al. [40] reviewed 25 years of literature related to treatment-resistant schizophrenia and nonaffective psychosis. The researchers established that psychodynamic psychotherapy, CBT, and supportive counseling were efficacious in treating these disorders [40]. In regard to substance use disorders, the recommended psychotherapeutic interventions consist of CBT, motivational enhancement therapy, contingency management interventions, group therapy, and family/couples therapy [41]. Inpatient and outpatient rehabilitation programs are two types of treatment settings for individuals with substance use disorders [41]. Lastly, dialectical behavior therapy (DBT) and psychodynamic approaches were found to reduce symptoms related to borderline personality disorder [42].

Joe and Niedermeier [30] suggest that social workers use psychotherapy to treat mental disorders and to further reduce suicide risk. Social workers who are employed in mental healthcare settings should have knowledge of the patient population that they serve and the mental disorders that are prevalent in these populations. This will allow the social worker to effectively choose a psychotherapeutic intervention that best fits his or her patient's needs. Cook et al. [33] mention the importance of selecting a psychotherapeutic intervention that is appropriate for the patient and one that the provider is comfortable in practicing. If the social worker is not comfortable utilizing a specific psychotherapeutic intervention, he or she should consider referring his or her patient to a provider who specializes in the

intervention. Additionally, social workers should seek educational opportunities and trainings to enhance their skill set [23].

Social Workers and Suicidal Persons

Social workers frequently encounter individuals at elevated risk for suicide [22, 23, 31]. In a random sample of 598 social workers in the United States, 53.4% of participants indicated that they had experienced at least one suicidal patient in the past month, 78.1% had experienced at least one suicidal patient in the past year, and 92.8% had experienced a suicidal patient at least once in their career [22]. Another study that randomly sampled 697 mental health social workers in the United States found that 33% of participants had experienced fatal patient suicidal behavior in their practice, and 52.5% had experienced both fatal and nonfatal patient suicidal behavior [43]. These studies show that social workers often practice with suicidal persons, and they are vital to suicide prevention efforts. Social workers have an opportunity to intervene and prevent suicides.

Social Workers' Involvement in Mental Healthcare and Psychosocial Help with Military Veterans

Throughout the history of the social work profession, social workers have worked with US military veterans [27]. Social work practice with veterans can occur in the public sector, such as the US Department of Veterans Affairs, or in the private sector [25, 27]. As a matter of fact, the largest employer of masters-level social workers in the United States is the US Department of Veterans Affairs [27]. Approximately six million veterans utilize healthcare within the VA system [27]. However, Kaplan et al. [44] mention that "three-quarters of veterans do not receive healthcare through VA facilities" (p. 619). Social workers who are employed within the VA and outside of the VA need to have an understanding of the unique challenges and issues that veterans experience. Unfortunately, social work research and literature often provide insufficient practice guidelines for social workers who serve veteran populations [25]. Additionally, social work education programs often fail to incorporate practice with military veterans into their curricula [25]. This section will discuss how social workers provide mental healthcare and psychosocial help to the US military veteran population.

Social Workers Provide Psychotherapy to Military Veterans

Military veterans are part of a unique population that have higher rates of depression, substance use disorders, sleep disorders, blast-related injuries such as concussion and TBI, and stress-related disorders such as PTSD [39]. PTSD [45], depression [46], and TBI [47] have been found to increase suicide risk in military veteran populations. Ilgen et al. [48] examined Veterans Health Administration (VHA) treatment records and National Death Index data for all veterans who received treatment in a VA medical center in 1999. By the end of 2006, the researchers found that 7684 of the veterans who utilized VHA services in 1999 had died by suicide [48]. The presence of a psychiatric disorder was found to increase suicide

risk in this veteran population sample [48]. Furthermore, it was suggested that female veterans with substance use disorders and male veterans with bipolar disorder were at especially high risk for suicide [48]. Psychotherapeutic interventions for the treatment of mood disorders, psychotic disorders, anxiety disorders, substance use disorders, sleep disorders, and personality disorders have been discussed. This section will specifically discuss the psychotherapeutic treatment of PTSD and TBI.

Watts et al. [49] conducted a meta-analysis on the efficacy of PTSD treatments. The researchers found that most evidence supported the use of EMDR and various types of CBT for the treatment of PTSD [49]. Similarly, a systematic review and meta-analysis that examined interventions for chronic PTSD identified TFCBT and EMDR as first-line treatments [37]. Rubin, Weiss, and Coll [50] recommend prolonged exposure therapy (PET), TFCBT, and cognitive processing therapy (CPT) as interventions to utilize for military veterans with PTSD.

TBI is relatively common among military veterans especially among combat veterans [25, 50]. Presently, there is an insufficient amount of research that discusses the efficacy of psychotherapeutic interventions specifically for the treatment of TBI [51]. Current protocol for the treatment of mild TBI (mTBI) recommends that co-occurring mental disorders are treated using EBP interventions [51]. Ackland et al. [51] conducted a literature review and found that acceptance and commitment therapy, prolonged exposure therapy (PE), CPT, and present centered therapy (PCT) reduced psychiatric symptoms for veterans with depressive disorders and/or PTSD with a co-occurring diagnosis of TBI related to deployment.

Social workers can provide supportive therapy and psychoeducation to veterans with TBI. This might consist of exploring coping skills, discussing the common symptoms of TBI, and providing psychoeducation on lifestyle changes [39]. Lifestyle changes may include avoiding activities that can worsen TBI symptoms, getting sufficient sleep, and avoiding stimulants or sedatives (i.e., alcohol or certain medications) [39]. Rubin et al. [50] recommend individual or family counseling, advocacy, facilitating discussions between the family and treatment team, education on government resources and applying for these resources, referrals, and discharge planning as social work practice for military veterans with TBI. Future research efforts should focus on identifying EBP interventions for veterans with TBI and suicidal behavior [47].

Social Workers Provide Psychosocial Help and Reduce Suicidality in Military Veterans

Social workers who work with military veterans should provide psychosocial help as a way to reduce psychosocial stressors. This is important because psychosocial stressors can increase suicide risk [23, 45]. In fact, the US Department of Defense analyzed military suicide data and determined that psychosocial stressors related to legal, financial, and relationship troubles were the three main risk factors for military personnel who died by suicide [50]. There are an abundance of social services available to military veterans, and many of them located within the US Department of Veterans Affairs healthcare system. This section will outline different areas in which social workers can provide psychosocial help to military veterans.

Care Coordination and Case Management

Care coordination and case management can be effective interventions in reducing psychosocial stressors and suicide risk in vulnerable populations [23]. Social workers often provide case management services to military veterans on interdisciplinary teams, which allows for a specialized approach to meeting their individual treatment needs [27, 50]. The National Association of Social Workers [52] mentions that social workers who practice in case management should have knowledge in the following areas: individual and group psychotherapy, psychosocial help, diagnostic ability, individual and family caregiver support interventions, community resources and referrals, crisis intervention, advocacy, and an understanding on how to navigate various systems (i.e., housing, employment, healthcare, legal, social services, government, and educational systems).

Veterans who obtained a disability or exacerbated a pre-existing disability as a result of their service may be eligible for the VA's disability compensation program [50]. These benefits can assist veterans in financing their medical and mental health treatment, as well as provide some financial security if their disability prevents them from maintaining employment. Social work case managers can assist veterans in applying for disability compensation.

Housing Assistance

Homelessness is a risk factor for suicide among non-veteran civilian populations [23], as well as veteran populations [53, 54]. Hoffberg et al. [54] conducted a systematic review of research related to homelessness and suicidal self-directed violence within the US military veteran population. The researchers determined that homeless US military veterans had an 81.0/100,000 death by suicide rate. Additionally, it was found that 74% of US military veterans had experienced suicidal ideation at least once in their lifetime, and 15–46.6% had at least one suicide attempt in their lifetime [54]. It is important to note that homelessness is associated with psychiatric and medical illnesses, which can also increase suicide risk in military veterans [53]. Unfortunately, veterans comprise a large percentage of the homeless population in the United States [25, 50, 54]. The US Department of Housing and Urban Development (2015, cited by Hoffberg et al.) determined that 11% of the homeless population comprised veterans. In response to the homeless veteran crisis, the US Department of Housing and Urban Development and Veterans Affairs Supportive Housing (HUD-VASH) program was created [50]. The HUD-VASH program is a combination of an Assertive Community Treatment (ACT) model and Housing First model, and it provides case management services and permanent housing placement to veterans and their families [50]. Social workers play an important role in the HUD-VASH program. In fact, more than 90% of HUD-VASH intensive case management services are provided by social workers [50]. The Health Care for Homeless Veterans (HCHV) program is another service for homeless veterans that is within Department of Veterans Affairs [50]. The HCHV program outreaches homeless veterans, links them to VA healthcare services, and provides screening and admission into HUD-VASH housing, transitional housing, residential treatment facilities, and community Grant Per Diem (GPD) sites [50].

Military veterans who require long-term mental health or medical care might be eligible for the Domiciliary Care for Homeless Veterans (DCHV) program [50]. The DCHV program provides 24/7 residential transitional placement for veterans with a range of conditions including mental health, substance abuse, medical or psychosocial-related issues [50]. Social workers should assist the homeless individual in obtaining housing placement, providing psychotherapy, or referrals to appropriate community resources (i.e., inpatient or outpatient treatment programs) [23]. Social workers who practice with homeless veterans should have knowledge of community housing resources, especially services within the Department of Veterans Affairs such as HUD-VASH, HCHV, and DCHV.

Vocational Rehabilitation and Job Placement

Unemployment can increase an individual's risk for suicide [23, 30]. An analysis of 229 Australian military veterans diagnosed with PTSD indicated that unemployment or permanent disability that precluded employment significantly increased risk of suicide attempt [55]. Veterans may have difficulty integrating back into civilian life, which could include obtaining employment. The Department of Veterans Affairs offers resources to veterans who are unemployed, one of them being the Vocational Rehabilitation and Employment (VR&E) program [50]. This program provides vocational and educational services to veterans with a service-connected disability [50]. Veterans who are deemed eligible for the VR&E program can receive assistance in finding training or educational facilities, job counseling and training services, and aptitude testing [50]. The Homeless Veterans Reintegration Programs (HVRP) is another program offered by the Department of Veterans Affairs, and this program supports homeless veterans with funding for career training and job placement assistance [50]. The Department of Veterans Affairs' Compensated Work Therapy (CWT) program is a vocational rehabilitation service for veterans with physical and mental health diagnoses [56]. The CWT program provides veterans with wages and evidence-based vocational rehabilitation services, connects veterans to prospective employment sites, and supports veterans and their employers to ensure successful employment [56]. Levine and Sher [23] recommend that social workers provide unemployed individuals with linkage to vocational rehabilitation services, job placement assistance, and psychotherapy to reduce suicide risk. Social workers who practice with unemployed veterans should have knowledge of community job placement resources, such as the Department of Veterans Affairs' VR&E, HVRP, and CWT programs.

Legal Assistance

Legal troubles can increase an individual's suicide risk [23]. Research has shown that some military veterans have a higher likelihood of arrest or incarceration [25, 57, 58]. Elbogen et al. [58] reviewed data from a US national survey of 1388 Afghanistan and Iraq war era veterans who served on or after September 11, 2001. The researchers found that 9% of these veterans reported a history of at least one arrest since discharge from the military [58]. Veterans that had a diagnosis of TBI or PTSD with concurrent symptoms of irritability or anger were more likely to be

arrested [58]. Additionally, about 20% of veterans incarcerated in jail or prison report a history of combat [25]. The Department of Veterans Affairs created the Veterans Justice Outreach (VJO) program to serve veterans with mental illness who are in the criminal justice system [50]. The purpose of the program is to prevent incarceration and sentencing length for justice-involved veterans and to connect them to mental health treatment [50]. Canada and Albright [57] recommend that social workers who practice with veterans in the criminal justice system collaborate with veteran courts to provide recommendations that are in the veteran's best interests. This might include alternatives to incarceration such as participation in a substance abuse or mental health residential treatment program. Social workers can also provide psychotherapy, mental health evaluations, case management services, community referrals, advocacy, and psychoeducation [57]. Levine and Sher [23] recommend that social workers who practice with justice-involved military personnel should screen for suicidality since they are at increased risk, as well as to serve as a liaison between the veteran, court system, collaterals, and other treatment providers.

Family Services

It is important to consider the veteran's family system when practicing with military veterans. The veteran's family may be faced with unique challenges such as coping with a veteran's physical or mental health disorders, reintegration issues, limited access to resources, financial stressors, or domestic violence [25]. Relationship issues, especially within the family system, can pose as a major risk factor for suicide in military veterans [50]. The Department of Veterans Affairs created the Caregiver Support program as a way to provide additional support to veterans and their families [59]. The Caregiver Support program, which is primarily coordinated by social workers, offers support groups, peer support, mental health counseling, referrals to in-home care, linkage to community resources or programs, transportation to and from healthcare appointments, and education on how the caregiver can care for themselves and the veteran [59]. Family members who care for veterans that have sustained significant injuries related to their service might be eligible for monetary compensation through this program [59]. Another VA program that is coordinated by social workers is the Intimate Partner Violence Assistance Program (IPVAP) [60]. The IPVAP can provide support and resources to the veteran and their families who are affected by domestic violence [60].

Social workers are often involved in providing supportive services to veterans and their families [25, 27, 50]. Mental health social workers should utilize family therapy interventions in cases where there are strained family relationships or mental health disorders [50]. During the intake assessment, the veteran's family system should be screened for domestic violence to ensure safety [60]. Social workers can also provide psychosocial help and case management services to the veteran and their family, such as connecting them to community resources and referrals [27, 50].

Social Work with Elderly Veterans

The geriatric military veteran population is an important population for social workers to consider. Older adults have higher incidence of psychosocial stressors related to aging such as financial stressors, loss of independence, illness, ageism, cognitive impairment, physical limitations, and loss of social supports [61]. Multiple research studies have shown that older veterans are at increased risk for suicide [44, 46]. Furthermore, Zivin et al. [46] found that older veterans were at higher risk for suicide than middle-aged veterans. The current veteran population is increasing in age [61]. Presently, 47% of the veteran population is at least 65 years old, and by 2024 this number is expected to grow to 52%. In the coming years, there will be an increase in mental health and medical service utilization among older veterans [61]. The Department of Veterans Affairs has developed several programs to address the diverse needs of the older veteran population. One of these programs is the Care for Patients with Complex Problems ([CP²]) program [61]. The (CP²) program consists of an interdisciplinary team that focuses on the behavioral, neurocognitive, mental, and physical health of older veterans with complex needs. Additionally, elderly veterans who are being cared for by a family member in the community may be eligible for the VA's Caregiver Support program [59]. In circumstances where an elderly veteran is not able to physically travel to a healthcare facility, the Department of Veterans Affairs is increasing the use of technology with telehealth services, mobile applications, and the "My HealtheVet" electronic medical record system [61]. O'Malley et al. [61] note a 31% reduction in inpatient psychiatric hospitalization with the use of telemental health services. Telemental health services are especially important for older veterans in the COVID-19 era.

There are many implications for social work practice with older veterans. Social workers can provide psychotherapy to elderly veterans with mental disorders or cognitive impairment. Social workers can also provide support to the elderly veteran's family, as being a caregiver can be challenging. This might include help with obtaining government benefits, home healthcare, adult home or nursing home placement, and referrals to community resources (such as Adult Protective Services). Unfortunately, the geriatric population experiences many losses associated with aging. In cases where an elderly veteran is grieving the loss of a loved one, the social worker can provide bereavement counseling as a way to reduce loneliness and suicidality.

Social Workers and Suicide Prevention Among Military Veterans

The military veteran population faces unique experiences (i.e., combat) and challenges that can elevate their risk for suicide. Military veterans are susceptible to mental disorders including depression, substance use disorders, sleep disorders, TBI, and PTSD [39]. They also commonly experience psychosocial stressors related to financial troubles, unemployment, homelessness, legal problems, or relationship issues. Unfortunately, these factors contribute to military veterans having higher risk for suicide than the general population [44–46]. Social workers play an

important role in suicide prevention efforts [23], and they can help military veterans who are at risk for suicide. This section will discuss the role of social workers in suicide prevention among military veterans.

Social Workers and Acutely Suicidal Veterans

Social workers who practice with military veterans may be confronted with a veteran at acute risk for suicide. This is likely because veterans are at higher risk for suicide than the general population [44–46]. Rubin et al. [50] recommend that social workers who work with military veterans have knowledge of suicide risk and protective factors prevalent in both veteran and civilian populations. The authors also recommend that social workers work with the veteran's family, restrict means to weapons, and refer to appropriate mental health services [50]. Another intervention that could be utilized is the Safety Planning Intervention (SPI) [62]. The SPI identifies coping strategies and social supports for individuals at imminent risk of suicide [62]. The SPI consists of the following components:

- (a) recognizing warning signs of an impending suicidal crisis; (b) employing internal coping strategies; (c) utilizing social contacts as a means of distraction from suicidal thoughts; (d) contacting family members or friends who may help to resolve the crisis; (e) contacting mental health professionals or agencies; and (f) reducing the potential use of lethal means. (Stanley and Brown [62], p. 258)

Alternatively, a randomized clinical trial that evaluated the use of contracting for safety (CFS) and crisis response plans (CRP) in an active duty US army population found that CRPs were more effective in reducing inpatient hospitalization, suicidal ideation, and suicide attempts [63].

The Department of Veterans Affairs offers services for veterans who are in crisis. Suicide Prevention Coordinators (SPCs) are employed in each VA Medical Center [50]. The SPC is a social worker or another mental health professional that is specially trained in suicide prevention, and he or she can connect veterans to supportive services or provide them with counseling [50]. One of the services that is coordinated by SPCs is the Veterans Crisis Line, which is a confidential, toll-free crisis hotline for veterans and their families [50]. Social workers should provide veterans with the Veterans Crisis Line phone number as a tool that they can utilize if they are experiencing suicidal ideation or in crisis.

Social workers that experience a veteran at acute risk for suicide should follow specific suicide prevention protocols. These protocols may include the use of suicide risk assessments and screenings. The suicide risk assessment should include the veteran's risk and protective factors to determine the overall risk for suicide [50]. Additional responsibilities of the social worker consist of connecting the veteran to community resources and concrete services, safety planning, restricting access to weapons or firearms (i.e., gun locks/lockers), providing psychotherapy, referral to emergency services or to a psychiatrist, and collaborating with the veteran's support systems [23]. Social workers need to refer acutely suicidal patients

to emergency care [23]. A social worker should not leave a suicidal patient alone until EMTs arrive, or until they escort the patient to the Emergency Room.

Social Workers Can Provide Psychotherapy to Suicidal Veterans

Previous sections have discussed how psychotherapy could be utilized to treat psychiatric disorders. Psychotherapy is also effective in reducing suicidality [23, 32]. Levine and Sher [23] recommend that social workers utilize psychotherapeutic interventions in the treatment of suicidal persons. This section will discuss psychotherapeutic interventions that could be utilized with suicidal veterans.

DBT is a psychotherapeutic intervention that can reduce suicide risk [32, 64]. The components of DBT consist of individual therapy, skills training group, contact with a therapist between sessions, and therapist consultation [64]. The goal of DBT skills training is to improve the patient's emotion regulation, distress tolerance, interpersonal effectiveness, and mindfulness [64]. Koons et al. [64] conducted a randomized controlled trial with 28-female veterans diagnosed with borderline personality disorder. The female veterans were randomly assigned to a DBT group or to a treatment as usual (TAU) group for a period of 6 months [64]. At the conclusion of the study, it was found that female veterans in the DBT group had significant decreases in depression, hopelessness, anger expression, and suicidal ideation as compared to the TAU group [64]. Additionally, female veterans in the DBT group had reductions in inpatient psychiatric hospitalizations and parasuicidal acts [64]. Mann et al. [32] conducted a systematic review that identified PST, interpersonal therapy, DBT, and cognitive therapy as psychotherapeutic interventions that could reduce suicide risk [32]. Another study that reviewed randomized controlled trials (RCTs) found that PST, DBT, cognitive therapy for suicide prevention (CT-SP), CBT, psychodynamic interpersonal therapy (PIT), and mentalization-based treatment (MBT) were effective in preventing self-injurious behavior and suicide attempts in adults [65]. Pompili et al. [45] report evidence that telephone counseling could possibly reduce suicide risk in combat veterans that are reluctant to seek traditional in-person counseling. The authors also recommend telephone counseling to provide suicide risk assessments and treat PTSD in military veterans [45]. Social workers should provide psychotherapy to veterans who are at risk for suicide as a way to reduce suicidality. Additionally, social workers should provide psychoeducation to veterans on the benefits of treatment and medication compliance.

Gatekeepers

Gatekeeper training can be an effective approach to suicide prevention efforts [23, 32]. Gatekeepers are members of the community such as priests, teachers, or social workers who receive education on suicide risk factors and are able to assess for suicidality [32]. Matthieu et al. [66] evaluated the use of gatekeeper training for suicide prevention with clinical and nonclinical staff in the Department of Veterans Affairs. The VA staff were trained with the Question, Persuade, and Referral (QPR) brief standardized gatekeeper training program, and they were also given the opportunity to participate in an optional scripted behavioral role-play [66]. At the conclusion of the study, both nonclinical staff and clinical staff demonstrated improvement

in self-efficacy and knowledge related to suicide prevention with nonclinical staff exhibiting greater improvement [66]. Social workers should conduct gatekeeper training programs within the Department of Veterans Affairs or in other community organizations that serve military veterans. Increasing the number of gatekeepers in a community may reduce the amount of suicides in that area.

Postvention

Unfortunately, social workers who practice with military veterans may be faced with a veteran who dies by suicide. This is a possibility because veterans are at increased risk for suicide [44–46]. Survivors of suicide are at higher risk for PTSD, complicated grief, depression, and suicide [31]. Several authors recommend that social workers utilize postvention interventions as a way to support those bereaved by suicide and to reduce their overall suicide risk [23, 31]. Postvention consists of interventions, such as individual counseling, bereavement groups, or a referral to a psychiatrist, that support people impacted by suicide [23]. Maple et al. [31] point out that social work research on postvention is often underappreciated and uninvestigated. Following a tragic event where a veteran dies by suicide, social workers should utilize postvention to support the veteran's loved ones.

Conclusion

In summary, the military veteran population faces unique experiences and challenges that can elevate their risk for suicide. Social workers play an integral role in suicide prevention efforts with military veterans. Social work practice with military veterans and their families may consist of reducing psychosocial stressors, diagnosis of mental disorders, psychotherapy, case management, gatekeeper training, and suicide prevention and postvention. Social work research and education programs should focus more on suicide prevention among military veterans.

Cross-References

- ▶ [Access to Lethal Means, Firearms, and Suicide](#)
- ▶ [Military Suicide: Theoretical Understandings and Responses](#)
- ▶ [Psychological Treatment of Suicidal Individuals](#)
- ▶ [Psychotherapy for Suicide Prevention](#)
- ▶ [Suicide and Older Adults: The Role of Risk and Protective Factors](#)
- ▶ [Suicide Prevention Among Elderly](#)

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Access to Lethal Means, Firearms, and Suicide

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Abstract

A clinical case scenario: a patient is being treated in the state of California. He is a retired army veteran who keeps a handgun on his nightstand for protection and a shotgun in his closet for hunting. His suicide risk is estimated to be moderate secondary to his endorsement of passive suicidal ideation without intent or plan. As part of the Veterans Affairs (VA) safety plan, the clinician works with the patient to have his friend take over ownership of the firearm in order to reduce the potential for the use of lethal means. What are the possible problems with this scenario? First, federal law bars certain individuals from possessing firearms (18 USC § 922(g) [1]) and prohibits anyone from furnishing a firearm to these prohibited persons (18 USC § 922(d) [1]). California law requires that a firearm transfer goes through appropriate agencies and procedures, including a background check and 10-day waiting period (Cal. Penal Code § 27,545). Depending on the county, further jurisdictional issues and differences arise. In attempting to protect the patient, the clinician likely encouraged them to commit multiple infractions of both state and federal law. Further, the clinician has opened

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themselves up to a potential for a claim of professional negligence and providing an inappropriate standard of care. The ethical dilemma at hand showcases several considerations for the mental health professional regarding access to lethal means but is by no means an exhaustive list of possible issues.

Keywords

Lethal means · Firearms · Suicide · Lethal means restriction · Gun control · No-suicide contract · Safety planning · Ethical dilemma

The following chapter provides a brief overview of the prevalence of suicide and the history of lethal means restriction in the United States and across the world. The effect of lethal means restriction on suicide prevention is reviewed. An understanding of lethal means as it applies to clinicians is explored and recommendations for clinical practice are provided.

Suicide and Firearm Prevalence

Suicide continues to be a pervasive public health issue that affects the world with increasing frequency and severity. In 2016, the World Health Organization (WHO) identified suicide as one of twenty leading causes of death worldwide and approximated the number of individuals who died by suicide as 800,000 per year [58]. Suicide accounts for approximately 57% of violent deaths throughout the world [12] and suicide rates in the United States alone have increased over 30% since 1999 [23, 54]. Suicide has surpassed homicide as a leading cause of death in the US; suicide is ranked as the tenth leading cause of death whereas homicide is ranked 16th [7, 17, 23]. It is estimated that an average of one person dies by suicide every 10.9 min in the United States, equating to approximately one male individual every 13.9 min and one female individual every 49.7 min [17]. In the United States, suicide is the second leading cause of death for individuals between 10 and 34 years of age, and it is the fourth leading cause of death for individuals between 35 and 54 years of age [23].

Over the past decade, the number of civilian-owned firearms has increased drastically. In 2007, civilians owned an estimated 650 million of the world's total firearms [48]. Civilians currently own approximately 875 million, or 85%, of the world's firearms which is estimated at one billion in its totality [48]. In comparison, military groups own approximately 13% of the world's firearms and law enforcement agencies the remaining two percent. Per a 2007 survey, the United States ranked first in civilian gun ownership out of 40 countries with approximately 270,000,000 privately owned firearms [47]. Since 2007, the number of civilian-owned firearms has increased to 393,000,000, leaving a wide berth between the United States and other countries [48]. In contrast, India is currently ranked second for civilian gun ownership with approximately 71,000,000 civilian-owned firearms [48]. Given the continuous

increase in suicide rates throughout the years, it is necessary to examine the role that firearms play in suicide rates in the United States and worldwide.

Research indicates that the frequency of firearm suicides and nonfatal assaults attributable to firearms increased from 2000 to 2012 in the United States [21]. In particular, research suggests that the increase in the frequency of firearm suicides in the United States coincided with the financial crisis of 2007–2008 and that the annual firearm suicide rates increased by 21% from 2006 to 2016 despite the economic recovery that occurred [28]. Globally, there were an estimated 251,000 deaths by firearms in 2016, with approximately 67,500 deaths attributable to suicide [38]. Firearms are estimated to cause over 30,000 deaths in the United States per year [11, 21, 46], and approximately half of suicide deaths in the United States are accounted for by firearms [8, 9]. In fact, a National Vital Statistics Report indicated that there were 39,773 firearms deaths in 2017 and noted that approximately 60% of the deaths were suicides [30], thus providing further evidence for the notion that firearms play a critical role in the increase in suicide rates on both domestic and global levels.

Lethal Means Restriction

The history of lethal means restriction in the United States is complex and ever evolving. The following section will touch on a few key laws and court cases to provide a brief picture of the previous and current legal landscapes of interest to the practicing clinician. The second Amendment, ratified in 1791 as part of the Bill of Rights afforded individuals the right “to keep and bear arms” [57]. Firearm registration was not required by law until 1934 when the National Firearms Act, which also provided for taxation and regulated interstate transportation, was passed by Congress [2]. The Gun Control Act, passed in 1968, served to regulate the firearm industry by prohibiting interstate firearm transfers except in particular cases of licensed manufacturers, dealers, and importers [5]. The same year, the Omnibus Crime Control and Safe Streets Act increased the minimum age for buying handguns to 21 [40]. In 1986, the Firearm Owners Protection Act banned the sale of automatic firearms to civilians. Background checks on firearm purchases were not required until the Brady Handgun Violence Prevention Act of 1993 [41]. In the *District of Columbia v. Heller* (2008), the Supreme Court held that prohibiting the ownership of handguns and preventing firearms from being kept functional (i.e., disassembled or nonfunctional with a trigger lock mechanism) violated the second Amendment (554 US 570 [3]). *McDonald v. City of Chicago, Illinois* (2010), affirmed this decision for the states as well (561 US 742 [4]). At present, there are a number of federal restrictions to the firearm industry, with states having much of the power to regulate. Current regulations prohibit the ownership of a firearm for any individual convicted of a felony resulting in a sentence of one year or more (18 USC § 922d [1]). Individuals involuntarily admitted to a psychiatric facility, minors, and fugitives are also prohibited from owning a firearm (18 USC § 922d [1]). Out of 50 states, 44 have protections for the right to bear arms similar to the second Amendment. Interestingly, California is an exception.

Lethal Means Restriction and Suicide

Lethal means restriction in the United States looks different than in many other countries, in part, because coordinating an approach to weapons possession has proved challenging considering that federal, state, and local jurisdictions are all empowered to make choices about gun control [33]. Moreover, means restriction has not been prioritized in the United States for a variety of reasons. In terms of firearm policy, gun control is a particularly politically polarizing issue, and in certain parts of the country the conflation of means restriction and gun control has stalled progress in this aspect of suicide prevention. Still, applying means restriction has been shown to reduce the suicide rates in the United States, if only by making it more difficult to die by suicide via firearm [10]. Several states have enacted laws that have done just that. For example, in 1998 Massachusetts enacted almost two dozen laws tightening firearm restrictions and saw a reduction in suicide by firearm completion rates for several years following [25]. Between 1995 and 2015, states with mandatory background checks and waiting periods demonstrated lower overall annual suicide rates than states that did not enact such laws [9]. Furthermore, an association between a high number of firearm laws and a lower rate of suicide by firearm has been demonstrated [20].

Legislation related to lethal means restriction has had varying levels of success across the world. In Canada, the suicide rate and firearm suicide rate appeared to decline after 1978, the year after a bill requiring criminal background checks and Firearm Acquisition Certificates prior to purchase was passed [44]. Despite the decline in firearm suicides, the overall suicide rate remained mostly unchanged due to a rise in other forms of death by suicide [15, 34]. Changes to suicide rates after the 1996 National Firearms Agreement (NFA) passed in Australia were similarly evaluated. One study found no evidence suggesting a negative correlation between the passing of the NFA and suicide rates [32]; however, another study found a decrease in the rate of both overall suicides and firearm suicides [16]. A later study found that this reduction was mostly for individuals between 35 and 44 years old [37]. Gun control laws in Japan are very strict, and despite a high rate of suicide, only 0.2–0.3% of suicides are firearm-related [55]. A 1997 Austrian law that instituted background checks, minimum age requirements, and safe storage regulations found that these procedures were positively associated with a decrease in firearm suicides between 1985 and 2005 [26]. In Israel a law aimed at preventing death by suicide among soldiers in the Israeli Defense Force by requiring firearms to be left on base over the weekend was passed in 2006. Researchers found a 40% decrease in weekend suicides by firearm with no change in either weekday suicides or suicides by other methods [35]. Laws increasing restrictions on firearm possession, necessitating registration, and increasing penalties on illegal drug trafficking in Brazil led to a lower observed deaths by firearm than was predicted previously [19].

Lethal Means Restrictions and the Practicing Clinician

Malpractice lawsuits are causes for concern for many mental health professionals. In particular, circumstances surrounding patient suicides most commonly give rise to malpractice suits for the mental health field [46]. However, psychiatrists and other

mental health professionals are unable to predict the occurrence of suicide with absolute certainty. Given that the courts determine the clinician's liability in a malpractice suit by evaluating their care of a suicidal patient and the foreseeability of the patient's risk for suicide, it is imperative that the clinician conducts a thorough suicide risk assessment that explores the patient's risk and protective factors [22, 46]. Following the suicide risk assessment, documentation of the suicide risk assessment and the efforts that the clinician has made to mitigate risk are critical for substantiating the claim that the clinician complied by the standards of care for their profession [46, 53]. Adequate documentation provides a baseline assessment of the patient's suicide risk, notifies the clinician of any increases in suicidal thoughts or behaviors that warrant further care, and provides a written record that a particular degree of care was administered [53]. Without adequate documentation, the risk of a malpractice claim increases [53]. Suicide risk assessments and documentation of such assessments are thus considered core competencies within the field of psychology [53].

In addition to core competencies that clinicians must demonstrate during the course of treatment, there are ethical considerations that are integral to consider when providing competent and sufficient patient care as identified by the American Psychological Association (APA). In particular, the matters of informed consent, the boundaries of competence, and the use of assessments are critical when providing care to a patient who presents with suicide risk [24]. Specifically, the practicing psychologist is expected to provide services only in areas that are within the boundaries of their competence based on individual factors including education or training [6]. Given that clinicians have relied on no-harm contracts to ensure their patients' safety and mitigate suicide risk despite their relative ineffectiveness, it is suggested that the current state of clinical care for suicidal patients is woefully inadequate [24]. Informed consent requires that the clinician informs the patient about the nature of therapy, in addition to matters related to the limits of confidentiality and potential third party involvement [6]. Thus, it is necessary for the clinician to provide informed consent and address any clinical issues that may occur with suicidal patients as early as possible in service of effectively facilitating disclosure and structuring treatment [24]. It is also suggested that clinicians augment their clinical assessments with valid and reliable assessment tools [24].

Previous research indicated that approximately one in four psychology trainees across 11 internship programs in Massachusetts managed patient suicide attempts and that one in nine trainees were confronted with a completed suicide attempt [29]. Despite the relative frequency with which trainees encounter suicidal patients, the training that they receive is frequently inadequate [29, 36, 45, 56]. In their study, Kleespies et al. [29] found that 55% of participants received minimal didactic training that consisted of one to two lectures on suicide in graduate school and that only 45% of respondents received minimal didactic training at their practicum or internship sites. However, the information that is provided during didactic trainings does not guarantee that the intern will provide adequate care for suicidal patients nor does it ensure that the intern will be adequately prepared for conducting competent suicide risk assessments [45]. Direct opportunities for the trainee to implement the information that they have gleaned from didactic trainings are therefore necessary

for competent practice [45]. Discrepancies in the core competencies of training for suicide risk assessment, a lack of standardized and culturally competent measures specifically for suicide risk assessment, and ambiguous clinical decision-making and risk management routines further exacerbate the difficulties that clinicians experience when providing services to high-risk patients [12]. Furthermore, clinicians do not frequently receive formal education or training associated with clinical issues that arise when a patient has access to firearms, and the lack of training in this particular field may lead a clinician to provide unwarranted treatment recommendations or act inappropriately when they are expected to warn or protect [39].

Given the insufficient training that trainees receive during their graduate and internship years, it follows that these inadequacies would translate into practice outside of the training realm. For instance, Roush et al. [42] found that approximately 30% of their sample of 289 mental health professionals reported that they did not ask every patient about suicidal thoughts or behaviors. Further, their research found that four percent of the sample did not conduct a suicide risk assessment and that less than half of the sample reported engaging in suicide prevention interventions including reducing the patient's access to means [42]. Given that an estimated 20% of individuals who die by suicide contact a mental health professional prior to their deaths, the inadequacies in suicide risk assessment training and discrepancies in management practices may contribute to the frequency of the suicide rate [42].

No-suicide contracts have frequently been used in clinical practice as a method of managing suicide risk and increasing patient safety in both inpatient and outpatient settings. No-suicide contracts are, by definition, contracts between the clinician and patient in which the patient explicitly agrees not to commit suicide or to seek assistance if they think that they are unable to abide by the stipulations in the contract [43, 49]. Despite the relative straightforwardness of no-suicide contracts, it has been suggested that such contracts are inherently problematic. Despite its name, no-suicide contracts are not legally binding, and they can provide the patient with the perception that by engaging in such an intervention, the clinician is attempting to avoid the blame for any negative treatment outcomes that may arise [18, 43]. There is also the added perception that the clinician may be attempting to further restrict the patient's behaviors during a time when the patient is already struggling for control and stability [43]. Although no-suicide contracts include common elements such as contingency plans during times of crisis and a specific and unambiguous statement to not harm or kill oneself, there is no clear standard definition for a no-suicide contract [18, 43]. Most concerning is the lack of empirical support associated with the effectiveness of no-suicide contracts in clinical work [24, 43]. No-suicide contracts appear to offer clinicians a method of decreasing their own anxiety associated with caring for suicidal patients without offering any additional benefits to the patient [18, 49].

Given these considerations, no-suicide contracts may counteract the clinician's defense in a malpractice claim as they may represent an insufficient response to a patient's suicide risk in an outpatient environment [24]. Moreover, clinicians express doubts associated with the benefits of engaging in no-suicide contracts as a method

of mitigating suicide risk. A survey of Australian mental health professionals found that more experienced clinicians reported that they never used any form of no-suicide contracts, including verbal and written agreements, due to concerns associated with little to no evidence for effectiveness, ethics, and the availability of more appropriate interventions for managing suicide risk [18]. Given the numerous ethical, medicolegal, and professional concerns associated with no-suicide contracts, alternatives to this brief intervention were established.

The safety planning intervention (SPI) is defined as “a best practice by the Suicide Prevention Resource Center/American Foundation for Suicide Prevention Best Practices Registry for Suicide Prevention” ([49], p. 256). Safety plans are becoming the standard of care for high-risk patients in outpatient settings [59], and they have been mandated for all suicidal patients seeking care in facilities under the Department of Veteran Affairs (VA) since 2008 [27]. Clinician SPI training consists of reading the designated safety plan manual and safety planning document, role-playing, and attending a training about SPI [49]. The SPI is developed through collaboration with the patient after an extensive suicide risk assessment has been conducted [49]. The ultimate purpose of the SPI is to lower the patient’s immediate suicide risk by assisting the patient in engaging in predetermined adaptive coping strategies and prosocial help-seeking behaviors [49].

The SPI is comprised of six steps that are intended to provide patients with coping skills and social support in the event that they experience suicidal thoughts [49]. The six steps of a SPI include the identification of warning signs that could precede a suicidal crisis (i.e., emotional, cognitive, physiological, and/or behavioral experiences), internal coping skills, external coping skills including contacting individuals who can serve as social distractions or visiting a setting that promotes social interaction, utilizing support systems including reaching out to trusted family members or friends who can assist the patient in resolving the crisis, utilizing professional support systems including speaking to agencies or mental health providers for additional support, and reducing access to lethal or otherwise injurious means [49, 59]. The SPI can be used by different types of mental health professionals, including crisis counselors working crisis hotlines [49]. In particular, crisis counselors reported using SPI on crisis calls and indicated that the intervention was both effective and appropriate [31].

Research suggests that SPI can enhance treatment engagement in VA patients, such that patients demonstrated increased rates of attendance in treatment 3 months after SPI and brief, structured follow-up phone calls (SFU) were delivered [50]. In a lower-risk population, engagement in SPI was associated with a decrease in suicidal behaviors over the course of a 6-month follow-up [52]. In a sample of 48 patients attending treatment in an outpatient setting, Zonana et al. [59] found a significant reduction in hospitalizations after SPI was conducted. Stanley et al. [51] found that patients who presented to emergency departments and engaged in SPI and SFU found the combined interventions acceptable and helpful for managing suicidal crises [51]. However, relatively few patients reported that they reduced their access to means or remembered discussing access to means during the SPI [51]. Failing to participate in this aspect of the SPI raises concern for continued elevated risk of harm secondary to persisting access to lethal

means, and it would likely be beneficial for providers to discuss concerns patients have about limiting their access to these means while conducting the SPI.

Recommendations for the Practicing Clinician

As evidenced by the information presented above, practicing clinicians are likely to come across the issue of access to lethal means, firearms, and suicide at some point during their clinical careers. Although textbooks, standards of practice, and policies often mention the importance of managing this type of risk, there are few clearly articulated, step-by-step recommendations anywhere in the literature [14]. In the following section, we will offer some recommendations with the understanding that this list is neither exhaustive nor complete. Due to differences in jurisdictions, laws, and policies, these recommendations may not be applicable to all mental health practitioners.

In general, a basic familiarization with local, state, and federal laws is recommended to any clinician working with the suicidal patient. In protecting the client, it is crucial that the clinicians do not inadvertently break the law exposing both themselves and the client to potential harm. The practicing clinician is encouraged to seek consultation and supervision when met with a situation in which suicide by firearm is a possibility. Asking a question related to firearm access during the intake process can provide for an efficient way to determine the possibility of this scenario. This query is helpful both on the outset and throughout further treatment as part of risk assessment. Few clinicians, however, engage in this type of questioning, likely due to the ambiguity of how to best address this issue with patients [13]. If a client confirms ownership or access to a firearm and reports suicidal ideation, the clinician is tasked with determining the level of risk to the patient. Depending on the level of risk, the clinician can determine the next appropriate course of action.

For low- to moderate-risk patients, means restriction counseling, a process through which a clinician educates, assists, and supports individuals in developing a plan to limit access to lethal means, is one possible approach to mitigate risk [14]. This is not to be confused with means restriction which entails the actual removal of firearms from the individual and may incur legal penalties, professional consequences, or set the patient up to commit a crime. Rather, means restriction counseling encourages a collaborative process in which the clinician queries about firearm availability, engages the client in a discussion about the risks of firearm access and suicide, and maximizes the likelihood of safety and follow-through by involving family and support systems [14]. For patients that are at high risk, voluntary or involuntary hospitalization will be the primary course of action, with a follow-up plan which details the appropriate lethal means restriction pertaining to the firearm. Lastly, clear documentation is vital to the protection of both the client and the clinician. Each step taken by the health-care professional and the established restriction plan are to be clearly reviewed and documented [14].

Suicide continues to be a pervasive public health concern across the world today. Lethal means restriction is but one approach to decreasing the instance of suicide by

firearm. A practicing clinician is tasked with knowing, understanding, and applying both the ethics of their profession and the legal ramifications of counseling a suicidal patient with access to firearms. There has previously been a paucity of research and practical recommendations in lethal means restriction in clinical work, but with growing emphasis placed on training for behavioral emergencies, there is hope that the practicing clinician will be empowered to address these issues successfully.

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Abstract

Suicide terrorists are a particular subgroup of individuals that believe by committing suicide as means of a terror attack, they are making the ultimate sacrifice for their cause and beliefs. When terrorist groups are recruiting people for this endeavor, they use religious propaganda and look for specific psychological factors that make some individuals more likely to agree to engage in a suicide attack. There are also social, political, and economic factors that influence radicalization. In addition to these topics, this chapter will discuss the paucity of research in this area and how this affects plans for deradicalization.

Keywords

Suicide · Terrorism · Suicide terrorism · Perpetrator · Globalization · Deradicalization

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The number of terrorist attacks, specifically terroristic suicide attacks, has been dramatically increasing worldwide. In the last 35 years, over 70,000 such attacks have occurred, resulting in approximately 300,000 casualties and 170,000 deaths [19]. The concept of suicide terrorism, in which perpetrators create threat and fear by committing suicide while generating damage on a mass scale, has been a challenging construct to understand, assess, and describe [28]. This tactic is one of the most lethal, yet effective and low-cost ways to agitate political, social, and economic stability [34].

Experts from a variety of fields including psychology, sociology, and political science have made efforts to predict and understand this behavior [28]. There are several particularities to modern-day suicide terrorism. One glaring peculiarity is the globalization of this method of terrorism: Whereas in previous years, suicide attacks were mostly centered in the Middle East, modern-day actors are perpetrating all over the world [19]. Moreover, the attacks are often perpetrated by first or second-generation immigrants, motivated less by the political aims of yesterday, and more by the reported need to purify the corrupted population of the Western part of the world. Decentralization of the previously held hierarchical structure of terrorist situation has further been observed, with lone actorship on the rise [19].

Accounting for individual and group factors, understanding organizational dynamics and environmental variables, and drawing a clear path to radicalization has proven to be challenging as evidenced by the paucity of research on the subject. This chapter will expand on the various definitions of suicide terrorism focusing on types of suicide attackers and recruitment. We will discuss psychological components, as well as social, political, and economic factors of radicalization and motivation. Lastly, we will briefly discuss plans for deradicalization.

Types of Suicide Terrorism

Lone-Wolf Terrorism

In 2010, Central Intelligence Agency director, Leon Panetta, testified before congress and stated that lone-wolf terrorism is a significant threat to the United States and should be paid attention to [2]. Studies have shown the United States being the top target for lone wolf terrorism, with 46 attacks (i.e., 63%) of all attacks occurring in US soil between 1990 and 2013, followed by the United Kingdom, which experienced 10 attacks in the same time period [4]. In several cases on lone-wolf attacks, the perpetrator's motive seems at least in part to be motivated by political reasons [23]. These attacks are on the rise, and despite some attackers not having any ties to terrorist organizations, they will remain a high threat to the United States and other nations [4].

Motives for suicide terrorism are seen on three levels: organizational, individual, and societal [35]. A lone-wolf terrorist, as the name states, falls in the individual level, as they plan and carry out attacks without organizational support [23, 24]. One of the first attempts to define lone-wolf terrorists came from the *Instituut voor Veiligheids-en Crisismanagement* (COT) in the Netherlands [2]. Basing their definition on the European union's own definition of terrorism, Cot defines lone-wolf

terrorists as “intentional acts committed by persons who: (1) operate individually; (2) Do not belong to an organized terrorist group or network; (3) Act without the direct influence of a leader or hierarchy; (4) Whose tactics and methods are conceived and directed by the individual without any direct outside command or direction” [2]. Theodore John “Ted” Kaczynski (The Unabomber), Timothy James “Tim” McVeigh (Oklahoma City bombing), and Nidal Malik Hasan (Fort Hood shooter), considered lone-wolf terrorists, are radicalized by different reasons, with different motives, and used different means of attack [4].

Since lone attackers are diverse in their motivations and profiles, there have been propositions to define them by typology, which can help provide a framework of the multiple layers of lone-wolves and how they interact [2, 4]. However, grouping them into broader categories may not be completely useful, therefore forensic psychologists and research have encouraged looking at lone-wolf terrorism in dimensions [2]. The three dimensions suggested are directed toward the profile of the perpetrator and fall under – loneness, direction, and motivation [2]. Loneness describes the extent to which the perpetrator initiated, planned, and prepared to execute their plan, the independence of activity; further, in this dimension, there are two categories: (1) Solo – they received no direct assistance from any other person; (2) Lone – they received direct assistance from one or two other people [2]. The distinction between these two dimensions of the attacker’s loneness, is based on “self-radicalization, contact with other militant or self-radicalized individuals, and whether the idea and attack had any influence, encouragement, or inspiration from any other person or organization, despite their lone act [2]. Direction is the second dimension, which is the autonomy of the decision-making across the spectrum of the attack from idea to execution: (1) Nondirected – received no personal instruction or guidance on whether to carry out an attack, the targets, or means in which to carry out an attack from any known member of an extremist group; (2) Directed – received some personal instruction, on all of the above [2]. Lastly, the third dimension is motivation, the clarity of causation and purpose, the motivation is placed in an ideological spectrum: (1) In the non-ideological end of the spectrum, the attacker does not communicate that the attack is motivated by any political, social, or other ideologically based grievance, not solely by revenge or other personal motives; (2) In the ideological end of the spectrum, the attacker was significantly and solely motivated by a political, social, or ideologically based grievance, and neither revenge or any other personal motives were a factor [2]. Though this classification is not necessarily how every agency and nation may look at lone-wolf terrorists, it provides an easy understanding of how an attacker would likely be classified in terms of loneness, motivation, and ideology in a spectrum rather than rigid one-dimensional categories.

Mass Shooters and Rampage Shooter

Though school shooters are not generally labeled as terrorists, they resemble lone-wolf terrorists in many aspects; they plan and perpetrate violence, most act alone, and most act out of some perceived grievance rather than for material gain [23]. Individuals who attacked at a school, college, or university that they had ever attended

were considered school-shooters, whereas if they attacked a place they have ever worked at, they were labeled workplace shooters [14]. Rampage shooters included attacks that were not considered terrorism by definition, school, or workplace shootings, that occurred publicly before an audience, and the victims were chosen for symbolic significance or at random [14]. However, these distinctions are not always made, but in the study by Lankford [14], he distinguished both in order to compare between those who attack their place of work or school, and those who attack public establishments (e.g., movie theaters, malls, restaurants). The study by Lankford [14] found many similarities between suicide terrorists, school shooters, and rampage shooters. They act out of a sense of grievance and were all likely to write an explanation or suicide note prior to the attack and were almost as equally likely to end up dead as a result of the attack [14, 23]. The frequency in which school or rampage shootings happen are significantly higher than suicide terrorist attacks in the United States; in a 20-year span from 1990 to 2010, there were 12 suicide terrorism attacks, 18 rampage shootings, and 16 school shootings [14]. One of the major differences on suicide terrorist attacks and school and rampage shootings is the motivation as the former is often driven by political grievance of unjust injury to a larger group or cause, whereas the latter is personal grievance of unjust injury to self or loved ones, though rampage shooters can be politically driven by a cause [23].

Cults

Religious terrorism is typically characterized as “acts of unrestrained, irrational, and indiscriminate violence [7].” For the religious terrorist, violence first and foremost is a sacramental act or a divine duty that must be followed [7]. Though terrorism can be religiously motivated, when looking at cults and religious terrorism, there are three goals that set these apart: (1) fomenting the apocalypse; (2) creating a religious government; (3) religiously cleansing a state [7]. Though not all cults are considered religious terrorists, some engage in very similar behavior, though the violence is maintained within the organization and only engage outwardly in order to protect themselves [7, 21, 27].

Perhaps one of the most well-known religious cults in the United States was Jonestown, which was formed by Jim Jones in 1953. Jones himself explored many religions in his youth from Methodist to Quaker, and attended Missionary trips in Cuba, Brazil, and Guyana where he eventually moved Jonestown to [27]. Jones had his goal set in building his church, which was moved to California in 1965 and later relocated to Guyana in 1977 [27]. For a few months, the new home Jones had found seemed to be impenetrable until Congressman Leo Ryan went for an investigative visit; at the end of this visit he was killed along with four of his companions in a shooting with Jonestown followers [1]. Prior to the 1978 murder of Congressman Ryan, Jones had taken steps to prepare his followers for death, as they had rehearsed on several occasions and to assess how loyal they were to him by giving them drinks and they did not know whether they were poisoned or not [1]. During this ritualistic suicide, babies were given cyanide down their throat

through syringes first, then adults lined up to drink cyanide-laced Kool-Aid. Though not all deaths were by suicide, it appeared some were shot as they attempted to escape into the jungle and many of the victims were under the age of 17 and over the age of 65 [1]. Though not all cults go to the extremes of Jim Jones, they do favor brainwashing and followers are often kept away from non-members in order to maintain their loyalty [1]. Further, it has been reported that those who have defected from cults give significantly different accounts of the movements of the cult than those who are “deprogrammed,” which tend to be considerably less damning to the leader and the organization [1].

Suicide Bombers

“Human bombs are smart bombs, that are versatile, accurate, and extremely lethal. They are also relatively inexpensive to prepare and their psychological impact on the enemy is potent” [8].

There are multiple theories about whether suicide bombers are actually suicidal, or if they are simply following through with an ideal in search of martyrdom or paradise. According to Post et al. [31], collective identities are shaped around the social and cultural environment in which they develop, and “hopelessness, deprivation, envy, and humiliation make death and paradise, seem more appealing.” The institute for Counter-Terrorism (ICT) defined suicide bombing as an “operational method in which the very act of the attack is dependent upon the death of the perpetrator” and they are fully aware if they do not intend on killing themselves, the planned attack will not be fully implemented [37]. Organizations that use suicide bombers often use martyrdom and self-sacrifice as a way to entice individuals to fight for a cause and deem the act as an act of courage [37]. At an individual level, culturalist approaches directed researchers to understand suicide bombing as an act of self-sacrifice that is rational, legitimate, and as a means to achieve what is desired in a public arena [8]. In an organizational level, rationalist approaches see it as strategic calculations in the context of warfare, which favor “innovative tactics” to surprise opponents; “Human bombs are smart bombs, that are versatile, accurate, and extremely lethal [8].” At a societal level, structuralist approaches give insight into what extreme violence suicide bombing becomes possible [8]. In the last will and testament of suicide bombers, Hafez [8], reported three themes that emerged; self-sacrifice as an opportunity for redemption, courage, and faith. Suicide bombers also indicate that “martyrdom operations” are necessary to fulfill one’s commitment to God and the prophet Muhamad [8].

Ismail al-M’asoubi, a suicide bomber that killed two Israelis and injured one in Gaza on 22 June 2001 wrote in his last will and testament: “Love for jihad and martyrdom has come to possess my life, my being, my feelings, my heart, and my senses. My heart ached when I heard the Qur’anic verses, and my soul was torn when I realized my shortcomings and the shortcomings of Muslims in fulfilling our duty toward fighting in the path of God almighty.” ([8], p.175)

The general social presumption worldwide that women participate less frequently in warfare, despite increasing numbers of female soldiers, make the involvement of women in suicide bombing attacks of interest [35]. The motivations for women to become suicide bombers likely differ from those of men because of cultural, social, and gender norms. One of the motivations found by researchers on why women wanted to become “martyrs” was due to their inability to “fulfill the expected social roles allotted to women in their society” [35]). Some of the reasons discussed about failing to meet social roles were: Become a disgrace to family due to “unsanctioned relationships,” rejected by husbands due to inability to bear children, and being forced into conservative roles [35]. Though these are merely some examples why women may decide or are forced to become suicide bombers, others discussed are experiences of trauma at the hands of enemies and family members, such as kidnappings, sexual abuse, coercion [35].

Recruiting

The demographics of suicide terrorists can vary by each terrorist organization, but it often varies significantly by education, marital status, age, socioeconomic status, and gender [18]. Further, different terrorist organizations have recruitment preferences as Al-Qaeda recruits locally and internationally, whereas Hamas focuses locally in the Gaza strip and West Bank [18]. Recruitment can take place in many settings, prisons, mosques, refugee camps, as well as the internet, and in some cases, the candidates are the ones to reach out with interest [18].

The recruiter’s often take advantage of personal distress, thirst for revenge, enthusiasm, and overall difficult situations [37]. There are several motivating factors to joining a terrorist organization that are advertised: social support as it encourages bonding with those with similar ideologies, historical alliance as it touts fighting for a common cause and against a common enemy, political action, fighting for grievances against suppression and against dissimilar political views, and religious beliefs, often a strong justification for terrorist acts as they are motivated to fight against the *infidel* and to protect Islam or other religious beliefs [18]. Though the demographics of terrorist organization militants vary, there are some characteristics that are similar across many of them that make it difficult to resist the recruitment, whereas some individuals do resist and do not join these organizations [9]. Some of these characteristics are a high level of distress or emotional and/or physical dissatisfaction, cultural disillusionment and unfulfilled idealism, lack of religious belief or value system, dysfunctionality in the family, and dependent personality tendencies organizations [9]. This information is important for counter-recruitment and to assess those who are more vulnerable and easy targets for terrorist organizations and are engaging in compromised activities [9]. Though the vulnerability of the recruitment process is not fully understood, common techniques of approach can be used to assess threat of recruitment to certain individuals as initial contact between recruit and recruiter grows in intensity, and continuation of contact independently as the individual becomes a self-identified member [9]. The common themes in all of

the discussed techniques are to exploit or create physical and mental trauma in the targeted individual in order to make them more vulnerable to the ideals of the organizations [9].

Motivation and Factors Contributing to Radicalization

Psychological Factors

Radicalization can be defined as the “development of beliefs, feelings, and actions in support of any group or cause in a conflict” ([22], p.4). Factors contributing to this development can be of a psychological, sociological, political, environmental nature. Religious beliefs and extremism [6], individual psychological factors [25], hierarchical and organization competition among terroristic groups [26], factors rooted in political and economic change, as well as global factors [29] have all been posited as possible factors in motivation for suicidal terroristic acts.

A variety of psychological factors have been posited as cause for radicalization and motivation for terroristic suicide over the past three decades. The contention is that individuals responsible for perpetrating suicide terrorism are psychologically different from everyone else; this pathology accounting for their involvement in terroristic acts took root in the early 1970s and has continued to go in and out of favor since then. This type of thinking heavily influenced policy decisions as well as avenues of study [33]. In the late 1980s, research in the field of psychology found that, in fact, the opposite is true, and many individuals engaging in terroristic acts were more stable than other violent criminals [16].

Since then, the literature has mostly maintained that although some suicide terrorists do suffer from psychological disorders, they are a minority. Reports from researchers who have met with suicide terrorists evidence that, in general, these individuals possess stable personalities and exhibit rational thought. Lack of self-control, discipline, or mental stamina often inherent to serious psychopathology does not engender itself to a successful terroristic attack [33].

Continued efforts have attempted to find some common psychological traits in suicide terrorists' motivations in order to at the very least, glean a better understanding, and at best develop possible prevention measures [20].

Trauma-based factors of radicalization have also been considered, especially in regions with conflict, violence, and lack of resources [34]. Frequent reminders of loss, constant experiences of danger, feelings of anger, helplessness, and bereavement can serve to contribute to emotional numbness, from which death can be a welcome release. These experiences can lead to vulnerability to terroristic ideologies and openness to suicide bombing, as a means of action with which to regain control and decrease emotional pain [34].

In recent years, a cluster of theories identifying several possible psychological factors leading to radicalization have emerged [4]. One such theory, rooted in the psychodynamic approach, looks at narcissistic and paranoid traits as well as an absolutism, or moral inflexibility, as contributing to radicalization. The following is a

possible scenario grounded in this theory; an individual who is neglected throughout childhood develops grandiose fantasies around becoming part of a group identifying self as part of this greater whole. The individual is paranoid, which leads to an exaltation of the ingroup and demonization of the out group. Finally, the individual is morally uncompromising and absolute, able to rationalize perpetrating a terroristic act as self-defense [4]. The author identifies identity theory, arguing that younger individuals in the throes of identity formation are susceptible to joining a terroristic organization. The goal of joining is to attain a feeling of worth, purpose, and ultimately belonging [4, 17]. This type of identification with an ingroup, and disidentification of the outgroup increases the likelihood of violence against members of the outgroup, a cornerstone of terroristic behaviors [5].

Another theory that has gained traction in the last two decades stems from the idea that individuals act based on an underlying need in the process of radicalization [17]. For example, actors seeking justice feel that they have not been treated fairly throughout their lives and can be motivated to remedy this through terroristic action, thus becoming susceptible to radicalization due to sensitivity to violations of fairness [36]. Sensation-seeking individuals may join extremists groups as a way to satisfy a desire for adventure, excitement, or thrill-seeking [17]. Actors seeking significance in their lives can become involved with terroristic organizations, may seek to discover a life purpose, and become radicalized as a function of this purpose [12].

A question that has continued to cause controversy in the field is whether to categorize suicide terrorists as suicidal. Existing psychological theories of suicide do not seem to adequately explain the phenomenon [25]. Moreover, many of the generally accepted risk factors for suicide including past attempts, clinical depression, and substance abuse are not present in those endeavoring suicide terrorism [25, 33]. Researchers suggest that a new typology of suicide – fatalistic-altruistic suicide – be created for these actors. This category stems from a conflation of Drukheim's altruistic and fatalistic typologies of suicidal behavior [25]. The contention is that suicide terrorists see their terroristic act as part of doing their duty for their ingroup, a form of altruism, and a loss of hope for a better future, or fatalism [9]. Other theories posit that there is not a single profile, but rather categorizes these actors into different typologies related to sociological, political, and economical factors [9, 10].

These are but a few of the theories that have been and continue to be explored in this field, with the overarching goal of gleaning a better understanding of the psychological motivation of radicalization. Considering the myriad of cultural, psychological, and personality differences, the difficulty of compiling a single profile for motivation and radicalization becomes apparent.

Plans for Deradicalization

The process in which individuals are radicalized involves many different factors as explained earlier. However, the process of deradicalization is much more difficult to review due to several problems. First, there is a paucity of research in this area. The nature of terrorism makes it extremely difficult to collect data and test programs on

individuals. Second, because of this lack of research, there is disagreement as to what methods to use to deradicalize individuals. In fact, there is variation in deradicalization programs depending on what part of the world a radicalized person is from [3]. Finally, there are some schools of thought that believe the only way to fight against terrorism is to counter it with war tactics rather than rehabilitate the individual [15].

One positive first step toward deradicalization, although perhaps difficult to achieve without help, is when an individual voluntarily disengages from committing violent and terroristic acts [12]. Again, the reasons for disengagement have not been heavily researched. However, the few studies done on this topic show that there are three main clusters of reasons why this happens. First, the person may lose faith in the militant ideology [3]. They could be negatively affected by the violent acts committed or a person can enter the extremist's life and provide a different view. There also could be a group or leadership failure, usually triggered by ingroup fighting, which sometimes also becomes violent, by manipulative, self-seeking behavior of the leaders [3]. Another reason extremists may voluntarily disengage is due to personal or practical circumstances as simple as burnout, getting older, or recognizing the impact extremism may have on one's family [3].

There are also differences in deradicalization programs by region. If deradicalization is viewed in the same way a clinician treats a client on a microlevel, the same techniques and goals can be used on a macrolevel in terms of deradicalization. Mainly, one must assess needs and deficits and come up with a plan to solve the problem. Some of the problems, as discussed in previous sections, are that there is economic instability, psychological factors, and misinterpretation of religious texts that make someone more susceptible to radicalization. In Europe, deradicalization programs focus on social services support, learning vocational skills, and financial assistance [3]. In South Asia and the Middle East, the programs teach extremists the correct interpretation of the Qur'an by using religious scholars, reformed extremists, and other experts [3]. This is done to show the individuals that what they are doing is not being a martyr, but in fact committing murder and suicide, which are both sins in the religion of Islam. There has been some success with these programs, especially in Europe, which is measured by the individual not engaging in acts of terrorism [3]. However, it is also clear that longitudinal success is difficult to measure and there is no data for that.

Using war tactics and violence is the answer for those that think deradicalization programs do not work [15]. This can obviously lead to more violence as the terrorist group is under attack, so they can and will respond with equal or greater violence. Increasing and instilling doubt and increasing the stigma of suicide are also seen as ways to potentially deradicalize extremists, but this may be difficult to achieve because the leadership and goals of the group and the indoctrination of martyrdom are deeply instilled in the radicalized individuals [3, 13].

From the information currently available, it can be deduced that a combination of methods can be and are used to deradicalize individuals that are part of a terrorist organization. First, the root cause of why people join terrorist organizations must be evaluated. Then there must be experts and programs to address these issues. There

should be a combination of psychological, economic, social, religious, and military endeavors as the reasons why individuals become radicalized is complex and not one-dimensional [15]. It is hopeful that in the future there will be more information as to what aspects are proven to be the most successful at not just deradicalizing, but perhaps even intervening before a terroristic act is committed.

Conclusion

Suicide terrorism has increased in prevalence over the past 30 years and continues to be a challenging area of study. Suicide bombers, mass shooters, lone-wolf terrorists, and cult members are just several of the different types of actors engaging in terrorism by suicide. Recruitment, radicalization, and engagement of these individuals continue to be studied as new types of perpetrators arise. Researchers in psychology, political science, sociology, economics, and many others have attempted to understand, describe, and recognize predisposing factors to motivation and radicalization of these actors. Deradicalization has also been a major focus of study and practice. There is a paucity of research specifically identifying shared psychological factors in suicide terrorism particularly due to the impossibility of interviewing successful perpetrators. Suicide terrorism continues to be a challenging area of study necessitating an understanding of suicidology, a willingness to look outside of the typical applications of theory, and a widespread, interdisciplinary approach.

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Differences in Suicide Risk Assessment and Management Between Mental Health Professions

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Counselors, Social Workers, Nurses, Psychologists and Psychiatrists

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Abstract

Due to the increasing rate of suicide in the United States, assessment for risk of suicide has taken on increasing importance. Within the mental health field, we see personality, experience, and job description influence how professionals assess and manage suicide risk. Some professionals see patients for 15 min

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every other month while others see them for an hour every week. Are professionals adhering to the ethics of beneficence and non-maleficence if they are approaching the assessment and management of suicidality with such apparently different time commitments? How do the people within different fields attain standardization for assessing individuals who are at risk for ending their own lives?

Keywords

Suicide · Suicide assessment · Occupation

Suicidal Acts and Deaths

Picture this: a 27-year-old man is brought to the emergency room in an unconscious state following a single car/single occupant accident in what may have been a suicide attempt. He is initially unable to participate in his treatment and the ER staff are unable to locate a health care proxy to participate in health care decisions on his behalf. The patient is admitted to an intensive care unit where, over the next few days, he regains consciousness. As his physical condition improves, he is found to be depressed and to have a history of depressive episodes. A mental health professional is assigned to his case. Although he has little memory of the car accident, he denies that it was a suicide attempt. He is nonetheless offered an admission to an inpatient psychiatric unit. The patient, however, states that he does not want to be on a psychiatry unit and that he wants to be discharged to his home. His mental health care provider is asked to evaluate his current risk for suicide. He or she is also asked to assess whether the patient could be safely discharged, whether he might change his mind and accept psychiatric hospitalization, or whether, if he were to refuse voluntary hospitalization, it would be necessary for his safety to apply to the court for a period of involuntary commitment.

It would seem that such a suicide risk assessment would be a streamlined and standardized process, but that is not necessarily the case. First, there have been longstanding problems with how to classify and define suicide-related ideation and behavior [17, 21, 22]. Moreover, suicide risk assessments and the management of suicidal thoughts and behavior may vary across settings and across mental health disciplines.

In this chapter, we will initially discuss a recently proposed classification system for self-injurious thoughts and behavior that appears to have face validity [16]. We will then present data on the need for improved efforts at suicide risk assessment and management. Next, we will discuss suicide risk assessment and what suicide risk and protective factors tell us. Finally, we will focus on suicide risk assessment and management and how clinicians in different settings and those from different mental health disciplines might approach, evaluate, and manage suicide risk.

A Possible Classification System for Self-Injurious Thoughts and Behavior

Nock & Favazza [16] have proposed a classification system for self-injurious thoughts and behavior (SITB) that subsumes death by suicide. In contrast to several previous classification systems for suicide-related behavior, the primary classification in their system is SITB, which includes “a broad class of experiences in which people think about or engage in behavior that directly and deliberately injures themselves” (p.10). This broad class of experiences includes subcategories of (1) “suicidal thoughts and behavior in which there is intent to die” and (2) “non-suicidal SITB in which there is no intent to die” (p. 11). Suicidal thoughts and behavior with intent to die can lead to death by suicide, but also includes subcategories of (1a) suicidal ideation, (1b) suicide plan, (1c) acts preparatory to suicide, and (1d) actual suicide attempts; while nonsuicidal SITB with no intent to die includes (2a) suicide threats/gestures, (2b) nonsuicidal self-injurious thoughts, and (2c) actual nonsuicidal self-injury.

Nock & Favazza’s system leads us to a primary distinction that mental health clinicians must often attempt to make; i.e., the distinction between self-injurious thoughts and behavior with at least some intent to die versus self-injurious thoughts and behavior with no intent to die. This distinction is, in part, difficult to make because an individual’s intent is often based solely on self-report and/or he or she has mixed or shifting motivation. If there is intent to die, of course, the most serious outcome is death by suicide defined as death due to harming oneself with the wish or intent to die. If the individual harms or injures himself or herself with the intent to die, but survives, it is considered a suicide attempt.

In contrast, Nock & Favazza define NSSI or nonsuicidal self-injury as “direct, deliberate destruction of body tissue in the absence of any intent to die” (p. 13). It is said to differ from suicide threats or gestures in that suicide threats or gestures are typically presented in an effort to convince others that the individual wishes to die.

Suicide Statistics

Suicide is one of the leading causes of death in the United States. In 2019, it was ranked as the tenth among causes of death in the United States, and the second leading cause of death for adolescents and young adults ages 15–24. For at least the past decade, there has been a steady annual increase in the suicide rate for the general population, with a modest decrease in 2019. Despite the decline in 2019, there were 47, 511 deaths by suicide in that year. That far exceeds the deaths by homicide which were 19, 141 in 2019 [5].

In addition to deaths by suicide, it is estimated that between 2007 and 2014, there were over three million attempted suicides that required treatment in an emergency room or hospitalization [3]. Consistent with Conner, et al., Roy, et al., [20] reported that approximately half a million patients are treated for intentionally self-inflicted injuries in Emergency Departments annually in the United States. Nearly 40% of patients who die

by suicide received Emergency Department services in the year preceding their death and 45% visited their primary care clinician in the month prior to death by suicide [15, 20]. Moreover, it is estimated that 12% of patients presenting to Emergency Departments for nonmental health issues report “silent suicidal ideation” [20].

Suicide is defined as death caused by harming oneself with the want or intent to die (“Preventing Suicide | Violence Prevention | Injury Center | CDC”). A suicide attempt is the self-injurious behavior inflicted upon oneself with the intent of dying but did not result in death (“Preventing Suicide | Violence Prevention | Injury Center | CDC”). Suicide is one of the leading causes of death in the United States. It was ranked tenth in the list of leading cause of death by the National Vital Statistics Report as of 2017 [9]. From 2007 to 2017 there have been over 400,000 suicide deaths in the United States alone [3, 9]. These were only the deaths classified as suicides; there are many suicides every year that may have been misclassified as other causes of death. Over three million attempted suicides from 2007 to 2014 either required treatment in the emergency room or hospitalization [3]. According to the Center for Disease Control, annually, approximately half a million patients are treated for intentionally self-inflicted injuries in Emergency departments [20]. Nearly 40% of the patients who die of suicide, received Emergency Department services in the year preceding their death and 45% visited their primary care physician the month preceding their death [15, 20]. Further, 12% of patients presenting to Emergency Departments, for non-mental health related issues, report “silent suicidal ideation” [20].

When discussing suicide statistics there are many different demographic considerations and the intersection of those demographics (e.g., age, gender, region, method, and urban vs rural areas). Unfortunately, despite professionals’ best efforts to relay accurate information, the only stats available are for individuals who presented to emergency rooms, were hospitalized, or whose actions resulted in death. There is even the possibility that some deaths by suicide have gone unreported by request of the family. There is the potential for families to ask medical professionals to rule their loved ones suicide an accident for many different reasons (i.e., shame, religion, pension, etc.). The Centers for Disease Control and Prevention, National Center for Health Statistics database reports that 10.7 million people have seriously thought about suicide, 3.3. million of those individuals made a suicide plan, and 1.4. million people attempted suicide.

According to the Centers for Disease Control and Prevention, National Center for Health Statistics database suicide completion rates increase with age, with individuals 15–24 years old making up 3.4% of the fatal suicide attempts made in the United States and 35.4% of fatal suicide attempts made by individuals 65 years old or older [3]. While individuals 65 and older lead with the most suicidal acts individuals ages 45–54 years old lead with the most deaths resulting from suicidal acts (68,437 = n) [3].

Overall, of the nearly half a million people ages 5–65 and up, only 8.5% of suicidal acts result in death [3]. Conner et al. [3] among other authors have identified that although women attempt suicidal acts more frequently (55%) men complete suicide at a higher rate (78.4%). This may be due to the fact that men have shown to use more lethal means to attempt suicide (firearms and hanging) while women use less lethal means that present a wider window for intervention (drug poisoning (overdosing)) [3].

Conner et al., [3] article provides further evidence for this by reporting that while drug poisoning makes up 59.4% of suicidal acts, this method only accounts for 13.5% of suicidal deaths. However, these statistics may be skewed if you look at certain populations, such as individuals in the Military or law enforcement. Both populations have higher access to firearms and are presumably trained in how to effectively use them. Additionally, women who attempt or complete suicide within these populations have a higher rate of using firearms when compared to women in the general population.

There are other populations disproportionately identified as impacted by suicide. The Centers for Disease Control and Prevention, National Center for Health Statistics database identified that non-Hispanic American Indian/Alaska Native and non-Hispanic White populations have the highest rates of suicide in the United States. Children who identify as “sexual minorities” were also found to have higher rates of suicidal ideation, behavior, and suicidal deaths. The Centers for Disease Control and Prevention, National Center for Health Statistics also found that Veterans and other Military personnel have higher rates of suicide than the general population. Some occupational populations are also impacted by suicide at a higher rate, such as those working in the arts, sports, media, and construction.

Something important for mental health professionals to consider as well is the difference in method used in suicidal act based on geographical location and urbanization. For example, the southern states have higher suicidal act and fatal suicide attempt rates making up 38.9% of suicidal deaths and 37.2% of suicidal acts [3]. If a mental health professional is working in the southern part of the country, they may want to approach and manage suicidal ideation with the greatest care. Especially due to regional acceptance of personal ownership of firearms in this part of the country compared to that of the northeastern United States. Additionally, based on the Centers for Disease Control and Prevention, National Center for Health Statistics mental health personnel working on Military bases and in Veterans Affairs hospitals may be exposed to more instances of suicidal thoughts, acts, and deaths.

So, what does this all mean for us as mental health professionals? Do we need more complex and inclusive psychological assessments that look for suicidal traits? Do we need to provide more access to mental health services in rural areas? Or do we need better training on existing best practices including generally accepted assessments? That answer to all these questions are yes. As a field we must always strive to provide the best care possible especially when it comes to the safety of our more suicidal patients.

Recommendations

The Centers for Disease Control and Prevention, National Center for Health Statistics database identified multiple approaches to assist in the change of managing suicidal ideation and minimizing suicidal acts. These include community outreach and education by increasing household financial security, community-based interventions to reduce excessive alcohol use, and teaching parents how to build family relationships. There are also recommendations for mental health professionals

specifically, such as providing a safe environment for reporting suicidal thoughts, reducing access to lethal means, and increasing access to suicide care. In California there are Gun Violence Restraining Orders (GVROs) that restrict access to those who present with suicidal thoughts. A GVRO is a “court order that prohibits someone from having a gun, ammunition, or magazines” [7]. Any close family member of someone at risk or someone that has lived with someone at risk within the last 6 months can request a GVRO [7].

Assessments for Risk of Suicide

When presented with a patient who is endorsing suicidal ideation it is imperative for the mental health or medical professional to do everything in their power and training to prevent loss of life. Assessing for suicide risk can be done with a clinical (or medical) interview as well as evidenced-based assessments. Through the interview it is important to look for risk factors as well as potential protective factors. Protective factors can be people, activities, ideas, etc., that reduce the risk of suicidal acts. While risk factors increase an individual’s risk of suicidal acts, it is not only important to assess for this verbally, but also through assessments that have been empirically reviewed and have demonstrated the capability to identify these factors and therefore identify individuals who may be at an increased risk of acting out suicidal acts.

Some assessments for risk of suicide include the Becks Depression Inventory-II (BDI-II), Suicide Assessment Five-step Evaluation and Triangle (SAFE-T), Columbia-Suicide Severity Rating Scale (C-SSRS), Tool for Assessment of Suicide Risk (TASR), and the Cultural Assessment for Risk of Suicide (CARS). For many evidenced-based assessments there are minimum qualifications for those who can be allowed to administer. Normally requiring “some training” on the instrument, however, PDF versions of many of these assessments are available online and are readily accessible. Additionally, since many of these assessments are self-report measures a full clinician or practitioner administration is not required. Research on what assessments are more prevalent in certain settings is scarce. There are additional limitations to ascertaining that knowledge with the creation and mainstream use of integrative teams. These teams can include professionals from multiple backgrounds (i.e., psychology, psychiatry, nurses, medical doctors, case managers, administration, etc.). These teams offer the opportunity for multiple disciplines to offer insight and perspective on the patients.

How Different Settings Approach Suicide Management

Different settings follow different guidelines for suicide assessment, prevention, and intervention. With different settings come different integrative teams that are made up of an assortment of mental health professionals as well as support staff. Despite

this the goal remains the same: to effectively identify and manage risk of suicide. The following section describes several different settings that suicide risk can present and how each setting uniquely approaches suicide risk.

Hospital

In hospital settings, primary care and emergency department prevention and intervention may look different. In primary care settings, patients dying by suicide visit primary care physicians more than twice as often than mental health clinician [15]. The Mayo clinic and the US preventative Health Services Task Force recommends primary care offices to consider collaborative or supportive care staff models (i.e., nurse care managers, psychiatric nurses, or other mental health providers), as it has proved to be effective in reducing suicidal behavior and also increasing overall levels of combined treatment with pharmacology and psychotherapy for faster remission [15]. For example, the Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT), was found to be more effective than treatment as usual for patients 60 years or older [15]. The findings were found to be present in different practice settings in urban, suburban, and rural areas, and suicidal ideation in the collaborative care group was 2.2 times less likely after 24 months [15].

Roy et al. [20] conducted focus groups with emergency rooms attending physicians and resident physicians in a large teaching hospital. The purpose of the focus groups was to examine the gaps and needs in assessment of current suicide risk in emergency department physicians. They found that emergency department physicians saw their role as to complete problem-focused assessments on certain signs and symptoms, but many were uncomfortable with psychiatric patients, and often did not do thorough suicide assessment or provided interventions unless they present with an imminent threat [20]. The findings of this study highlighted the difficulties in assessing and providing intervention by emergency room physicians; it also emphasized the inadequacy of simple solutions, as simple suicide risk assessments are not enough to engage in prevention and intervention in complex environments [20].

Inpatient/Outpatient

Though suicidal behaviors are difficult to predict, there is clearly a need to identify more clearly the factors associated with individuals who are in outpatient and inpatient treatment. The National Confidential inquiry into Suicide and Homicide by People with Mental Illness identified people treated in inpatient settings as a priority group in which service recommendations are most required [18]. Jobes [10] developed a system, The collaborative Assessment and Management of Suicidality (CAMS). This system serves as both a means of assessing risk in suicidal patients and as a platform for developing a therapeutic relationship needed to work with patients who have low motivation for accepting help [6]. CAMS focuses on the

extent of the ambivalence about life and death while inviting the patient to refrain from acting on suicidal thoughts while exploring other options [6].

Correctional

As a group, inmates have higher suicide rates than community counterparts and there is some evidence that rates are increasing, despite some inmate number decreasing [14]. Not only are the suicide rates higher for inmate population, but people who are imprisoned show suicidal thoughts and behaviors throughout their lives as well [14]. In 2000, The Department of Mental Health of the World Health Organization (WHO) published a guide as a resource for prison officers for preventing suicide as part of the WHO worldwide initiative for the prevention of suicide [14]. Some key components of suicide prevention in correctional settings are: (1) Training – suicides are usually attempted in inmate housing units and during late evening or weekend hours when there is less oversight by staff, therefore staff should be trained in suicide prevention, and how to spot behaviors that may lead to an attempt, as well as early refreshers. (2) Intake screening – every inmate should be screened at intake and again if circumstances change. (3) Post-intake observation – staff must be vigilant at all times during an inmate's incarceration, but it is important to look at indications of an inmate's suicidality during periods of transition and increased stress, such as; court hearings, family death or divorce, family disputes during visitations, as well as during any isolation/segregation, and change in housing [14].

Community Settings

Community mental health settings are generally one of the most underfunded and overutilized services in the United States; furthermore, the availability of evidence-based interventions is significantly lower in this setting [1]. According to Asarnow and Miranda [1], the vast majority of those who seek care receive poor quality care or care that is not evidence based, therefore addressing these problems is imperative for improving mental health outcomes in community settings. One attempt to improve the quality of the care is to alter the process of care to be more responsive to patient complexity, co-occurring problems, and comorbidity [1]. It is also important to recognize that there are personal barriers and attitudes against treatment for youth and families who utilize community mental health services and there is a need to attend to strategies for linking them to appropriate care [1]. Substantial heterogeneity exists among individuals who suffer from depression, engage in suicidal or self-harm behavior, and die by suicide, which require service delivery strategies and flexibility in community settings to address the particular needs of individuals, families, and youth, which also need to take into consideration diversity and cultural needs of the communities in which they live in [1].

Influence Training Has on Suicide Risk Assessment and Management

Research bearing on the specific question of whether one's mental health discipline influences one's approach to, or performance of, suicide risk assessment is limited. From a general perspective, we might look to Kingsbury [12], who trained first as a psychologist and then as a psychiatrist, for potential insights into differences in the education and training of psychologists and psychiatrists. Kingsbury published an article about his experiences with education and training in each discipline. It was entitled "Cognitive differences between clinical psychologists and psychiatrists." Given his experience, he believed the two disciplines enculturated clinicians-in-training in some fundamentally different ways. Thus, he noted that in graduate school, he learned that the medical model (with its emphasis on diagnosis) was a way of viewing "dis-ease as disease" and, at its worst, as "an ideological imperialism. . ." (p.153). In medical school, however, he learned that "the medical model (was) a tried and true method for data collection . . . and for making decisions about interventions" (p. 154). Kingsbury also observed a difference between psychology and psychiatry in terms of training for emergency situations (such as the assessment and management of patients at high risk of suicide). As he stated:

"In emergencies such as cardiac arrests or the appearance of acutely psychotic, destructive individuals in the emergency room, one must act immediately, contemplating and critiquing performance later. Although physicians do not act only in emergencies, the tasks of preparing for them and of learning treatment algorithms shape one's view of the nature of science (p. 153)."

Although psychologists only encounter behavioral (as opposed to medical) emergencies (e.g., instances of high risk of suicide or violence to others), there is no evidence that they are trained systematically in this area of emergency services (see [13], for an overview).

Kingsbury's observations are, of course, possibly dated and limited in terms of generalizability in that they are those of a single individual who had experience in a single psychology graduate program and a single medical school and psychiatry training program. As such, they could be viewed as hypotheses in need of further research.

In one indirectly relevant study, Hammond, and Deluty [8] constructed a questionnaire with 10 Likert scales to assess the attitudes of psychologists, psychiatrists, and oncologists toward patient suicide. Their randomly selected sample included 115 clinical psychologists, 81 psychiatrists, and 167 oncologists. Responses to the 10 scales were subjected to a principal-components factor analysis. In part, these authors found that suicides in response to chronic depression were perceived as less acceptable than suicides in response to both terminal and nonterminal physical illnesses. Psychologists were more accepting of suicide in response to chronic pain than either psychiatrists or oncologists. The investigators suggested that this latter finding might be attributable to greater familiarity with successful pain management on the part of physicians. It could also, of course, suggest that there might be

differences in psychologists' and psychiatrists' attitudes toward and management of suicide risk, at least in cases of chronic pain. In a study in Greece, Kavalidou [11] set out to investigate attitudes toward suicide in the potential future gatekeepers for suicide prevention (i.e., fourth year medical students and upper-class undergraduate students in psychology). She administered the Suicide Opinion Questionnaire (SOQ) [4] to over 200 participants.

The SOQ has 100 questions regarding attitudes toward suicide. A pertinent finding was that the medical students tended to view suicides as an outcome of mental illness while the psychology students tended to think of suicide in terms of a right-to-die choice. The findings in the studies by Hammond and Deluty and by Kavalidou are suggestive of differences between those trained in medicine or psychiatry and those trained in psychology in terms of the etiology and conceptualization of death by suicide. Whether or not that translates into differences in terms of suicide risk assessment remains an empirical question.

The Standardization of Suicide Assessment Tools

Suicide risk assessment and management are complex processes that require all clinicians, including counselors, social workers, nurses, psychologists, and psychiatrists to be attentive to various important aspects of the individual in order to effectively provide care. What is most important in the development of clinical procedures is the need to be inclusive of specific components to suicide risk assessment and management. While there is no standard of assessment or management of suicidal thoughts and behavior across disciplines and clinical settings, there are a number of empirically supported approaches that are recommended to all clinicians who provide care that may include persons with suicidal thoughts and behaviors. In assessment, clinicians are encouraged to attend to a number of primary elements to best assess the individual's thoughts and behavioral intentions. First, the clinician should recognize the value of gathering information from multiple sources. These can include from the individual directly capitalizing on the therapeutic relationship and history, self-report scales and instruments completed by the individual within a clinical setting, information from family and friends who may provide such information to the clinician directly or indirectly, and historical medical records available regarding previous suicidal thoughts and behaviors. Though to gather information from family, friends, and medical records the psychologist must first request a release of information (ROI). At times this can be difficult to ascertain if the patient has ambivalence about their family or medical provider knowing they are in therapy.

Second, the clinician's assessment is strengthened when individualized factors are considered including demographics and associated fixed (e.g., age, race, relationship status) and dynamic (e.g., relationship discord, employment status) risk factors. In essence, the clinician must attend to various common factors that are directly linked with understanding an individual's current state of suicide risk. It is critical to understand that this assessment is a fluid one as one's level of risk may

change at any time, suggesting the importance of close management of those with an increased acute risk. Management of suicidality requires the clinician to consider several strategies that are known to improve the wellness of an individual and promote their safety. Similar to assessment strategies, there is no formal standardization of these procedures albeit there are a number of common factors and processes that are important for the clinician to consider. First, the development of a personalized safety or crisis plan is recommended. Individuals who are at risk for suicidality benefit from cocreating, with the clinician, a formal list of ideas for how to recognize warning signs of increasing distress and then how to effectively intervene at various levels of intensity of suicidality. This “formal list” is commonly known as a safety plan. Safety plans are also recommended to be shared with family and friends of the individual to promote social support from those able to provide it. Second, management requires the clinician to understand which supports, including personal and professional, may be available to integrate into safety planning. Third, clinicians need to determine what level of follow-up contact and treatment is appropriate including outpatient, partial, or inpatient levels. Fourth, communication with other clinicians in a collaborative way is essential to promote effective interprofessional care.

While there are not current standardized assessment and management practices for all persons in treatment, there is increasing emphasis on use of empirically supported tools within mental health care. As described in this chapter, a number of these tools are important to consider in order to utilize instruments that have been validated and demonstrate good reliability rates for use with similar populations from which they were developed. Integration of standardized tools will augment, but certainly not replace, the clinical judgment and decision making that is essential in providing suicide risk assessment and treatment. As clinicians develop their own clinical acumen (judgment), in conjunction with integration of standardized tools and procedures, suicide risk assessment and treatment processes will be enhanced and lead to improved care for the patient.

Conclusion

Suicide is a complex act that is influenced by a multitude of factors both fixed and dynamic. Some individuals, unbeknown to them present with a higher risk just based on their cultural background. The number of suicide deaths has been increasing over the past 10 years (“Preventing Suicide [Violence Prevention|Injury Center|CDC]”). The mental health field has been working toward more proactive care with administration of empirically based suicide assessments, treatments, and medications. This is evident from the evidence provided by McDowell et al. [15] that integrative care teams made up of professionals from multiple disciplines provide the best support and care. Despite these integrative teams, training around suicide risk and management is still unacceptably varied. Due to this variety of training the ability to standardize practices appears impossible. However, as emerging professionals we have the capability to change this course and create a more inclusive and

collaborative learning environment. This will also require us to be flexible in learning other practices as well. Despite the difference in profession, training, and occupation, setting the goal remains the same: to reduce the number of suicidal deaths as much as possible.

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Inpatient Versus Outpatient Management of Suicide Risk: Clinical and Ethical Considerations

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Abstract

In the course of treating suicidal patients, clinicians may arrive at a critical decision in which they must evaluate the costs and benefits of various approaches to risk management. Namely, clinicians may need to determine whether an inpatient or an outpatient setting is most appropriate for the management of their patients' suicidal behaviors. Though many medical and mental health practitioners will face this decision in their professional careers, few are aware of the factors that influence the course of appropriate suicide risk management and patient care. In this chapter, the authors discuss clinical and ethical factors

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that providers may use to aid clinical decision-making when determining the most appropriate setting for the management and treatment of suicidal patients.

Keywords

Suicidality · Standards of care · Risk assessment · Risk management · Inpatient · Outpatient · Ethics

Suicidality has long been recognized as a serious public health concern. According to estimates from the World Health Organization (WHO), suicide claims the lives of close to 800,000 people each year [72]. In the United States, suicide is the tenth leading cause of death across all age groups and claims the lives of 14 per 100,000 adults each year [26]. These statistics are all the more alarming when considering the fact that, for every individual who dies by suicide, many others have made a nonfatal suicide attempt. For every adult death by suicide, it is estimated that over 20 others have made an attempt [72]. Individuals with a lifetime history of suicidal ideation have a 33% lifetime probability of having a plan to commit suicide and a 30% lifetime probability of making a suicide attempt [56].

The prevalence of suicidal ideation and behavior call to attention the fact that many medical and behavioral health professionals will need to make decisions regarding the care of a suicidal patient. On average, practicing clinical psychologists will encounter five suicidal patients per month [42]. Approximately 97% of predoctoral clinical psychology interns will treat suicidal patients during their training [9]. One in six clinical psychologists and one in two psychiatrists will lose a patient to suicide during their careers [42]. Undoubtedly, assessment and treatment of suicidal patients are essential core competencies for mental health clinicians. Many clinicians will arrive at a decision point at which they must determine whether an inpatient or outpatient setting is most appropriate for managing their patients' suicidal behaviors. Despite the fact that many clinicians will encounter this decision point, few are aware of the factors that can influence the course of appropriate risk management and patient care [49]. As stated by Motto [47], the primary reason to use inpatient care is the clinician's judgment that "the patient is not likely to survive as an outpatient" (pp.3). Though this may initially seem straightforward, there are a multitude of therapist-centered, patient-centered, and logistic variables that may inform the best course of treatment.

Determining a treatment setting is a complex decision that may have far-reaching implications for the patient and clinician alike. Because there is no universal assessment or treatment algorithm for suicidality, the decision-making process is largely guided by clinical judgment [9, 51]. Despite this, factors that may influence this crucial decision have received little attention in the scientific literature. To address this gap, this chapter will review clinical and ethical factors that may inform the best course of treatment for suicidal patients. This chapter will first describe basic standards of care for suicidal patients in inpatient and outpatient settings. It will then delineate factors that should be considered during risk assessment in order to make informed decisions about treatment setting. The need for clinicians to avoid

defensive practice and deliver patient-centered care will be considered. Ethical risks and benefits of inpatient and outpatient settings will be discussed. Lastly, this chapter will review important clinical considerations during two vulnerable periods for suicide risk: post-hospitalization and transition from inpatient to outpatient settings.

Standards of Outpatient Care

Outpatient management of suicide risk will often involve patients determined to be at a low-to-moderate level of risk [8]. Outpatient care can occur across a spectrum of settings with varying levels of structure and intensity, including private practice, ambulatory mental health settings, and intensive outpatient programs [49]. Many patients are referred to outpatient care following discharge from an inpatient setting [17]. Whereas inpatient management of suicide risk largely revolves around safety and harm reduction, outpatient management aims to cultivate a strong therapeutic alliance and develop an explanatory model, which can guide treatment of the patient's suicidality [9]. Although outpatient care tends to be less focused on the immediate safety of the patient, clinicians must remain vigilant about any change in the frequency or intensity of suicidal ideation, urges, or intent [30].

One of the ways in which clinicians manage suicide risk and provide care is through the use of no-suicide contracts, which are agreements between the mental health provider and patient in which the patient agrees to abstain from engaging in suicidal behaviors [68]. No-suicide contracts are used with patients who have expressed suicidal ideation or engaged in suicidal behaviors [60]. These contracts generally include a statement in which the patients agree not to harm or kill themselves, a contingency plan to engage in if a stressor makes it difficult for the patient to maintain their safety, and a discussion of the responsibilities that both the patient and the clinician bear in the agreement [60].

Prior research suggests that no-suicide contracts are most frequently used as an intervention with higher risk patients [20, 21, 60]. Previous studies associated with no-suicide contracts have simply assessed the frequency of the use of such contracts in both inpatient and outpatient settings. Alarming, the effectiveness of this intervention in reducing a patient's suicide risk is unclear [21, 67]. The ambiguity associated with the effectiveness of no-suicide contracts impacts clinical care decisions. For instance, a study assessing the usage of suicide prevention contracting procedures in Australian mental health providers found that a small subset of the sample did not use any form of suicide prevention contracting at all [21]. These nonusers attributed their refusal to use suicide prevention contracts to concerns associated with the ineffectiveness of such approaches and the thought that no-suicide contracts offered mental health providers "a false sense of security" ([21], pp. 293)

Safety planning intervention (SPI) offers a different approach to managing suicide risk. Unlike no-suicide contracts, SPI is based on cognitive therapy, and a safety plan is purported to provide patients with individualized, effective, and detailed ways of responding to suicidal thoughts and crises [16, 67]. The SPI is conducted in a collaborative manner with the patient after an extensive risk

assessment, and the safety plan consists of six elements [16, 67]. The first step of the safety plan is the identification of warning signs that presage suicidal thoughts or behaviors, which are then followed by the identification of internal coping strategies that can be used without another individual's assistance [67]. However, if the patient believes that they are at imminent risk for suicide, they are instructed to seek assistance immediately and refrain from following the initial steps outlined in the safety plan [16].

The third element of a safety plan includes socialization strategies that the patient can use to cope with a suicidal crisis; specifically, the patient can interact with others or visit a social setting in which socialization will occur, such as a coffee shop [67]. In the event that the distractors identified in the third step of the safety plan are ineffective in ameliorating the suicidal crisis, the patient moves into the fourth step in which they reveal that they are in distress and explicitly request assistance from others [67]. The fifth step of the safety plan includes the identification and the contact of agencies and mental health professionals who can assist the patient during a suicidal crisis [67]. The sixth step of the safety plan includes removing or restricting the patient's access to lethal means in their environment [67]. This step is completed last during the SPI based on the rationale that patients may be more hopeful, and thus, more likely to engage in a conversation related to reducing their access to means after they have identified coping strategies [16, 67].

Research indicates that when SPI was combined with a follow-up telephone call with a sample of suicidal patients who presented for care in emergency departments, there was a 50% decrease in suicidal behaviors over a timespan of 6 months [68]. The SPI and telephone follow-up intervention was further associated with an increase in treatment engagement [68]. These findings were supported when Zonana, Simberlund, & Christos [75] indicated that safety plans were associated with a decrease in the frequency of hospitalizations for patients attending treatment at an outpatient mental health clinic. Thus, research suggests that safety planning has the potential to increase treatment engagement and reduce suicidal behaviors [68, 75].

Standards of Inpatient Care

According to practice guidelines published by the National Alliance for Suicide Prevention (NASP), primary objectives of inpatient treatment are to protect the safety of patients at imminent risk, stabilize suicidal urges and intent, and initiate a treatment plan [49]. Further underscoring the central role of safety in inpatient settings, practice guidelines set forth by the American Psychiatric Association state an inpatient setting should be considered in cases where the patient's safety is called into question [30]. Indeed, suicidal behavior and dangerousness to self are the most common reason for admission to an inpatient psychiatric unit [7]. In such cases, inpatient settings can utilize approaches such as restricting access to means, constant monitoring, pharmacological intervention, or restraint to prevent the patient from acting on suicidal urges [30]. Thus, inpatient settings are unique in that they permit

clinicians to restrict the patient's level of autonomy in order to minimize risk of suicide [10].

There are five sources from which the standards of care for suicidal patients in inpatient settings are extracted: case law, critiques of case law, professional standards determined by professional associations, teaching and practice of risk management skills, and information from settlements that occurred outside of court that were gathered by forensic suicidologists [7, 62].

On an institutional level, treatment facilities are expected to have a written manual that describes the policies and procedures that determine how clinical care will be provided to their patients [62]. All employees, including clinicians and other individuals on the treatment team, are expected to familiarize themselves with the facility's practices and rules, especially with regard to the care of patients who engage in behaviors that may pose harm to themselves or others [62].

Observation of suicidal patients is also a practice that is frequently employed in inpatient units as a measure of suicide prevention. It is recommended that observations include checks on secluded areas of inpatient units such as the bathroom and bedroom, and that observation again be employed during handover times [12]. Treatment facilities have multiple levels of suicide watch, and they can range from one-on-one observations to simply observing and noting the patient's location when they are awake [57, 62]. Nurses may check on patients in 15-min intervals in an effort to maintain their patients' safety; however, there is heterogeneity associated with the structures and functions of 15-min check-ins on the inpatient unit between hospitals [32]. When the staff increases their observation of the patients in their care, it is thought that patient safety increases as well [57]. However, there are negative consequences associated with suicide watch. For instance, prolonged suicide watch on a one-to-one level may include a decrease in a patient's senses of mastery and trust [62]. Moreover, suicides may still be completed, as placing a patient on suicide watch does not fully guarantee their safety [32, 62].

Treatment in an inpatient ward may include the use of psychopharmacology. Indeed, a clinician's decision to refrain from including medications in treatment, if clinically warranted, is a liability for legal and clinical reasons [62]. Research suggests that clozapine, lithium, and ketamine are effective for reducing the risk of suicide [1]. If a provider prescribes medication to their patients, it is imperative that they provide a written record for the reasons why medications are clinically indicated [62]. It is also the standard of care for clinicians to monitor the contribution that medications make to the overall treatment plan, as well as any changes to the patient's suicide risk level after medications are introduced [62].

Identifying Risk Factors to Inform Treatment Decisions

Mental health practitioners face multiple challenges when they attempt to assess for suicide risk. For instance, there is no assessment that currently exists that can accurately predict the occurrence of suicide [23]. Additionally, suicide risk assessment generally emphasizes static risk factors including psychiatric diagnoses, past

behaviors, and demographics to predict suicidal behaviors; these factors are frequently associated with high false-positives [23]. Suicide risk levels are problematic in that they may not be particularly sensitive in the differentiation between risk levels among hospitalized patients [39]. Despite these difficulties inherent in suicide risk assessment, mental health practitioners are expected to “treat the future as foreseeable, and...take measures to prevent such an occurrence” ([44], pp. 431). Thus, providers are not expected to predict the future [44].

Thorough suicide risk assessments include a psychiatric evaluation, explicit inquiries related to suicide, an estimation of the patient’s level of suicide risk, and treatment planning [31, 44, 69]. The psychiatric evaluation includes an assessment of multiple components including a patient’s presenting problems, substance use, hopelessness, psychiatric disorders, family history, and history of suicidal thoughts and behaviors [31]. Risk assessments also identify proximal risk factors such as stressful life events, as well as protective factors and access to lethal means [5, 23]. It is important to note that a patient’s denial of suicidal ideation during the risk assessment does not necessarily indicate that there is no suicide risk; it is therefore critical to evaluate the patient’s clinical presentation and assess for inconsistencies [31, 44, 69].

After the psychiatric evaluation concludes, a determination related to the patient’s suicide risk is made [44]. This determination is intended to assist the provider with further clinical decisions related to the patient’s care [18]. A framework exists in which patients may be assigned into “low, moderate, severe, [or] extreme” risk categories ([18], pp. 1187). However, clinicians are advised to use the levels flexibly, such that patients may fit into more than one risk level at a time [18]. In the event that a patient is unable to maintain their safety and is categorized as severe to extreme risk, hospitalization should be considered as a treatment option [18]. It is also recommended that suicide risk levels should never be “‘none’ or ‘nonexistent,’” given that patients who present to treatment also present with higher suicide risk than is observed in the population mean ([69], pp. 73).

Suicide risk assessments may also include the use of standardized measures. Commonly used measures include the Beck Depression Inventory-II (BDI-II) and the Beck Hopelessness Scale (BHS; [5, 69]). The BDI-II includes two items that assess for pessimism (Item 2) and suicidal thoughts (Item 9), and a score of two or three on these items indicate that further examination is warranted [69]. Other measures that can be used include the Patient Health Questionnaire-9 (PHQ-9) and the Hamilton Depression Rating Scale (HDRS; [57]). Much like the BDI-II, the PHQ-9 and the HDRS may be completed upon admission to the hospital and during the course of treatment in an effort to observe a patient’s progress and suicide risk [57].

As expected with all aspects of clinical care, suicide risk assessments must be thoroughly documented [62, 69]. Indeed, documentation is the standard of care for suicide risk assessments, and without proper documentation, courts may conclude that such assessments were not conducted at all in the aftermath of a completed suicide [63]. Clinicians are advised to document baseline risk for all patients and repeat such assessments and documentation during the course of treatment [44]. By

engaging in thorough and recurring assessment and documentation, the clinician may then be able to identify changes in clinical presentation that warrant inpatient hospitalization in order to mitigate suicide risk [44].

Determining Imminent Risk

A thorough suicide risk assessment is essential in making an informed choice between inpatient and outpatient care. For patients at mild-to-moderate risk for suicide, outpatient treatment has generally been demonstrated to be a safe and effective setting [59]. As outlined by Kleespies, Deleppo, Gallagher, & Niles [35], regular evaluation of suicide risk is often an acceptable level of care for patients with mild risk. The authors suggest that patients at moderate risk can be treated on an outpatient basis; however it is recommended that clinicians provide recurrent evaluation for hospitalization, increase the frequency of outpatient visits, and seek professional consultation. When a patient appears to be at high risk for suicide, the clinician must consider whether outpatient management is an adequate level of care [35]. Outpatient care may be intensified to provide increased support to high-risk patients; however hospitalization becomes necessary when the patient remains acutely suicidal [35]. These patients require a structured environment where they can be closely monitored until imminent risk is mitigated [35]. Bongar [6] recommend that the decision to move forward with inpatient management is preceded by the clinician's careful risk-benefit analysis of both inpatient and outpatient settings. This decision requires careful consideration of a number of demographic, psychiatric, medical, and psychosocial risk factors [28].

Simon, [64] noted that the term "imminent risk" frequently appears in civil commitment statutes, duty to warn/protect case laws, and managed care protocols as an indicator of when inpatient commitment is needed. Similarly, Motto [47] reported that the foremost reason to defer outpatient care is the clinician's determination that "the patient is not likely to survive as an outpatient" (pp. 3). However, there are no universally agreed-upon criteria used by clinicians to determine imminent risk or likelihood of the patient's survival as an outpatient [64]. In light of this, it is important for clinicians to understand the nuances of assessment for imminent risk and the limitations of this criterion. According to Bongar & Sullivan [9], clinicians must evaluate various sources of information (e.g., the clinical interview, demographic factors, actuarial measures, and collateral information) to determine whether the patient is at moderate-to-high risk for suicide. If risk is elevated, the clinician reaches a decision point at which they must assess whether outpatient treatment can reasonably ensure the patient's safety [9]. Hirschfeld [28] states that clinicians must respond to elevated risk by assessing the likelihood of imminent risk (within 48 h), short-term risk (within days or weeks), and long-term risk. This judgment is the basis for decisions regarding inpatient vs. outpatient care [28]. It is recommended that patients at imminent risk should be hospitalized for protection and intensive treatment, while intensified outpatient care should be implemented if the probability of imminent risk is evaluated to be low enough to be treated on an outpatient basis

[9, 28]. Though imminent risk is an important consideration in the care of suicidal patients, it is important to note that definitions of this term vary widely. Time frames described in the literature range from 24–48 h, to 1–3 weeks, to 1 month [64]. Thus, clinical judgment, open communication with the patient, and knowledge of factors associated with suicide risk are central to determining whether hospitalization is warranted.

Medical and Psychosocial Risk Factors

A face-to-face clinical interview supplemented by validated assessment instruments is the cornerstone of suicide risk assessment and management [3]. It is essential that clinicians gather accurate and relevant information to make informed decisions about treatment setting. When used alone, unstructured clinical interviews could overlook important components of risk assessment [73]. However, excessive reliance on actuarial measures may discourage clinician engagement with patients and thus miss important information about the individual patient's needs [15]. There are also considerable limitations to use of actuarial measures alone. Self-report measures are well known to have a high false positive rate and poor predictive value [14, 48]. In a field trial examining the reliability of cross-cutting symptom measures in the Diagnostic and Statistical Manual of Mental Disorders, fifth Edition, Narrow et al. [48] found that cross-cutting measures for adult suicide fell in the questionable range. A meta-analysis by Carter et al. [14] found that a wide variety of risk assessment scales had an average positive predictive value of 5.5%. Furthermore, the vast majority of risk assessment instruments have been developed using predominantly white, Western, and young adult populations, which leaves questions about their utility in ethnic minority, older adult, and non-Western populations [3]. Considering the limitations of subjective interviews and actuarial measures when used alone, it is recommended that clinicians use structured assessments to augment the clinical interview [33, 73, 74]. This allows clinicians to arrive at a more nuanced and comprehensive understanding of suicide risk, which will provide valuable information to guide treatment planning.

Chu et al. [18] asserted that the presence of suicidal ideation, suicidal desire, and suicide plans and preparation are indicative of high suicide risk. Direct questioning about suicidal ideation, intent, and behavior are thus obvious elements of a thorough suicide risk assessment. Berman [4] highlighted the importance of understanding suicidality along two dimensions: baseline risk and acute risk. If the patient's baseline level of risk is low, the clinician can assess steps that can be taken to return to this level on an outpatient or inpatient basis. Schneidman's [61] seminal work described the concepts of perturbation (how upset, agitated, or disturbed the patient is) and lethality (the likelihood that the patient will commit suicide) as key to understanding suicidality. A patient's potential for suicidal behavior is further informed by a complex network of factors apart from suicidal ideation [9]. The decision to opt for inpatient care should include exploration of these factors.

Psychiatric and Medical History

It is well known that the strongest risk factor for the prediction of suicidal behavior, including completed suicides, is a previous history of suicide attempts [11, 23, 44, 69]. Suicidal behavior is also commonly associated with major depressive disorder, especially in recurrent and treatment-resistant patients [54, 69]. Other co-occurring diagnoses include panic disorder, bipolar disorder, posttraumatic stress disorder, alcohol or substance use disorders, eating disorders, and borderline, dependent, and narcissistic personality disorders [74]. Cognitive disorders are also associated with suicide risk, particularly in progressive cases at stages where patients are sufficiently intact to maintain some awareness of loss of cognitive capacity [50].

Prior research suggests that symptoms associated with psychiatric diagnoses and distress may go untreated in physically ill individuals [66]. Research also indicates that there is a link between physical illness and suicide risk, such that a disease afflicting any organ or system increases suicide risk [58]. Medical conditions including chronic pain and chronic pulmonary disease are also risk factors for suicidal behavior [5]. The patient may have a general medical condition that cannot be safely managed in an inpatient psychiatric unit, in which case intensive outpatient options must be explored [28]. Other medical conditions that may increase a patient's suicide risk are HIV/AIDS, cancer, end-stage renal disease (ESRD), and neurological disorders [36]. HIV/AIDS is treated with highly active antiretroviral therapy (HAART), a lifelong treatment with medications that may exacerbate depressive symptoms and cause uncomfortable side effects, which may then intensify suicidality [36]. Research indicates that cancer elevates the risk of suicide in patients at a rate of two to three times the rate observed in the general population, and that the risk of suicide is highest within the first year that the patient was diagnosed [36]. ESRD is associated with depression, decreased self-esteem, and a loss of freedom given that many patients depend upon a machine and a dialysis routine for survival; suicidality is therefore a clinical issue that may arise [36]. Neurological disorders including multiple sclerosis (MS) and Huntington's disease (HD) may worsen depression and suicidal ideation, and thus, depressive symptoms should be monitored during the course of treatment in order to manage suicide risk [36].

Proximal Risk Factors

Proximal risk factors represent immediate vulnerability or "warning signs" for suicidal behavior [60]. Hopelessness, rage, impulsivity, loneliness, social withdrawal, recklessness, increased substance use, agitation/anxiety, mania, dysphoria, and lack of a sense of purpose in life are notable contributors to suicide risk [16, 27, 28, 33, 74]. In particular, hopelessness is a feature that is commonly observed in suicidal emergencies [69]. Hopelessness may influence a patient's propensity for cognitively rigid thinking, such that it can then make it challenging

for a patient to think of alternative solutions to their difficulties [69]. Hopelessness may also be conceptualized as a feature that links suicidal behaviors with psychiatric disorders such as major depressive disorder [18], and is thus extremely important to assess.

There is ample literature that indicates that social isolation and withdrawal increases the risk of suicide [18, 69]. Social withdrawal may include significant changes in a patient's social routines, and it may also manifest as psychological distancing and resignation [18]. Patients who report the thought that they feel that they are burden to their loved ones may also be at increased risk for suicide [69]. Additionally, patients who experience an increase in irritability may inadvertently decrease their level of social support, which then increases social withdrawal [18].

Alcohol and other substance use may decrease inhibition and exacerbate symptoms of depression, and may subsequently increase the risk of suicide and deadliness of attempts [18, 69]. It is therefore recommended that mental health practitioners assess the role that alcohol plays in a patient's clinical presentation and determine if there are marked changes in the patient's alcohol use [18].

The presence of current psychotic symptoms with command hallucinations is often a prominent warning sign [28, 66]. Some patients may experience a sense of calm and relief after the decision to die by suicide has been made [74].

Psychosocial and Environmental Factors

It is crucial to explore avenues for coping that are available to the patient. For instance, the clinician may inquire about the patient's level of access to other healthcare providers, spiritual advisors, support groups, friends, family, or institutions that may provide support [3]. Although family is frequently conceptualized as a protective factor against suicide, it must be noted that family conflict may also increase suicidal behaviors [11]. Thus, the quality of supportive networks serves as either a protective or risk factor [23]. Other factors to carefully attend to are the patient's access to firearms and other lethal means, legal or financial problems, and whether the patient lives alone [28]. Jacobs et al. [30] remarked that the decision to hospitalize must be balanced with possible adverse effects of hospitalization, such as stigmatization, financial stress, and disruption of employment. The authors also note that the decision to use inpatient vs. outpatient care may be contingent upon the extent of services needed. For instance, if the patient requires continuous observation, complicated medication management, or medical attention that cannot be provided on an outpatient basis, inpatient care may be necessary [30]. Clinicians should consider the level of support the patient needs compared to the amount of structure and support the patient is able to access outside of an inpatient setting, as well as the patient's ability to adhere to recommendations for outpatient follow-up [30]. Inpatient care may also be warranted in geographic regions where the patient is unable to access intensive outpatient and partial hospitalization programs [30].

Clinician Factors that May Influence Decision-Making

The decision between inpatient and outpatient treatment of suicidality can be a daunting clinical task with profound ethical and professional ramifications. In addition to the emotional toll of losing a patient to suicide, clinicians are liable to charges of malpractice should they fail to take appropriate measures to protect the safety of high-risk patients and ensure they are hospitalized until risk is mitigated [64]. Though it is imperative to protect the patient's safety, clinicians must also be wary of reflexively selecting a treatment setting that is unnecessarily restrictive and limits the autonomy of the patient [10]. Though a multitude of clinical information may be available for a given patient, there is no universal risk assessment protocol for clinicians to adhere to [9]. This makes it all the more important for clinicians to use sound clinical judgment in the management of suicidal patients.

Understandably, decisions regarding the care of suicidal patients provoke strong emotional reactions that may affect clinical judgment and shape decision-making in adverse ways. Bryan & Rudd [13] note that clinicians tend to adopt one of two extreme approaches, either over-or-underestimating suicide risk. Some may adopt a more restrictive approach, which often includes the assumption that any patient endorsing suicidal ideation may be at high risk for suicidal behavior [13]. Others may underestimate the risk of suicide due to dismissiveness or inadequate risk assessment [13]. Both courses of action can have undesirable consequences for the patient and clinician alike; overly hasty hospitalization may unnecessarily deprive the patient of autonomy, reduce opportunities for self-determination, and cause undue disruptions in the patient's personal life [19, 35]. In contrast, underestimating risk may put the patient in danger and increase the likelihood of clinician liability [64].

Paired with the alarming prospect of a patient's suicide, legal and regulatory pressures may lead clinicians to make decisions driven by fear of adverse outcomes rather than on evidence-based risk factors and sound clinical judgment [13]. A clinician's level of experience may increase the likelihood of defensive practice, which is driven by a desire to avoid clinical and legal consequences rather than act in the best interest of the patient [9, 22]. Studies have found that psychiatrists earlier in their training are more likely to admit patients than more experienced practitioners [22, 45]. In light of the potential influences on clinical decision-making, it is important for clinicians to carefully examine their own reactions to patients' suicidal behaviors [35]. In doing so, clinicians may be better equipped to constructively work through their own reactions and implement care that maximally benefits the patient [9]. As stated by Bongar & Sullivan [9], the clinician's foremost concern is to deliver "therapeutics that are grounded in an understanding of a sound therapeutic alliance and...detection of known elevated risk factors" (pp. 160).

Ethical Considerations

According to APA practice guidelines, patients with suicidal ideation or behavior should be treated in a setting that is least restrictive to the patient's autonomy while also protecting the patient's safety [30]. Thus, selection of a treatment setting

requires clinicians to weigh the benefits of inpatient treatment against possible adverse consequences. As previously discussed, inpatient settings must be considered when the patient may require a level of protection and constant care that cannot reasonably be provided in an outpatient setting [9]. Yet clinicians must keep in mind that though inpatient settings are intended to facilitate treatment of suicidality, they are most often not a viable long-term solution [30]. Though inpatient management may delay suicidal behaviors, there is a lack of evidence that hospitalization reduces long-term incidence of suicide or decreases ambivalence about life and death [29, 34, 62, 64, 71].

Clinicians should also be mindful of the unintentional harms that inpatient hospitalization may cause to patients. Meichenbaum [43] argues that inpatient settings require the patient to relinquish some responsibility for staying alive, and therefore may compromise the long-term efficacy of treatment. This stance, however, assumes the patient is mentally able to cope with and benefit from increased autonomy; thus, the patient's suicidality must be considered in tandem with decision-making capacity [10]. In light of the limitations of inpatient settings in long-term management of suicide risk, Berman, Jobes, & Silverman, [4] underscore the purpose of hospitalization as a tool to mitigate acute suicidality and restore the patient's ability to function more autonomously in an outpatient environment. In selecting a treatment setting, clinicians must weigh the patient's need for safety against the need to develop autonomy and ability to cope with distress [30].

Clinicians must also consider the problem of stigma. Admission to inpatient care may be stigmatizing in and of itself, especially if the hospital stay is prolonged [41]. For some patients, hospitalization can be a frightening and demoralizing experience [46]. After a prolonged admission, patients may experience rejection from individuals within their community, a finding that was evident after deinstitutionalization [41]. In fact, some cases of suicide may be precipitated by the distress associated with hospitalization itself [40]. Thus, furthering the knowledge and understanding that hospitalization is not a discriminatory or traumatic act may be crucial for preventing rehospitalization [40, 41].

Systemic challenges in contemporary healthcare have impacted the nature of inpatient care. The length of inpatient hospital stays has steadily declined in the last 30 years and hospitalizations themselves have become far less frequent [9, 53]. Attempts by managed care organizations to reduce healthcare costs may be at the root of this change [9]. Moreover, it has become increasingly difficult for patients to obtain insurance certification for inpatient admission, resulting in a rising financial burden to patients admitted to inpatient settings [33]. This may be exacerbated when patients have a record of repeated short-term hospitalizations [33]. George, Durbin, Sheldon, & Goering [25] describe a shift in mental health care from inpatient to community-based outpatient care. This model of care aims to provide treatment to suicidal patients in the least restrictive environment that meets the patient's needs.

Clinicians should be especially attentive to indications of suicidality when working with patients who are entering or leaving inpatient care. Approximately 40% of suicides in an inpatient setting occur within the first 3 days of admission [5]. The risk

of suicide also increases after discharge, especially within the first week, and for patients who were initially admitted for a suicide attempt [5]. Given that the inpatient setting is a controlled environment, patients may experience difficulties adjusting to the world outside of the hospital [41]. The inpatient unit is defined by control and routine, elements that may not be present in the patient's daily life outside of the hospital [62]. Patients may therefore experience a smoother transition to the external world if they engage in interventions that provide social readaptation skills and psychoeducation related to medications and discharge [41].

For patients transitioning out of inpatient psychiatric settings, continuity of care is a key determinant of both long- and short-term outcomes [65]. Research has demonstrated that lack of follow-up care is associated with adverse outcomes including suicide, homelessness, relapse, and criminal justice involvement [2, 38, 55, 65, 70]. Communication between inpatient and outpatient mental health providers during discharge planning has been shown to promote continuity of care [38, 65]. However, inpatient treatment teams may not consistently communicate with outside providers [37, 52] [37, 52]. A study by Smith et al. [65] found that inpatient psychiatric staff communicated with outpatient providers for only 62% of hospitalized patients. These findings highlight the clinician's responsibility to incorporate care transition factors into effective management of suicide risk.

Conclusions

This synthesis of the literature underscores important factors for clinicians to consider when making decisions around treatment settings for suicidal patients. First, clinicians must maintain awareness of their own countertransference when working with these patients. This awareness may mitigate the tendency to engage in defensive practice, namely, clinical decision-making that is driven by fear of adverse outcomes rather than the best interest of the patient. The choice to provide inpatient vs. outpatient care requires a careful assessment for the presence of imminent suicide risk. It is important to note the ambiguity that exists in the definition of "imminent risk," thus clinical judgment plays a central role in the decision to hospitalize. Clinical judgment is best formed by information gathered through a clinical interview, actuarial assessments, and understanding of factors known to be associated with suicidality. Additionally, the decision to utilize inpatient or outpatient treatment must be balanced with possible adverse effects of hospitalization and the patient's access to community-based resources. Lastly, the benefits and limitations of inpatient care must be considered. Namely, the patient's need for safety and structure must be balanced with the potential harms of hospitalization as well as the patient's need to develop autonomy.

Algorithms designed to guide decision-making for clinicians working with suicidal patients do exist [24]. However, more recent developments in theory and research highlight the need to consider the motives behind our decisions as well as the limitations inherent in the risk assessment process and the utility of inpatient treatment settings. Though inpatient care is an indispensable component of the

mental healthcare system, there is a need for cost-sensitive models of both intensive outpatient and inpatient treatments to adequately address the needs of patients at risk for suicide [33]. Future research may investigate the utility of collaborative shared decision-making models in improving the process of selecting an appropriate treatment setting for suicidal patients [10].

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Current Innovations in Suicide Prevention Among Military Veterans

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Abstract

Military Veterans die by suicide more often than their civilian counterparts, with over 6000 deaths annually from 2008 to 2017. To combat this crisis, organizations such as the VA, DoD, and the National Action Alliance for Suicide Prevention are conducting research and developing frameworks for suicide prevention for Veterans. Recently, changes in therapeutic modalities and the incorporation of the family system into therapy have been used with Veterans, as well as an increase in online resources for Veterans and their loved one. This chapter will discuss these and other implementations used to prevent death by suicide in Veterans.

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Introduction

As service members began returning from deployment in the Iraq War, government mental health organizations saw a rise in the rates of suicide among Veterans [7] and saw a need to better understand the risk factors for Veteran suicide. In 2008, the Department of Defense (DoD) began conducting research into military suicide, examining interbranch trends, methods used, gender, age, and rank data. The Suicide Event Report (DoDSER) was the beginning of an open-access annual data collection and publication, which marked the beginning of the DoD's newest suicide surveillance program. The US Department of Veteran's Affairs (hereafter VA) launched an investigation into Veteran suicide and in 2018 created the National Strategy for Preventing Veteran Suicide. As data for suicide rates was collected, government organizations began to take Veteran suicide more seriously. However, better understanding of suicidality trends, our responses to Veteran suicide, and the effectiveness of those responses is necessary to begin prevention efforts, making some methods of prevention sluggish.

Studies examining Veteran mental health show that Veterans are more likely to die by suicide than civilian same-age peers [40]. To speculate, this could be due to gun culture, underutilization of mental health resources, or the stress of transitioning back to civilian life, among other possible correlations. Across genders, Veterans are more likely to die by firearms than civilian peers [25]. In 2017, civilians died by suicide at a rate of 14 per every 100,000 people [74], while in this same year, Veterans died by suicide at a rate of 31 per 100,000 [26]. In addition, studies have found that providers struggle to identify Veterans who may be in need of mental healthcare [40]. Theoretically, this could be due to provider discomfort in assessing suicide risk, Veteran discomfort in reporting suicidal ideation, or a combination of both. Even Veterans who do access mental healthcare are still at high risk, as almost half of Veterans admitted for suicide risk die by suicide within 24 h of being released [40].

Using research including the DoDSER and the VA's annual suicide report, the VA and DoD began developing suicide prevention programs and treatments specifically focused on suicidal behavior. In fact, in 2017 the VA went so far as to declare Veteran suicide its number one priority [76]. The VA has established numerous cognitive-behavioral therapy (CBT) groups, suggested firearms safety (such as gun locks), whole health approaches, high-risk flagging, and continued assessment [25]. However, these approaches only work if Veterans know that they exist. Tsai et al. [76] found that 54–72% of Veterans surveyed were aware of some VA suicide-related resources (crisis lines, vet centers, and the office of suicide prevention), showing a continued need for dissemination of this information. The VA has attempted to reach Veterans by devoting a portion of their budget to outreach, hiring suicide specialist

coordinators, and working with community resources to reach at-risk Veterans [76]. Veterans may be referred to VA or community services by family members, religious communities, medical doctors, and case managers. Additionally, the Mission Act was created to allow Veterans to receive care from community providers. This is financially supported by the VA to help Veterans who are geographically or otherwise unable to receive care at a VA [77]. Additionally, as society and psychology advance, the VA is increasingly using technology and new therapy approaches to assess suicide risk, treat suicidal ideation, and prevent Veteran suicide [76]. These approaches vary from tele-healthcare and app-based interventions to existing interventions, adapted for Veterans, and new methods of assessment. To understand how clinical psychology has come to develop these interventions, examining the history of existing interventions is necessary.

History and Development

Combat and combat-related trauma are well-known risk factors for post-traumatic stress disorder (PTSD), major depressive disorder (MDD), and other negative mental health outcomes and have been conclusively proven to directly impact rates of suicide among Veterans who experienced combat [16, 61]. Before discussing Veteran suicide trends, however, it is important to address how PTSD and other combat-related mental health disorders have been assessed and treated historically. Prior to the end of the twentieth century, suicidal behavior was heavily stigmatized and not well addressed or treated, whereas combat-related trauma was, and in its development, we can see the roots of trauma and suicide treatment as they exist today [42]. However, the definition of combat-related trauma has shifted considerably over time and is still a relatively new field of study. For example, the term post-traumatic stress disorder was only added to the Diagnostic and Statistical Manual of Mental Disorders in its third printed edition in 1980 (Diagnostic and Statistical Manual: Mental Disorders [4]) as a diagnosis for trauma-related reactions and thus only began being used to diagnose Veterans following the Vietnam War [29].

There have been a number of terms used to describe human reactions to trauma, and as medical and psychological sciences advanced, the explanation for the causes of these reactions advanced as well. Writings from Herodotus to Shakespeare described soldiers suffering from unseen wounds and nightmares of combat, with similar stories being found across human history back to even our earliest known works of literature such as the Epic of Gilgamesh [19]. As society moved into the industrial age, traumatic injury due to industrial, explosive, or railway accidents also began to show signs of long-term effects in the survivors, so that these conditions were then being seen not only in military personnel but also in civilians. The advancement of medical science during this time brought new perspectives to the causes of these conditions, and terms such as “soldiers’ heart” and “railway spine” were coined to try and describe a medical rationale for the affliction [29]. The prevailing belief that physical trauma from industrial accidents caused micro-lesions

to the brain and spine was argued against the hypothesis that emotional shock caused hysteria and would remain controversial until World War I (WWI) [19].

The advent of artillery bombing in WWI would lead to the term shell shock, in which soldiers displayed a number of psychological symptoms of shock, disorientation, and other symptoms after being bombed, and “psychiatric casualty” would account for as much as 15% of duty-ending injuries [60]. The treatment of shell shock during this time would also lead to the first widespread implementation of military psychiatric policy, training of military psychiatrists, and the creation and implementation of “forward treatment.” Also known as forward psychiatry, these regimens would be adopted into military planning to try and manage shell shock [19]. It was found that keeping soldiers near the frontline, in structured rehabilitation with their fellow soldiers, increased the likelihood of recovery from shell shock and being able to return to battle [41]. Jones and Wessely [41] specify, however, that shell shock is not synonymous with PTSD; that PTSD, depression, and psychosomatic illness should be considered separate results of combat-related trauma; and also that forward treatment was not a cure for shell shock but was simply one form of stress management.

The term shell shock would become known as war neuroses, battle fatigue, and eventually as combat stress reaction as military psychiatry continued to develop through World War II [29]. Unfortunately, despite the development of programs like forward treatment in WWI, combat-related trauma would continue to be undertreated even through World War II [41]. It is believed that “Up to half of World War II military discharges were said to be the result of combat exhaustion” [29]. Despite the development of forward treatment programs in WWI, they were largely unused at the beginning of WWII, leading to only 5% of soldiers returning to battle after suffering psychiatric injury until the programs were readopted in 1943 [19]. It was only near the end of WWII that links between physical and psychological casualties were recognized [41]. After WWII, the first edition of the Diagnostic and Statistical Manual of Mental Disorders would be printed in 1952 (Diagnostic and Statistical Manual: Mental Disorders [3]) which would include a diagnosis “gross stress reaction,” which would then be dropped in the second edition, and it wouldn’t be until after the Vietnam War that the introduction of the diagnosis of PTSD was added in the third edition (Diagnostic and Statistical Manual: Mental Disorders [4]).

As the diagnosis and treatment of combat-related stress changed over the years, so did the treatment of Veterans after the wars had ended. During WWI, there was concern that the mental symptoms of shell shock were actually malingering in order to avoid the frontlines and to get benefits [19]. But as the war continued and the number of servicemen with mental health concerns grew, the malingering controversy gave way to treatment programs for Veterans. After the war, it was recommended that Veterans who suffered from ongoing symptoms should be placed in “specialized treatment facilities for neuropsychiatric war casualties,” [60] because their symptoms did not warrant inpatient hospitalization. Unfortunately, by 1927 more than 46% of hospitalized ex-servicemen were defined as neuropsychiatric cases [60].

In 1930, President Hoover would sign Executive Order 5398 creating the Veteran's Administration to support Veterans at home [23], and in 1944, the Servicemen's Readjustment Act was passed by the Congress giving a number of new benefits and supports for returning Veterans [24, 60]. It was believed that Veterans who had recovered from a mental health problem in combat were being supported at home and that they would not suffer long-term health problems, and thus little attention was paid to "postwar psychiatric syndromes" [60]. Fifteen years after the end of the Vietnam War, however, "15% of the 3.15 million Americans who had served in Vietnam were suffering from service-related PTSD," [47]. It would not be until 1989 that the VA's National Center for PTSD was opened [29].

Unfortunately, while the diagnosis and treatment of war-related trauma continued to develop over the twentieth century, the implementation of suicide prevention efforts lagged far behind those efforts. Through the nineteenth and into the twentieth century, societal views on suicide shifted from simply seeing it as a sin to viewing it as a personal disgrace. Suicide was treated as a medical problem with the act of suicide being blamed on a weakness of character due to mental illness and "madness" in many cases [67]. It would not be until 1958 that the first suicide prevention center was opened in the United States, 1966 that the Nation Institute of Mental Health would establish the Center for Studies of Suicide Prevention, and not until the 1970s and 1980s that the first major taskforces on suicide would be convened and eventually report on their findings (2012 National Strategy for Suicide Prevention [22]). For members of military and Veteran communities, suicide prevention programs would take even longer to be implemented, with the Air Force Suicide Prevention Program being established in 1996 as the first targeted military suicide prevention program [21]. It would take even longer, in 2004, for the suicide prevention initiatives that are currently in place at the VA to be implemented and developed [42].

Current Innovations

The VA and DoD

As the understanding of the link between trauma and suicidal behavior in Veteran's has developed, so have innovations in the interventions for addressing these concerns. Treating suicide begins with monitoring suicidal behavior and developing an understanding of why it occurs. In 2019, President Donald Trump signed an executive order creating a plan called the President's Roadmap to Empower Veterans and End the National Tragedy of Suicide (PREVENTS), consisting of integrated care, research proposals, and implementation strategies [25]. Part of this initiative is the National Veteran Suicide Prevention Annual Report, which examines correlations between instances of Veteran suicides. The report details methods of death, branch of service, and any treatment that was being utilized at time of death. The report also includes suggestions for future prevention, such as increased suicidal ideation screens by all providers (rather than just mental health providers), and

specialty clinics for treating different kinds of mental health pathology. Through the lens of program evaluation, the report examines what existing interventions have worked, suicide variables (sex, age, etc.), among other information pertaining to Veteran suicide [25].

Some examples of the existing interventions in the report can include prevention and postvention efforts. In order to better intervene when a Veteran is in crisis, in 2018 the VA implemented a universal screening policy, which requires all VA providers to conduct a brief suicide assessment with each patient [25]. For example, Veterans visiting providers, for issues such as chronic pain, a physical exam, or even the flu, are now being asked about suicidal thinking and informed of available resources. Of the 2.8 million Veterans receiving care, 3% have reported experiencing suicidal ideation during these screening procedures [25]. Unfortunately, due to the innate separation between the VA and local community mental health programs, the VA is unable to implement these practices in community mental health settings. However, with the passing of the Mission Act in 2018, the VA began establishing partnerships with community mental health centers to offer additional support to Veterans who are not seeking care at VA sites [25].

Another method to reach Veterans outside of VA facilities was the creation of the Veteran Crisis Line, which was developed in 2017 to provide Veterans with 24/7 access to call, text/chat or talk with someone if they were in crisis. With the new text and chat elements, as well as other improvements in taking calls, the Veteran Crisis Line has been able to reach a point where 99% of their calls are being answered within 8 s [25]. Because of the mental health stigma which exists within the military, Veterans may experience discomfort verbalizing mental health issues and suicidality. The text and chat options allow for Veterans to seek help at their own pace, from anywhere that they can text. For Veterans without access to cell phones or smart devices, the Crisis Line also exists as a web address. By navigating to <https://www.veteranscrisisline.net>, Veterans can choose to chat online with a responder. There are also options for hearing-impaired Veterans and resources for finding care in the Veteran's geographic area (Veterans Crisis Line: Suicide Prevention Hotline, Text & Chat [80]).

The VA also has a line of mental health-based mobile apps that are being used in conjunction with treatment [78]. Generally, individuals with suicidal ideation are encouraged to utilize safety plans and crisis resources when experiencing suicidal ideation. These apps can direct patients to either of these resources and also contain emotion regulation and distress tolerance strategies [73]. However, a VA app-based intervention specifically for suicidal ideation has not yet been created. As of February 2019, 81% of Americans own a smartphone [59], and therefore, the majority of the US population is able to access mental health resources by using their phone. Using apps to reinforce skills learned in therapy can help patients make the transition from using concepts discussed in the therapy room to applying them in their daily lives. For example, the PTSD Coach app now has a safety plan embedded within its program [63]. This eliminates the possibility of losing a paper and pencil safety plan and places these extra safety measures right in a participant's pocket. The app can act as a constant reminder of available resources, social support options, and

increases access to coping strategies, all in the palm of a patient's hand. Furthermore, roughly one in five Americans use smartphones as their primary internet access [59]. Because patients may seek to engage in mental health interventions outside of treatment, having app-based mental health supports creates convenient, meaningful engagement in therapy outside of the therapy room. While most Americans have smartphones, that does not mean that all Veterans do. Literature estimates of smartphone ownership among Veterans are broad, ranging from 47% to 76% [17, 46]. Qualitatively, Veterans who have reported not owning smartphones did so as a desire to avoid technology when not at work or had views that technology was worsening society [17]. For Veterans who do have a desire to use technology in their personal lives, these apps have greatly increased the availability to supplemental treatment.

The VA has developed a tele-mental health program that allows patients to use an app to directly connect with a mental health provider [57]. This new method of contact can be particularly beneficial for Veterans in rural areas, or Veterans who have limited mobility. The initiative to develop this app was launched in 2017 and has been used by over 20,000 Veterans in the time since [57]. Like crisis lines, tele-mental healthcare was created to meet the need for more ways that individuals could access care. Some may assume that app-based mental health interventions would be less efficacious for older populations (as discussed in [17]); however, research examining demographic characteristics and willingness to use mental health apps revealed that no significant differences were observed between group demographics, such as age, ethnicity, and gender [49]. Thus, it appears that our society is adapting, incorporating technological advances into healthcare, and is receptive to technology being integrated into mental health. Another example of technology being integrated into mental health is seen in the nonprofit organization Give an Hour. Mental health practitioners donate an hour of their time each week to offer services to Veterans, whether that is reviewing coping skills, referral resources, or simply providing space to talk [30]. As Veteran suicide has increased in prevalence and awareness has spread, more and more providers are offering their services through programs like Give an Hour to try and make a difference. Additionally, Give an Hour and the Defense Suicide Prevention Office (DSPO) have partnered in with the goal of increasing awareness of suicide warning signs [30].

For some patients hospitalized for suicidal ideation, the highest risk of death by suicide occurs immediately following discharge from care [52]. Findings indicate that upon discharge, some patients experience distress due to returning to the scene of their crisis pre-hospitalization [52], and others have had a history of disrupted care [54]. The history of disrupted care could serve as a potential warning sign for newly discharged in-patients, as well as a lack of engagement in treatment prior to discharge [54] which was also observed to be common in post-discharge suicides. These findings prompted a collaboration between the VA and the Mental Illness Research, Education, and Clinical Centers of Excellence (MIRECC) known as the HOME (Home-Based Mental Health Evaluation) program [52].

Developed specifically to prevent Veteran suicide, the HOME program serves as a liaison between inpatient treatment and outpatient services [52]. There are four

modules to the intervention: meeting while in the inpatient setting to arrange follow up appointments, telephone follow-up within 1 day of discharge, a home visit during the first week (which may include lethal means restriction when applicable), and ongoing telephone follow-up until ongoing care can be established [52]. Each visit includes a risk assessment, medication compliance, and safety planning, as a baseline [52]. Participants in the HOME program were significantly more likely to participate in treatment post-discharge, attend more treatment sessions, and report high levels of satisfaction with the intervention [52, 53].

Other Organizations and Initiatives

In addition to the VA and DoD, there are several other major organizations which address the suicide crisis, such as the Substance Abuse and Mental Health Administration (SAMHSA). The SAMHSA addresses suicide as a public health issue with the potential to have a ripple effect onto the families and communities that can be impacted by a single suicide [70]. The SAMHSA conceptualizes suicide through understanding how traumatic experiences impact an individual's disposition toward suicide. Individuals who have experienced trauma may be more likely to view suicide as an escape when in distress [70]. The SAMHSA also addresses the importance of whole health models of healthcare. Specifically, the SAMHSA suggests that providers are in a unique position of screening for suicide if they can recognize the warning signs [70] and offers resources to help providers complete these screeners. Providers seeking assistance in assessing suicidal risk, wanting to receive additional training, or wanting to debrief after a patient commits suicide can visit SAMHSA's website to receive support and access to other resources.

Another major organization that addressed Veteran mental health is the Mental Illness Research, Education, and Clinical Centers of Excellence (MIRECC). The MIRECC for suicide prevention made it its mission to screen for suicide warning signs in at-risk populations, identify and create interventions, and spread awareness and prevention efforts [79]. Current research targets older adult Veterans at risk for suicidal ideation, specifically examining burdensomeness, as well as chronic pain in Veterans [79]. Additionally, the MIRECC has partnered with the organization PsycArmor to create the SAVE training. SAVE stands for Signs (as in warning signs), Ask (assess for presence of suicidal ideation), Validate (acknowledge and validate the patient's pain), and Encourage/Expedite (meaning that Veterans experiencing suicidal ideation should be encouraged to seek mental health treatment) [65]. SAVE was instituted throughout VA medical centers to help nonmental health providers understand how to assess for suicide risk. PsycArmor is another nonprofit organization that offers resources for service members, Veterans, families, and providers seeing Veterans and offers a variety of resources for mental health issues, military culture training, legal issues, and more [64].

Another initiative developed to prevent Veteran suicide is called the Mayors Challenge. Developed in 2014, the Mayors Challenge is a multiday gathering of mayors and other policymakers, as well as mental health professionals, with the goal being for the various groups of people to come together and develop plans to

increase awareness and decrease suicide among Veterans and their families (Contributor [18]). This is an especially encouraging initiative, as this merging of professions surrounding a common goal can help to increase understanding of the seriousness of the Veteran suicide crisis. Policymakers are split into teams to propose multiple solutions, including allocation of funds toward community mental health, implementation of new screening procedures, and lethal means safety procedures (such as firearm surrender, crisis lines, etc.) (Contributor [18]). Additionally, the Together with Veterans (TWV) initiative was developed for rural Veterans who often lack access to mental healthcare. Like other military and Veteran programs, social support is a key element of the TWV program, with members holding responsibility for the well-being of their peers [55]. Like the Mayors Challenge, the TWV incorporates elements of awareness and improving access to care, as well as offering support, evaluation of risk level, and lethal means counseling [55].

Across genders, firearms are the most frequently used method of suicide among Veterans [6]. Lethal means safety planning typically consists of locking or storing firearms to reduce accessibility [6]. In an impulsive or hopeless moment, a gun presents an opportunity to die by suicide successfully and quickly, making it the fastest, easiest solution to commit suicide, and can be seen as an easy solution for the individual considering suicide. Lethal means safety planning attempts to increase obstacles to accessing the gun, should a suicidal thought become a suicidal plan or behavior [6]. Having a friend or family member outside of the home hold the key to an individual's gun case can create an obstacle that is too time-consuming to go through if someone is impulsively considering suicide.

For Veterans as a cultural group, firearm as a method of suicide poses some considerations. It is common for Veterans to own firearms and more common for firearms to be easily accessible [6]. Depending on their job while in the military, some Veterans may be familiar with carrying and using firearms and think nothing of having them openly displayed instead of locked or stored. Firearm ownership and feelings of familiarity with firearms were associated with increased capability for suicide in active-duty service members [32]. This is complicated by the fact that firearms may also be used in coping behaviors through sporting, social events, and clubs such as the "Rod and Gun Club." Therefore, some Veterans may be especially unwilling to part with or store firearms. Furthermore, attempting to remove firearms may impede social coping resources and can carry stigma related to trustworthiness.

Clinical Approaches

Assessment

Assessment is important in the prevention of suicide. One of the VA's methods for assessing for suicide is the use of medical charts to predict and prevent suicide. A Patient Record Flag (PRF) can be placed when a clinician determines there is a cause to be concerned based on a patient's risk factors for suicide [8]. However, in service to standardizing the process across disciplines, there are also a number of agreed-upon indicators of suicide risk that are followed, such as a verified suicide attempt [8].

With the addition of the PRF in their chart, it is recommended that patients are contacted monthly for a period of about 3 months [8]. One study found that patients with a suicide risk PRF received more care (primary, mental health, substance use) in the 3-month period following the PRF than they had received prior to being flagged [8].

A new screening option that is being developed for assessing suicide risk is the use of machine learning to identify at-risk individuals by using data to try and develop markers or risk factors for future behavior [12]. By codifying and processing warning signs from individuals who have died by suicide, machine learning can be designed to recognize key phrases, which are associated with death by suicide, and can be useful in examining online communication and endorsements on screening assessments [58]. The use of technology to track suicide risk offers the potential for more standardized and specified risk screening. Furthermore, machine learning is able to develop predictors of suicide such as using depression symptoms to predict at-risk individuals [34]. The use of technology in this way may sound redundant when clinicians can also make suppositions that depression symptoms are often accompanied by suicidal ideation. However, machine learning allows for the foundation of an evidence-based risk assessment to supplement clinical judgment. Machine learning may be less likely to overlook certain risk factors, due to the nature of its algorithm not having any inherent human bias. However, without the additional clinician-administered assessments, some risk factors could also be missed. Consider that a program might not know to assess for stress related to being demoted, for example. Therefore, machine learning presents an efficient addition to suicide screening but may not be sufficient on its own. In this same study, Gradus et al. [34] also found that machine learning was able to identify gender differences in predictors such as depression, trauma, and deployment among veterans screened for suicide. It therefore presents an opportunity for increasing sensitivity to suicide risk assessment, which could allow for clinicians to focus on specificity and treatment. This would also allow for the monitoring of at-risk individuals for acute stressors which could lead to or exacerbate suicidal ideation.

Another program currently in development is the Coping Long Term with Active Suicide Program, which uses patient geographic and administrative data to provide telephone services to patients who may be at risk of suicide in the year following hospitalization [44]. While the intervention itself is still being developed, the predictive flagging procedure shows strong potential for reaching veterans who experience continued ideation after hospitalization [44]. The program uses predictors found in charts including history of suicide behaviors, diagnosed psychopathology, quality of care post-discharge, time since discharge, sociodemographic variables, International Classification of Disorders (ICD) social factor codes, neighborhood economic status information (such as employment rate), financial loss, and physiological predictors involving medical history and medications [44]. The combination of these predictors may provide a helpful snapshot into a patient's social, psychological, and environmental risk factors for death by suicide. It is important to note that while machine learning can introduce helpful, and in some cases reliable, models in the prediction of suicide, there is room for concern as to volatility of

human behavior and ever-changing circumstances. See Kessler et al. [44] for further discussion on the sensitivity of machine learning in predicting likelihood of suicide and how this risk can be remedied.

One popular measure for assessing suicide is the Columbia Suicide Severity Rating Scale (C-SSRS; [62]). The instrument was a collaborative effort created by numerous agencies including Columbia University and the NIMH (National Suicide Prevention Lifeline [15]). It is available in over 100 languages and assesses suicide risk factors, ideation, and behaviors (National Suicide Prevention Lifeline [15]). The C-SSRS has been validated as an assessment of suicide for Veteran populations and even found that in some cases the C-SSRS was more sensitive to suicide behaviors than clinical evaluation [43]. The study authors suggest that because the C-SSRS was more sensitive to self-reported attempts when compared to VHA clinical documentation, it is possible that VHA patients withheld information about some suicide behaviors to their providers but endorsed these on the C-SSRS [43]. The study highlighted some limitations [43].

Another assessment tool gaining popularity is the use of measurement-based care, or routine outcome monitoring to track suicide risk. The VHA began using this method in 2016 to be able to track therapy effectiveness as well as allow for Veterans to voice their experience of therapy [66]. Measurement-based care is a strategy which allows for suicide prevention via the combination of assessment and treatment. By routinely administering assessment of suicidal ideation and risk factors for suicide, measurement-based care provides an aid in clinical decision-making [82]. The use of measurements such as the Patient Health Questionnaire (PHQ-9; Thekkumpurath et al. [75]) can be used to alert clinicians to conduct a thorough risk assessment [82], while the C-SSRS [62] can help guide the clinician through a thorough risk assessment. Findings support the notion that both patient self-report and clinician assessment during treatment can be more effective at identifying suicide risk than either option alone [31].

Treatment

As previously discussed, patients are at high risk for death by suicide immediately following discharge from hospitalization [52, 54]. Initiatives are still being developed to combat this problem. There are a number of different treatments being considered, including talk therapy, pharmacological treatment, and alternative therapies. One study examined the effects of cognitive therapy with an antidepressant as compared to just pharmacological treatment and found a 17% reduction in suicidal ideation for patients receiving the combined treatment [45]. Another study found that psychedelics as an alternative treatment can be effective in significantly decreasing suicidal as well as other psychopathology in Veterans (Davis et al. [20]).

Other innovations in treatment of suicidality include incorporating new approaches to treatment, as well as applying existing approaches to treatment of suicide in innovative or new ways. Noteworthy of the latter is that in these approaches, suicide is a stand-alone treatment target, rather than a primary target

secondary to another disorder or consequence of untreated symptoms. In 2004, a new approach to treating suicidality known as Collaborative Assessment and Management of Suicidality (CAMS) was compared to CBT in a military sample. This approach is considered integrative in orientation and suggests that the therapist and patient need to collaborate to uncover what function the suicidal thinking might serve in the patient's life [37]. In their study, [37] found that patients who were in the CAMS treatment group resolved their symptoms more quickly and attended less nonmental health medical appointments when compared to the treatment as usual group. Similar results were observed in a study which implemented a 6-month Dialectical Behavioral Therapy (DBT) regimen in male Veterans [33]. CBT is often considered the gold standard comparison for treating suicidality; however, it is evident that integrated and third-wave CBT approaches can provide alternative options for individuals who do not respond to CBT. These individuals may have a level of suicidality requiring more intensive outpatient care than CBT can treat or may not possess the insight and abstraction abilities necessary to defuse from suicidal thoughts.

While some interventions have been newly applied to suicidality, some existing interventions are being updated specifically for Veterans. Safety plans are created by identifying triggers of crisis urges and then listing support resources and coping skills to use instead of acting on these urges [72]. They are commonly used to monitor and treat suicidal ideation in Veterans as well as civilians. However, some clinicians have argued that safety plans could be updated to include specific components of military culture in order to better serve Veterans struggling with thoughts of suicide. Some examples of tailoring safety plans to be specific for Veterans can include adding social support into distraction steps and ensuring means restriction occurs rather than just being suggested [35]. Safety plans are a resource which can be helpful if used correctly and work best when each step is conceptualized on a case-by-case basis.

For some cases, stigma related to mental illness may prevent Veterans from seeking help or endorsing suicidal ideation. New therapy approaches that may seem less intimidating include holistic and/or artistic components. The major organizations discussed (VA, DoD, MIRECC, SAMHSA) are indeed valuable resources relating to Veteran suicide, but minor organizations also exist at the state and community levels. CreatiVets is a nonprofit organization that was developed by a marine Veteran experiencing suicidal ideation [13]. The fact that the founder of the organization is a Veteran himself likely inspires trust and openness in other Veterans seeking aid. CreatiVets offers art and music therapy, allowing free collaboration between Veterans and art institutes and songwriters, respectively [13]. Complementary approaches such as this may likely help to increase self-esteem, provide coping resources, and provide social support.

Another nontraditional option is the use of a therapy retreat or wilderness therapy (also known as nature-based therapy). One example of an intervention that incorporates wilderness therapy is Peer Outdoor Support Therapy (POST), which also incorporates elements of peer support. Broadly speaking, wilderness therapy typically includes a social component and therefore increases social coping abilities as

well as increasing feelings of self-worth and physiological functioning [10]. While literature is limited due to POST being a new approach, it's believed that participants may experience increased self-efficacy, creating a feedback loop between their feelings of self-worth, increased physiological functioning, and increased self-efficacy. Different wilderness therapy camps have various programs, but usually an element of hiking and climbing is involved, along with the processing groups [9, 10]. It is noteworthy that these approaches are not evidence-based but have yielded significant decreases in PTSD symptoms. Some studies have examined the effectiveness of wilderness therapy in reducing depression symptoms, but overall, more research is needed to better understand the effectiveness of this intervention for suicidal ideation. Wilderness therapies appear to be particularly beneficial in decreasing emotion suppression, increasing positive emotions, and increasing openness to future mental healthcare [9, 10]. So, these interventions may best be used with patients who are unwilling to seek other forms of treatment to increase therapy buy-in.

Considerations for Future Research: Veterans with Intersectional Identities

Suicide prevention literature on military veterans who also identify with marginalized communities is fairly limited. Considering that research indicates a higher risk for military and minority populations separately, it is important to address the increased suicide risk evident in veteran populations who also identify as minorities. The American Psychological Association (APA) has discussed the ways in which therapy can differ across identities [1] and in recent years has put a spotlight on the importance of cultural formulation (e.g., [1, 5]). To support the importance of this consideration, the following section will highlight the increased risk factors for two minority groups, ethno-cultural and gender and sexual minorities. When examining the following section, it is important to consider how the information may be relevant when evaluating suicide risk and prevention strategies for veteran populations who also identify as minorities.

Ethno-cultural Minorities

Ethno-cultural minorities include individuals who do not identify as white, immigrants of all statuses, and refugees [28, 48]. Research indicates that ethno-cultural minorities have a higher risk of depression and suicide; immigrants have a higher risk of suicide compared to native born individuals; and black indigenous people of color (BIPOC) in America and Europe have a higher risk of suicide compared to white individuals [28]. Furthermore, among ethno-cultural minorities, there is an increased suicide risk for youth, particularly for American Indian, Pacific Islander, and Native Hawaiian youth [28, 38]. Research indicates that contributing factors to this increased risk for suicide in ethno-cultural populations include cultural barriers,

family separation, acculturation stress, social isolation, discrimination, suicide stigma, and decreased help-seeking behaviors [14, 28]. Acculturation stress arises when an individual is in the process of assimilating to a foreign culture, and increased acculturation stress is linked to a higher likelihood of engaging in suicidal ideation and attempts [48]. Additionally, suicide stigma present within these cultures may decrease help-seeking behaviors, increasing the difficulty of processing acculturation stress [14]. This cultural belief also decreases the willingness of ethno-cultural minorities to seek help from others in times of suicidal ideation, further contributing to increased risk of attempting suicide [14, 38, 71].

Decreased help-seeking behaviors are not only limited to social encounters but also extend to medical health services. Decreased help seeking in medical settings from ethno-cultural minorities is propagated by a lack of trust in institutions. Research indicates that immigrants in America and Canada endorsed mistrust in healthcare, influencing the likelihood of them seeking and receiving health services and appropriate psychoeducation [48]. Such institutional mistrust is influenced by the awareness of systematic oppression and discrimination. Most healthcare systems do not target ethno-cultural minorities nor make their services accessible to them, decreasing their willingness to seek help [14]. These issues predominantly and disproportionately impact ethno-cultural communities, increasing mental health concerns and risk of suicide [14, 48]. Decreased help-seeking can also be observed in Veteran populations due to stigma about mental health treatment [39]. Therefore, the intersection of being an ethnic minority and a military Veteran may make these patients even less likely to use healthcare services.

Gender and Sexual Minorities

Other minority groups that are largely underrepresented in military research regarding suicide prevention are gender and sexual minorities (GSM). Research indicates that GSM are more likely to experience suicidal ideation, attempts, and completions compared to their cisgender and heterosexual peers [2]. More specifically, they are four times more likely to attempt suicide [2, 81], which leads to increased suicide completions. Individuals who identify as GSM are also more likely to experience harassment, violence, and discrimination [51, 69]. Exposure to such cruelty increases their sensitivity to depression, anxiety, substance use disorders, and other mental health concerns [68, 69]. A study on GSM participants found that 58% of GSM reported they wanted to complete suicide while attempting, compared to 33% of heterosexual participants [27]. In another study of GSM participants, 42.8% reported they had suicidal ideation, 38.2% reported they had attempted suicide in the past, and 9.4% disclosed that they engaged in an attempt that resulted in injury [7].

Furthermore, increased risk and suicidal ideation for GSM populations may be influenced by family conflict, lack of institutional support, and judgmental peer relationships. For example, individuals who identify as GSM are likely to encounter families that have stigmatizing attitudes about their identities, increasing their risk of

suicide by eight times [2, 11]. A lack of institutional support, such as discrimination in the workplace and schools, may also contribute to feelings of depression and suicidal ideation [36, 69]. Furthermore, judgmental peer relationships in these discriminatory contexts may also increase feelings of alienation, decreasing help-seeking behaviors and increasing feelings of helplessness and suicidal ideation [2, 36, 56]. Even in military settings, judgmental peer relationships can be a source of stress and trauma for LGBT Veterans. One study found that these Veterans experienced various forms of microaggressions, discrimination, and minority stress related to identifying as LGBT [50].

The Need for Cultural Consideration

It is evident that minority populations such as ethno-cultural and GSM communities have an increased risk of mental health concerns and suicide risk; however, the amount of research that is dedicated to suicide prevention for these populations is very limited. That research is even more limited in literature regarding military populations. This lack of information decreases the knowledge and awareness of suicide risk for military populations who identify as minorities. Furthermore, the lack of literature and research limits the availability of specialized resources that could target Veteran populations. The combined risk factors of serving in the military and identifying as a minority are very important for the future direction of veteran suicide prevention. It is important that attempts be made to increase awareness of intersectional influences in suicide risk and prevention for military populations. Although this section on marginalization considerations only discussed a few minoritized identities, there are far more intersectional identities that are important to consider when discussing military suicide risk and prevention.

Conclusion

The experience of suicidal thinking is prevalent among Veterans, and when combined with intersecting cultural identities, and military cultural norms surrounding firearm ownership, and mental health stigma, it can be conceptualized as creating a dangerous level of risk. There is hope, however, as the US government and our society as a whole has begun to shift its focus to assessing and treating suicidal ideation and attempts in Veterans. Government organizations such as the VA and DoD lead the initiative with implementation of new screening methods, supportive resources, modernized interventions, and frequent program evaluation. Furthermore, increasing accessibility to treatment through programs like the Mission Act allows community providers to take up arms in the fight to decrease Veteran suicide. Through innovating and adapting clinical approaches to Veteran populations, as well as developing new programs to address suicide rates, providers and policymakers strive to decrease rates of Veteran suicide.

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Part VI

Survivors



Bereavement by Suicide Among Family Members

77

Bo Runeson and Holly C. Wilcox

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Abstract

Suicide bereavement is especially challenging for family members. Each year there are an estimated 5 million family members globally who experience suicide loss. The aftermath of a family member's suicide can differ from other types of sudden deaths, such as fatal motor vehicle accidents, by the experience of profound guilt, blame, regret, and abandonment. These aspects can result in unrelenting despair and grief. There has been a relatively robust body of research showing the relative genetic and environmental contributions of a family history of suicide. The context or circumstances under which familial suicide occurs for the individual such as age or developmental timing of suicide loss, and closeness of the relationship with the decedent, is important to both the immediate aftermath and future intergenerational risk.

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Introduction

Bereavement by suicide is estimated to affect 50–500 million persons worldwide every year [1]. Research estimate that six family members are affected for each suicide [2]. By broadening the estimate to include friends, colleagues, classmates, therapists, neighbors, and others exposed, the estimate is 135 persons affected for each suicide [3]. This figure illustrates the public health burden and points toward possible mental health needs of those bereaved by suicide by including those who are exposed to suicide, those who are affected by suicide, as well as those who experience short-term and long-term bereavement [4]. A meta-analysis by Andriessen and colleagues [5] of the prevalence in the general population of exposure to suicide in family, friends/peers, and all relationships reported that 4.3% of people are exposed to suicide in the past-year and 21.8% had lifetime exposure. This chapter will focus on suicide bereavement among family members. Loss of a family member through suicide is one of several suicide risk factors that can be considered proximal (as an acute stressor) or part of the diathesis or susceptibility to suicidal behavior [6].

Two domains are covered in this chapter. The first domain concerns the direct aftermath of suicide among family members and includes both psychiatric, psychosocial, or somatic complications as well as suicidal behavior (self-harm or suicide) mostly within weeks, months, or years. The second domain reviews evidence on the relative genetic and environmental contributions of a family history of suicide. The context or circumstances under which familial suicide occurs for the individual, such as age or timing of suicide loss and closeness of the relationship with the decedent, is important to both domains.

Studies in this area are of several types: family studies, behavioral genetic studies, psychological autopsies, interviews with bereaved individuals with longitudinal follow-ups, and population-based register studies that include large samples and long follow-up intervals. Some of the studies are exploratory and uncontrolled, others compare suicide decedent cases to alive or accident decedent controls, and others are studies based on an entire country population.

Behavioral genetic and family studies of suicide from the 1970s pointed to hereditary factors in the development of suicidal behavior [7, 8]. Studies published during the 1990s based on the psychological autopsy method and samples of adolescent and young adult suicides found that suicide appears to run in families [9–12]. In the beginning of the twenty-first century, several papers were published that overcame previous shortcomings of small samples, as well as selection and informant biases by benefiting from population-wide register-based data, to further support the influence of family history of suicide [13–15]. The relationship between the suicide decedent and the relative, how violent the suicide method was, whether

the family member witnessed the suicide or discovered the body of the decedent, a suicide note accusing a relative, preexisting mental health conditions in the bereaved individual, and other stressful contextual factors of the suicide can influence the grieving process [16, 17]. Two systematic reviews have been published on the topic of suicide bereavement [1, 18].

The Aftermath of Suicide

Those bereaved by suicide can experience a particularly severe and persistent grieving process [19], which can result in “Prolonged Grief Disorder” in ICD-11 and “Persistent Complex Bereavement Disorder” in DSM 5. Certain themes make the grieving process different, at least in the first year [20], such as guilt, shame, rejection, resentment, isolation, stigma, and anger [21].

Case Description

A 20-year-old man had recently moved out of his parent’s home to study in a much larger university town. He had experienced social problems during his secondary-school years and on several occasions had also experimented with illegal drugs. He gave up his university studies after a few months and started to work as a computer programmer in a private company. His mother suspected that he was beginning to suffer from mental health problems during one of their frequent telephone contacts. She traveled to the city where she took her son to the psychiatric emergency department. He was diagnosed with an anxiety disorder and was referred to an outpatient neuropsychiatric unit with an appointment in 2 weeks. He died by suicide only days after the emergency visit. His mother was shocked by their son’s sudden death and blamed herself for not having insisted on a more timely appointment or inpatient care. She was poorly supported by her husband, who had not had a genuine contact with their son due to the son’s drug problems. Six months after her son’s suicide, still suffering from intense grief, she took a large amount of sleeping pills prescribed by her general practitioner. She was discovered dead by her husband when he came home from work in the evening.

The most recent systematic review included 57 international studies on the effect of suicide bereavement [1]. The authors attempted to disentangle psychiatric consequences from suicide risk according to the relationship to the suicide decedent. Parents of suicide decedents had an increased risk of psychiatric care after an offspring’s suicide. Mothers bereaved by an adult child’s suicide had an increased risk of suicide. They also found increased risk of depression in offspring bereaved by the suicide of a parent.

Research on siblings bereaved by suicide is rare; they have been referred to as the “forgotten mourners” [22] because siblings may focus their attention on supporting grieving parents, which can postpone their own bereavement [22, 23]. Tidemalm and colleagues [24] found that siblings had a three-fold increased risk of suicide after

exposure, OR 3.1 (2.8-3.5). Spouses of suicide decedents were at an over two-fold increased risk of suicide (OR 2.3 (95% CI 2.2-2.5)) [24].

The increased risk in nonmarried partners was found also in the systematic review mentioned [1]. In a study of the risk in spouses, 6.7 million inhabitants in Denmark were examined. Mental disorders and physical disorders (e.g., cancer, cardiac, or respiratory disorders) appeared significantly more often than in population controls within 5 years of suicide loss [25]. The risk of suicide was increased three- to four-fold in both males and females bereaved by their spouse's suicide (OR 3.6, 95% CI 3.1-4.3 in males and OR 4.5, 95% CI 3.7-5.4 in females).

Another register-based study found the highest risk for an additional family suicide in the early aftermath of suicide [26]. The highest risk appeared within the first week (OR 3.4, 95% CI 1.9 – 6.2), but the risk was also increased within the first month (OR 1.8, 95% CI 1.4 – 2.3) and the first half year (OR 1.3, 95% CI 1.1 – 1.5). Patterns were similar for men and women; death of a partner or child but not of sibling or parent was associated with a significantly increased suicide risk. The strongest risk was seen after the death of a partner among individuals 45 years and older. In the systematic review mentioned above, mothers who lost an adult child by suicide were most severely affected [1].

Sequelae to suicide bereavement can be measured in other ways. Register-based data on psychiatric sequelae often rely on information on inpatient care or specialized psychiatric care. In a study of more than 1 million Swedish parents, the functional impairment post offspring suicide was assessed by sickness absence exceeding 30 days with a psychiatric or somatic disorder. The study of sickness absence includes more or less severe forms of impairment than inpatient psychiatric care and can give a more comprehensive picture of disability and impairment in the aftermath of suicide. Parents of suicide decedents and parents of offspring who died by other causes of death were compared [27]. Both mothers and fathers of offspring suicide and accident decedents had over ten times higher risk for psychiatric sickness absence. Fathers also had 40% higher risk for somatic sickness absence.

Studies have examined the friends of adolescent suicide decedents based on small samples (146 friends of 26 adolescent suicides) [28, 29]. The peers who became more depressed after exposure to a friend's suicide had closer relationships with suicide decedents [28]. Post-traumatic stress disorder (PTSD), increased suicidal intent but not suicide attempts were also found in the aftermath of a friend's suicide. The majority of new-onset episodes of depression began within a month of exposure. Both depressive reactions and PTSD appeared more frequently in suicide bereaved friends with a previous history of psychiatric problems [29].

Family History of Suicide

How strong is the association of a family history of suicide on future suicidal behaviors?

A Danish register study of 4,262 suicide decedents showed that a family history of suicide and psychiatric illness independently increased the risk of suicide two- to three-fold (OR 2.6; 95% CI 1.8-3.6) and one- to two-fold (OR 1.3, 95% CI 1.2-1.5), respectively [13]. A second Danish study of 21,169 suicides also using a nested case-control design with living controls confirmed the importance of a family history of suicide on future suicidal behaviors [14]. An epidemiological study based on Swedish population registers included a sample of 33,173 suicides. The suicide risk in a family that had already experienced suicide was two to three times higher than in a control population of age-matched families of a person who had died by a cause other than suicide [15]. By including control families who had lost a family member by natural deaths, the design adjusted for psychopathology related to bereavement from death of a first-degree relative [30]. The Swedish study likewise found an independent impact of suicidal behavior after adjusting for coexisting mental disorders in family members. One factor believed to explain suicide independent of psychiatric disorders is trait impulsive aggression in affected families [31].

Does the degree of relatedness affect risk of suicide within a family?

A number of studies on the intergenerational transmission of suicidal behavior have focused on variation by degree of relatedness. Using epidemiologic methods to study the family clustering of suicide risk in a total population study of 11.4 million individuals, patterns of familial aggregation were examined [24]. Odds ratios were calculated showing that full siblings with 50% genetic similarity had an OR of 3.1 (95% CI 2.8-3.5), which was higher than for maternal half-siblings who have 25% genetic similarity, OR 1.7 (1.1-2.7). Further, monozygotic twins (100% genetic similarity) had a higher risk than dizygotic twins (50% genetic similarity) and cousins (12.5% genetic similarity). Shared environmental influences were also salient; siblings of suicide decedents had higher risk than offspring (both 50% genetically identical but siblings having a more closely shared environment) 3.1 (2.8-3.5) vs. 2.0 (1.9-2.2).

Does the developmental timing of exposure to suicide affect future risk?

Using 30 years of whole population prospective data in Sweden, Wilcox and colleagues [32] showed that mode (suicide vs. accident or other cause of death) and timing of parental death were associated with offspring long-term risk of suicide, hospitalization for suicide attempts, and specific psychiatric disorders [32]. We characterized offspring's time at risk for suicide attempts after parental death comparing trajectories of those who lost a parent to suicide with those who lost a parent in a fatal accident by the developmental timing of when the offspring experienced parental death. We found that child survivors of parental suicide had an elevated and prolonged pattern of risk for suicide attempt as compared to adolescents and young adult survivors of parental suicide who had elevated risk primarily in the first 2 years after parental suicide [33]. *The loss of a mother increases the risk for suicidal*

behavior more than the loss of a father, probably to some extent related to the fact that most mothers were primary caregivers and some fathers had a more distant relationship to the child in the case of separations and divorce [34].

Case description

A 36-year-old woman had developed bipolar disorder 2 years ago. The onset manifested initially as a depressive episode after separating from her first cohabiting partner. She had her first manic episode during the following summer after having had a passionate relationship with a work colleague from the office where she was the head secretary. She was currently under psychiatric treatment due to a post-manic depressive episode. Her psychiatrist suggested she start prophylactic lithium treatment, but she hesitated because of her negative associations of this medication with her father's psychiatric disorder during her early childhood. Her father had experienced several manic episodes during her childhood, often with involuntary and dramatic admissions to inpatient psychiatric hospitalization. Her father died by suicide when she was 12 years old.

When she did not arrive for a date with her colleague, she was found dead in her home. Her suicide note implored that her mother and colleague not blame themselves. She blamed herself and her mental disorder that would wreak havoc for those around her as her father's condition had.

How is family history of suicidal behavior transmitted?

In an offspring of siblings study, O'Reilly and colleagues [35] aimed to study how the risk of family history of suicidal behavior is transmitted. They found that genetic factors explained about 70% the intergenerational association while 29% of the association was due to environmental factors associated with exposure to maternal suicidal behavior such as contagion, bereavement after parental loss, negative parenting style (e.g., hostility), or chaotic home environment. Similarly, in a recent study of familial aggregation of suicide among persons with obsessive compulsive disorder, it was found that the familial coaggregation of OCD and suicide attempts was largely explained by additive genetic factors (60%) and non-shared environment (40%), with negligible contribution of shared environment [36]. In contrast, a twin study of the genetics of suicide attempts emphasized that non-shared environmental factors are relevant, estimated to over 60% [37]. A Swedish register study pointed to the interaction between biological and environmental risk. Using an adoption study design, if an adopted child had both a biologic parent who had died by suicide (genetic risk) and an adoptive parent with mental disorder (environmental risk), the risk of suicidal behavior in the child was substantially increased but was not if the child had only genetic or environmental risk factor alone [38].

To conclude, there is at least a doubled risk of suicide reoccurring in a family that has already experienced suicide. Further, there is an independent risk of suicide in families after adjusting for coexisting mental disorder. The degree of relatedness to a

suicide decedent is associated with future risk of suicide. This may be both related to genetic predisposition and to shared and non-shared environment; the proportion of the factors varies in different studies and samples.

Limitations

The association of familial suicide on an individual may also be related to the circumstances of the suicide. It may potentially be more traumatic to be the witness of a suicide or to be the first one to find the decedent after the suicidal act. We lack information on this aspect, as well as on the psychological nature of the relationship between affected family members. Nor can we study the atmosphere or dynamics in the family years back or immediately around the time of the suicide. Limited studies with such anecdotal information may not be generalized. The large register data cannot be used to retrieve such detailed information.

Conclusions

Exposure to the suicide of a family member can be extraordinarily traumatic and affects suicide bereaved family members on a wide range of outcomes. Familial suicide loss affects close family members and spouses particularly strong. There is risk of a subsequent suicide in the early aftermath of the loss of a family member to suicide, but also latent risk several years and decades after suicide loss. We should offer persons bereaved by suicide a range of evidence-based resources and supports to reduce suffering and also to prevent the intergenerational risk of suicide. As the absolute risk for suicide in families is relatively low, information about family history of suicide is only one piece of information to take into account in considering future risk among family members. It is important that family members do not believe that their genetics and family history determine their future.

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#Not6: Expanding the Scope of Suicide Exposure

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Julie Cerel and Alice Edwards

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Abstract

While the idea that each suicide only impacts 6 people has been around for decades, recent work has shown that up to 135 people and not 6 are exposed to each suicide. The effects of suicide are on a continuum in which some people are exposed (know the person who died), some are affected, and some are bereaved either short or long term. Exposure to an individual's suicidal behavior is not limited to an individual's family, and there is evidence that clear risks for negative outcomes exist in suicide exposed non-kin.

Keywords

Suicide · Exposure · Suicide survivor

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Historical Context

Over 48,000 deaths by suicide occur each year in the United States, and suicide is one of the leading causes of preventable deaths around the world. As with any death, suicide leaves people behind to mourn and to deal with the aftermath of the loss. Concern has existed for individuals whose loved ones die by suicide for hundreds of years, but interest in and understanding the phenomenon of suicide is a relatively recent development, developing as a formal discipline of study in the late twentieth century. Edwin Shneidman, oft-described as the “father of modern Suicidology,” was among the first to discuss the experience of suicide bereavement and coin the term “postvention” in describing help and support provided to who he described as “survivor-victims of suicide deaths.” The language around the aftermath of suicide has changed since Shneidman started the discussion, and the word victim is no longer used in relationship to suicide. The term “suicide loss survivor” is used in the United States to denote those left behind after a suicide. While in other parts of the world, “lived experience” encompasses suicide loss survivors as well as those who have their own experiences of suicidal thinking or attempt. Shneidman grossly estimated each suicide death left six survivors behind in his early discussions of postvention. Support for these survivors was given such emphasis, because it was thought that it could serve as a form of suicide prevention, as survivors were at risk for future suicidal behavior. Shneidman’s six survivor claim has persisted since the early 1970s, despite not being based on empirical evidence. Empirical studies on the extent of suicide exposure and survivorship have been limited until recently. Recent studies have shown that this six survivor estimate is too conservative and based on reductive assumptions about the range of people suicide impacts. Shneidman’s estimate is primarily concerned with the extended family of an individual who died by suicide. This limited notion of who is impacted by suicide has potentially harmful ramifications on postvention efforts. Exposure to an individual’s suicidal behavior is not limited to an individual’s family, and there is evidence that clear risks for negative outcomes exist in suicide exposed non-kin. Focusing on family members when considering the impact of suicide does not provide a complete understanding of the risk across the community. This hinders the ability to determine the best strategies for identifying and intervening with those at risk for negative outcomes [17].

Difficulties Associated with Suicide Loss

Individuals bereaved by suicide experience particular difficulties and are at increased risk of adverse outcomes. Suicide exposure is known to increase risk for depression, admission to psychiatric care, and PTSD. Bereavement by suicide is a risk factor for future suicide attempts [13]. This risk is specific to suicide bereavement when compared to bereavement by sudden natural causes and is seen in individuals with and without a blood relation to the decedent. Factors beyond

kinship might influence suicide risk. Much of the reported risk following suicide exposure is associated with prior or subsequent mental illness. Suicide bereavement was also associated with poor social functioning and occupational dropout though these risks were not necessarily unique to suicide bereavement. Significant stigma exists around suicide and is a possible explanatory factor of adverse outcomes and individuals exposed to the suicide. When compared to bereavement by either sudden natural death or sudden unnatural death, individuals bereaved by suicide scored higher on measures of perceived stigma, shame, responsibility, and guilt whether blood related or not [15]. Stigma has multiple dimensions including public or personal stigma, perceived stigma, and self-stigma. Public and personal stigma are enacted stigma, external factors that manifest in mistrust, negative bias, and stereotyping of the bereaved as well as social difficulties like embarrassment and avoidance. Public stigma towards people bereaved by suicide is traced to the middle ages when legal, religious, and social sanctions against suicide were created as a deterrent. Similar sanctions persist today; one form can be seen in life insurance policies for families with the history of suicide or delaying payouts after suicide. Personal stigma towards suicides is apparent in attitudes that view suicide is a failure of problem-solving and blame both the deceased and their friends and family. In the United States, there is evidence that non-bereaved people are more likely to describe blame to a person bereaved by suicide than one bereaved by other causes and to avoid the bereaved for fear of social rules governing interactions with them. Perceived stigma is a felt form of stigma describing how aware an individual is of the stigmatizing attitude of others and can contribute to feelings of shame and worthlessness when internalized is self-stigma. Stigma, particularly perceived stigma and internalized self-stigma, can reduce help-seeking behavior and is related to poor mental health outcomes. A qualitative interview study found some commonalities in the experiences of stigma relating to sudden loss due to suicide; unnatural and natural causes, including specific negative attitudes of others and social awkwardness such as disrupted interactions; and avoidance of the topic of bereavement and avoidance of the bereaved [14]. Specific negative attitudes included blame, in individuals bereaved by suicide or by other sudden unnatural causes, and morbid fascination with the death and unwanted pity in all three groups. Individuals bereaved by suicide also reported a degree of avoidance to the point of a complete lack of offers of support and a particular avoidance of the word suicide. The absence of support both in terms of perception of avoidance and failure to offer support represents both abandonment and equitable access to resources. Individuals bereaved by suicide are likely to report delays in receiving support after their loss and a lack of informal support. It is not clear whether the perceptions of shortfalls correspond to actual experience or if self-stigma could cause distorted perceptions. However, the perception of abandonment remains important. The other dimensions of stigma reported depicted a sense of isolation in the bereaved, even when there was apparent social support. Interviewee's experiences with others social embarrassment exerted the strongest influence on their own behavior. Bereaved individuals felt obligated to avoid causing awkwardness for others and would steer

conversations away from death. Other behaviors included withholding details of the death, hiding the true extent of grief, and concealing the cause of death. Navigating complex social interactions after a sudden death added to the burden of grief and loneliness. There is also a level of self-reinforcement in these behaviors. Stigma can reduce help-seeking behavior in individuals bereaved by suicide. The findings in both qualitative and quantitative studies suggest that individuals bereaved by suicide experience stigma more acutely than those bereaved by sudden death from other causes.

The Continuum Model of Suicide Exposure

A particular challenge encountered in efforts to improve understanding of the aftermath of suicide and advance the field of postvention derives from issues in language and definition [3]. Existing terminology of “survivorship” is imprecisely defined, and the way in which it is used can obscure the considerable variation of how individuals considered survivors of suicide are impacted by the event. Over time, multiple definitions of “suicide survivor” have been presented. Definitions have been expanded from the immediate family to include friends and even acquaintances who remain after the death. The impact that qualifies one as a suicide survivor has also shifted across different definitions. Shneidman focused on individuals whose lives were “forever changed” following a suicide. Other definitions have similar requirements though the specifics vary, while in others anyone who knew the decedent could be considered a survivor based if they had a significant relationship. A more recent attempt to provide a nuanced definition of survivorship was from Jordan and McIntosh developed using a summary of definitions used over time. They described a suicide survivor as “someone who experiences a high level of self-perceived psychological, physical, and/or social distress for a considerable length of time after exposure to the suicide of another person.” This definition makes some advantageous distinctions, such as advancing the consideration of potential survivors beyond those considered kin and creating distinct characteristics of the experience of suicide survivors that can be used to distinguish who can be considered a suicide survivor. Despite the advantages, there are still significant challenges that limit the clinical usefulness, particularly given the current lack of ability to predict who will meet the criteria of survivorship, which includes an aspect of long-term distress and still does not reflect the full spectrum of individuals who can experience significant traumatic exposure as a result of a suicide death. There are other difficulties with the term “suicide survivors” that derive from confusion in the general public who interpret the term as describing those who have lived after engaging in a nonfatal suicidal act. This confusion is potentially complicated but the language of other fields where people who have dealt with a potentially life-threatening illness and lived are often referred to as survivors. Current definitions of survivorship generally assume that there is a dichotomy where one is either suicide survivor or not, when the wide range of experiences with suicide loss would be better reflected within more dimensional perspective. The Continuum of Survivorship model

describes the aftermath of suicide as a continuum in which individuals on the continuum are categorized as “exposed” to suicide, “affected” by suicide, and “suicide bereaved short term” and “suicide bereaved long term.” Each of these categories is in a nested structure where subsequent categories represent subsets of prior categories with subgroup membership defined by severity or response over time.

The category of “suicide exposed” is defined as anyone who knows or identifies with someone who dies by suicide. This definition includes individuals who would be defined as suicide survivors with existing terminology but also includes individuals such as fans of celebrities or social acquaintances of a deceased individual who do not experience the severe and long-term effects associated with the loss of someone with a closer or more intimate relationship. Evidence from community-based studies suggests that over half of the population could be considered suicide exposed. Since there are currently no data-based criteria available to predict with confidence who among the suicide-exposed population are likely to experience longer-term reactions, community-level postvention such as educational programming and public health initiatives target anyone exposed, and well more intensive clinical interventions are reserved for those further along the continuum of survivorship.

An individual who experiences significant psychological distress after being exposed to suicide is considered to be affected by suicide. This classification includes individuals who would not have been considered bereaved under previous definitions based on their relationship to the deceased, such as witnesses to the suicide, who experienced post-traumatic symptomology from the experience. This acknowledges that there are negative effects of the impact of suicide death that merit intervention and support beyond the effects associated with close personal relationships. Individuals with existing psychopathology or previous suicide exposure could be predisposed to being affected by a suicide exposure.

The two suicide bereaved categories are both defined by the requirement of a close relationship to the deceased that is relevant for the survivor sense of security. Such relationships would include family members and partners, as well as close friends and colleagues for whom the loss carries personal and often profound implications. The distinction made between short-term and long-term bereavement responses is a recognition that the closest intimate survivors of a suicide experience a special vulnerability in the immediate aftermath of the loss and could benefit from crisis intervention and support services at that time, even if they are not part of the subset of suicide bereaved who will develop the protracted and debilitating responses that define long-term suicide bereavement. One approach to meet this need could be making grief and bereavement counselors available, or by increasing awareness of existing services in the community.

Those considered to be suicide bereaved long term struggle across a protected period with clinically significant responses to the loss of a close personal relation who deceased by suicide. This group has roughly the same membership definitions as suicide survivors, though the use of the term bereavement adds an implication that

there is presumed to be some form of attachment bond. For the suicide bereaved problematic grief merits assessment and potentially treatment. Advances in diagnosing and treating prolonged and complicated grief could be used to inform research on suicide bereavement that could identify predictors of long-term impact. The evidence-based criteria for identifying complicated grief could also be used in suggesting distinctions between short-term and long-term bereavement groups. However, complicated grief is only one aspect of the extended impact of suicide that merits attention.

The Continuum of Survivorship proposes new directions for suicide exposure research that might help reduce inconsistencies in results and lead to improved postvention strategies. Recent work on suicide exposure has aimed to address limitations in prior research on suicide exposure by examining lifetime exposure to suicide rather than exposure in a specific time frame.

A 2016 random digit dial study examines suicide exposure in the state of Kentucky. Forty-eight percent of participants reported exposure to one or more suicides. Suicide exposure was not generally associated with demographic characteristics. Race was the only demographic variable where there was a difference in exposure, with a higher percentage of white people reporting exposure. This difference is possibly reflective of the fact that suicide rates of white people are higher than those of black people. Comparisons of psychiatric risk found significant differences between groups based on suicide exposure. Individuals exposed to suicide reported higher current symptoms of anxiety and depression, as well as higher levels of suicidal ideation. Additionally suicide-exposed individuals were twice as likely to meet screening criteria for depression and almost twice as likely to meet screening criteria for anxiety. This study provided evidence that suicide exposure and associated risk were more pervasive than previously thought [5].

Another study investigated suicide exposure in American adults using data from the 2016 General Social Survey (GSS) [11], a national door-to-door survey conducted biannually. Fifty-one percent of participants reported at least one lifetime suicide exposure; 35% of all respondents were considered bereaved by suicide, which was defined as being greatly or to some extent emotionally disturbed by the death; and 14% of all respondents reported multiple emotionally distressing suicide losses. Individuals who had closer relationships to the deceased such as friends and family were more likely to experience emotional distress, while acquaintances and neighbors were more likely to be exposed without emotional distress. The number of suicide exposures, feeling bereaved by suicide, and experiencing multiple bereavements were also related to certain mental health impacts such as increased incidence of bad mental health days and feeling more likely to experience a nervous break. No association was found between measures of depression and suicide exposure or bereavement. Although factors such as the high threshold of the scale used, incomplete response particularly in the bereaved and multi-bereaved subgroups, and the potential impact of time since exposure on levels of depression, might have led to this lack of

findings. The findings of this study suggest suicide exposure is widespread and that suicide bereavement impacts far more people than originally thought. The 35% of American adults considered bereaved represents at least 90 million individuals who could be considered suicide survivors. Even using more conservative definitions where only those who experience great distress from the death, 18% of the adult population would still be considered bereaved, roughly 45 million people. Underestimation of survivorship could also contribute to the isolation that is a distinguishing feature of suicide bereavement, as many loss survivors are unaware of the substantial number of people with similar experiences.

Correlates of Exposure

Another goal in recent suicide research has been to identify correlates of exposure and survivorship. The demographic characteristics associated with suicide bereavement are not well understood, which causes difficulty in identifying those bereaved by suicide death. If distinct demographic features are shared across suicide exposed and bereaved populations, they could be used to identify who is at risk for adverse effects after a suicide exposure and implement early intervention to provide needed therapeutic services to individuals who might not think help until later in their grief experience, if at all. A 2013 survey examined rates of suicide exposure and of identification as a suicide survivor through a random digit dial survey [2]. No demographic variables differentiated those exposed and unexposed to suicide, nor those exposed and those who identified as survivors. Individuals with close family relationships to the deceased were more likely to report significant affect, but survivor status could not be differentiated by specific relationship to the decedent. An individual's perceived closeness with the decedent while not strictly a demographic characteristic did differentiate the responses, with individuals reporting very close relationships were more likely to identify as survivors than those who were less close. 137 unique relationships were reported, and some were categorized into larger themes such as friend, or work colleague, though unique categories were reported. Multiple studies used data from the 2016 GSS to examine correlates of suicide bereavement. A general study of rates of exposure and bereavement found that friends of the deceased represented the largest constituency of those bereaved by suicide [11]. Despite this prevalence, there is not much knowledge about the experiences of the friends of the suicide deceased, and it is possible that they are neglected by current mental health services. Additionally, five respondents reported the loss of a patient, and all reported high emotional distress. These responses are provisional evidence suggesting that suicide deaths of patients might be more likely to result in strong emotional distress among human service providers. Another study examined disposition towards religious participation and observances in suicide-bereaved adults compared to the non-bereaved and if religious involvement affected

mental health indicators in the bereaved [10]. Initially results suggested that the religiously involved bereaved were more likely to pray and to believe in afterlife, but these differences were not significant after controlling for sex-based differences. An examination of demographic correlates of suicide bereavement found bereaved tended to be white, non-Hispanic, and older in age [9]. Women were greatly overrepresented among the bereaved as were the divorced and the never married. Gun ownership was significantly higher among the bereaved, which could be related to location-based patterns where the bereaved were less likely to be living in pacific states or the largest cities, areas where stricter restrictions on gun ownership are more common. Suicide-bereaved individuals were also more likely to describe their quality of health as poor. Collectively these studies provide information that could be valuable to helping agencies seeking to reach the suicide bereaved. This provides a better understanding of who to look for and where, as well as at least one potential point of intervention. The higher rates of gun availability seen in the homes of the bereaved are of particular concern given the evidence of suicide risk potential of the suicide bereaved.

Exposure in Specific Groups

While suicide can impact anyone, certain groups are considered to be at unique risk of suicide. Given the role that suicide exposure and impact can play in predicting suicide, it is important to understand exposure in these populations.

Veterans

Veteran suicide rates are disproportionately high, despite a focus on prevention efforts in the US Armed forces and Department of Veterans Affairs [4]. While suicide exposure rates are not significantly different between military veterans and community members, military-specific variables and exposure to sudden traumatic death during military service are related to the effects of suicide exposure in veterans. Almost half of participants (47.1%) in a population-based study of veterans reported exposure to one or more suicide deaths over the course of their life. Younger veterans are slightly more likely to report suicide exposure, but overall demographic variables are not associated with exposure. Exposure to suicide almost doubled the likelihood of depression diagnoses and more than doubled the likelihood of anxiety diagnoses. Among suicide exposed odds of meeting diagnostic criteria for depression, anxiety, PTSD, and prolonged grief were increased for each level of increased perceived closeness to the suicide decedent. Rates of suicidal ideation were significantly higher in individuals exposed to suicide and for individuals with suicide and traumatic death exposure. Individuals who experienced suicide exposure first in the sequence were four times as likely to experience suicidal ideation. These findings indicate that individuals who have had prior exposure to suicide and are then exposed to a traumatic death may be at greater risk for suicidal behavior of their own.

Gender and Sexual Minority Adults

Adult members of gender and sexual minority (GSM) groups experience higher risk of adverse mental health outcomes than their majority group peers. These disparities are particularly severe for transgender and gender diverse (TGD) individuals, whose sex assigned at birth are incongruent with their gender identity. TGD adults appear to contemplate an attempt suicide at higher rates than their cisgender peers, with 29–40% of TGD adults estimated to have attempted suicide once in their lifetime, and 55–82% have experienced lifetime thoughts of suicide [8]. An online survey of self-identified TGD adults found that nearly 60% of participants reported that they were close to at least one person who had attempted suicide but not died and just under half of those exposed indicated they were close to at least one TGD individual who had attempted but not died by suicide. More than a quarter of the sample reported they were close to at least one person who had died by suicide, and of those exposed, almost a quarter indicated knowing at least one close TGD individual who had died by suicide. These close suicide exposure rates are fair higher than those seen in the general population.

TGD adults who reported exposure to suicide attempt and or death were more likely to have been assigned female at birth and racially diverse, and individuals outside the gender binary were more likely to have suicide attempt and death exposure. Suicide attempt exposure was negatively associated with age, while suicide death exposure was positively associated with age. Racial status was also linked to suicide exposure in a somewhat unusual manner. Data indicated that TGD people of color were more exposed to suicide attempt and death compared to their racial majority peers, which is not reflective of national trends in suicide. This could indicate that suicide exposure rates in TGD adults might not mirror, or be explained by, rates of suicidal behaviors in the intersection of racial and gender minority status.

Both forms of suicide exposure were associated with multiple indicators of distress. Participants who were close to someone who had attempted suicide were more likely to report recent suicidal ideation, recent and lifetime suicide attempt, lifetime non-suicidal self-injury engagement, and at least one current mental health diagnosis. A similar pattern of results was found for those exposed to suicide death. Suicidal ideation was increased in cases of exposure to a TGD other's suicide attempt; it was associated with increased suicidal ideation compared to someone who is not TGD, though that was the only difference, and there were no significant differences in individuals who reported the suicide death of a TGD person close to them.

Children

Suicide exposure in youth is thought to have similar impacts on future suicidal behavior, as are seen in adults. Adolescents are considered to be particularly susceptible to “suicide contagion.” A Canadian study in 2013 using data from the national longitudinal survey of children and youth assessed the association between

suicide exposure and suicidal thoughts and attempts in youth ages 12 to 17. In the study, exposure to a schoolmate's suicide was found to predict suicidality across age groups, particularly in terms of suicide attempts. In the oldest age group (16–17), the suicide death of a schoolmate in the past year was reported by 9% of respondents, and an additional 15% reported that a schoolmate had died by suicide more than a year earlier [18]. There is a suggestion that increased risk of suicidality was a relatively universal experience following suicide and that proximity to the decedent did not increase risk, contrary to prior research in children and current understanding in the adult population. The study suggests postvention strategies should include all students and not be targeted at “high-risk” groups as with the exception of youth who have previously experienced stressful life events. This study confirms that suicide exposure does predict suicidality outcomes in youth and provides some insight into the annual prevalence of suicide exposure but provides little insight into how youth are affected by suicide exposure beyond suicidality outcomes. Given current understandings of the role of perceived closeness to the deceased on the impact of suicide in the adult population, this could be a significant oversight. The degree of proximity to the decedent might be predictive of outcomes unrelated to suicidality. An individual's proximity and relationship to the deceased was not clear as the question simply asked about personally knowing someone who died by suicide.

Another study examined suicide attempt exposure in youth in terms of the relative impact on personal trauma symptoms. Exposure to suicide attempts, personal suicidal ideation, thoughts of self-harm, childhood adversity in terms of non-victimizing adverse events and chronic stressors, and trauma symptoms were measured in youth aged 10–17 years. Twelve percent of all youth reported that someone close to them had tried to kill themselves, and 6% of all youth reported such exposure in the past year. Exposure varied by age group; 12% of exposed youth were aged 10–12 years, 42% were age 13–15, and 46% were age 16–17 [12]. Suicide attempt exposure also varied by sex with more females reporting the experience. No significant difference was found in regard to race or ethnicity, household income, or family structure. Exposure to the suicide attempt of someone close was significantly related to increased odds of recent personal suicidal ideation, thoughts of self-harm, and trauma symptoms. Youth with exposure to suicide attempts had more overall adversity exposure than those without. Statistically significant differences were noted between these two groups on any adversity exposure as well as most individual types of adversity examined. Adjusting for the total number of other types of adversity attenuated the associations between exposure to suicide attempts and other adverse outcomes, yet each remained significant independent predictors, with the exception of the association between exposure to suicide and personal suicidal ideation in males. The sex-based differences in exposure may be a reflection of sex differences in adolescent social network quality and composition. Adolescent girls tend to have more close friendships both in regard to degree intimacy and number of network members. Given higher rates of suicidal ideation among girls, this could contribute to a higher probability of exposure to suicide attempts by close network members. Prevalence of exposure to suicide attempts increased with age which could be due in part to increased opportunity for lifetime experience, as well

as an increase in suicide attempts by similar age peers among older teens. The findings of the study also highlight that suicidal ideation in behaviors by those close to you often co-occurs with a large number of influential adversities that are associated with youth mental health and suicidal ideation. Research on youth suicide and suicidal ideation should take into account that many exposed youth are experiencing additional situational stressors. Suicide attempt exposure by someone close is an apparent risk factor for trauma symptoms, suicidal ideation, and thoughts of self-harm. Youth exposure to suicidal behavior often occurs in a context in which multiple adversities and social risk factors are present. Understanding these different risk factors is important to understanding suicidal behavior in youth.

Occupational Exposure

Certain professions routinely expose workers to suicide, such as first responders, crisis workers, and mental health professionals. Recent research has sought to develop a better understanding of the prevalence and impact of occupational suicide exposures. The growing evidence that exposure to suicide can have negative impacts on an individual's mental health for non-family members make it important to understand how occupational exposure to suicide impacts workers and what steps might be needed to address their needs following exposures.

In a study comparing the mental health impacts of suicide exposure across these professions, 77.5% of all participants reported occupational exposure to suicide [1]. First responders reported substantially more exposure than mental health professionals and crisis workers, particularly in occupational and colleague exposure. First responders also reported experiencing higher symptoms of depression, anxiety, and PTSD. Differences in anxiety and depression across the occupations were significant between first responders and mental health professionals. First responders reported significantly higher levels of PTSD symptoms than both mental health professionals and crisis workers. Suicide exposure was shown to have a significant impact on mental health symptoms, with the level of exposure to suicide associated with higher levels of depression, anxiety, and PTSD.

Suicides of first responders, law enforcement officers (LEO), firefighters, and emergency medical service (EMS) can be particularly difficult to study due to cultures of shame and stigma around suicide. A study of 831 officers found that 95% of participants had responded to at least one suicide scene and had experienced an average 30 suicides in their law enforcement career [7]. 70.7% of the sample met existing definitions for high exposure to suicide, with ten or more career exposures. 43.6% of the sample reported having one scene that stays with them the most, and 22.1% of the sample reported being unable to "shake" the suicide scene or having nightmares concerning it. High levels of occupational suicide were associated with behavioral health consequences, including PTSD, and distress as categorized by persistent thoughts of a suicide scene and the inability to shake a scene. The inability to shake a scene was associated with increased symptoms of depression, anxiety, PTSD, and suicidal ideation. Personal suicide exposure was also high with 73.4% of

respondents personally knowing someone who died by suicide. Despite high occupational to suicide, law enforcement officers do not receive training on suicide and the impacts of suicide exposure [7].

Occupational suicide exposure in firefighters and emergency medical technicians (EMTs) is also associated with increases in their own suicidal behavior. Suicide is considered a serious problem in the fire service industry, and there are reports of firefighter suicide occurring in clusters. EMTs experience recurrent exposure to occupational stress and trauma and have a reported incidence of suicidal thoughts and attempts ten times higher than the national average. EMTs have significantly higher chances of dying by suicide than non-EMTs, and ambulance personnel have a significantly elevated PTSD prevalence.

Mental health professionals (MHPs) lead the field of suicide response. Mental health care is an expansive field that encompasses a continuum of care from generalized to specialized. MHPs serve clients across that continuum. This is reflected in the wide variety of credentials and professional roles of MHPs, including psychologists, therapists, social workers, and mental health nurse practitioners. There is growing evidence that many mental health professionals experience at least one loss of a client to suicide over the course of their career. Work with suicidal clients can cause strong emotional responses in MHPs. Some MHPs experience blame after a client suicide which contributes to self-doubt and distress. Loss of a patient to suicide can also cause change in MHPs' practices and might have long-lasting effects. A survey of 229 mental health professionals found that 68.6% of participants reported having lost at least one patient to suicide, with an average of 4.8 patient suicides in a career. In addition to occupational exposure, 70% of MHPs reported a personal loss to suicide. One fifth of MHPs report losing a fellow MHP to suicide, and half felt that it affected them differently than client suicide. Most MHPs felt prepared to handle a suicide situation, though more efforts are warranted to encourage help seeking and resources for support for MHPs to treat suicidal clients [1].

A systematic review of the literature on the impact on mental health professionals of losing a patient through suicide synthesizes existing data on the extent and nature of that impact [16]. The reported incidents and severity of the impact of patient suicide on personal and professional practice varied considerably. Studies that looked at change in reaction over time noted a reduction consistent with the process of grief and recovery following trauma. Many studies used the Impact of Event Scale (IES/IES-R), a post-traumatic stress disorder (PTSD) outcome measure to assess the emotional impact of the loss; in those studies, between 12% and 53% of their samples recorded clinically significant scores in the time following the suicide. This suggests that the emotional impact on MHPs of a loss of a patient to suicide is significant and comparable to the impact of other traumatic life events.

Impact on professional practice was discussed by 34 studies. These professional impacts included a greater focus on risk assessment through increased attentiveness risk assessment as well as suicide clues. Some practice studies reported more conscious management of those at potential risk of suicide following loss of a client through measures including more referrals to psychiatry, more frequent risk

assessments, and an increase in the number of patients assessed as being at risk. Avoidance behaviors were also reported, such as reluctance to accept suicidal patients, change in a role, or considering taking early retirement or changing career. Changes in record-keeping were observed, whether it was to be more conservative or more detailed. Some MHPs became more accepting of suicide as a possibility or even as a concept in itself. A less reported change was an increase in suicide risk for staff. An impact on confidence and professional self-doubt was also reported with MHPs experiencing anxiety and difficulty with decisions or uncertainty. Most studies did not differentiate if these changes were beneficial or detrimental to patient safety and well-being. Duration of emotional impact on practitioners varied across studies. All studies concluded there was a need for further action to prepare and support practitioners for the possibility of losing a patient to suicide, and a number of studies recommended efforts to prepare staff. Informal support from colleagues was reported to be helpful in the vast majority of studies, as was individual supervision. Other formal support measures received more mixed responses. No demographic features of MHPs were associated with the impact of a suicide. Relationship with the patient and perceptions of responsibility were potential risk factors for negative impacts. The impact of a patient suicide death on an MHP has potential to be severe and long lasting but may be moderated with the right approach.

Crisis workers provide services to individuals experiencing acute crisis, whether in person, over the phone, or chat and text. Crisis workers are on the front lines of suicide prevention support. A variety of people work as crisis workers; some are strictly volunteers while many are trained professionals. There are a variety of crisis hotlines, from those with a general focus to the suicide-specific. Crisis hotlines are widely used in suicide prevention strategies, though crisis workers and centers vary in the nature of intervention and quality. There is evidence telephone crisis workers experience vicarious traumatization from their work, as well as stress. The experience of a crisis worker following exposure to trauma may vary based on personal and situational factors. However, research describing crisis workers across different modalities or examining personal and occupational exposure to suicide is limited. In one survey, 33.9% of crisis workers had been exposed to client suicide, and of those 31.6% reported that the memory had stayed with them. Over three fourths (77.1) of participants reported experiencing at least one personal loss to suicide. No association was found between depression, anxiety, PTSD, suicidal ideation, and occupational suicide exposure. However participants who reported feeling prepared for a client suicide had lower rates of anxiety. Professional and personal exposure to suicide is prevalent among crisis workers, and more research is needed to determine the impact of these exposures.

Why Not 6?

Research has provided evidence that the impacts of suicide are not limited to those who are deeply bereaved [6]. Even non-kin who have been exposed to a suicide attempt and/or death show clear risks. Recent studies have shown suicide exposure to

be prevalent, but the historical six survivor assumption is still entrenched, impairing efforts to illuminate the public health importance of measures that adequately support individuals exposed to suicide. The need for a data-based calculation of how many people are likely exposed to suicide death in the United States was clear. Existing data from a random digit dial survey were used to produce a weighted estimate of total lifetime SE for Kentucky adults in 2012 and a weighted estimate of total person years at risk of SE for Kentucky adults in 2012 based on the sum of respondent ages at time of the survey. Dividing weighted total lifetime SE by weighted total person years at risk of exposure created an estimate of mean cumulative incidence rate of SE among Kentucky adults in 2012. This incidence rate was then multiplied by the number of US resident adults in 2012 according to the US Census Bureau to estimate the total number of suicide exposures that year among US adults, denoted by SE_{us}. The number of suicide deaths among US residents in 2012, denoted by SU_{us}, was obtained from the CDC WISQARS database. The number of exposures per suicide among US adults in 2012 was estimated as $EPS_{us} = SE_{us}/SU_{us}$. Final analysis consisted of 1702 participants, of whom 46.7% (795 individuals) reported exposure to suicide in their lifetime and had no missing age and age at exposure variables. Participants reported 2286 lifetime exposures over 98,399 person-years. The mean lifetime SE incident rate for Kentucky adults in 2012 was calculated to be 0.0232 exposure years. This rate was then multiplied by the US adult population of 235,185,953 and then divided by the 40,600 suicide deaths reported in 2012. This resulted in a final estimate of 135 adults exposed per suicide death. From these findings, it is clear many more individuals are exposed for each death by suicide than the previously repeated six. It is worth noting some potential limitations of this study such as the fact that data was drawn from a single state with the 15th highest suicide rate in the country which could reduce generalizability to the US population. Additionally assumptions include a consistency of suicide exposure risk year to year, how representative this survey sample was of the US population and the distribution of network sizes. This study identifies the difference in the long-standing proposition of 6 people exposed per suicide versus the empirically assessed value of 135 people exposed per suicide. There is an argument this new calculation is too different to be compared to the six people per suicide estimate which only included those whose lives were forever changed. While it is accurate that 135 is not the number of people who are definitively bereaved by each suicide, exposure is important because we simply do not know the scale and magnitude of those affected by suicide and the prevalence of those in society who may need both suicide prevention and post-suicide support services. Given the magnitude of the difference identified, old assumptions need to be cast aside to allow for increased services and resources.

Conclusion

It is now well established that more than half of the population has lifetime exposure to suicide and one in three reports bereavement and significant negative attitudes from one or more suicides.

Current clinical practice around postvention does not meet population needs. Changes need to be made to address the improved understanding of suicide exposure and its impact in a wide range of individuals who are exposed to suicide. Asking about suicide exposure exclusively in terms of familial relationships does not provide an accurate measure. Exposure needs to be discussed more broadly in the clinical setting, and patient should be asked about any exposure to suicide regardless of relationship particularly if the patient felt that that relationship was close. Symptoms of PTSD are not exclusive to those who saw a body. Clinicians need to address the post-traumatic stress more thoroughly with suicide-exposed patients so that symptoms can be identified. Additionally, there is a need for proactive elements in postvention strategies not all people “bereaved by suicide.” Factors such as stigma and barriers to care can cause a reduction in help-seeking behavior. It is important for health professionals to be alert to the needs of people bereaved by suicide to help identify individuals at risk and initiate early intervention where possible, as an exposed individual might not. There is also a need for community-level interventions to address these challenges. Community education on how to support individuals exposed to suicide could reduce the perception of stigma that creates feelings of guilt and being unworthy of help. An improved awareness of the needs of the suicidally exposed and of available support services would also reinforce the idea that support is indicated following the impacts of suicide. Additionally public education is needed on the wide range of people who are impacted by suicide exposure. It is possible that individuals impacted by suicide might not be aware that they have unmet treatment needs and could benefit from support services. Moving on from the six suicide survivor conception is important to accurately meet the needs of individuals impacted by suicide.

Additionally, more research is still needed to reach a better understanding of suicide exposure and its impacts. Replications of the suicide survivor calculation study are needed nationally and internationally to better appreciate the effects of each suicide. Research that stratifies the number of individuals exposed by the closeness to the individual could improve understanding of those most deeply affected by exposure and who will require intervention to support them post-exposure. Research is needed regarding the proposed Continuum of Survivorship both in regard to its utility and its implications. Information is needed on the percentage of people who fall into each of the categories, how these categories correspond to people’s self-categorization, and to create data-based criteria that can explain and predict who among the exposed are more likely to have longer-term reactions. Randomized clinical trials could then investigate if early postvention efforts can reduce the proportion of people who go on to suffer short- and long-term effects. Research on suicide exposure and survivorship could also be improved with the addition of certain measures that have not previously been used in bereavement research. Measures of precise relationship, perceived closeness, and attachment to the decedent are important to include as they have been useful in identifying bereaved persons at greater risk. Questions related to exposure to the death and the body will help determine the relationship between traumatic exposure and development of post-traumatic stress. It is important to

determine the relationship between self-perception of the immediate impact of the suicide and its duration which could serve as shorthand in categorization. There is also a need for research to determine if perceived impact and duration are reflective of the actual symptoms experienced following suicide exposure. Further research is also needed on the prevalence and impact of exposure in specific populations. Much of the existing research on occupational exposure in helping professions was conducted through non-randomized snowball studies, and random sampling methods could be used in future studies to create more representative samples.

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Part VII

Legal Issues

Accountability and Malpractice in Suicidality

79

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Abstract

In this chapter, both issues of accountability and malpractice in suicide prevention are addressed by the Greek Suicide Prevention Center from the perspective of suicide’s foreseeability and the factors and stages that not only the clinician, but also the suicidal patient’s environment, and, moreover, the pertinent public health stakeholders, should take into account to be able to respond properly to the suicide risk. According to not only the Center’s

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scientific knowledge but also its clinical experience, more than 90% of suicides can be prevented. The term “suicidal trajectory” is introduced, which is supported by the need for the diagnostic entity “suicidal behavior disorder.” Accountability also occurs when the health system and its stakeholders fail to promote strategic actions toward suicide prevention as a public health issue, mental health professionals are not occupied with targeted tools for the assessment and management of suicidal behaviors, and stigma affects the accessibility and effectiveness of mental health services. This chapter proposes a series of interventions in different fields that have the potential not only to showcase accountability, malpractice, and foreseeability of suicide but also contribute to the prevention of these premature deaths.

Keywords

Suicide · Prevention · Accountability · Foreseeability · Klimaka

Introduction

The Greek Suicide Prevention Center, run by KLIMAKA NGO, under the scientific supervision of Dr. Kiriakos Katsadoros, psychiatrist, KLIMAKA's BoD President, supported by the Greek Health Ministry, since 2012, is a collective professionals' effort to address the challenge of suicide prevention in several levels.

Combining clinical practice, training provision, advocacy, and research, our work aims at creating a resilient framework where the vulnerable suicidal persons are not only protected but also given the opportunity to live life at its fullest. Having treated more than 7000 persons with suicidal behavior and received more than 250000 calls in the Greek Suicide Prevention Hotline – 1018 (run by KLIMAKA NGO since 2007 and incorporated in the Greek Suicide Prevention), we strongly believe that suicide is preventable.

On this basis, one should not draw the conclusion that we believe we could prevent all suicides. However, we believe that 90% of suicides could be prevented. The foreseeability of suicide is the critical term around which our clinical work evolves and foreseeable is not equivalent with preventable in clinical practice [1].

However, we know that there is a vast majority of suicidal patients that can be effectively treated and supported to continue their life healthy. This knowledge is established not only in the professional and moral obligation to keep the patient alive [2] but also, from experience that the proper, exact, and thorough assessment of the suicide risk can mobilize those protective factors that have the power to prevent a suicide.

Greece has one of the lowest suicide rates in Europe, with the latest available official data indicating that, in 2017, 4,85 persons in 100000 die from suicide in the country annually [3]. According to the WHO Report “Preventing suicide: A global imperative” (2014) [4], Greece is listed among the countries that have “vital registration with low coverage, a high proportion of indeterminate causes or no recent

results.” Furthermore, there is no official registration system for suicide attempts, leading to the absence of relevant data.

The underestimation of suicides due to cultural, religious, or social reasons is not only a part of the Greek reality in the field. However, the absence of dynamic, reliable data on self-destructive behaviors and deaths from suicide, obstruct the efforts toward a comprehensive, effective, evidence-based response in the direction of a national strategy for suicide prevention and relevant policies and programs.

Suicide prevention in Greece has not been a *de facto* component of the strategies under the public health policies framework, until the last decade. The deep socio-economic crisis affecting the Greek population since 2009 and the intensified advocacy and research work of the Greek Suicide Prevention Center led to several public acknowledgments from governmental officials the last years that concrete interventions are needed to address suicide in the country, as a public health problem that needs a prevention strategy.

Following this national picture, suicide malpractice lawsuits are nonexistent in Greece unlike the USA for example [5]. This chapter’s purpose is not to address from a legal perspective the foreseeability of suicide, that’s why we didn’t use the term “liability,” but to adequately report all those factors and stages that not only the clinician, but also the suicidal patient’s environment, and, moreover, the pertinent public health stakeholders, should take into account to be able to respond properly to the suicide risk.

Accountability in Suicide

Suicide is a complex issue with a wide spectrum of risk factors [4]. The multi-faceted nature of suicide requires, according to our perspective, the showcase of different components’ role in suicide prevention and their part when exploring the share of accountability when a suicide occurs, and what should be done differently to address the preventable dimension of a life-ending incident.

The findings presented below are outputs of psychological autopsy procedures, undertaken by the Greek Suicide Prevention Center, combined with our clinical experience derived from working with suicidal patients and their environment. We believe that they highlight the omissions, oversights, and/or false actions that contributed to the death from suicide of vulnerable persons.

The “Suicidal Trajectory”

Hippocrates, who was attributed with the Hippocratic Oath in the *Epidemics*, Book I, of the Hippocratic school [6] included: “Practice two things in your dealings with disease: either help or do not harm the patient” [6].

This principle of non-maleficence requires that we not intentionally create harm or injury to the patient, either through acts of commission or omission [7].

The clinician who conducts a risk assessment of a suicidal patient follows well-known and established guidelines regarding the patient's medical history, the current presentation of suicidality, the patient's psychosocial situation, the individual strengths and vulnerabilities, and the lethality of the suicide method the patient refers to, evaluating the patient's suicide plan [8].

Deriving from the Greek Suicide Prevention Center's medical records and our treatment of more than 7.000 suicidal patients, a specific life pattern of suicidal patients has emerged, which could be defined as the "suicidal trajectory." The suicidal trajectory of a person, according to our clinical experience and knowledge, is the synthesis of several, irregular and temporary emotional episodes, which, although have extreme characteristics compared to the person's regular behavior and life-choices, due to their short-term effect and sporadic nature, don't determine a psychopathology that could lead to the mental health services. Similar to the organic disorders, one cannot identify which of those episodes will have this high intensity that will lead to the suicide. However, it comes as a logical sequence, that if this person could receive adequate and effective treatment in those early episodes, the route, the trajectory toward suicide could have been turned over.

Among the most common causes of action for psychiatric malpractice cases in the USA are incorrect treatments of the suicidal person, suicide and attempted suicide. According to Medical Malpractice: Psychiatry [1] documentation of encounters with actively suicidal patients should include a psychiatric evaluation with risk factor analysis, attempted discussions with family members, and a treatment plan with recommendations for ways to reduce the risk of suicide [1].

However, it should be noted that documentation is not enough, taking under consideration that the clinician may fail to assess effectively the "suicidal trajectory" of the patient, characterizing a preventable suicide as "unforeseeable."

The experienced mental health professional, who is familiar with the concept of the "suicidal trajectory" and aware of this emotional pattern, would be able not only to assess and evaluate the suicidal patient in an effective way, recognizing this process and the contribution of these several episodes to the current patient's state but also to identify the stage at which this trajectory is and foresee the risk factors for suicide and estimate properly and thoroughly the suicide risk. The omission of failing to examine past episodes in a person with suicidal behavior, the components of the person's "suicidal trajectory" not only contributes in underestimating the suicide risk of the patient but also misleads the treatment plan, the psychiatric management of the patient, and the therapeutic interventions.

The Need for the Diagnostic Entity "Suicidal Behavior Disorder" and Its Contribution in Defining an Accountability Framework

The concept of "suicidal trajectory," proposed by the Greek Suicide Prevention Center that has to be examined and evaluated by the clinician during the patient's assessment is aligned with the proposal of defining suicidal behavior as a separate diagnostic category [9].

The current classification among “other conditions that may be a focus of clinical attention” [10] downgrades suicidal behavior, limiting the implementation of specific clinical and administrative procedures during the suicide risk assessment. If suicide risk is “documented as part of a multiaxial diagnosis” [9], it will have “the prominence that it deserves in written reports and treatment planning for vulnerable patients” [9].

When clinicians seek to find the primary diagnosis responsible for the major complaint and the patient’s current condition, the patient denying suicidal ideation in the present is possible that won’t be asked about past suicidal behavior, something that can lead to underestimating the number of suicidality cases [11].

Suicidal behavior also has diagnostic stability, as the most predominant predictor of future suicidal behavior is a history of suicide attempt. Like many psychiatric conditions, the course of illness is highly variable [12], a factor which is met under the “suicidal trajectory,” which consists of irregular and variable episodes depicting that suicidal behavior has several dimensions based on the degree of intent to die, the level of details in planning the act, or the lethality of the method [12]. Suicidal ideation changes over time in an irregular continuation, something that requires a risk assessment, which seeks not only present conditions to form a high level of risk, but also past processes that form a suicidal behavior, a procedure that contributes to the foreseeability of suicide. In addition, the inclusion of established examination on past suicidal behavior inclusion apart from other psychiatric conditions, limits the boundaries of the patients’ frequent reluctance to disclose present suicidal ideation [13].

Until now, studies’ findings indicate that “suicide biological architecture consists of a distinct network of interrelated neural systems at play and further study may unravel a holistic psychobiological foundation for suicidal behavior” [14]. Considering the high complexity of suicide’s neurobiological nature, where multiple neural systems interconnect, suicide research under this scope is crucially limited and understudied. The addition of suicidal behavior as an independent diagnosis could fortify the mapping of suicide’s pathophysiology and neurobiology setting the path for concrete biologic predictors of suicidal behavior [15].

Familial transmission is another dimension of suicidal behavior, which is to be addressed during the assessment, independent of the transmission of mood or other disorders’ identification [12]. High-risk family study found a strong and specific familial transmission of early-onset suicidal behavior from parent to child. An essential but not sufficient component of familial transmission of suicidal behavior was the transmission of a mood disorder because 82% of familial offspring suicide attempts occurred in the context of an offspring mood disorder. In addition to the transmission of a mood disorder, the familial transmission of suicidal behavior was related to the familial transmission of sexual abuse and to increased impulsive aggression in offspring [16].

The assessment of the suicidal patient, given that the clinician has access to electronic medical records, will be drastically enriched when unified coding of the suicide behavior is available, not only increasing the possibilities of effectiveness of the treatment planning but also enabling research with big data analyses and reliable large-scale information including on genomic and biological factors [11].

The Negligence of Addressing Suicidal Behavior As a Public Health Issue

The failure to address suicidal behavior as a diagnostic entity contributes to a series of omissions from the health system, its stakeholders and actors, and the society. Even today, suicide, laden with prejudice, stigma, shame and stereotypes, has failed to gather the necessary attention from the health systems.

No other disease with such a large number of victims has been for so long out on the fringe, while the number of suicides has remained stable at best, although in most countries, the rates have been on the rise. The lack of recognition that suicidal behavior is a serious health problem has also been the consequence of underrating its components.

The prominence of suicidal behavior as a diagnostic validity, gives the possibility to have universal recording of the specific medical data, increasing the components of the foreseeability of suicide and its prevention. According to WHO, globally the availability and quality of data on suicide and suicide attempts is poor and it is likely that underreporting and misclassification are greater problems for suicide than for most other causes of death [17].

Effective suicide prevention strategies require the surveillance and monitoring of suicides and suicide attempts. Suicide-related data, including accurate registration of suicides in the death certificates and comprehensive electronic medical records, including registries of suicide attempts, can be better monitored under a specific suicidal behavior diagnosis. Recognizing suicidal behavior as an independent construct that would harmonize clinical and research data and permit the leveraging of large health-related databases to discover clinical and biological markers of imminent and longer-term suicide risk can be the catalyst to “increase resources for suicide prevention research, including proposed harmonized coding and methods to improve suicide-related data and their use [18].

The recognition of suicidal behavior as a separate diagnostic category can also contribute to the destigmatization and change of the public perception of suicide. Furthermore, this could introduce an enriched approach to suicide prevention, meaning more training for medical professionals on how to assess suicide risk and treat effectively the suicidal patient, more funding for research and preventive measures and more education for the public on how to support loved ones who are struggling [19].

Under this scope, help-seeking behaviors can subsequently be enhanced, suicidal ideation can be communicated, and suicidal behavior can be identified by the patient's familiar environment, not only forming a supportive net but also promoting early identification and treatment.

The hesitation to formally diagnose the deadliest psychiatric condition, suicidality, and its episodic occurrence and that suicidal behavior varies in degree of lethality and suicidal intent, is a burden for the public health system. The competent stakeholder addressing suicidal behavior and suicide as a public health issue should be aware not only of the low awareness of the symptoms, deriving, among others, from the stigma surrounding suicide, but also the lack of sufficient

public health infrastructure. By dismissing suicide purely on the basis of a low incidence rate, the opportunity to affect the wider array of related conditions concerned with destructive behaviors has been largely ignored [20].

The misrecognized “suicidal trajectory,” described above, leaves persons in the boundaries of mental health, depriving them from living a life in a functional and balanced mental state.

Proposals

Mental Health Services

WHO member states have agreed to work toward a 10% reduction of suicide rates by the year 2020 [4]. Psychiatric services can play a central role, as persons who seek care in connection with suicidal behavior are at particular risk of suicide [21, 22].

The development of effective strategies for the assessment and management of suicidal behaviors requires equipping mental health professionals with the skills and confidence to ask and talk about suicide, in a thorough and careful assessment carried out comprehensively. Suicide prevention needs to be incorporated in health-care services as a core component.

Health-care services need to incorporate suicide prevention as a core component. Early identification and effective management of the suicidal behavior are key to ensuring that people receive the care they need. Improving the quality of care for people seeking help can ensure that early interventions are effective. Improved quality of care can contribute to reducing suicide, and mental health policies should prioritize care.

Psychiatrists tend to base their clinical decisions during the suicide risk assessment on a range of impressions evoked by both implicit and emotional information, and the evidence for such semi-intuitive information is limited [23]. The predictive ability of the clinician is potentially restricted by clinical impressions and need for evidence-based models for suicide risk assessment is still present.

Moreover, the liable mental health professional should be equipped with the above-mentioned tools deriving from a comprehensive approach of suicidal behavior, in order to have higher levels of resiliency, a development that is able to help reduce medical errors. The UK’s Medical Research Council has defined resilience as the process of negotiating, managing, and adapting to significant sources of stress or trauma [24]. Functionally, it is the capacity to bounce back after facing adverse situations [25] and psychiatrists’ experiences of suicide risk assessment suggest that it is, most of the times, a challenging demanding task.

When inpatients treated in connection with suicidal behavior were asked after discharge how services could be improved, they asked for more empathy and compassion from the clinicians they meet. While mental health professionals score lower on stigmatizing attitudes than the general public, social distance is still problematic, and users of psychiatric services report stigmatizing experiences in interactions with their professional caregivers [23].

Collaborative models of health services design and management can be considered more effective and productive and, although the approach of experience-based codesign in the mental health services is still relatively novel, it has the potential to contribute to improvements in mental health services. What has been published about EBCD suggests that it can be a powerful mechanism for service improvement, making services more acceptable to service-users, carers, and staff, thus potentially increasing well-being for all concerned [26].

The Role of the Suicidal Patient's Family and Familiar Persons

The family and familiar persons of the suicidal patient can play an important role in the prevention of suicide if it is capable of engaging and aiding the mental health services in early detection and management of the person at risk, and to achieve this kind of involvement [27] those actors should be informed not only on how the suicide can be prevented but also the exact level of risk and the foreseeability of the suicidal behavior of the patient.

It is not rare, according to our experience, that families of suicidal patients are not informed on the level of risk and/or are not involved in the treatment plan. Misjudging the boundaries of medical confidentiality, informed consent, and the risk assessment, several times clinicians fail to include in the management of the suicidal patient its family. More often, clinicians are hesitant to make the family fully aware of the risk the patient faces and what they foresee regarding its case. Family and intimate persons are also important when the clinician examines the “suicidal trajectory” of the patient, having the ability to share information on past episodes or behaviors.

The mental health professional should be fully aware and prepared that it may have to address initially the prejudice and stigma around suicidality and mental disorders when communicating with the family, and give emphasis to all those prerequisites that can make the suicidal condition treatable.

Up-to-Date Surveillance and Data Availability

Improving data monitoring and accuracy is a key component of developing effective suicide prevention responses at the political and scientific levels.

In this direction, the scientific staff of the Greek Suicide Prevention Center, run by KLIMAKA, has developed a research recording system, the Suicide Watch. The aim of the Suicide Watch is to record the frequency of suicides in Greece in real time, without this indicating that they are official data or a complete record of the issue. This data is collected from a variety of sources such as:

- The printed and electronic press, the media
- Calls to the Suicide Intervention Hotline – 1018, run by the Greek Suicide Prevention Center

- Survivors of suicide loss (people who have lost a loved one to suicide)
- A network of volunteers consisting of health professionals, service users, the Suicide Prevention Center, and citizens
- Collaboration with funeral services
- Several forensic services and detention centers

The collection of statistical data and the accurate recording of suicides is a major issue in suicide prevention as it helps identify self-destructive individuals, high-risk groups for suicide, detect differences between suicide numbers by region, and identify potential hotspots (high risk geographical points for suicide), with the ultimate goal of planning and developing preventive interventions. Although the Suicide Watch's data, cannot be considered as the official report of suicide mortality in Greece, it gives us the possibility to have an up-to-date picture and trend regarding suicides in Greece in any given moment.

In the road to suicide prevention, we consider it necessary to take into account all the factors that compose this multidimensional issue. From health and mental health professionals to the patient's familiar environment, work environment, hospitals (in case of need of care), as well as the community in which they live, everyone can play a protective role for people at risk in all levels. The Suicide Watch, as well as our clinical experience, gives us the opportunity to have an overall picture of the causes, processes, and factors associated with a suicide. Applying the basic principles of psychological autopsy, we have found that a large part of suicides that occur in Greece could be prevented with the cooperation of all the above.

Hospital-based data on medically treated suicide attempts can serve also as a crucial reporting component, although there are several methodological issues [4]. Apart from the importance of the collected information for recording purposes, the application of a unified electronic medical records' system can serve as a significant tool in the individual's assessment process.

Interventions for the Prevention of Suicides in Inpatient Settings

More than 60 suicides have occurred in hospitals or health units from 2012 until today according to the data of the Suicide Watch, while the number of attempts within these areas remains unknown. Suicide in a hospital is of the utmost importance to the medical community and should raise concerns about the contribution of those involved with the health system. People who are hospitalized after an attempt are at a very high risk of trying to end their lives again, and therefore it is imperative that the necessary precautionary measures be taken both within the hospital unit and after the discharge to ensure the prevention of such cases.

The scientific staff of the Greek Suicide Prevention Center has repeatedly suggested a clear framework of necessary interventions, indicative of which are the removal of potentially deadly means, the sealing of windows, the locking of doors, and the 24-h monitoring by nursing staff. In addition, the continuous assessment and evaluation of the patient's risk of suicide and its variability, the constant

psychiatric monitoring of its clinical picture, the prevention of symptoms' worsening are components, which, among other things, can constitute the concept of suicide's foreseeability. For this purpose, the relevant training of medical and nursing staff is considered necessary. The degree of monitoring of the patient should be determined from the entrance to the health unit, and depends on the risk the patient runs and also on the surrounding area of the unit and its structural condition and organizational characteristics.

Addressing Suicidal Behaviors with Specific Target Groups (e.g., Prisoners and Security Forces)

It is known bibliographically and also empirically to those who work or come in contact with the premises of detention centers and prisons that self-destructive behaviors are much more common in populations of prisoners than in the general population, while according to WHO, suicide is one of the leading causes of death in such a context. In particular, detention centers are already hosting vulnerable populations at high risk of suicide such as young men due to the aggravating effects of gender, people with mental disorders, and people with substance use problems. In addition, the psychological impact of conception and incarceration can be a factor in triggering symptoms of psychopathology and self-destructive behaviors, making urgent the need for interventions that will effectively ensure the life and health of the detained population. Some of them are the establishment of a process of assessment and monitoring of the mental health of individuals at the time of their arrest, before and during the trial of their case, and during their entry, stay, and release from prison; the training of the penitentiary personnel in matters of mental illness and self-destructive behavior; the restriction of access to lethal means; and the involvement of trained health professionals and nursing staff. It is worth noting that the employees themselves face a high risk of suicide in such contexts.

Additionally, police officers as well as security personnel are generally at high risk of suicide and are estimated to have two to three times higher mortality rates than the general population. From 2007 to 2016, more than 55 suicides of police officers (active and retired) have been recorded in Greece, while in the first half of 2020, at least 6 suicides of police officers and retired police officers were recorded, while more than 12 suicides were recorded in the previous 2 years. In this regard, in order to ensure that employees in such occupations have a satisfactory degree of mental stability and resilience, the Greek Suicide Prevention has repeatedly stressed the need for their psychiatric and psychological evaluation both in recruitment and during their service, in a context which will encourage face-to-face communication and enhance access to mental health services.

Similarly, we have repeatedly pointed out the lack of a clear framework of support for the army as well as their implicit ability to bear arms and use weapons. In Greece more than 20 suicides in the army the last 3 years have been recorded by the Suicide Watch. Immediate updating of the framework of psychiatric and psychological evaluation of military and conscripts, the repetition of relevant procedures at regular

intervals, and the implementation of preventive interventions can preserve and help prevent such unjust and premature deaths.

The Role of the Media

Despite the recommendations of the World Health Organization, in the vast majority of publications related to suicides in Greece there is a detailed description of the method of suicide, photos with inappropriate content while none of the publications mentions sources of help for suicidal persons.

We know, and it is research-proven, that specific ways of publishing suicides can increase the likelihood of suicide in vulnerable people and the magnitude of the increase is related to the amount, duration, and emphasis given to the news by the media. The risk of additional and mimetic suicides increases when the method of suicide is clearly published, when dramatic images or titles are used, when a suicide is published extensively and repeatedly, and when suicide is presented as a heroic or impressive act.

Careful, even brief, media coverage of suicide can help raise public awareness, correct misconceptions about suicide, and encourage those who are vulnerable or at risk of seeking help. Therefore, it is considered imperative to report the Suicide Intervention Hotlines and sources of help in any publication of a suicide incident [28].

Early Life Mental Health Education

The much needed destigmatization of mental disorders and the encouragement of the crucial empowerment of help-seeking behaviors requires an active approach in enhancing young people's problem-solving, coping, and life skills as it has been shown to be an effective intervention for suicide prevention [29]. The learning procedure that will have the goal to address emotional communication in a natural way can add significantly not only in the mental health promotion of the young population, but also, and more importantly, in the formation of next generations that will be able to identify mental health problems and their symptoms in the same way they are familiar with physical illness.

Addressing the Stigma in the Society and in Mental Health Services

Accessible mental health service is a key component of suicide prevention. Stigma on one hand influences negatively the willingness of the vulnerable person to utilize health-care resources and services, and, on the other hand affects the quality of care provided by health professionals. Possibly, this fact has significant impact on the effectiveness of relevant policies or strategies [29]. Awareness campaigns and media interventions are necessary as elements in confronting stigma and discrimination.

Furthermore, targeted actions toward the mental health services provision settings are needed in order to address the inequities in access to services and care associated with suicidal behaviors.

Mental health professionals have to recognize their own attitudes toward suicidal behavior and suicide, acknowledging their personal vulnerabilities. This shift in professional attitudes can contribute to the better identification and treatment of the suicidal patient.

Understanding mental health services is crucial as a process that is no different from receiving services related to our physical health. The opposite, after all, is a major consequence of the stigma of mental illness. Just as a patient expects an improvement in their symptoms and overall health following a visit to a cardiologist for related discomfort, so should a mental health-care provider. It is an inalienable right of the person who addresses a mental health professional to know exactly what is happening to it, why it is happening to it, how it will be treated, and when it will see the results of the treatment. Ensuring this patient right is an undeniable responsibility of mental health professionals.

Conducting a comprehensive psychological autopsy on suicide cases, published in recent days, is considered mandatory by the Center for Suicide Prevention, in order to highlight the causes of suicide and possible responsibilities.

Social media platforms can be utilized to reach the general public and offer potential benefits in suicide prevention since they have high accessibility. Keeping in mind the ethical and methodological challenges surrounding these platforms, since they are also used to spread information about how to die by suicide and increase the risk of contagion effect, they should be considered as a medium to provide a space where stigma is reduced and open communication is empowered [30].

Hotspots and the Role of Local Government Authorities

According to the Suicide Watch of the Greek Center for Suicide Prevention, from 2012 until August 2020, at least 65 people have lost their lives in high-risk locations (suicide hotspots). Despite repeated requests to adopt specific preventive interventions, the known data from most countries, and the intention to contribute to the necessary procedures, such unjust and premature deaths still continue to occur in geographical points where specific interventions could have taken place with high possibility for prevention effectiveness. Resistance from the authorities remains, often citing issues of aesthetics or high cost. It is worth noting that this number is indicative and reflects only an individual dimension and not the overall picture of the issue as it does not include the numerous suicide attempts.

A high-risk site for suicide (suicide hotspot) is defined as a specific site that is accessible to the public and is used as a spot for suicide. Such sites can be bridges, tall buildings, cliffs, rural or secluded sites, and any other site that meets the above characteristics. There is no agreement on the definition of a specific number of suicides to qualify a site as a “hotspot”; however more than one suicide in a specific

location regardless of any period should raise concerns and suggest that it “provides” the means to fulfill it suicide.

Restricting access to lethal means is emerging in the international literature as a robust suicide prevention strategy with evidence of high efficacy. Interventions such as the installation of physical barriers (e.g., dams) in places such as bridges, the placement of signs with reference to hotlines, the presence of trained security personnel or patrol teams (properly trained people who will patrol the area at regular intervals), and the installation of surveillance cameras to encourage people who are considering suicide to seek help are low cost measures that could be crucial to protect the life of vulnerable persons. Findings from studies show that this practice does not lead individuals to search for an alternative location as would likely prevail in the common perception or in finding a different method. Instead, it can act as an incentive to reconsider the actions involved in suicidal ideation.

The Lack of National Suicide Prevention Strategies, a Barrier to Suicide Prevention

Elevating suicide prevention on the political agenda can be endorsed by the initiative of setting national suicide prevention strategies.

The Member States of WHO have committed themselves in the Mental Health Action Plan 2013–2020 to work toward the global target of reducing the suicide rate in countries by 10% by 2020 and the suicide rate is also one of the indicators for health target 3.4 of the United Nations Sustainable Development Goals. The target is to reduce premature mortality from noncommunicable diseases by one third by 2030 through prevention and treatment and the promotion of mental health and well-being. The targets have no possibility to be achieved unless governments actively engage in efforts to prevent suicide, and national suicide prevention strategies are essential for working toward the ultimate goal of suicide reduction.

Governments play an important role in developing and strengthening surveillance for deaths from suicide and suicide attempts at the national level. High-quality surveillance for suicide prevention must be perceived as a necessity in order to provide the data to inform necessary action. “Without high-quality surveillance, the safety of a population is compromised” [29].

The Greek Suicide Prevention Center advocates, during the last decade, that a national strategy for suicide prevention and an associated low-cost action plan are necessary to prevent deaths by suicide. More than 500 people died by suicide in Greece in the last years, and although during the years of the vast socioeconomic crisis suicide has been often instrumentalized in the public political dialogue, it remains neglected. Our efforts emphasize that there are low-cost intervention strategies that could reverse the numbers and the impact of this cause of death could be prevented. The development of “comprehensive multisectoral suicide prevention strategies for the population as a whole and vulnerable person in particular” remains a desideratum.

Conclusions

Suicide prevention is not only a matter of vision and future goals and engagement. Suicidal patients are human beings mostly affected by the lack of those protective factors that could guard them against the risk of suicide. Whereas many interventions are geared toward the reduction of risk factors in suicide prevention, it is equally important to identify, monitor, and strengthen the factors that have been shown to increase of resilience and connectedness and protect people from suicidal behavior [4, 31].

Edwin S. Shneidman in his book “The Suicidal Mind” writes: See the tree; that tree. There is the chemistry of the soil in which the tree lives. The tree exists in a sociocultural climate. An individual’s biochemical states, for example, are its roots, figuratively speaking. An individual’s method of committing suicide, the details of the event the contents of the suicide note, and so on, are the metaphoric branching limbs, the flawed fruit, and the camouflaging leaves. But the psychological component, the conscious choice of suicide as the seemingly best solution to a perceived problem, is the main trunk [32]. This metaphor can also give an idea of the proposed and abovementioned “suicidal trajectory.” The early identification of the suicidal person’s life pattern that includes this aspect of suicidality can contribute to suicide prevention.

Malpractice could also be considered our failure to destigmatize mental health issues and services, promote an active help-seeking behavior, and make mental health services accessible to all.

It is the duty of all to keep safe and alive the people who, under the burden of mental pain, decide to end their life by suicide. We are not allowed to continue being passive recipients of news about suicides and “tragic endings.” We are not allowed to remain indifferent, not only professionally, politically and socially, but also as a sign of genuine solidarity with the neighbor, friend, relative, patient who experiences frustration and despair, having the responsibility to contribute to the prevention of unjust premature deaths.

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Ethical and Legal Frameworks in the Suicidology Field

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Ernesto Páez

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Abstract

The aim of this work is to review the historical considerations that have been presented in the suicidal field, to critically review the ethical frameworks, and to outline the first concepts for an integrated approach to the bioethics of suicide. Bioethics is a universal language which describes bioethical principles that foster work based on the welfare of humanity, without limiting the very essence of the human being. It offers dignified treatment to the person with suicidal behavior from the ethics of care along with scientific advances. The construction of legal frameworks is constituted as a tool and work guide that supports intervention in the suicide field from the different sectors involved. The Argentinian National Law for Suicide Prevention is also presented in this work, as well as other similar worldwide regulations. Finally, some proposals to improve the current situation in the field of suicide are presented. Fundamental elements are offered on bioethical trends in training, research, clinical practice, and ethics committees in health research as well as suicide research legislation in the suicide field.

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Suicide · Suicidal behavior · Bioethics · Law in the field of suicide · Ethics of care

As long as there is life, there will be countless paths waiting to be discovered to solve conflicts, without life, those paths will never be walked along [21].

Introduction

Legal and ethical considerations are different aspects that come from various disciplines of human endeavor, but it is necessary to think about it as a way of strengthening a determined area or field.

The legal aspect is what derives from a country's current legislation to regulate what it is allowed or prohibited to do for citizens. It is based on justice for the common good of society as a whole. While ethics is a philosophical discipline that deals with good and evil and its relationship with morality, taking into account the behavior of all human beings, particularly in the case of professionals and their interventions.

The act of suicide generates controversy; it has brought from very distant times the attention of numerous priests, philosophers, shamans, sociologists, health representatives, and jurists, depending on the historical moment and the society and culture in which it is observed. Taking into account that suicide has occurred throughout time, it is the human being who has been in charge of leaving evidence of the concern for this behavior expressed in his works, which, to this day, continues to shake and affect the immediate context and the community in general, where the event happens [9, 20].

The results of the bibliographic review led me to the conclusion that it is necessary to unravel the ethical foundation of suicidology, and for this purpose, I selected the definition developed by Dr Shneidman. Few people, like Dr Shneidman, have the rare opportunity to create a new discipline, name it, shape it, contribute to it with his fieldwork, and, most importantly, motivate other professionals to continue researching it, that is to say, suicidology.

Suicidology is, thus, the scientific study of self-destructive behaviors, thoughts, and feelings [4]. The term was coined by Shneidman in 1964 and has since been used in different contexts worldwide to describe aspects of specific training.

The contribution of Dr Shneidman to the field of suicide is outstanding, bearing in mind that he dedicated his life to the study of suicidal behavior and its prevention. Among the remarkable contributions, the following are worth mentioning: suicidal behavior assessment, conceptualization, and theory; suicide notes; administrative and programmatic aspects; and clinical and community aspects, psychological autopsy, and postvention.

Within the framework of the Declaration of the 10th of September as National Suicide Prevention Day, in the Congress of the Argentine Nation, I personally had

the opportunity to contribute to a definition of this declaration which was promoted together with other professionals, thanks to legislators who joined the cause. A conceptual contribution was produced while updating the conceptualization of the father of suicidology: Suicidology is the interdisciplinary field that studies the various aspects related to suicidal manifestations and their processes. Due to the fact that suicidal behaviors are of multicausal origin and that they require interdisciplinary and intersectoral interventions, this interdisciplinary field is oriented to the development of scientific, theoretical, methodological, and ethical knowledge in relation to the promotion, prevention, care, postvention, research, training, and state policies for intervention in suicidal behavior disorder [21].

One of the greatest changes experienced during the last decades of the last century, in the field of health, is that of shifting from considering diseases in isolation to considering people who get sick. This also implies a greater humanization of health professionals which derives directly in a greater impact on people suffering from mental disorders. It is within this gaze that I introduce ethics, and we can understand from it that it is a facet of philosophical thought that has had as its object the investigation of the moral behavior of different groups or the morality of such behaviors [15]. Even recognizing that morality and ethics come from one's inner self, from our own sense of duty to do something good, it is necessary to state that the field where ethics is held is in the domain of interpersonal relationships, and in this relationship, the experience of the other emerges.

The ethical dimension begins when the other appears on the scene. Every law, moral or juridical, as it may be, regulates interpersonal relationships. The experience that the other is within us is not a vague emotional inclination but a fundamental condition. As we are taught by the most secular of human sciences, it is the other, it is his look, that defines and forms us [10].

Every activity related to health is, in itself, ethical, because it seeks the good of the person. It is a practice that sets in motion the search for an internal good that gives meaning, justification, and legitimacy to the practice. And it is in that relationship with the other, in which the other is the recipient of that good, and at the same time, the good received is returned to the person who originally issued it.

This good is, from its Hippocratic origins, the good for the person who carries or suffers a disease, which can be articulated into a series of goods: (1) the prevention of disease and injury; (2) the promotion and maintenance of health; (3) the relief of pain and suffering caused by maladies; (4) the care and cure of those with a malady; (5) the care of those who cannot be cured; (6) the avoidance of premature death; and (7) the pursuit of a peaceful death. This is how the Hastings Center in New York presented the Goals of Medicine [16].

It is time to think about health ethics, specifically in the field of mental health, from a perspective focused on evaluating the actions of professionals who provide interdisciplinary interventions in relation to promotion, prevention, assistance, care, and postvention, up to the profound dilemmas that arise in the field of bioethics.

According to the Encyclopedia of Bioethics, bioethics is defined as the systematic study of human conduct in the area of the life sciences and health care, insofar as this conduct is examined in the light of moral values and principles.

Bioethics is a compound word derived from the Greek words *bios* (life) and *ethiké* (ethics). It can be defined as the systematic study of moral decisions (including views, decisions, behaviors, and moral policies) of life sciences and health care, applying a variety of ethical methodologies in an ethical context [23].

Now our challenge is to think about the avoidance of premature death, defined by the Hastings Center in New York, in the Goals of Medicine, and specifically suicide. On the understanding that suicide is a death presented ahead of time, from now on, it is important to be able to refer to the bioethics of suicide, within the framework of mental health.

The legal aspect obliges us to comply with the norms established in the constitutions, laws, decrees, resolutions, and regulations, defining what we are allowed to do or not to do. Acting outside the law has consequences that are punishable by penalties of varying severity, while acting unethically entails a moral sanction, which might be indifferent to society in this trying time. In the case of a professional who acts without ethics, these sanctions may have other implications, especially if it is a matter of life and death and under the intervention of ethics committees from institutions or professional groups.

The legal frameworks that I will describe and analyze are those that are in force in the Argentine Republic; they are the ones that made it possible to sustain, systematically and permanently, the promotion and prevention of suicide in Argentina, as well as to promote initiatives of national and provincial programs in crisis intervention and suicide prevention.

As regards the university academic field, suicide prevention has been introduced as a topic in the academic programs of the careers related to the subject, and also degrees in suicidology have been launched in consonance with the legal frameworks.

Bioethics of Suicidology

Why Is It Relevant to Think About the Bioethics of Suicide?

In my experience of more than 25 years in the field of suicide, I have observed that few cases about suicidal processes come to mental health care. This little consultation called my attention in relation to the survey data of suicide rates made by State agencies, the visibility of suicidal behavior disorders according to the DSM-5, 2015 [3], and also the mental suffering of the suicidal process associated with other disorders. Another issue is the lack of care for the family and community, which are obviously affected and face a lot of mental suffering, as well. Bearing in mind that many of the disorders or mental sufferings are not always detected or are often minimized, those who suffer from them do not attend the consultation for these stated reasons.

In my opinion, as regards bioethics, there is a long way ahead to develop and strengthen practices in mental health, especially in new fields such as suicidology. Moreover, when I reflect on the suicide syndrome itself and its fate, I cannot continue thinking about it if I do not use the biopsychosocial model, determined from its

origins to focus on the people who suffer from it and personal background, beyond the disease itself and the possible interventions or treatments.

The need to think of bioethics in relation to the suicidal field is also based on the increase in disorders of young people and adolescents that in the Argentine Republic and many parts of the world is among the three major causes of death in this age group; mental suffering in adolescence and youth compels us to intervene, here and now, and in the immediate future.

For this purpose, it is necessary to integrate ethics focused on professional duty at its most and from there onwards and focus on the subjective rights such as respect for identity, privacy, confidentiality, and autonomy in the decision-making process of the person who suffers from this. It is a matter of great concern which deserves access to a dignified and qualified interdisciplinary and intersectoral care.

As we will see, the concern for the defense of human dignity and fundamental rights in relation to bioethics has been collected by the international community and reflected in an important UNESCO document: the Universal Declaration of Bioethics and Human Rights [19], where we highlight article 2, subsections c and e – to promote respect for human dignity and protect human rights, by ensuring respect for the life of human beings and fundamental freedoms consistent with international human rights law and to foster multidisciplinary and pluralistic dialogue about bioethical issues between all stakeholders and within society as a whole.

Article 8 – Respect for human vulnerability and personal integrity. In applying and advancing scientific knowledge, medical practice, and associated technologies, human vulnerability should be taken into account. Individuals and groups of special vulnerability should be protected and the personal integrity of such individuals respected.

In the issue that concerns us, the protection of the most vulnerable age groups related to suicidal processes is a matter of fundamental importance, without neglecting other groups that suffer from suicidal behavior but in fewer numbers, which also need our concern to the same extent.

The concept of bioethics and human rights was first introduced in October 2001, in Buenos Aires, Argentina, in the opening of the National Meeting of Bioethics and Human Rights [24]. Another important milestone was the Charter of Buenos Aires on Bioethics and Human Rights, a document produced at the end of a regional seminar called upon in Buenos Aires by the Argentine Government and UNESCO, in November 2004, and almost a year later, in October 2005, UNESCO adopted the Universal Declaration on Bioethics and Human Rights.

Among the proposals that were presented in the Charter of Buenos Aires, it is important to stand out item 18, which proposes to summon bioethicists, health professionals, scientists, members of the university community, activists of social organizations, communicators, legislators, and political decision-makers in Latin America and the Caribbean, to participate in this action aimed at addressing the problems of bioethics, health, and the environment, as priority issues that make the basic conditions for general well-being, the full validity of justice and human rights, and the ratification of a pluralistic, social, and participatory democracy.

As part of the commitment, item 19 was also highlighted: to maintain a constant dialogue and exchange that stimulates responsible commitment, intellectual seriousness, and respect for plurality in the field of bioethics as an interdisciplinary field and the development of the actions described in the preceding paragraphs, as well as to disseminate their results.

For these reasons, both items 18 and 19 are relevant since they clearly establish an intersectoral and interdisciplinary perspective which stands out the close relationship between bioethics and human rights with the participation of experts in bioethics, health professionals, human and social sciences, and governmental and nongovernmental organizations of Argentina, Bolivia, Brazil, Colombia, Cuba, Chile, Dominican Republic, Mexico, Paraguay, Uruguay, and Venezuela, gathered in Buenos Aires on the 6th of November, 2004. The Charter had significant importance in the construction of a unified position of Latin American countries and the Caribbean that established a basis to conform an outlook towards bioethics of suicide, a topic that is closely related to the definition of suicidology within the legal frameworks that will be developed later on.

Bioethics, like any other study of human behavior, may have different domains or levels of responsibilities according to the role of the professional who should be fully aware of these fundamentals and properly trained to be able to draw the necessary conclusions that will impact future interventions.

With this outlook in mind, a genuine need to form a community of research and study on the abilities and competencies is required to tackle this issue. Professionals familiarized with interdisciplinary and intersectoral field knowledge should articulate basic principles and recognize suicide warning signs within the framework of ethical precepts of scientific investigation.

Our concern will focus on the interventions and specifically on the recipients, people with or without mental disorders. The condition of being mentally ill does not deny the wishes, personal projects, and expectations of the person. Moreover, having an identical diagnosis does not imply equal evolution, difficulties, or potentialities. There is no illness; there is an ill person.

People having mental disorders are not more dangerous than people without them. They are more victims than perpetrators of aggressive conduct. In many cases, the aggression comes from the lack of proper attention and medical treatment, wrong-conducted interventions due to outdated knowledge, incorrect diagnosis, or ignorance of a suitable treatment. These situations may cause iatrogenesis and put the person's life at risk.

All people have the right to access to health care and adequate medical treatment, with the company of their loved ones, in their communities, especially in the case of mental health. When talking about suicidal processes, interventions may be insufficient or out of time. They may also be partial when a person with suicidal behavior is rescued or dissuaded by security services like the police or fire brigade. In these cases, the health service does not always continue the treatment; it only treats the patient during the crisis without providing adequate medical treatment for this mental disorder.

Sufferings or mental health problems in a suicidal process may partially affect the life of a person. With the proper mental treatment, the help of the loved ones, and available community services, recovery is possible.

In many regions of the world, suicide is still considered as a taboo and not as a mental health disorder that summons and challenges everyone. Conventionalism and traditional behaviors adopted by families, health centers, and the community can lead to reluctance to change. Ignorance and fear come to the surface, installing myths which damage the intervention. Despite this, we are on the right track, and if suicide and bioethics are related, an improvement in conceptualizations, attitudes, and procedures will be achieved.

Dr Galli, Former National Director of Mental Health from 1984 to 1989 and Head Professor of the Mental Health Department of Medical School at the University of Buenos Aires from 1987 to 2004, referred to the situation by stating the following remark: "Observing the population's care needs due to suffering or at risk situations related to mental health, very cruel debts become evident. Most of the people with these needs do not receive any type of assistance either in the initial moments of crisis or in the later evolutions in their suffering processes" [11].

These are the issues that must be taken into account if we want to face a true change in the perspective of mental health and within it the sufferings of people with suicidal behavior and their contexts, which are the recipients and makers of this disciplinary field.

Researching on ethical concerns while trying to find the framework that fits to be able to accompany suicide, the writings of Carol Gilligan come into sight. She introduced the ethics of care in 1982 from a psychology perspective, and based on her work, different researchers from different disciplines of the social and human sciences have developed different analyses, readings, hypotheses, and theories about what she called a different voice in morality.

The ethics of care claims the importance of taking into consideration diversity, context, and particularity. This conception of morality is concerned with the activity of giving care; it centers moral development around the understanding of responsibility and relationships, as well as the conception of morality as fairness that ties moral development to an understanding of rights and rules [13].

By the reading of various writings on the subject, it is deduced that many authors place the ethics of care as an ethics of the feminine or feminist. This assumption has a relation with what Gilligan concluded based on research and analysis of girls' feelings and thinking.

She discovered the value of care, a value that should be as important as justice. Nonetheless, it was not taken into account in this way since it was only carried out in private domestic life by women. She mentioned this in her book *In a Different Voice* [12].

Reconsidering care, it can be clearly seen the value and importance of the concept, which is manifested when proving the social significance that it has acquired in interpersonal relationships in different contexts. Care is present in the family, in clinical treatment relations, in everyday life, in community interventions, in student-teacher relations, and in itself when referring to self-care.

It is worth pointing out that a central concept in care ethics is responsibility. According to Alvarado Garcia's statement: The understanding of the world as a network of relationships in which we feel immersed and from where emerges a recognition of the responsibility towards other people [2].

The ethics of care guides us to behave with care in human life, and it highlights the cost that is paid for the lack of care, not paying attention, not listening to, being absent instead of being present, and not responding with dignity and respect.

Carol Gilligan affirms that leaving aside the binary model as well as the model categorized by genre leaves feminism, not only as a matter of women or a battle between women and men but a movement that will liberate democracy from patriarchy. Giving freedom to women's voice was not only necessary but also a debt to women that the history of humankind has to pay. This debt is with historical women, nowadays women and with future women. It is high time human beings start walking together in every aspect of an equitable outlook.

Alonso and Fombuena are researchers from the University of Valencia who have analyzed the ethics of justice and the ethics of care [1]. They have analyzed the contributions and contrasts between Kohlberg and Gilligan's studies. Whereas the first one points out a masculine, universal, and historical ethics, the second emphasizes the differences from the point of view of feminism.

Within Alonso's analysis, there is one of Gilligan's thoughts, which is worth mentioning. It points out that men start from an ethics of justice, abstract, and universal, in which situational and relational factors are irrelevant. Women, on the contrary, start from a basis of concrete responsibility which respects concrete and direct duties towards relatives, loved ones, or simple acquaintances. This means an ethics of care that involves conducts based on other people's needs without previous criteria of truth, good or bad. Women perceive others from a sensitivity to the human aspect.

In this way, men worry about the direct defense of rights, while women worry is oriented to the well-being of others. The combination of both views would be an interesting proposal for bioethics of suicidology.

Fostering the abstraction of human relations is as important as promoting the development of empathy and the necessary sensitivity to understand the other person in a concrete way.

Strengthening both, the abstract and the concrete, in both men and women could make possible a balanced relation between individuals without any type of conditioning in a social world. This state of facts is often unbalanced and deficient in people with suicidal behavior.

The work carried out in Argentina along the years makes us coincide with Carol Gilligan's approach when she claims that boys show more signs of depression than girls during adolescence. It is at this moment that girls begin sometimes vicious inclusive and exclusive practices. Their capacity for resilience is threatened, and there is a sudden incidence of depression, eating disorder, self-harm, and other destructive behaviors.

During the last years of secondary education, the rate of suicides has risen abruptly the same as the rate in homicides. It is also important to point out that

during the last decades, the rates of suicide behavior have risen in lower ages due to multicausal factors related to violence, ill treatment, and abuse in the family as well as bullying suffered at school.

Thinking about ethics and its principles, further views in bioethics, and the possibility of contributing to the construction of the person's history in relation to the suicidal field enables me to have a retrospective thought of many years of fieldwork in the medical area as well as the teaching area. Having walked these paths constitutes a form of respect to life, hope, and projects. It is a way of life which makes me behave without fear of feeling happy, and without which, my life would not have sense.

When these thoughts are confronted with reality and it is confirmed, they become our firm belief. This state of facts establishes a precedent for people capable of transcending individual spaces, even from orthodox institutions, to give light to new views and inclusive interventions that make way to different people, people left aside by the system, and consequently generate a new interdisciplinary and intersectoral forum.

To conclude, I believe that the bioethics of suicide is presented as a discipline with no predetermined solutions to the problems that may arise during the intervention itself, either individual, familial, or communitarian. It does not contribute to people's problems with strict, unique, or dogmatic solutions. These problems may have a multicausal origin which combined with continuous social, cultural, and technological changes makes a complex burden.

What the bioethics of suicide provides is a methodological basis for the analysis of questions and dilemmas that arise when dealing with the interventions. What is needed is a rational theoretical framework capable of transcending the practice to reaching the best decisions with the least harmful consequences to the people in question.

There is a great need for spaces for consideration and debate, founded in respect for others, truth, responsibility, and concern. It is important to identify and interpret the problems with commitment, making the proper and concrete demands directed to the correspondent areas of health and disposing of the adequate scientific advances and the political and economic resources. All the necessary policies should be applied for the promotion, prevention, attention, postvention, and research to ensure respect and dignity of the fundamental rights of people suffering from this mental disorder.

Taking into account the limited codes and declarations on the matter, which respond to an ethical model of deontological orientation based on basic universal and formal principles, there is an urgent need for broader ontological perspectives, identifying values involved in our choices and decisions at the moment of interventions.

It is important to foster and promote values to guide everyday practices in suicidology, to strengthen institutional mechanisms to hold these practices, with focus on the values and characteristics of each community, to highlight the objectives involved in the field of care and their importance in the organization of the suicidal field.

In consonance with care ethics, as it was defined by Gilligan, it is vital to redefine professionalized care from two basic aspects: that people could develop their maximum human potential and also live according to what gives sense to their life.

I believe that what was mentioned above would be of great importance to profound and reconstruct the basis of suicidal ethics.

As Pope Francis said when he was the Cardinal, Jorge Mario Bergoglio, Archbishop of Buenos Aires, in his message to educational communities on the 21st of April, 2004: "We want a school of wisdom . . . as a kind of existential, ethical and social laboratory, where children and young people can experience what things allow them to fully develop and build the necessary skills to carry out their life projects."

Legal Aspects for Consideration

From the legal point of view, in some countries, such as Spain, whenever a situation of suicide can be prevented, there is a legal obligation to do it. If it is not done this way, it could be considered failure in the duty to assist, not only for health professionals but also for people in general. Organic Law 10/1995 of the Criminal Code, Article 195, states that: "Anyone who does not help a person who is helpless and in manifest and serious danger, when he can do so without his own risk or that of third parties, will be punished with a fine of three to twelve months. The same penalties shall be incurred by those who, prevented from providing relief, do not urgently demand the assistance of another." For professionals, the same law states under Article 196: "The professional who, being obliged to do so, denies health care or abandons health services, when the denial or abandonment results in a serious risk to people's health, will be punished with the penalties of the preceding article in its upper half and with that of special disqualification for employment or public office, profession or trade, for a period of six months to three years."

In the Presidential Proclamation at the White House in the USA, World Suicide Prevention Day, 2015, Former President Barack Obama expressed: "In February, I was proud to sign the Clay Hunt Suicide Prevention for American Veterans Act to help fill serious gaps in serving veterans with post-traumatic stress and other illnesses. This law builds upon our ongoing efforts to end the tragedy of suicide among our troops and veterans." And he ended the proclamation with the following words, showing the intention of an intersectoral outlook: "Suicide prevention is the responsibility of all people. One small act -- the decision to reach out to your neighbour, offer support to a friend, or encourage a veteran in need to seek help - can make a difference. It can help energize a national conversation and a changing attitude across America" [18].

In the Public Law No. 114-2, Clay Hunt Suicide Prevention for American Veterans Act or the Clay Hunt SAV Act, the intention to develop different support measures is highlighted: "Authorizes the Secretary to collaborate with nonprofit mental health organizations to prevent suicide among veterans. Requires the Secretary and any such organization to exchange training sessions and best practices.

Directs the Secretary to select a VA Director of Suicide Prevention Coordination to undertake any collaboration with nonprofit mental health organizations.”

Likewise, in Chile, the duty to rescue is punishable under Article 393 of the Criminal Code: “Anyone who knowingly assists another to commit suicide will suffer the penalty of minor imprisonment in its medium to maximum degrees if death occurs.”

Suicidology Legal Frameworks in Argentina

Mental Health National Law: Law No. 26657

During 2010, Argentina enshrined in its legislation, under Law No. 26657, a regulatory instrument that moved forward in measures to ensure the protection of human rights of people suffering from mental disorders. It establishes clear lineaments for a model of medical care since it proposes the progressive substitution of mental asylums for community-based mental health services. In addition, the hierarchization of the central principles of bioethics is present in the text of the law itself, because it establishes as a governmental concern the recognition of a broad and diverse set of rights based on the concept of personal autonomy, integral and humanized health care, preservation of the personal identity and membership groups, the right to medical treatment respecting their rights, promoting family and community integration, and other matters that place the mental health patient as an active subject of rights, assuring free egalitarian and equal access to the necessary benefits and supplies.

This law is a law of public order; it implies that it has to be complied in all places of the country without any specific adherence to local regulations not only at the public sector but also the private sector.

The department of application is the National Ministry of Health through its executing unit, the Direction of Mental Health and Addictions.

This law is subordinated at the same time to superior laws of human rights as the principles of the United Nations for the protection of mentally ill people and the improvement of treatments in mental health care; the Pan American Health Organization (PAHO) on the 1990 Declaration of Caracas, dealing with patients' rights and standards of care; and the WHO for the reconstruction of medical psychiatric attention within local health systems.

An important issue of this stated law is its definition of mental health since it constitutes an organizational basis for any intervention. Article 3 is worth mentioning: In the framework of the present law, Mental Health is recognized as a determining process of historical, socioeconomic, cultural, biological, and psychological origin. Its preservation and improvement imply a dynamic of social construction associated with the fulfillment of the human and social rights of the person. Its starting point is the assumption of the capacity of every person without mentioning any mental health diseases. Suicidal thoughts have many causes. There are biological, social, and psychological determining factors that call out for an

interdisciplinary approach. This multispeciality team approach has an effect of equality of relevance among the professionals involved in the treatment, such as psychologists, psychiatrists, social workers, nurses, etc. In spite of the differences in the scope of their knowledge, the law gives them the same status, and they are considered complementary but equal from the professional and juridical field.

Neither the psychiatrist nor the psychologist is the head of these interdisciplinary teams. Staff skilled in several specialties work together to ensure quality care and successful recovery to the patients. The law establishes under article 13: Professionals with degrees are in equal conditions to occupy places of conduction and management of health centers and institutions, valuing their suitability and capacity to integrate the teams. All professionals have the right to permanent training and the right to protection of their own integral health condition. For this purpose, adequate specific policies should be developed.

This legal framework proposes 16 rights for people with mental disorders which are established under article 17, among which the following sections are worth highlighting: (a) the right to sanitary, integral, and humanized medical attention; (b) free, equal, and equitable access to the necessary benefits and supplies with the purpose of recovering and preserving health; (c) the right to receive an adequate medical assistance based on scientific basis and ethical principles; (d) the right to a suitable medical treatment with the most convenient therapeutical alternative with the least restriction of rights and liberties, promoting family, working, and communitarian integration; (e) the right to be accompanied by family, loved ones, or any person designed by the patient before, during, and after the treatment; (f) the right to be informed in an adequate comprehensive way about the rights that the person possesses as regards the diagnostic and treatment according to the rules of consent including different alternatives of care which may be communicated to family, tutors, or legal representatives in case the patient does not understand them properly; and (g) the right not to consider this mental suffering as an unmodifiable state.

To install the values and principles of mental health as well as the rights of the people suffering from mental disorders by law was a matter of vital necessity. There are other fundamental laws which have slowly been giving positive results and have opened doors previously closed as in the case of suicide.

Proclamation of the 10th of September as Suicide Prevention Day in the Argentine Republic.

During the year 2010, a team of professionals of the program of prevention, attention, and postvention of suicide named *Entrenadores de Vida* (Life trainers) belonging to *Fundación Manos Unidas por la Paz* (Hands United for Life Foundation) launched a triennial strategic plan to promote the position of the suicide among adolescents and children as a matter of great concern and awareness at a national level. As a consequence of research and survey of work findings carried out in the whole country and their posterior analysis and study, it was considered vital to engage the national government from the parliament levels to initiate the installment of the problematic in the national public agendas of health and education.

The drafting of a proposal for a project of adhesion to the 10th of September as suicide prevention day was the starting point. The 10th of September was

proclaimed by the World Health Organization (WHO) and the International Association for Suicide Prevention (IASP) with the intention of calling attention and advocate measures worldwide to suicidal behaviors. The WHO estimates that a million people die due to suicide every year.

After this preliminary work, the team of professionals considered the need to give national identity to this declaration, and they made a project of the Proclamation of the 10th of September as National Suicide Prevention Day.

Once the project was created and agreed by the team of professionals involved, it was presented at the National Congress by Ms María Eugenia Bernal, National Deputy of the province of Jujuy. She presented a definite project under file number 3239-D-2010 which was entitled: request the Executive Branch to expressly adhere to the international day for the prevention of suicide instituted as such the 10th of September of each year by the World Health Organization.

This project aimed to be applicable to suicide prevention in order to:

- Promote discussion about the problem in the health and education sectors.
- Raise awareness that suicide is a form of premature death that can be prevented.
- Promote institutional responsibilities and public policy frameworks for the prevention, care, and reduction of suicide.
- Value and disseminate programs managed by the state and nongovernmental organizations in relation to the prevention, care, and reduction of suicide.
- Promote network and teamwork between the different political, social, governmental, and nongovernmental actors in relation to suicide prevention work.

With 135 deputies present, this national law was treated and approved under Article 114 of the regulations of the Honorable Chamber of Deputies and announced on the 10th of September, 2010 at the 1st Debate on Suicide Prevention: Impact and Action on Education Policies, organized by the Honorable Chamber of Deputies of the Argentine Nation, and declared of educational interest by the Government of the Province of Buenos Aires and with the Patronage of UNESCO.

Since 2010 onwards, this day is celebrated in different parts of the country as a way of drawing attention to promotion and prevention, encouraging each municipality or provincial government to promote legislative initiatives, similar to the national law.

National Law for the Prevention of Suicide. Law No. 27130

In the course of the year 2015, Argentina enshrined in its legislation (under Law No. 27130) a normative instrument that advances in measures to “decrease the incidence and prevalence of suicide, through prevention, assistance and postvention.”

The law is subordinated to a higher law that is the National Law on Mental Health: Law No. 26657, and this close connection is expressed under Article 9. Health-care providers must offer care to patients with suicide attempts and provide

an interdisciplinary team formed in the terms of Law No. 26657 of Mental Health, ensuring support to the patient during all stages of the treatment, rehabilitation, and social reintegration process. It must also promote the integration of the assistance team with family members and the community, during the term advised by the specialized health-care team.

The law claims under the standard of the national interest throughout the territory of the Argentine Republic: "biopsychosocial care, scientific and epidemiological research, professional training in the detection and care of people at risk of suicide, and assistance to the families of suicide victims."

In this framework, regulations define suicide attempt as "any self-inflicted action with the aim of generating potentially lethal damage" and as postvention "actions and interventions after a self-destructive event aimed at working with individuals, families or institutions linked to the person who committed suicide."

One of the objectives which is also highlighted is the one detailed under Article 4: "the coordinated, interdisciplinary and inter-institutional approach to the major health issue that is suicide; the development of actions and strategies to achieve the awareness of the population; the development of care services and the training of human resources, and the promotion of the creation of support networks of civil society for the purposes of prevention, detection of people at risk, treatment and training."

Article 6 is intended for the enforcement authority who will be the National Ministry of Health.

Article 7 was assigned in terms of prevention, stating the following: the health authority will have to "enable a toll-free telephone number to listen to critical situations, whose operators will be duly trained in crisis care and suicide risk and provided with the necessary information regarding a containment and referral network." It will have to "develop training programmes for those responsible in the educational, labour, recreational and confinement contexts, promoting the development of skills in institutional teams; develop awareness campaigns on risk factors and generation of protective factors through mass media and other alternatives; produce a set of recommendations to the media on the responsible approach to news related to suicide and the available support networks, in line with the recommendations of the World Health Organization."

Articles 8, 9, 10, 11, 12, and 13 are assigned to assistance. The rule indicates that "the enforcement authority, in coordination with the different jurisdictions, must prepare and keep updated a protocol for the care of patients with suicide risk or suicide attempt, which should contain the identification of predisposing, psychophysical, sociodemographic and environmental factors, in order to define intervention strategies."

The most outstanding article of this law is Article 8, which states that: "every person who made a suicide attempt has the right to be treated within the framework of health policies and current legislation. The health team must prioritize the assistance of children and adolescents without any type of prejudice or discrimination." In the first place, it raises care as a right, referring to the right to health, and

secondly, it makes suicide in children visible and prioritizes care in the most vulnerable age group and also the one with the highest incidence in the last decade.

The law also has a space to stand out two articles in terms of training:

Article 14: "The training actions that the enforcement authority will develop, in coordination with the jurisdictions, must take into account the characteristics of the sociocultural context and will be a systematic and permanent process." Article 15: "The training will include a training programme for health, education, security, justice and confinement workers in different areas of care, prevention and post-vention, designing a continuous training area."

The importance of these articles devoted to training is related to the fact that they present training actions as a systematic and permanent process and clearly establish the sectors that are directly linked from an intersectoral perspective, promoting the development of a training program for workers in the area of health, education, security, justice, and confinement contexts. In a similar way, Article 7, subsection C, mentions the social responsibility of mass media workers, who have the power to inform suicide events to the general population.

In addition, the law establishes that health-care providers and prepaid medical care companies "must provide health coverage to people who have been victims of suicide attempts and their families, as well as to the families of suicide victims, which includes detection, monitoring and treatment according to what is established by the enforcement authority."

It is clear that suicide is a major public health issue which cannot be solved only by health professionals or by the existence of a legal framework. It is for this reason that the enriching contribution of other sectors and other related professionals is needed, from an interdisciplinary perspective.

From the origins of civilization until today, both the miracle of life and death are facts that fascinate and provoke human beings to reflect on them. Suicide is one of the most complex deaths to be able to get through, which has deserved the concern of all civilizations of the world from ancient times until the present. However, throughout the ages, social considerations about it have changed by the influence of different cultural factors. There are several prevailing paradigms which have induced these changes in the conceptualization of suicide. The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) shines a spotlight on suicide to help reduce, if not reverse, this tragic trend.

Bioethics in the suicidal field and its legal frameworks makes us reflect on life, the path between life and death. Thinking about this, Amado Nervo and his famous poem come to my mind. *En paz* (At peace) is one of the most famous poems written by the Mexican writer, which was published in 1916 in the book *Elevation*:

"Very near my sunset, I bless you, Life
because you never gave me neither unfilled hope
nor unfair work, nor undeserved sorrow.
Because I see at the end of my rough way
that I was the architect of my own destiny
and if I extracted the sweetness or the bitterness of things

it was because I put the sweetness or the bitterness in them
when I planted rose bushes I always harvested roses
Certainly, winter is going to follow my youth
but you didn't tell me that May was eternal
I found without a doubt long nights of pain
but you didn't promise me only good nights
and in exchange I had some peaceful ones
I loved, I was loved, the sun caressed my face
Life, you owe me nothing, Life, we are at peace!"

Proposals

Finally, I will introduce some proposals that can help to improve the current situation in the field of suicide prevention.

In the first place, I will propose better training for community members in a systematic and permanent way, in order to continue working on the demystification of suicide. As a consequence of the myths surrounding it, stigmatization is still the greatest barrier to intervention. In addition to this, it is highly recommended to provide better training for professionals who wish to intervene and greater recognition and professionalization. This would imply an adequate training program, integrated with scientific progress while considering the person's particularities and their current context with a rigorous accreditation system as well.

In the second place, the creation and participation in Committees of Suicidology Bioethics constitute an important issue, ensuring in this way, the renewal of their members with a system that guarantees progressive incorporation of new professionals while preserving the committee's experience.

In the third place, another important aspect is to maintain a reliable link with the state to be able to work on legislation that encourages the provision of sufficient human and material resources in order to properly develop the activities that are specific to the field. At this point, the role of the committees will be to guarantee the ethical aspects of suicide intervention.

A greater homogenization and standardization in the procedures of the different committees would also be advisable, taking into account current legislation, as well as the creation of suitable forums for the exchange of information, experiences, and opinions between the committees, together with coordination among them.

In the fourth place, we should include volunteering as a space for professionalization. It should be aimed at everyone willing to collaborate in the field of suicide prevention, in agreement with the knowledge provided by continuous training and representing values such as commitment and responsibility.

There is no doubt that suicide will demand continuous research in the future and that the interventions must be interdisciplinary and intersectoral, as the WHO has been promoting.

People with suicidal thoughts and suicidal behaviors do not want to die, but rather stop living as they are living.

I believe that each one of us cannot do everything, but some of us will be able to do something, and with our concern and commitment, suicide can be prevented.

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Psychopathy and Suicide: A Reexamination of Cleckley's Criterion 81

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Abstract

Psychopathy is among the most intriguing syndromes of personality pathology, perhaps because of the harm psychopaths cause to other people and society more generally. Psychopathy is characterized by an absence of fear and other aversive emotional experience combined with a callous, instrumental way of thinking about and interacting with other people. Another hallmark of psychopathy in its original clinical description is the absence of completed suicide. This is consistent with a thought about the primary reasons for suicide being the avoidance of emotional pain (which psychopaths do not experience) and the lack of connection to/being a burden on others (neither of which psychopaths seem to mind). However, recent research on the association between psychopathy and suicidality has conflicted with this. Part of this conflict may have to do with clarifications in the conceptualization of psychopathy, which increasingly emphasizes the impulse control components of the syndrome in addition to the affective and interpersonal

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components. In this chapter, we will review the respective theoretical literatures on psychopathy and suicide, evaluate research on the association between psychopathy and suicide, and propose a new framework for understanding suicidality in the context of psychopathy. We will also suggest implications for future research and clinical intervention with psychopaths at risk for suicide.

Keywords

Personality traits · Personality disorder · Psychopathy · Suicide · Triarchic model

Psychopathy is among the most intriguing syndromes of personality pathology, perhaps because of the harm psychopaths cause to other people and society more generally. However, there has been less research on the harm psychopaths do to themselves in the case of suicide, and what research that does exist is conflicting. Part of this conflict may be related to the conceptualization of psychopathy, which has changed over time. The changing conceptualization of psychopathy and its association with suicide has implications for research on psychopathy and suicide as well as for the assessment of suicide risk among psychopaths.

Defining Psychopathy

Clinical Origins

The term “psychopath” generally refers to a person who despite appearing ordinary lacks the ability to empathize with others and who often violates the norms and laws of society. However, the specific definition of psychopath has changed since its first use. The first clinical description of psychopathy included 16 characteristics describing psychopaths (e.g., lack of remorse or shame, lack of insight, egocentricity) and the behaviors that were the result of those characteristics (e.g., insincerity, failure to follow any life plan, suicide rarely carried out; [6]). Although developed in a clinical context, these characteristics informed subsequent empirical research on psychopaths.

Following its initial clinical description, research refined the initial list of 16 psychopathic characteristics into a formal scale for measuring psychopathy, the *Psychopathy Checklist* (PCL), on which scores above a certain threshold suggested classification as a psychopath [18]. The PCL served as the operationalization of psychopathy for much subsequent research on psychopathy [21]. Some of this research suggested that the PCL (and thus psychopathy) was not unidimensional but rather comprised two factors [20–22]. The first factor relates to deficits in emotional and interpersonal functioning (e.g., deceitfulness, lack of remorse), and the second factor relates to impulsivity and social deviance (e.g., rule-breaking). This shift from defining psychopathy as a quasi-diagnostic category to defining it as a multidimensional construct took research on psychopathy in a different direction.

Current Research

One approach to the dimensional conceptualization of psychopathy is by identifying how psychopathy overlaps with basic personality traits. Research adopting this approach suggested that psychopathy may be best understood as low levels of the adaptive traits agreeableness (the tendency to affiliate and be prosocial with other people) and conscientiousness (the tendency to be achievement oriented and to inhibit impulses; [31, 15, 33]). Although adaptive traits form the bedrock of personality science, with the inclusion of maladaptive personality traits in the most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders* (the manual for classifying and diagnosing psychopathology; [1]), research on psychopathy shifted to emphasize maladaptive traits, which measure pathological aspects of personality. Research suggests that the maladaptive traits most closely associated with psychopathy are antagonism (the tendency to be aggressive toward others), detachment (the tendency to avoid close intimate relationships with others), and negative affect (the tendency to experience aversive emotions, of which psychopaths have low levels; [14, 30]).

Taken together, the findings of adaptive and maladaptive trait research suggest that psychopathy entails a tendency to be antagonistic toward other people, difficulty restraining and/or unwillingness to restrain impulses, and a lack of emotional responsivity (which, in turn, promotes increased assertiveness). These findings led to the development of the leading contemporary model of psychopathy, the triarchic model. The triarchic model conceptualizes psychopathy in terms of three dimensions: boldness (the tendency to be assertive, unimpeded by emotional reactivity), meanness (the tendency to be aggressive toward others), and disinhibition (the inability to constrain impulses; [36, 37]). The triarchic model not only synthesizes previous research on adaptive and maladaptive traits [36] but also encompasses much of the early clinical description (e.g., [6]). One thing the triarchic model does not address is the clinical observation of rarely completed suicide [6].

Suicide: Theory and Research

Contemporary Models of Suicide

Recent research has lent support for two primary models of suicide, one emotional and the other interpersonal. The earliest and perhaps most well established of these models focuses on emotion. In this view, suicide is a response to unbearable psychological pain (i.e., psychache; [41]). More specifically, suicide functions as an escape from this pain, especially when the suicidal person feels helpless to end the pain [3, 40]. Indeed, meta-analytic evidence suggests that the experience of emotional pain is among the strongest and most consistent predictors of both completed and attempted suicide, as well as suicidal ideation more generally [17].

The second theory of suicide is interpersonally focused and emphasizes the influence of two factors that leads a person to suicide: thwarted belongingness (i.e., feeling repeatedly defeated in one's attempts to connect with other people)

and perceived burdensomeness (i.e., thinking that one's mere existence is a problem for other people; [27]). In other words, the person who is most likely to attempt suicide is the person who feels detached from other people but nonetheless believes that these other people would be better off without them. As with the emotional theory of suicide, there is also evidence for the interpersonal theory of suicide. Research suggests that both thwarted belongingness and perceived burdensomeness are strong predictors of suicide attempt and ideation ([27, 43]; for meta-analytic review see [5]). There is also some evidence to suggest that thwarted belongingness and perceived burdensomeness may have a multiplicative effect, such that having higher levels of both is especially predictive of suicide [32].

These two theories of suicide emphasize different key influences on suicide, both of which are time limited. In other words, like all emotions, psychological pain is transient, and with effort people can change how they relate to others. However, both models agree that additional factors enable emotionally or interpersonally vulnerable people to attempt suicide. Two of these factors are aspects of personality, impulsivity and antagonistic aggression [27, 40], both of which are common features of psychopathy.

Suicide and Psychopathy

Suicide is not a part of the classic description of psychopathy [6]. In fact, some studies suggest that the interpersonal aspects of psychopathy (e.g., deceitfulness, lack of empathy and remorse) are negatively associated with **suicide** attempts and suicidal ideation [12, 46]. Moreover, people who have the emotional deficits characteristic of psychopathy (e.g., low anxiety, lack of guilt and shame, shallow emotions more generally) may not have the ability to experience the emotional pain underlying (at least some forms of) suicidal behavior and, thus, would seem not to be at high risk of suicide (for review see [11]).

However, some aspects of psychopathy are associated with suicide. Prior research examining suicidal history among people with psychopathic traits has shown that the behavioral aspects of psychopathy (e.g., criminal versatility, impulsiveness, irresponsibility, poor behavior controls) are associated with suicide and related behavior [12, 25, 19]. This may be because the reckless and antagonistic nature of people with psychopathic personality traits makes them susceptible to harming others and themselves. However, there is yet been little work on the link between psychopathy and suicide from a contemporary theoretical perspective.

An Integrative Approach to Psychopathy and Suicide

Combining Contemporary Models of Suicide and Psychopathy

We might make sense of the conflicting research findings on psychopathy and suicide by viewing them through the lens of the triarchic model of psychopathy and its dimensions (boldness, meanness, and disinhibition). Boldness entails both

assertiveness and a lack of aversive emotion, which should be protective against suicide, under the theory that suicide is associated with emotional pain (and helplessness that one is unable to escape the pain; [40, 41]). Indeed, research suggests that psychopathic boldness is negatively associated with suicide and suicidal ideation [2, 4, 23, 44, 45]. Similarly, meanness entails a disregard for others, thus also arguing against the interpersonal reasons for suicide, thwarted belongingness, and perceived burdensomeness – indeed, psychopaths often *are* burdens on other people and do not seem to be troubled by this [6, 23].

It may thus be the third dimension of the triarchic model that accounts for the association between psychopathy and suicide. Indeed, research suggests that disinhibition has a strong association with suicidality [12, 23]. In this view, the association between psychopathy and suicide is not because psychopaths are in emotional pain or are dissatisfied with their interpersonal relationships but rather because suicide seems like a viable option in the moment. This may be the case, for example, when a psychopath encounters insurmountable obstacles to obtaining pleasure (e.g., in the case of indefinite incarceration), they may view suicide preferable to living. Psychopaths' lack of fear (boldness) and general aggressiveness (meanness) may further highlight suicide as a reasonable choice in these and other situations. Disinhibition may also combine with meanness in the case of self-directed aggression that is *not* ultimately suicidal (e.g., non-suicidal self-injury, which is associated with psychopathy; [11]). In these cases, feigned suicidality may function as an attempt to manipulate others into acceding to the psychopath's demands [6, 7].

Implications

We may be able to leverage these insights in the assessment of suicide risk among people high in psychopathic traits. Making decisions about suicide risk based on conventional risk factors, such as a lack of social support (or other indicators of interpersonal dysfunction) or how badly one feels emotionally, may make less sense for people who have high levels of meanness and boldness. In contrast, a more telling indicator may be whether the person has a high level of disinhibition and, if so, whether they may view suicide as a viable option – in other words, a line of questioning around whether it might “make sense” for the highly disinhibited person to kill themselves, given the environmental contingencies of the moment (i.e., in contrast to asking about how bad a person feels based on their lack of interpersonal connectedness).

It is, of course, irresponsible to assume that all indications of suicidality from psychopathic people should be discarded. Indeed, psychopathic traits are positively correlated with other maladaptive traits that are more conventionally associated with suicide risk (e.g., affective lability; see [10, 47]). In other words, it is possible for someone to be high in both psychopathic traits and in maladaptive traits that serve as conventional risk factors for suicide. For example, serial killer Jeffrey Dahmer was high in psychopathic traits (including generally low anxiety) but also became panicky when he thought a romantic partner would leave him [35]. Although

Dahmer stated that he seriously considered suicide, he did not ultimately kill himself (a fellow inmate killed him after his incarceration), which may be a function of generally low levels of disinhibition. The point is that, although the primary characteristic of psychopathy associated with suicide is disinhibition, it is also well worth considering that people high in psychopathic traits are usually more than just psychopaths.

Discussion

In this chapter we review and integrate the theoretical and empirical literature on suicide and psychopathy, suggesting a new framework for understanding suicidality in the context of psychopathy. This framework has implications for future research on psychopathy as well as for clinical assessment of and intervention for suicide risk among people high in psychopathic traits.

We outlined how clinicians might weigh different aspects of psychopathy in assessing suicide risk, with the caveat that other aspects of maladaptive personality functioning should also be taken into consideration. There are many ways in which clinicians might assess psychopathic (and other) aspects of personality. Clinical assessment instruments such as the *Minnesota Multiphasic Personality Inventory* ([24]; for clinical application see [35]) and more recently the *Personality Inventory for DSM-5* (PID-5; [28]; for clinical application see [34]) both have scales that approximate boldness, meanness, and disinhibition. The more recently developed *Triarchic Psychopathy Measure* (TriPM; [13]) measures these traits directly. Although there is a substantial and growing literature on the empirical validity of the TriPM, there is little research on how clinicians might use it clinically, either in general or with respect to assessing for suicide risk in particular. How best to measure and incorporate boldness, meanness, and disinhibition into the assessment of suicide risk in a clinical context is thus a fruitful direction for future research.

That disinhibition may be the primary aspect of psychopathy related to suicide may also inform clinical intervention targeting suicide. One potential intervention is *Dialectical Behavior Therapy* (DBT; [30]; for meta-analytic review of effectiveness of DBT for treating suicidality, see [8]). Although DBT was originally developed to treat suicidality in people with borderline personality disorder, it is also effective for treating suicidality and other disinhibited behaviors in people with other kinds of problems. Indeed, although people high in psychopathic traits are notoriously difficult to treat using psychotherapy (see [39]) and it is unclear whether DBT might be useful in reducing suicide and related behavior among psychopaths, there is evidence that DBT may be effective in reducing behaviors associated with psychopathy ([16]; see also [42]). Future research should examine this possibility further.

The framework we propose also has implications for more basic research on the association between psychopathy and suicide. This should include studies on relative influences of boldness, meanness, and disinhibition on suicide, a topic on which there is little research. This research should also include the interactive effects of

facets of psychopathy. For example, it is possible that meanness and disinhibition interact, such that although there is no direct effect of meanness on suicide, it is associated with suicide at high levels of disinhibition. Future research further tease this out and inform the clinical assessment of suicide risk.

Our review also has a number of limitations, which suggest further directions for future research. For example, we limited our focus to the association between psychopathy and suicide. However, this excluded other aspects of self-destructive behavior that are not intended to result in death. Examples of this include threats of suicide and non-suicidal self-injury, both of which may be used to manipulate other people and are thus common among psychopaths [6]. Our review was also limited to psychopathic traits, specifically, and did not include other maladaptive traits that often co-occur with psychopathic traits and may thus interact dynamically with psychopathic traits to influence risk of suicide. Future research might thus broaden the scope of inquiry to include a broader range of both personality maladaptation and suicide-related behavior.

In this chapter we propose an integrated framework for thinking about suicide and psychopathy and suggest directions for clinical assessment and intervention, as well as future research. Clinicians and researchers will hopefully not only extend and refine but also benefit from this framework.

Cross-References

- ▶ [Suicide in Jails and Prisons](#)
- ▶ [Suicide Terrorism](#)

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