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# The impact of place on suicidal behaviour

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# **SOCIOECONOMIC DISADVANTAGE AND SUICIDAL BEHAVIOUR**



Full report  
March 2017





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March 2017

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*Thanks to everyone who has contributed to the development and production of this report.*



# Chapter 1: Introduction

## Suicide is a public health issue

Suicide is a complex and multi-faceted behaviour, resulting from a wide range of genetic, psychological, psychiatric, social, economic and cultural risk factors which interact to increase vulnerability to trauma and adversity in individuals, communities and society as a whole. The socio-ecological model proposed by the World Health Organization (World Health Organization, 2014) identifies several types (or levels) of risk factors: health system (e.g. barriers to accessing care in the health system); societal (e.g. easy access to means of suicide); community (e.g. stresses of acculturation and dislocation); relationship (e.g. lack of connectedness to people); and individual (e.g. previous suicide attempt, mental illness). A public health approach to suicide prevention seeks to reduce suicide risk by addressing factors at **all** these levels. Recognising the limitations of providing mental health services to people who are experiencing suicidal thoughts or who have engaged in suicidal behaviour (critical though these services are), a public health approach focuses on the importance of primary prevention, i.e. preventing the occurrence of suicidal thoughts or behaviours, and addresses a broad range of protective and risk factors. Socioeconomic disadvantage is a risk factor that has received insufficient attention, even in national suicide prevention strategies and action plans which incorporate a public health perspective.

## Importance of socioeconomic disadvantage as a determinant of suicidal behaviour

The foundation of this report is an extensive investigation of the epidemiological evidence relating to the hypothesis that socioeconomic disadvantage (see box 1 for definition) is one of the major non-psychiatric determinants of suicidal behaviour (see box 2 for definition).

**Box 1: Definition of socioeconomic disadvantage**

‘Socioeconomic disadvantage’ may refer to an individual, group (e.g., family) or community (especially, defined geographically). Being ‘socioeconomically disadvantaged’ means living in a situation of relatively more unfavourable social and economic circumstances than others (individuals, groups or communities) in the same society. Features of socioeconomic disadvantage include low income, unmanageable debt, poor housing conditions, lack of educational qualifications, unemployment, and living in a socioeconomically deprived area.

**Box 2: Definition of suicidal behaviour**

‘Suicidal behaviour’ comprises suicide and attempted suicide, and, in some instances, non-fatal self-harm (NFSH) where death is not the (main or sole) intended outcome. Self-harm (with or without suicidal intent) is a strong predictor of suicide. Once a person has self-harmed, the likelihood that he or she will die by suicide increases 50 to 100 times compared to someone who has never self-harmed. More than 50% of people who die by suicide have previously self-harmed.

The weight of empirical evidence points to a significant association between socioeconomic disadvantage and suicidal behaviour. Key findings include:

- There is a significantly higher risk of suicide among unemployed, compared to employed, people, even after taking into account other possible explanatory factors (‘confounders’).
- The adverse effects of economic recession on suicide and other mental health outcomes are highlighted in a recent review (Gunnell & Chang, 2016). “Although increases in job loss contribute to this effect, a range of other stressors such as austerity measures, loss of home, debt, strains on relationships, and reductions in mental health services may also contribute. Those who are already vulnerable, such as individuals who are supported by social welfare or who have pre-existing mental health problems are at greatest risk.”
- There is an inverse relationship between occupational social class and risk of suicide and NFSH: the higher the social class position, the lower the rate of suicidal behaviour.
- The findings of a systematic review and meta-analysis of studies of suicide by occupation (Milner et al., 2013) suggest a decreasing gradient of risk, with the highest rate among the lowest skilled occupations (e.g., construction workers) and the lowest rate among the second most skilled occupations (e.g., technicians).
- A European study of socioeconomic inequalities (measured by educational level and housing

tenure) in suicide (Lorant et al., 2005) found that, among men, a low level of educational attainment was a risk factor for suicide in eight out of 10 countries. Among women, however, lower educational attainment tended to be protective against suicide. In five out of six countries for which data were available, the risk of suicide was greater among tenants than among house owners, for both men and women.

- Over half the papers retrieved for a systematic review of socioeconomic characteristics of regions and their suicide rates (Rehkopf & Buka, 2005) reported no significant associations. In analyses which reported statistically significant findings, the majority pointed to an inverse association between socioeconomic disadvantage and suicide: the lower the socioeconomic position, the higher the suicide rate.
- The findings of a Scottish study (Platt et al., 2007) confirmed that low social class and socioeconomic deprivation are associated with increased suicide risk; and suggest that the influence of individual social class is far stronger than the influence of area-level socioeconomic affluence/deprivation in accounting for suicide-related inequalities. An exceptionally high relative risk of suicide was found among those in the lowest social class living in the most deprived areas (approximately 10 times higher than the risk of suicide among those in the highest social class in the most affluent areas).

## Explaining the relationship between socioeconomic disadvantage and suicidal behaviour

In order to improve understanding of the relationship between socioeconomic disadvantage and suicidal behaviour, Samaritans commissioned leading social scientists to review and extend the existing body of knowledge on this topic, addressing the following key general questions:

- Why is there a connection between socioeconomic disadvantage and suicidal behaviour?
- What is it about socioeconomic disadvantage that increases the risk of suicidal behaviour?
- What can be done about it? (What are the implications of findings for policy, practice and research?)

Taking different disciplinary perspectives, the authors provide insights into the mechanisms and processes underlying the relationship between suicidal behaviour and socioeconomic

disadvantage, and provide guidance to policy-makers, practitioners and fellow researchers about future directions for the prevention of suicidal behaviour. Listed with their specialisms and their affiliation, the authors are:

- Professor Clare Bambra, public health, Newcastle University.
- Dr Joanne-Marie Cairns, public health, Newcastle University.
- Dr Amy Chandler, sociology, University of Edinburgh.
- Dr Elke Heins, social policy, University of Edinburgh.
- Dr Olivia Kirtley, health psychology, University of Glasgow; University of Ghent.
- Associate professor David McDaid, health economics, London School of Economics.
- Professor Rory O'Connor, health psychology, University of Glasgow.
- Dr Katherine Smith, social policy, University of Edinburgh.

This report was co-edited by Stephen Platt, Emeritus Professor of Health Policy Research, University of Edinburgh, and Dr Stephanie Stace and Jacqui Morrissey (Samaritans).

## Structure of the report

Following the introductory chapter, there are six main substantive chapters:

- Chapters 2-4 consider the relationship between socioeconomic disadvantage and suicidal behaviour from a predominantly macro-level and quantitative perspective, focusing on:
  - geographical location (Bambra & Cairns [chapter 2]),
  - rapid economic change (McDaid [chapter 3]) and
  - labour market policies (Heins [chapter 4]).
- Chapters 5-7 take a predominantly micro-level and/or qualitative perspective, exploring:
  - psychological processes (Kirtley & O'Connor [chapter 5]),
  - lay understandings of suicidal behaviour relating to socioeconomic disadvantage (Chandler [chapter 6]) and
  - lay perspectives on the role of socioeconomic deprivation in mental health outcomes, including suicidal behaviour (Smith [chapter 7]).

The concluding chapters synthesise the main findings in a model setting out the pathways to suicidal behaviour and highlighting socioeconomic determinants (chapter 8), followed by recommendations for action by local and national agencies, in order to reduce the risk of suicidal

behaviour among socioeconomically disadvantaged individuals, families and communities (chapter 9).

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# Chapter 2: The impact of place on suicidal behaviour

**Professor Clare Bambra and Dr Joanne Cairns**

**Newcastle University and Fuse: Centre for Translational Research in Public Health**

## Abstract

This chapter provides a rapid evidence review of empirical studies, from the UK and Republic of Ireland, that have examined associations between suicidal behaviour (suicide and non-fatal self-harm) and area-level deprivation. Five electronic databases (Medline, Embase, PsycINFO, Social Sciences Citation Index and EconLit) were searched from 2005 to 2015. Eighteen studies were included; one was a cohort study, eight were repeat cross-sectional studies and nine were cross-sectional studies. Overall, these studies found a strong association between area-level deprivation and suicidal behaviour: as area-level deprivation increased, so did suicidal behaviour. The chapter contextualises these results by applying insights from the wider geographical literature about health and place, leading to the identification of potential mechanisms ('suicidogenic' pathways) underpinning the association between area-level deprivation and suicidal behaviour. These mechanisms include compositional factors (the characteristics of people living in deprived areas, such as marital status) and contextual factors (the nature of the places themselves, such as the social environment). It concludes by reflecting on the implications for policy, practice and research, suggesting that, as there is a socio-spatial gradient in suicidal behaviours, every local area should have a suicide prevention strategy and action plan and that deprived areas should have additional support via a proportionate universalism approach to reducing geographical inequalities in suicide.

## Introduction

It is well understood that adverse *individual* or *family* circumstances, such as marital breakdown, unemployment or debt, can result in a higher risk of suicidal behaviour (suicide and non-fatal self-harm) (Webb and Kapur, 2015). However, what is less established is the potential impact of

adverse *collective* circumstances, such as the social, economic or physical environment of the *place where people live* (neighbourhood, city, region), on the likelihood of suicidal behaviour. This chapter examines these factors by exploring the association between area-level socioeconomic deprivation and suicidal behaviour (defined as suicide and non-fatal self-harm). In the UK, there are regions (e.g. West of Scotland, north-east of England), cities (e.g. Glasgow, Middlesbrough), local authorities (e.g. County Durham, Blaenau Gwent in Wales) and neighbourhoods within our towns and cities (e.g. the Toxteth neighbourhood in Liverpool, the Byker neighbourhood of Newcastle) that are more deprived. ‘Area-level deprivation’ can be measured in a variety of ways but essentially each approach ranks areas on the basis of relative local scores for factors such as local income levels, employment rates and housing quality<sup>1</sup>. Neighbourhoods that are the most deprived have worse health than those that are less deprived, and this association follows a gradient: with each increase in the level of deprivation, there is a decrease in health. People living in the most deprived neighbourhoods in the UK or Republic of Ireland (ROI) will, on average, live nine years less than people living in the least deprived neighbourhoods (Bambra, 2016).

This chapter examines the association between area-level socioeconomic deprivation and suicidal behaviour. It provides a rapid evidence review of empirical studies, from the UK and ROI, which have examined associations between suicidal behaviour and area-level deprivation. It also applies insights from the wider geographical literature about the links between health and place to aid our understanding of the mechanisms potentially underpinning the geographical patterning of suicidal behaviour.

The chapter comprises seven sections. In section 2, spatial variations in suicide in the UK (equivalent data is not available for the ROI) are mapped at national and sub-national level. Section 3 outlines the aims and methodology of the rapid evidence review. In Section 4, the results from the included studies are synthesised and the key findings highlighted. Section 5 draws on the wider geographical literature about the links between health and place to explore the possible

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<sup>1</sup> Common measures of area-level deprivation include the Index of Multiple Deprivation, the Carstairs-Morris index and the Townsend index. The Index of Multiple Deprivation (IMD) produces relative local scores based on seven domains: income, employment, health, education, crime, access to services and living environment. The Carstairs-Morris (also known as Carstairs) index comprises four area-level Census indicators that represent material disadvantage: non-car ownership; low occupational social class; overcrowded households; male unemployment. The Townsend index is also a composite measure of four area-level Census variables: unemployment (as a percentage of those aged 16 and over who are economically active); non-car ownership; non-home ownership; overcrowded households.

‘suicidogenic’ pathways linking area-level deprivation and suicidal behaviour. Section 6 reflects on the implications of the review for policy, practice and research. Section 7 provides a short conclusion.

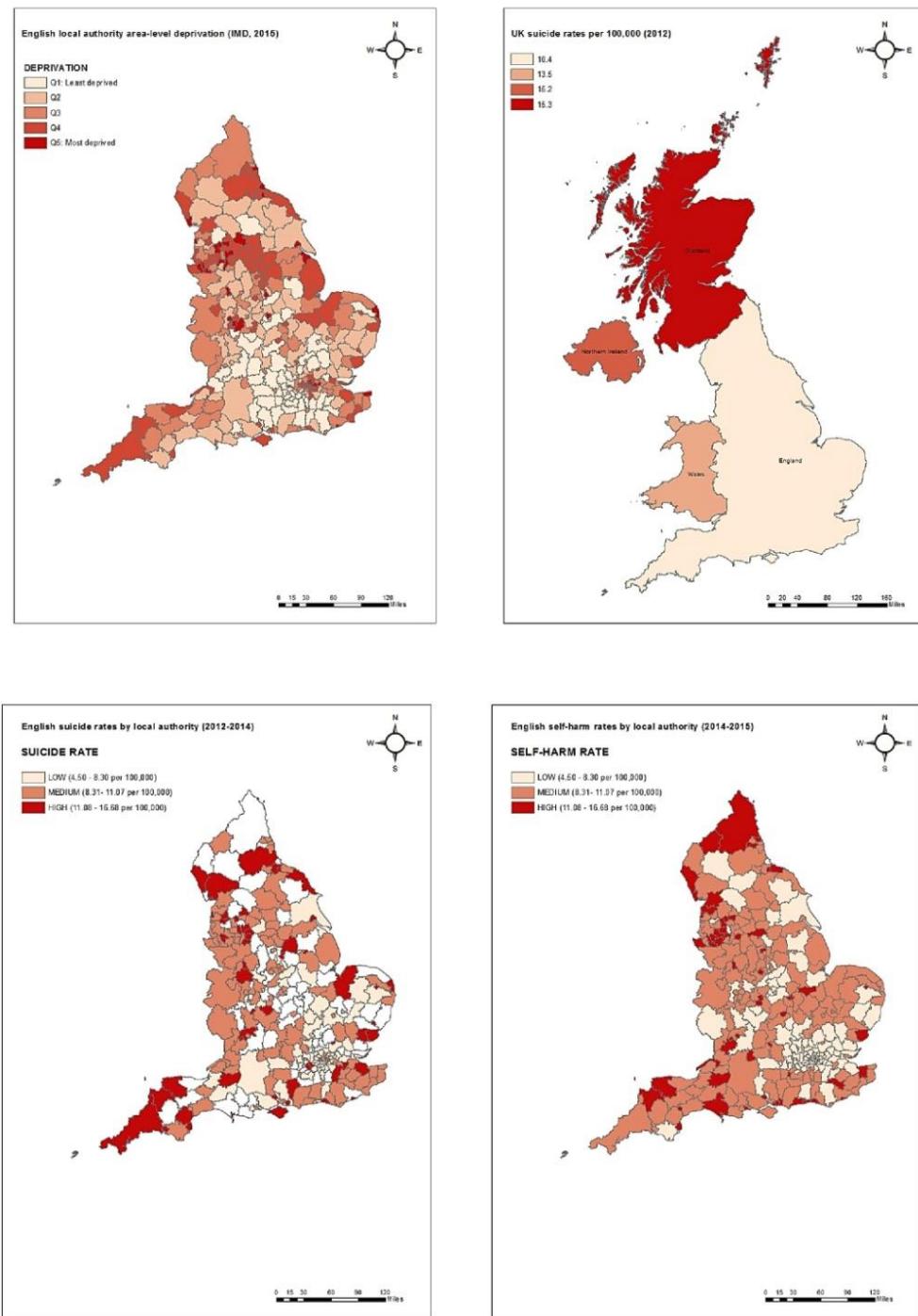
## Spatial variation in suicide rates in the UK

In keeping with these general patterns in health inequalities outlined above, suicide rates also vary considerably between the countries of the UK<sup>2</sup>. Figure 2.1 shows geographical variations in suicide, non-fatal self-harm rates and area-level deprivation. Scotland had the highest suicide rate (15.3 per 100,000), closely followed by Northern Ireland (15.2 per 100,000) and Wales (13.5 per 100,000); all of these were substantially higher than the UK average (11.6 per 100,000). England had the lowest suicide rate (10.4 per 100,000), considerably below the UK average. However, there are also considerable differences in suicide rates *within* each of these countries, for example at the local authority level. There is a clear patterning, with local authorities in more urban areas and those in the North exhibiting higher suicide rates than those in rural areas, although with some exceptions, e.g. coastal areas such as Cornwall and Devon in the South West. There are also similar geographical variations between local authorities in terms of self-harm (defined here as emergency hospital admissions for intentional self-harm, which was directly age-sex standardised for all persons) and area-level deprivation (as measured by the Index of Multiple Deprivation [IMD]). Together, the maps in figure 2.1 demonstrate that, in the areas where area-level deprivation IMD is greater, the rate of suicidal behaviour is higher. However, the rate is not uniformly higher across deprived areas, as we see in London (Gunnell et al., 2012).

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<sup>2</sup> Suicide is defined by the Office for National Statistics as deaths attributed to self-harm (ICD10: X60-X84) and events of undetermined intent (ICD10:Y10-Y34). In all maps, the data shows rates per 100,000 persons aged 15 years and over.

**Figure 2.1: Geographical variations in suicide rates and self-harm<sup>3</sup>**



<sup>3</sup> Boundaries were downloaded from Edina and mapping was done in ArcGIS version 10.2. Suicide data from Samaritans (2012) – white unshaded areas indicate data is too small and unavailable; self-harm rates from Public Health England (2014-2015); IMD data from Department for Local Government and Communities (2015).

# Methodology

## Aims and research questions

This chapter aims to provide a rapid evidence review of empirical, quantitative studies, from the UK and Republic of Ireland (ROI), that have examined associations between suicidal behaviour and area-level deprivation. The chapter also aims to identify potential mechanisms ('suicidogenic' pathways) underpinning the association between area-level deprivation and suicidal behaviour.

Two research questions are addressed:

- What is the association between area-level socioeconomic disadvantage and suicidal behaviour?
- What are the possible mechanisms linking area-level socioeconomic disadvantage and suicidal behaviour?

## Rapid review

A previous evidence review (Rehkopf and Buka, 2006) included 87 studies published between 1897 and 2004 covering North America, Europe, Australia, New Zealand, Australia and Asia. We updated this work by conducting a systematic search of five databases (Medline, Embase, PsycINFO, Social Sciences Citation Index and EconLit) for peer-reviewed papers, published in the English language, from the UK and ROI only, between 2005 and 2015. Our inclusion criteria are displayed in box 2.1 and our search strategy in box 2.2.

**Box 2.1: Study inclusion criteria**

Populations	All ages
Contexts	UK or ROI
Geographies	Neighbourhoods (small areas e.g. LSOAs, MSOAs) <sup>4</sup> ; ward/county/city/district; regions (e.g. NW, NE, etc.) or countries (e.g. Scotland compared to England) Must compare at least two areas.
Explanatory variables	Area-level deprivation (e.g. Carstairs-Morris index, Townsend index or Index of Multiple Deprivation)
Outcome variables	Suicidal behaviour (suicide, non-fatal self-harm) and suicidal ideation
Study designs	Observational studies: cross-sectional; prospective and retrospective cohorts, time series, repeat cross-sectional.

**Box 2.2: Search strategy for MEDLINE**

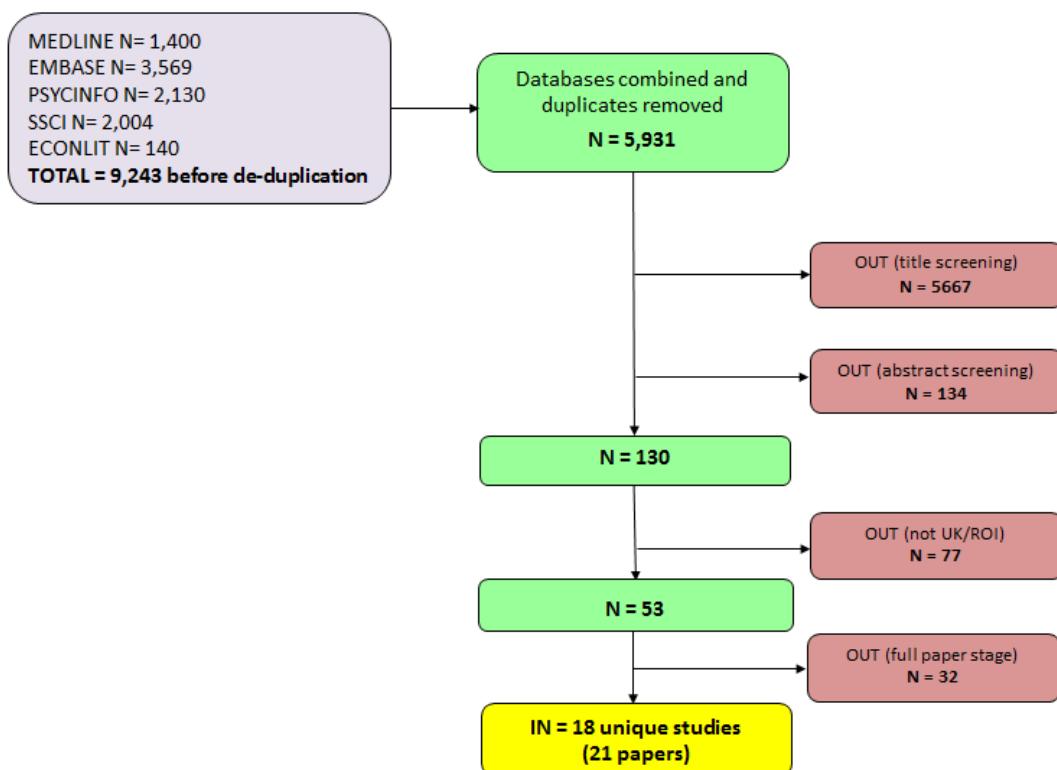
[(suicid\* OR self-harm) AND (socioeconomic OR SES OR education\* OR employment OR income OR occupation\* OR poverty OR class OR depriv\* OR disadvantage\* OR social class OR social factors OR economic OR unemployment) AND (area\* OR geo\* OR place OR neighbourhood OR region\* OR county OR ward OR city OR district OR country)]

**Included studies**

The study search flow chart is shown in figure 2.2. The searches produced a total of 9,243 hits (5,931 after the removal of duplicates), of which 5,667 were excluded at title screening stage, followed by 134 at abstract screening stage (e.g. because they were not looking at area-level data or not published in English), leaving 130 papers, 53 of which were from the UK or ROI. Of these 53 papers, 32 were excluded at the full paper stage (because they adjusted for deprivation, there was no suicide outcome or no deprivation outcome) and 21 papers were included. Five of these 21 papers reported findings from two of the same studies; the rapid evidence review therefore included 18 unique studies.

<sup>4</sup> Lower Super Output Areas (LSOAs) which constitute areas (several streets) with an average of 1,500 residents. MSOAs have a minimum population of 5,000 (an average of 7,200) and a minimum resident household of 2,000 (an average of 3,000). They are built from Lower Super Output Areas (LSOAs).

**Figure 2.2 Search flow chart**



## Findings

### Study characteristics

Eighteen unique studies, nine from England, six from Scotland, two from the Republic of Ireland and one from Northern Ireland, were included in this evidence synthesis. There were no studies from Wales. One study was a longitudinal cohort (individuals followed over time), eight were repeat cross-sectional (area-level analyses repeat over time), nine were cross-sectional (either one time point or years pooled in the analysis) in design. Nine studies examined suicides only, two studies examined all-cause and cause-specific mortality (including suicide), three examined hospital-treated, non-fatal deliberate self-harm (DSH), two studies examined self-harm and suicide, one study examined suicide risk, and one study investigated external causes (including suicide). Six studies provided data for men and women separately, and one study provided data by age group. The studies were conducted at different spatial scales, ranging from small neighbourhoods (e.g. LSOAs) to local authorities (large and heterogeneous). Measures of area-level deprivation included the Carstairs-Morris index, the Index of Multiple Deprivation and census-derived variables, including housing tenure and car ownership.

## England

Seven cross-sectional and two repeat cross-sectional studies found that suicidal behaviours were consistently higher in England in the areas with the highest level of deprivation. Only one longitudinal cohort study found no significant association between area-level deprivation and self-harm. These studies are synthesised briefly below, with more detailed provided in box 2.3.

A repeat cross-sectional study (Green, 2013) examined geographical inequalities in England in cause-specific mortality among young men and women aged 16-21 over three time periods (2002/04, 2005/07 and 2008/10) and found significant differences in self-harm-related deaths between the most and least deprived areas at each time point. Another repeat cross-sectional (Coope et al., 2014) found that, for each year between 2001 and 2011, neighbourhood-level deprivation was associated with suicide: the most deprived areas had the highest suicide rates for both men and women; suicide rates were three times higher in the most deprived areas. Only the longitudinal cohort study (Bergen et al., 2012) failed to find an association between suicidal behaviour and area-level deprivation in England.

A cross-sectional study (Brock et al., 2006) found that suicide rates among those living in the most deprived local authorities were higher, in fact double the rates among those living in the least deprived areas. Another cross-sectional study (Rezaeian et al., 2005, Rezaeian et al., 2006, Rezaeian et al., 2007) found that suicide rates decreased with improving socioeconomic status. More recently, three cross-sectional studies (Congdon, 2013) found a strong association between suicide and deprivation: areas with high deprivation scores had suicide rates that were three times higher than those areas with low deprivation scores. Area-level deprivation had a stronger influence on suicide among men than among women. Self-harm rates (measured as self-harm that resulted in hospital stays) were three times higher in the most deprived areas. Two cross-sectional studies (Congdon, 2011a, Congdon, 2011b, Congdon, 2012) found that suicidal behaviours were higher in more deprived areas. While one study found that the increased risk associated with area-level deprivation disappeared after adjustments were made for other factors, the other study, which examined both suicide and self-harm, found that area-level deprivation was the strongest predictor of suicide and self-harm. Note that studies of self-harm based on the number of hospital presenting cases rather than a general population sample may well account for different findings. Another study (Harriss and Hawton, 2011) also found that non-fatal self-harm rates were twice as high in the most deprived areas.

### **Box 2.3: Detailed summary of studies from England**

A repeat cross-sectional study by Coope and colleagues (2014) measured quarterly changes in suicide rates each year between 2001 and 2011, for small areas/neighbourhoods (LSOAs) in England. Deprivation was measured using IMD. Consistently in each year, area-level deprivation was associated with suicide: the most deprived areas had the highest suicide rates for both men and women. However, suicide rates among men in the least deprived areas increased slightly from 11.2 per 100,000 in 2007 to 13.3 per 100,000 in 2011 while they reduced slightly from 34.6 per 100,000 to 31.4 per 100,000 in the most deprived areas. This still amounted to a threefold difference between the most and least deprived areas in 2011. The analysis adjusted for age and sex.

A repeat cross-sectional study by Green (2013) examined geographical inequalities in cause-specific mortality in young men and women aged 16-21 over three time periods (2002/04, 2005/07, and 2008/10) at LSOA level in England. Area-level deprivation was measured using Indices of Deprivation (2010). The study found that there was a significant gap in self-harm-related deaths between the least and most deprived areas, at all time points. For young men, there was a significant reduction in self-harm-related deaths in the least deprived areas between 2002/04 and 2008/10 (4.38 vs. 1.44 per 100,000) but not in the most deprived areas (5.99 vs. 5.70 per 100,000). For young women, there was also a decrease in the least deprived areas (1.02 vs. 0.50 per 100,000) but an increase in the most deprived areas (1.65 vs. 2.15 per 100,000).

Only one longitudinal cohort study found that there was no significant association between death by external causes among people who had self-harmed and area-level socio-economic deprivation ( $p = 0.58$ ). Bergen and colleagues (2012) investigated the association between mean years of life lost (YLL) to external causes (accidental, suicide and undetermined deaths) and area-level deprivation (IMD) for neighbourhoods in three English cities (Oxford, Manchester and Derby), among people aged 15 years or older, pooling data for the eight years 2000-2007.

A cross-sectional study by Brock and colleagues (2006) showed a positive, linear association between suicide rates (aged 15+) and socioeconomic deprivation (as measured by the Carstairs-Morris index) in England. During a five-year period (data pooled for 1999-2003), suicide rates among those living in the most deprived local authorities (25.4 per 100,000 for men vs. 7.4 per 100,000 for women) were double the rates among those living in the least deprived areas (11.9 per 100,000 for men vs. 3.6 per 100,000 for women). Similarly, a cross-sectional study by Rezaeian and colleagues (2005, 2006a, 2006b) found a linear association between IMD and suicide rates at local authority level: suicide rates decreased with improving socioeconomic status among those aged 10 years and older in England in 1996-98 (data for three years pooled).

A cross-sectional study by Congdon and colleagues (2013) which pooled data for five years (from 2006/07 – 2010/11) in large neighbourhoods (Middle Super Output Areas) in England showed a strong association between self-harm that resulted in hospital stays, suicide (age unspecified) and deprivation (as measured by IMD) for both men and women: areas with high deprivation scores had suicide rates that were three times higher than those areas with low deprivation scores. Area-level deprivation had a stronger influence on suicide among men than among women and this association was independent of the effects of rurality and social fragmentation (an index, originally developed by Peter Congdon, comprising census variables on percentage of non-married adults, single person households, population turnover and private renting, used to signify high levels of residential instability and social isolation, and often used as an inverse proxy of social capital). Similarly, self-harm rates were elevated in deprived areas with a ratio of 3.19 in the most deprived quintile (over three times more likely to self-harm in these areas compared to the least deprived areas).

A cross-sectional study by Harriss and Hawton (2011) examined the association between ward-level deprivation and age-adjusted non-fatal deliberate self-harm (DSH) among those aged 15+ residing in Oxfordshire, England in 2001-06 (data for five years pooled). Their results showed that incident rate ratios of DSH were 20%, 49% and 98% higher, respectively, in each quartile of increasing deprivation compared to the least deprived quartile ( $p < 0.001$ ). This association was independent of the effects of gender, age, rurality and social fragmentation.

A cross-sectional study by Congdon in 2012 examined suicidal thoughts, suicide attempts and self-harm and small area-level deprivation across England based on IMD quintiles. All three measures of suicide risk were positively associated with deprivation. However, the effects of deprivation were small compared to individual-level factors and seemed to be mediated by social capital (the 'glue' that holds societies together, incorporating levels of social cohesion and access to social support networks). Another cross-sectional study by Congdon (2011) reported in two papers examined suicide and self-harm rates in the East and South East of England at small area level (CAS wards) using the IMD. For both self-harm and completed suicide/attempted suicide, deprivation was found to be the strongest predictor for men and women, with some evidence of a gradient between attempted suicide and deprivation (as one increased the other increased) for both sexes (e.g. in the least deprived decile, 33 men attempted suicide compared to 208 men in the most deprived decile).

## Scotland

Six repeat cross-sectional studies examined the relationship between area-level deprivation and suicide in Scotland over three decades from 1981 to 2001 (Exeter and Boyle, 2007, Exeter et al., 2011, Stark et al., 2007, Boyle et al., 2005, Leyland et al., 2007, Platt, 2011)). They found that, in each decade, suicide rates were consistently higher in the neighbourhoods with the highest level of deprivation, and that the suicide rate in the most deprived areas increased over time. These studies are synthesised briefly in the narrative below, with more detailed summaries of the studies provided in box 2.4.

Two repeat cross-sectional studies (Exeter and Boyle, 2007, Exeter et al., 2011) found strong associations between suicide rates and deprivation in each of three decades (the 1980s, 1990s and 2000s): as deprivation increased, suicide rates increased, so that by 2001 suicide rates were twice as high in the most deprived neighbourhoods of Scotland than in the least deprived<sup>5</sup>. Another study (Stark et al., 2007) also examined suicide rates and deprivation across these three decades, and likewise found that, consistently across time, for both men and women, suicide rates were up to four times higher in the most deprived neighbourhoods. A study (Boyle et al., 2005) also found a gap between most and least deprived areas of Scotland in the suicide rates of young men and young women and that reported that this gap widened between 1980 and 2001. Another study (Leyland et al., 2007) examined deprivation and mortality (including suicide) over two decades between 1980/82 to 2000/02 in Scotland and found a clear difference by deprivation. Further, there were substantial increases in male suicide rates in the most deprived areas but only a small increase in the least deprived areas. For women, there were modest decreases in suicide rates in both the most and least deprived areas. The final Scottish study (Platt, 2011) also examined changes in rates of deaths due to intentional self-harm between 1989-1995 and 1996-2002 and found that area-level socioeconomic deprivation was associated with increased suicide risk.

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<sup>5</sup> Measured as premature mortality from suicide (deaths under the age of 75) between 1981 and 2001.

#### **Box 2.4: Detailed summary of studies from Scotland**

The repeat cross-sectional study by Exeter and colleagues (2007) examined suicide rates and the association with area-level deprivation (measured using Carstairs-Morris index) in Scotland across three decades (1981, 1991 and 2001) among 15-64 year olds. They compared suicide rates by deprivation for small areas/neighbourhoods (CATTs - Census Area Through Time) for both Glasgow and the rest of Scotland. They found a strong, positive association between suicide rates and deprivation in each decade: as deprivation increased, suicide rates increased. Between 1981 and 2001, the proportion of suicides occurring in the most deprived areas of Scotland increased from 27.2% to 30.9%. However, in Glasgow, the proportion of suicides occurring in the most deprived neighbourhoods decreased from 80.4% in 1981 to 67.8% in 2001.

A repeat cross-sectional study conducted by Exeter and colleagues (2011) examined trends in Scottish premature mortality (deaths under the age of 75) between 1981 and 2001, including premature deaths from suicide. They examined variations in suicide rates by deprivation (Carstairs-Morris index) for small areas/neighbourhoods (CATTs). Suicide rates in the most deprived quintile of neighbourhoods increased from 24 per 100,000 in 1981 to 41 per 100,000 in 2001. These rates were significantly higher than rates in the least deprived category (8.8 per 100,000 in 1981 and 7.3 per 100,000 in 2001). Between 1981 and 2001 suicide rates in the least deprived areas decreased while rates in the most deprived areas increased significantly, so that by 2001 suicide rates were 1.7 times higher in the most deprived neighbourhoods of Scotland than in the least.

A repeat cross-sectional study by Stark and colleagues (2007) examined suicide rates among people aged 15 years and older, in Scotland, between 1981 and 1999. The postcode sector within which the individual died was assigned a deprivation score (as measured by Carstairs-Morris index) and grouped into deprivation quintiles according to place of usual residence, which is not necessarily the same place where the person died (areas are put into 20% bands based on deprivation). Consistently across time, for both men and women, the highest suicide rates were in the most deprived quintile of neighbourhoods. Suicide rates among men in the least deprived neighbourhoods were 18.5 per 100,000 in 1981-85, 20.7 per 100,000 in 1986-90, 20.8 per 100,000 in 1991-95 and 22.6 per 100,000 in 1996-99. In comparison, suicide rates among men in the most deprived neighbourhoods were 32.4, 42.1, 58.6 and 54.8, respectively. While suicide rates among women were much lower than rates among men, the same trend emerged when least and most deprived areas were compared, with suicide rates almost four times higher in the most deprived, compared to the least deprived, neighbourhoods.

A repeat cross-sectional study by Boyle et al (2005) examined the gap in suicide rates among young adults ( $\leq 45$  years) compared to older adults ( $\geq 45$  years) between the most and least deprived areas of Scotland (CATTs) between 1980/82 and 1999/2001. Area-level deprivation was measured using Carstairs-Morris index broken down into quintiles. There was a clear gradient in the association between deprivation quintiles and suicide rates, with suicide increasing across the quintiles of increasing deprivation, particularly for young men in the most deprived fifth. Among young women the rise in suicides over the 20-year period was six times greater between the most and least deprived areas (154 vs. 24 per 100,000). Among older adults, suicide rates declined significantly in all deprivation fifths; the ratio between the most and least deprived fifths, however, widened slightly from 1.51 per 100,000 (95% CI 1.26,1.81) to 1.81 per 100,000 (95% CI 1.50, 2.21).

A repeat cross-sectional study by Leyland et al (2007) examined changes in deprivation and mortality (including suicide) over two decades between 1980/82 to 2000/02 in Scotland and found that there were substantial increases in the suicide gradient. Area-level deprivation was measured using Carstairs scores. The increase in suicide rates for men between 1980/82 and 2000/02 was 3 per 100,000 in the least deprived areas versus 10 per 100,000 in the most deprived. However, for women there were modest decreases in suicide rates in both the most and least deprived areas. There were still area-level differences in suicide mortality.

A repeat cross-sectional study by Platt (2011) examined changes in suicide rates in Scotland from 1989-1995 to 1996-2002 using Carstairs scores as the measure of deprivation at CATT level. This study found that there was a clear gradient, with suicide rates increasing with increasing levels of deprivation.

## **Northern Ireland and the Republic of Ireland**

Only one cross-sectional study for Northern Ireland and two cross-sectional studies for the Republic of Ireland were included in the final synthesis. All the studies found that suicidal behaviours were higher in more deprived areas. These studies are synthesised briefly in the narrative below, with more detailed summaries of the studies provided in box 2.5.

The cross-sectional study from Northern Ireland (O'Reilly et al., 2008) found that suicide rates were significantly higher in the most deprived areas. In the Republic of Ireland (ROI), one study (Corcoran et al., 2007) examined non-fatal deliberate self-harm (DSH) and found that the most deprived electoral divisions had a 50% higher rate of DSH than the least deprived areas. Similarly, another study of non-fatal DSH in the ROI (O'Farrell et al.) found that rates of DSH in men and women were significantly higher in all age groups in the most deprived areas (three times higher for men aged 5-39, and over two times higher for men aged 40-64, women aged 15-39 and 40-64 years).

### **Box 2.5: Detailed summary of studies from Northern Ireland and the Republic of Ireland**

The cross-sectional study by O'Reilly and colleagues (2008) examined the association between area-level deprivation (as measured by housing tenure and car ownership) and suicide among 16-74 year olds in Northern Ireland in 2001 at Census Output Area level. Suicide rates were significantly higher in the most deprived areas, although the effect of area-level deprivation disappeared when adjustments were made for individual level economic activity, general health, marital status and household size.

The cross-sectional study by Corcoran and colleagues (2007) examined non-fatal deliberate self-harm (DSH) among 15-64 year olds in electoral divisions in the Republic of Ireland (ROI) in 2002. Deprivation was measured using the Irish National Deprivation Index. The most deprived electoral divisions had a 52% higher incident rate of DSH than the least deprived areas, even after controlling for rural/urban, age, gender and social fragmentation.

Similarly, a more recent cross-sectional study by Farrell and colleagues (2015) examined non-fatal DSH between 2009 and 2011 among 15-64 year olds at electoral division level in the ROI, using the same measure of deprivation. Compared to their peers in the least deprived areas, rates of DSH in men aged 15-39 years in the most deprived areas were three times higher; and among men aged 40-64 and women aged 15-39 years and 40-64 years, over two times higher. In each demographic group, self-harm was significantly higher in the most deprived areas and this relationship remained after adjustment for other potentially explanatory variables (social fragmentation, population density and travel time to nearest hospital). Moreover, deprivation had the strongest effect compared to these other factors.

## Suicidogenic pathways between suicidal behaviour and area-level deprivation

All but one of the studies (17/18) reviewed here found a strong and positive association between area-level deprivation and suicidal behaviour: increased deprivation resulted in increased suicidal behaviour. What are the pathways through which area-level deprivation may impact on suicidal behaviour? This requires a discussion of 'suicidogenic' pathways within the context of the broader relationship between health and place (Bambra, 2016,) which is traditionally explained by geographers in terms of both compositional (*who lives here?*) and contextual (*what is this place like?*) factors (Bambra, 2016). The compositional explanation asserts that the health of a given area, such as a neighbourhood, town, region or country, is the result of the characteristics of the people who live there (demographic, behavioural and socioeconomic). The contextual explanation, on the other hand, argues that area-level health is determined by the nature of the place itself, in terms of its economic, social, physical, political and cultural environment.

### **Who lives here?**

The profile of the people within a community (demographic [age, sex and ethnicity], health-related behavioural [smoking, alcohol, physical activity, diet, drugs] and socioeconomic [income, education, occupation]) influences its health outcomes. Generally speaking, health deteriorates with age. For example, in the 2011 Census, those aged 45 to 64 years were almost twice as likely to report a long-standing illness than those aged 16 to 44 years. Women live longer on average than men: life expectancy for women in the UK is 4 years higher than for men. However, women (particularly older women) also generally experience worse health: *women get sick, men die* (Doyal, 1995). Health status also varies by ethnicity (Nazroo and Williams, 2006). For example, in the UK, all-cause mortality rates are higher among men and women of West/South/East African descent, even after adjusting for other factors (Smith et al., 2003). Smoking, alcohol, physical activity, diet, and drugs – the five so-called 'lifestyle factors' or health behaviours – influence health significantly. For example, smoking remains the most important preventable cause of mortality in the high-income countries (Jarvis and Wardle, 2006).

The socioeconomic status of people living in an area is of huge health significance. Socioeconomic status (social class) is a term that refers to occupational class, income or educational level (Bambra, 2011). People with higher occupational status (e.g. professionals such as teachers or lawyers) have better health outcomes than non-professional workers (e.g. manual workers). On average, people with higher income levels or a university degree have better health than those with a low income or no qualifications. The poorer someone is, the less likely they are to live in good quality housing, have time and money for leisure activities, feel secure at home or work, have good quality work or a job at all, or afford to eat healthy food.

The compositional explanation therefore argues that differences in suicidal behaviours between areas of high and low deprivation are a result of the different characteristics of people living in the areas. Specific suicidogenic pathways postulated at the compositional level include: accumulated adverse life course experiences (e.g., health, employment, living conditions); powerlessness, stigma and disrespect; experiencing other features of social exclusion (e.g., poverty, poor educational attainment); poor physical and mental health; unhealthy lifestyles; and social disconnectedness (e.g., loneliness, isolation, poor social support, negative relationships).

Our review finds some support for the role of such compositional factors in explaining why areas of higher level deprivation have higher suicidal behaviours. For example, the study in Northern Ireland (O'Reilly et al., 2008) found that the association between area-level deprivation and suicide disappeared when adjustments were made for individual level economic activity, physical health, marital status and household size. Similarly, one of the studies (Congdon, 2012) showed that the effect of area-level deprivation disappeared once adjustments for individual (and some other) factors were made.

### **What is this place like?**

While the compositional view argues that it is "*who you are*" that matters for health ('poor people make poor health'), the contextual approach suggests that "*where you live*" (the economic, social, physical, political and cultural environment of a place) contributes to area-level health: poor places lead to poor health. Health promoting environments are more likely to be found in affluent areas compared to deprived areas.

Area-economic factors that influence health, summarised in this review as 'area-level deprivation', include area poverty rates, unemployment rates, wages, and types of employment in the area. Low poverty rates, low unemployment rates, high wages and non-manual work are all associated with better health outcomes (Bambra, 2011). The mechanisms whereby the economic profile of a local area impacts on health are multiple. For example, it affects the nature of work that an individual can access in that place (regardless of their own socioeconomic position). It also impacts on the services available in a local area, as more affluent areas will attract different services (such as food available locally or physical activity opportunities) from more deprived areas as businesses adapt to the dominant demands (Bambra, 2016).

Social place-based factors include opportunity structures and collective social functioning and practices. Opportunity structures include the services provided, publicly or privately to support people in their daily lives such as child care or transport, food availability or access to a GP, as well as the availability of health promoting environments at home, work and play (Macintyre et al., 2002). Collective social functioning and practices that are beneficial to health include high levels of social cohesion and social capital, while more negative health effects can come from the reputation of an area (e.g. stigmatised places can result in discrimination against people living in such areas) and history of an area (e.g. if there has been a history of racial oppression). Local attitudes, e.g. towards smoking, can also influence health and health behaviours either negatively or positively.

The physical environment is widely recognised as an important determinant of physical health and health inequalities (Organisation, 2008). There is a sizeable literature, for instance, on the positive health effects of access to green space (Mitchell and Popham, 2007), as well as the negative health effects of waste facilities (Martuzzi et al., 2010), brownfield or contaminated land (Bambra et al., 2014) as well as air pollution (Stafford and McCarthy, 2006). For example, air pollution causes up to 10,000 deaths per year in London (Walton et al., 2015). Differences in the physical environment may also contribute to inequalities in mental health outcomes and suicide (Webb et al., 2012).

The contextual explanation therefore argues that differences in suicidal behaviours between areas of high and low deprivation are a result of the different characteristics of areas themselves. Specific suicidogenic pathways postulated at the contextual level include: physical (e.g., poor housing

conditions); cultural (e.g., tolerant attitudes to suicide); political (e.g., adverse public policy); economic (e.g., lack of job opportunities); social (e.g., weak social capital); history (e.g., high incidence of suicidal behaviour); infrastructure (e.g., poor quality, accessibility, acceptability of services); and health and wellbeing (e.g., high prevalence of poor general and mental health).

Our review also finds some support for the role of such contextual factors in explaining why areas of greater deprivation have higher suicidal behaviours. For example, one of the English studies (Harriss and Hawton, 2011) found that the association between non-fatal deliberate self-harm (DSH) and deprivation was independent of the effects of the gender and age composition of the population. The Republic of Ireland (ROI) study (Corcoran et al., 2007) found similar results in relation to non-fatal deliberate self-harm (DSH). Furthermore, several of the studies also found an independent effect of area-level deprivation after controlling for certain compositional (age, gender) and contextual (social fragmentation, population density, travel time to nearest hospital, rurality) factors (Corcoran et al., 2007, O'Farrell et al., 2015). Some studies suggested that specific contextual factors, such as the social fragmentation experienced by an area, might be a mediating pathway between area-level deprivation and increased risk of suicidal behaviour (Congdon, 2012).

### **People or Poor Places?**

Of course, compositional and contextual factors are not separate phenomena: they interact and shape one another (Cummins et al., 2007). For example, children in deprived areas might not play outside because their families do not have gardens or the resources to take them to a park (*compositional resource*) or because there are no public parks or transport to get to them (*contextual resource*) (Macintyre et al., 2002). Further, the characteristics of places and people are highly inter-related as, for example, “the lives of children growing up in a particular neighbourhood may be shaped by the social and material aspects of the neighbourhood: but the social interactions and behaviour of these children, and how as adults they might operate in the same neighbourhood, also shapes the local social and physical environment and helps create context for their neighbours” (Cummins et al., 2007). Similarly, areas with more successful economies (e.g. more high-paid jobs) will have a lower proportion of lower socioeconomic status residents.

The ‘collective resources’ approach suggests that all residents, and particularly those of low income, enjoy better health when they live in areas characterised by more/better social and economic collective resources (i.e. less deprived areas). This may be especially important for those on low incomes as they are usually more reliant on local services. Conversely, the health of poorer people may suffer more in (deprived) areas where collective resources and social structures are limited, a concept known as ‘deprivation amplification’: the health effects of individual deprivation, such as lower socio-economic status, can be intensified (amplified) by area deprivation (Macintyre, 2007). Composition and context should not therefore be seen as separate or competing explanations, but as entwined: “[T]here is a mutually reinforcing and reciprocal relationship between people and place” (Cummins et al., 2007).

This debate about the relative importance of compositional and contextual explanations is evident in the literature surrounding suicidal behaviours reviewed in this chapter. For example, one study in our review concluded that “the variation in suicide rates between areas is explained by differences between the types of people living in these areas” (p.108, O'Reilly et al., 2008) . Two other studies (Corcoran et al., 2007, O'Farrell et al., 2015) found that area-level deprivation significantly contributed to DSH. Similarly, another study by Congdon (Congdon, 2013) found that area-level deprivation had by far the strongest influence on DSH among men, but not among women, suggesting an interaction between contextual and compositional effects. Overall it is probably the combination of both compositional and contextual factors that explains why there are differences in suicidal behaviours between areas of high and low deprivation. However, only a few studies examined a combination of the two – the majority only examined contextual factors. In epidemiological literature there is some evidence of cross-level risk factors i.e. interactions between individual and contextual factors (Neeleman et al., 2001).

## Limitations

Our review is subject to some limitations. First, we did not appraise the quality of the studies as this was not a full systematic review. Second, the studies included in the review only examine *association*: we cannot claim that area-level deprivation *causes* suicidal behaviour, only that it is an important factor to consider in combination with individual socio-demographic factors. Given that the included studies were looking at ecological level associations, the data were primarily at the area-, not

individual-, level: only the studies that had data at both levels were able to make adjustments and therefore quantify the relative effect of each. Finally, no studies were found for Wales.

## Implications for policy, practice and research

### Research implications

The findings from this review provide strong evidence of increased risk of suicidal behaviours in areas experiencing the highest levels of socioeconomic deprivation. This was consistent across all age groups and both genders, but was particularly the case for men. Seventeen of the eighteen studies included in the review found a positive association. This is in contrast to the previous evidence review (Rehkopf and Buka, 2006) which found that over half of the included studies (55%) found no significant association between the socioeconomic characteristics of areas and suicide rates. In future research, it would be helpful to have more evidence from longitudinal studies to examine time trends in more detail. We found a good mix of study designs: eight longitudinal studies for England, Scotland, Northern Ireland and Republic of Ireland compared to ten studies using a cross-sectional design. However, no studies were found for Wales and this is a clear gap given the above UK average suicide rate in Wales. It is also important that geographical studies of suicidal behaviour consider stratifying by area-level deprivation so that the relative effects of deprivation on suicidal behaviour can be better examined; and that future research starts to examine more closely some of the potential suicidogenic pathways noted here.

### Implications for policy and practice

The findings of this rapid evidence review are of particular relevance to the UK national government and the devolved governments of Scotland, Wales and Northern Ireland. It is also of relevance to local authorities in England (where responsibility for suicide prevention falls), and NHS bodies, including health boards and clinical commissioning groups. It is important that national suicide prevention strategies recognise the strong association with area-level deprivation noted in this chapter. Indeed, three of the five national strategies (Wales, Northern Ireland and Ireland) already acknowledge area-level deprivation as an important factor for suicide risk; England and Scotland should follow suit. The evidence base reviewed here also suggests that every local area should have a suicide prevention

strategy and action plan, as recommended by Public Health England (Abbott, 2014). ‘Priority places’ – community settings, especially in areas of highest deprivation – could be key contributors to these local suicide plans (e.g. hospitals, custody suites, job centres, foodbanks), potentially also providing some suicide prevention services. Deprived areas should, however, have additional support: a *proportionate universalism approach* to reducing geographical inequalities in suicide. Proportionate universalism is an approach to reducing health inequalities which advocates improving the health of all, but the health of the poorest the most (Marmot, 2010). It proposes that interventions, such as suicide prevention schemes, should be provided universally ‘but with a scale and intensity that is proportionate to the level of disadvantage’ (p.15, Marmot, 2010) . In this way, more deprived areas, where suicide rates are higher, would receive more support than less deprived areas in which suicide rates are lower, but the approach would tackle the socioeconomic gradient in between (as deprivation increases, so too does suicidal behaviour). Funding allocations for mental health and suicide prevention should have a deprivation weighting so that more preventative services can be delivered in areas of higher deprivation. However, while more deprived areas have higher suicidal behaviour we still need to reduce the gradient in deprivation to be able to reduce overall inequalities in suicide. This proportionate universalism approach to countering the effects of area-level deprivation should focus on both men *and* women, as the evidence in this chapter shows that there are higher risks of suicide for both men *and* women living in areas of higher deprivation. Nevertheless, existing support for particularly high risk socio-demographic groups (regardless of where they live), such as young, low income, men, should also be maintained. In terms of suicide prevention strategy, this review shows that it is important to think about both people *and* places.

## Conclusion

Overall, we have shown that there is a strong independent association between area-level deprivation and suicidal behaviour. In all of the repeat cross-sectional studies and cross-sectional studies included in this review there was a positive association between area-level deprivation and suicide rates and/or non-fatal self-harm; however, the longitudinal cohort study did not find any significant deprivation effect. On the whole, this association remained even when adjustments were made for other factors, including individual-level compositional characteristics or other contextual effects, such as social fragmentation and rurality. Drawing on the wider geographical literature about health and

place, this chapter has identified potential mechanisms ('suicidogenic pathways') underpinning the association between area-level deprivation and suicide. These mechanisms include both compositional factors (the characteristics of people living in deprived areas, such as marital status) and contextual factors (the nature of the places themselves, such as the social environment). The implications for our evidence review for policy and practice are clear: every local area should have a suicide prevention strategy and action plan, but deprived areas should have additional support: a proportionate universalism approach needs to be taken in order to reduce geographical inequalities in suicide.

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# **Chapter 3: Socioeconomic disadvantage and suicidal behaviour during times of economic recession and recovery**

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## **Abstract**

The UK and Ireland have emerged from the global economic downturn, currently enjoying periods of steady (or, in the case of Ireland, rapid) economic recovery. However, the UK's decision to leave the European Union has cast considerable uncertainty on the future economic prosperity of both countries. Improving our understanding of the association between rapid economic change, including recessions, economic recoveries and economic uncertainty, and suicidal behaviour may help policy makers develop better strategies for suicide prevention in this uncertain climate. This chapter reviews recent literature, considers how economic theories have sought to explain suicidal behaviour, and reflects on what potential actions might be taken to tackle suicide during times of economic change.

The review finds that, according to the majority of studies, unemployment is a key risk factor for suicidal behaviour in men; and this higher risk is exacerbated during a downturn or period of economic growth. This association between suicidal behaviour and unemployment is much weaker for women, although the risk may become more pronounced as more women occupy high positions in the workforce. Economic uncertainty, the magnitude of decline in income relative to local wages, female participation in the workforce, unmanageable debt, including the threat or fear of home repossession, job insecurity and business downsizing may also increase risk. This implies a need for carefully developed, multi-faceted suicide prevention strategies that focus on the alleviation of risk factors, for instance through adequate social welfare payments, psychological support for

unemployed people and those at risk of redundancy, better training for workplace managers and increased access to not-for-profit debt advice services.

## Introduction

The UK and Ireland have emerged from the global economic downturn, currently enjoying periods of steady (or, in the case of Ireland, rapid) economic recovery. However, the UK's recent referendum decision to leave the European Union has cast considerable uncertainty on the future economic prosperity of both countries, potentially increasing the risk of recession. Past recessions have been associated with increased risks of poor mental health and suicidal behaviour<sup>6</sup>.

Increases in unemployment, severe economic deprivation and the loss of social status and identity seen in Vienna in the 1920s and 1930s were associated with poor psychological wellbeing (Jahoda, Lazarsfeld, & Zeisel, 1932). Subsequent meta-analyses (which statistically pool the findings of many different studies) and systematic reviews also suggest that rising unemployment, income inequalities and poverty are associated with an increased incidence of stress, anxiety, depression and poor psychological wellbeing (Paul & Moser, 2009). Poor mental health in turn increases the risk of suicidal behaviour.

An association between increased risk of suicidal behaviour among unemployed compared to employed people has also been seen in studies where these behaviours can be tracked over time, even after taking into account the influence of ('controlling for') factors such as age, gender, civil

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<sup>6</sup> The literature on the links between economic conditions and health can loosely be divided into two types: individual-level studies, which explore the specific links between health outcomes, e.g. mental health status or suicidal behaviour, and the economic circumstances of specific individuals; and aggregate-level studies, which investigate how population risk of adverse health events relates to changes in macroeconomic conditions, such as unemployment rates or levels of economic growth. These studies can further be sub-divided by temporal design: cross-sectional studies provide a snapshot of these potential associations at one specific point in time, while longitudinal studies track changes in associations over time.

state, social class and education level (Platt & Hawton, 2000). Recessions may exacerbate risks linked to employment status. In the main, longitudinal aggregate-level studies of past recessions have found that suicide is one of the few causes of death that behaves in a ‘counter-cyclical’ manner, that is increasing when the economy contracts (Gerdtham & Johannesson, 2005; Gerdtham & Ruhm, 2006; Neumayer, 2004; Tapia Granados & Diez Roux, 2009).

Improving our understanding of the association between different risk factors for suicidal behaviour during periods of major economic change, not only covering recessions, but also periods of economic uncertainty and rapid economic growth, may help policy makers in the development of plans and effective strategies to tackle suicidal behaviour. This chapter reviews some of these issues.

It begins by briefly looking at how economists have sought to explain suicidal behaviour and then reviews literature on recent and ongoing economic shocks in the UK, Ireland and other country contexts. What, for instance, is known about risks of suicide in those who remain long-term unemployed, as well as for individuals who never regain lost social status (e.g. associated with a different job) when there is an economic recovery? Is it the case that some sections of the population are particularly vulnerable to suicide during these time periods?

The review also considers the impact of the changing nature of the labour market, including job insecurity and the impacts of business downsizing for employees who manage to retain their jobs when many others lose theirs. Economic downturns will also mean a loss of income and savings; the review examines what is known about the risk of suicide relative to the changing nature of unmanageable financial debt, including levels of personal insolvency and home repossession. It then ends with a reflection on the potential for additional actions to counter possible risks during an economic shock as one additional element of mental health promotion and suicide prevention plans and programmes.

## Economic theories of suicidal behaviour

For more than 100 years different theories have been developed on the association between economic conditions and suicidal behaviour (McDaid & Kennelly, 2009). These theories have their origins in sociological research; most famously, Emile Durkheim looked at the links between the structures and roles that individuals play in society and their risk of suicide, arguing that sudden adverse changes in economic circumstances, whether positive or negative, would increase the risk of suicide (Durkheim, 1897). Risks, he contended, might increase in times of economic boom, if widening disparities and social change lead to 'anomie' or fragmentation in society. Some later sociologists argued that only during an economic downturn are individuals more vulnerable because of their frustration at not being able to attain all of their material goals (Henry & Short, 1954). The converse view that suicide would only increase in times of economic prosperity, in part due to unfulfilled aspirations, has also been put forward. In this case, during a recession economic aspirations would be expected to decline faster than economic growth; thus, individuals would expect less than what they would actually receive (Ginsberg, 1966).

It was only in the 1970s that an economic theory of suicide, the Lifetime Utility Model (Hamermesh & Soss, 1974), was developed. This model, which remains the mainstay of economic research on suicide, assumes that suicide is usually an economically rational choice when an individual deems that the economic value of being alive is less than that of completing suicide. This economic value is dependent on levels of income, remaining life expectancy, plus a personal 'taste for living'. Any increase in income should reduce the risk of suicide, while advancing age (and therefore less time to generate income and accumulate assets) increases suicide risk.

The original lifetime utility model thus suggests that suicidal behaviour would be concentrated in older people; some economists have also hypothesised that high rates of suicidal behaviour sometimes seen in younger age groups may reflect their perception of higher levels of lifetime work-related income that will be lost if their economic circumstances deteriorate. However, younger people with unsatisfactory low levels of income, but without unmanageable debt, may be more

willing than older age groups to delay any suicidal actions and wait to see if their prospective incomes are likely to improve in future.

Later papers that build on this model suggest that a widening of income inequalities relative to peers is 'suicidogenic' (suicide-creating), influencing the economic value of life (Daly & Wilson, 2006; Daly, Wilson, & Johnson, 2013). Inequalities in subjective wellbeing in the community has been suggested as another risk factor (Daly, Oswald, Wilson, & Wu, 2011), while social capital, which in broad terms covers the level of social connectedness, trust or tolerance in a community, has been suggested to be protective (Helliwell, 2007).

Economists have also modified the lifetime utility model to try and explain gender differences. The higher rate of suicidal behaviour in men could be explained by their expected higher loss of earned income during a downturn, as well as because of their shorter life expectancy (Chung, 2009). Another version of the model suggests that the lower rate of suicide among women may mask an increased risk for some women following a major change in their employment status and income (Snipes, Cunha, & Hemley, 2011). One potential issue to explore further would be whether women who experience very high levels of social status and income loss feel this more intensely in societies where they have had to strive greatly to be treated equally in the workplace.

A recent addition to the economic literature is a Finnish contribution looking at changes in the severity of economic hardship and long-run trends in suicide (Korhonen, Puhakka, & Viren, 2016). This model assumes that individuals develop a 'habit' of a certain level of consumption of goods and services dependent on their typical level of income; the greater any reduction in this level of consumption due to adverse economic conditions, the greater the risk of suicide. The authors found that this relationship held when looking at suicide and economic data in Finland between 1875 and 2010, including several periods of economic crisis. Impacts were found to be less severe on younger people whose consumption habits would be more modest than older groups.

Economists have also considered non-fatal suicidal behaviour (NFSB), separately from suicide. Some have argued that NFSB in people of all ages may be a rational way to seek attention and help (Cutler,

Glaeser, & Norberg, 2001; Marcotte, 2003). Individuals may trade off the potential benefits of obtaining help and support against the potential risk of death or involuntary detention. The likelihood that an individual will seek help will be dependent on the probability that support will remove suicidal tendencies with certainty (Yaniv, 2001), or that the utility associated with help and support is greater than the disutility associated with potentially fatal suicidal behaviour (Marcotte, 2003). This theory would support investment in actions to promote better awareness of how life can be transformed with help and support to deal with suicidal behaviour.

## Methods

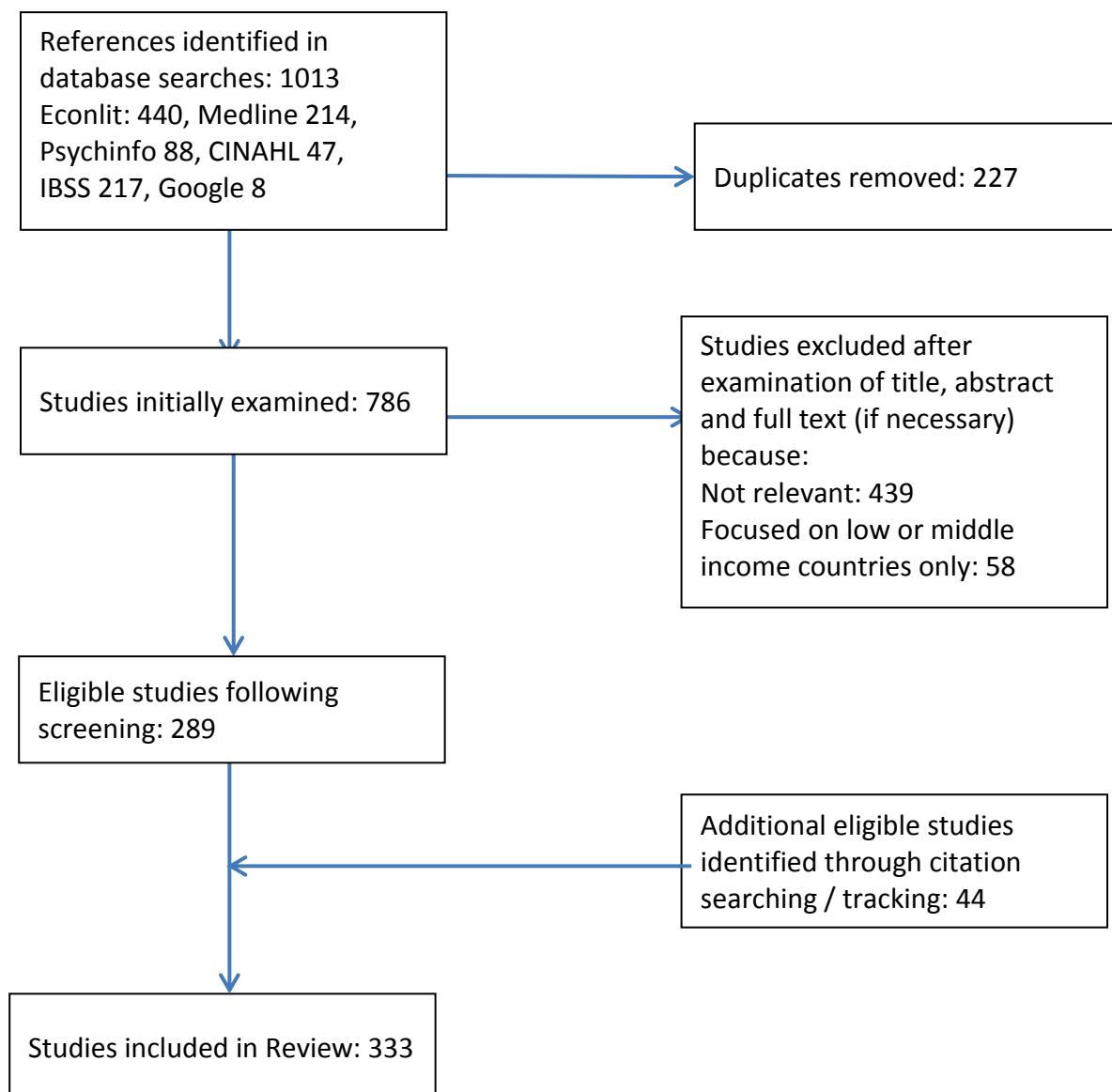
To help understand whether economic theory is consistent with observed behaviours a rapid review was undertaken using five electronic bibliographic databases (Cinahl, Econlit, Medline, the International Bibliography of the Social Sciences and PsychINFO). Further studies were identified from references in included studies, forward tracking citations of included studies and a very limited search of Google.

The review focused on identifying econometric or statistical analyses of the association between non-fatal suicidal behaviour (NFSB) and/or completed suicidal acts during times of economic recession (defined as two or more quarters of negative growth) or economic recovery following recession. Longitudinal studies, both individual- and aggregate-level, were eligible for inclusion. For the Econlit database the search strategy focused only on studies with variants of the word suicid\* and self-harm. For the other four databases, studies were identified through a combination of keywords and subject headings related to suicide and NFSB, as well as terms related to economic circumstances, including economic recession, recovery, security, cycle, upturn, downturn, growth, debt, bankruptcy, mortgage, repossession, foreclosure, eviction, job insecurity/ security, downsizing, redundancy and financial strain. The Google search was restricted to combinations of suicide and/or self-harm with economic crisis, recession or recovery.

The initial focus was on evidence relating to the UK or Ireland, with additional selective illustrative examples from other (mainly) high income countries. All papers needed to have at least an

abstract/summary in English, in order for their eligibility to be determined. The review was restricted to studies published between January 2000 and May 2016, allowing the review to pick up on long-term follow-up studies related to the East European and Asian economic crises in the late 1990s, as well as the more recent 2008-2010 global economic downturn. As figure 3.1 shows, 333 relevant papers were identified; however, many focused generally on the association between general macroeconomic indicators and suicidal behaviour, rather than specifically on the impact of economic recession or recovery on suicide and are not discussed in detail in this chapter.

**Figure 3.1: Search strategy flow diagram**



# Findings

## **Economic cycles, socioeconomic disadvantage and suicidal behaviour**

### *Impacts in the UK and Ireland*

Studies in the UK and Ireland, undertaken using aggregate-level data and analysing trends over time, are generally consistent with worldwide literature in suggesting that the link between suicide and the economy is important, but that a change in unemployment rates is one of many risk factors.

One recent study examined suicide rates and the onset of the recession in England and Wales, (Coope et al., 2014). While no significant association between the economic crisis and rates of suicide for women was found, suicide rates among men aged 35-44 rose significantly in the recession and rates of suicide among men aged 45-64 also continued on an upward trend seen since 2001. This increase in suicides in middle-aged men may have been in part due to economic uncertainty. There was no significant difference in changes in suicide rates by deprivation status; the suicide rate actually decreased significantly in men living in more deprived areas (although the rate remained much higher than that recorded for more affluent areas). The impacts of any decline in income may have been more keenly felt in communities used to enjoying higher standards of living than for those in areas where making ends meet had always been a challenge. The study also observed that the downward trend in suicides for men aged 16-34 in fact ended in 2006, prior to the crisis, possibly due to increases in personal bankruptcies and home repossession.

An earlier English analysis also found a significant positive association between suicide and unemployment for men only, with the recession accounting for 40% of excess suicides between 2008 and 2010 (Barr, Taylor-Robinson, Scott-Samuel, McKee, & Stuckler, 2012). Increases in suicide rates were greatest in regions most affected by increased unemployment. Work that took account of regional time trends in England revealed an even more complex picture, with rates of suicide actually falling significantly in some regions that experienced a rise in unemployment (Saurina, Bragulat, Saez, & Lopez-Casasnovas, 2013). The authors of this latter study recommended that individual-level, rather than aggregate-level, analysis should be undertaken to fully understand the risk factors for suicide.

Ireland was also badly affected by the global economic crisis, with severe austerity measures having to be introduced, and rates of unemployment rising to a peak of 15% in 2012. A positive association between suicide or NFSB rates and the recession was found when comparing the periods 2000-2007 with 2008-2012 (Paul Corcoran, Griffin, Arensman, Fitzgerald, & Perry, 2015). Male suicide rates increased 57% more than would have been expected if pre-recession trends had continued. There was also an age effect for men, with suicides being significantly higher in the 25-44 and 45-64 age groups only. Hospital presentations of NFSB were significantly higher than expected in women.

The impact of economic circumstances on NFSB hospital presentations in Derby, Manchester and Oxford has also been examined, using individual-level data (Hawton et al., 2016). Following the most recent economic crisis there were significant increases in the proportion of all NFSB patients (both men and women) who were unemployed and / or reported problems with their employment situation in psychosocial assessments. Rates of self-harm increased overall in Derby and among males in Manchester, but there was no significant change in Oxford. These findings were largely consistent with changes in unemployment in the general population.

#### *Wider European experience*

The majority of recent analyses in European countries suggest the 2008-2010 economic crisis did have a significant, albeit variable, impact on suicide. Three different patterns of association between economic conditions and suicide (Fountoulakis et al., 2014) have been identified: an interruption in the downward trend in suicide caused by the economic crisis followed by a period of stabilisation (as in the UK), a temporary interruption of a downward trend in suicides, or a reverse in the downward trend (as in Ireland).

Several multi-country aggregate-level longitudinal European studies that include the UK and/or Ireland were identified. One analysis of eight western European countries, including the UK, modelled changes in the level of unemployment between 2008 and 2010, relative to unemployment rates in 2000 (Laanani, Ghosn, Jouglia, & Rey, 2015). A dummy 'crisis' variable was also created to see if this confounded results. A small statistical association between increased unemployment and excess

suicide rates was found: a 1% increase in suicide was associated with a 10% increase in unemployment in the UK. The economic crisis variable was also found to be significant in the UK.

A positive association between changes in unemployment rates and changes in suicide rates between 2007 and 2011 was also reported for 20 EU countries, including the UK and Ireland (Reeves et al., 2015). Across all countries a 0.94% increase in suicides was observed for every 1% increase in unemployment. A 1% increase in unemployment following the economic downturn in 2008 has also been associated with an even greater 4.1% increase in suicide between 2000 and 2010 in an analysis covering 23 EU countries, including the UK and Ireland (Toffolutti & Suhrcke, 2014).

Changes in public expenditure, gross domestic product (GDP), unemployment rates and suicides from 1968 to 2012 were examined in Greece, Ireland, Italy, Portugal and Spain (Antonakakis & Collins, 2015). Controlling for time, gender and age-specific effects on suicide, a contraction in GDP growth in one year was consistently associated with an increase in suicides for all age groups in the subsequent year. Reductions in public expenditure were associated with increased rates of suicide in all age groups for men and for women aged 25-44. Older men in some of these countries may have been particularly vulnerable because of cuts in old-age pensions and other welfare benefits. In the medium term (five years after austerity measures) the most significant impacts on suicide were seen in men aged 65-89, among whom a 1% reduction in government spending was associated with a 2.42% increase in suicide. A positive association with measures of economic growth, such as GDP, was also identified, e.g. for 13 European OECD countries (Okada & Samreth, 2013) and 18 high income countries including Ireland and the UK (Barth et al., 2011).

Greece has perhaps been most dramatically affected by the economic crisis and has been much discussed in suicide literature. Greek studies point to a positive association between suicide and adverse economic conditions and increased levels of unemployment following the beginning of the economic crisis in 2010 (Madianos, Alexiou, Patelakis, & Economou, 2014; Rachiotis, Stuckler, McKee, & Hadjichristodoulou, 2015). Another aggregate-level analysis reported a significant association between the fiscal austerity actions that decreased Greek government expenditure and increasing

suicide rates; the association was most marked in older age groups that would be more reliant on state pensions and other welfare benefits (Antonakakis & Collins, 2014).

Positive associations between NFSB and rising unemployment in men were reported after the onset of the 2008 economic crisis in Andalucia, Spain (Cordoba-Dona, San Sebastian, Escolar-Pujolar, Martinez-Faure, & Gustafsson, 2014); for suicides in men in Spain (Lopez Bernal, Gasparrini, Artundo, & McKee, 2013) and Italy (Mattei, Ferrari, Pingani, & Rigatelli, 2014); and for suicide and several different economic downturn periods, controlling for socioeconomic characteristics and political change, using longitudinal aggregate-level data, in Portugal (Pereira dos Santos, Tavares, & Pita Barros, 2016).

#### *Experience beyond Europe*

Looking beyond Europe, longitudinal studies also tend to suggest an association between suicide and the state of the economy. Chang and colleagues, examining aggregate-level data from 54 countries in Europe and the Americas, estimated that there were around 4,900 excess suicides in 2009 compared with what would have been expected if pre-recession suicide trends had continued (S. S. Chang, Stuckler, Yip, & Gunnell, 2013). Suicide rates were 4.2% and 6.4% higher in men in Europe and the Americas, respectively, than expected. Rates were also 2.3% higher for women in the Americas, but no impact was observed in Europe. No excess suicides were found in four high income Asian countries (Japan, Korea, Hong Kong and Singapore).

Nordt and colleagues, examining data from 63 countries around the globe, similarly identified almost 5,000 excess suicides following the onset of the downturn. Nonetheless, nine times more suicides could be associated with unemployment than suicides associated with the economic downturn. They concluded that prevention strategies need to focus on risks associated with unemployment across the whole economic cycle and not just during a downturn. The impact of increased unemployment on suicide rates was found to be greatest prior to the onset on economic recession, especially in countries where the baseline rates of unemployment had been lower (Nordt, Warnke, Seifritz, & Kawohl, 2015).

A modest positive association (particularly for men) was found between suicide rates and provincial level economic performance in Canada over a 25 year period that included three economic downturns (Pierard & Grootendorst, 2014). US analyses found a positive association between unemployment and suicide during economic recessions, at national level for individuals aged 25-64 using aggregate-level data covering 80 years (Luo, Florence, Quispe-Agnoli, Ouyang, & Crosby, 2011) and a small but significant association between periods of economic downturn and suicide in aggregate-level analysis covering US states between 1980 and 2010 (Harper, Charters, Strumpf, Galea, & Nandi, 2015).

Another analysis covering all US states took account of a number of factors, including the rate of female participation in the labour force. Rates of suicide were higher for both men and women in states with higher levels of female labour force participation. It found that a 1% increase in unemployment was associated with a 3% increase in suicides in Minnesota, which has the highest female labour participation rate (63.5%); in contrast, no association was found in states such as West Virginia that had the lowest level of female participation (under 50%) (Phillips & Nugent, 2014). The authors suggested that, as more women were in employment, they would be vulnerable to the adverse impacts of a loss of income (as were men). States with higher rates of female participation, they contended, may also be 'more prosperous and progressive', so that the shock of an economic downturn is more keenly felt than in states with lower numbers of women in the workforce. The authors also suggested that men in these states might also be more affected by job loss in labour markets as they have to compete more with women than they had previously anticipated.

In Asia multi-country aggregate level studies also point to the impacts of the 1997 economic crisis on higher suicidal ideation and suicide. One such study found a correlation between greater levels of contraction in economic growth following the crisis and higher suicide rates in Japan, South Korea and Hong Kong (S.-s. Chang, Gunnell, Sterne, Lu, & Cheng, 2009). An Australian study found that economically inactive or unemployed men and women had suicide rates four and eight times higher respectively, than their employed counterparts over the period 2001-2010. It observed that the risk for economically inactive women was also almost double the risk of employed men (A. Milner, Morrell, & LaMontagne, 2014). Compared with 2006, the year before the financial crisis began in

Australia, the risks of suicide in unemployed/ economically inactive men and women were also significantly higher, by 22% and 19%, respectively, in 2008.

Not all studies in Europe and beyond conclude, however, that there is evidence of a positive association between economic downturns and suicidal behaviour (Barstad, 2008), (Hagquist, Silburn, Zubrick, Lindberg, & Weitoft, 2000), (Bussu, Detotto, & Sterzi, 2013) and (Andrés, 2005; Gusmao et al., 2013). In the US, analysis using national, state and county level data from all 50 states between 1976 and 2013 found that periods of economic recessions were associated with a small reduced risk of suicide, which more than offset the increased risk of suicide that was found to be associated with increasing unemployment. No interpretation was made by the author of this finding, other than arguing for more research into better understanding of the local versus national impacts of recessions (Ruhm, 2015).

### **Socioeconomic disadvantage, suicide and economic growth**

Much of the literature identified in this review has focused on economic recession and suicidal behaviour. It is also important to know what long-term effects on suicidal behaviour may persist beyond the end of any economic crisis, including periods of rapid economic recovery such as that seen currently in Ireland, so as to help inform suicide prevention strategies. Most economic theories suggest that the risk of suicide increases with a widening of inequalities, economic aspirations, and human difficulties in coping with rapid societal change; this can also occur during a period of rapid recovery and growth. While there appear to be relatively few studies that focus on this issue, those that do tend to support these theories.

In the period of extraordinary economic growth in Ireland between 1996 and 2006 before the 2008-10 crisis, the association between aggregate-level data on suicide rates and employment status for men and women was examined (Corcoran & Arensman, 2011). Rates of suicide among female homemakers were found to have doubled relative to rates for employed women. Unemployed women had five times the level of suicide seen in employed women; there was a threefold higher level of suicide in unemployed men. Unemployment was also found to be a stronger risk factor for

suicidal behaviour when rates of unemployment were at their lowest; this finding is consistent with economic theory about the relative magnitude of the loss of status and income.

In Finland, suicides were also found to increase during a period of economic recovery in rural areas, in contrast to urban population centres (Pesonen et al., 2001). This may have been due to poorer access to services and loss of cohesion in rural communities compared to urban areas where economic investment in new infrastructure and opportunities are likely to have been greater. A positive association between rapid economic growth and suicides during a boom between 1985 and 1990, and negative association in a time of recession from 1990 to 1995, were also reported in Finland (Hintikka, Saarinen, & Viinamaki, 1999).

An individual level study following more than three million Swedes who had been employed in 1990 indicates that suicide rates for those who lost their jobs in the economic crisis in the mid-1990s and were still unemployed when the country was recovering were higher than during the crisis itself. These effects were more pronounced for unemployed men, who were 1.5 times more likely to have died by suicide in the period of economic recovery between 1997 and 2002 compared to those who were employed, whereas there was a 1.3 times increased rate of suicide among women (Garcy & Vågerö, 2012; Garcy & Vågerö, 2013). Other studies found that the risk of suicide in Sweden and Denmark (men only) in those who had lost their jobs was almost double that of individuals who remained in employment for up to four years following job loss (Browning & Heinesen, 2012; Eliason & Storrie, 2009).

Outside Europe higher rates of suicide were seen in Japan and South Korea for those who became long-term unemployed or whose incomes did not improve during the economic recovery (J. Chen, Choi, Mori, Sawada, & Sugano, 2012; Jihyung Hong & Knapp, 2013; J. Hong, Knapp, & McGuire, 2011). In Hong Kong, suicide rates, which had significantly increased as unemployment rose during the economic crisis from 1997-2003, continued to rise as the economy recovered (possibly due to an epidemic increase in the use of charcoal burning as a method of suicide around this time (K. P. Chan, P. S. Yip, J. Au, & D. T. Lee, 2005; Y.-Y. Chen, Yip, Lee, Fan, & Fu, 2010).

Context, culture and infrastructure will also play a role in some of the differences seen between countries. The positive association between economic growth and suicide has been seen in an aggregate-level studies in many, but not all, low and middle income countries, as well high income countries in Asia (Japan and South Korea) (Blasco-Fontecilla et al., 2012). One aggregate-level analysis of suicide over time found that increases in unemployment in lower income OECD countries may be associated with lower suicide rates, in contrast to what was observed for higher income countries (Noh, 2009). The author speculated that possible explanations included higher rates of economic growth being protective in some countries, higher levels of fertility being suggestive of stronger family bonds, as well as higher per capita public expenditure for older people and for unemployed people in some settings.

### **Job insecurity and downsizing**

Across many European countries there is rising job insecurity, greater work intensity, greater reliance on temporary and transitional employment, a reduction in guaranteed working hour contracts, deterioration of work-life balance and increasing stress at work (Van Gyes & Szeker, 2013). These issues may be more acute for individuals with poor mental health. Evidence from Australia indicates that employed people with a history of mental health problems are more likely to experience future periods of unemployment more frequently than the rest of the workforce (Butterworth, Leach, Pirkis, & Kelaher, 2012; Olesen, Butterworth, Leach, Kelaher, & Pirkis, 2013). The duration of each spell of unemployment is also likely to be greater. Moreover, analysis of data from 27 European countries suggests that, during an economic downturn, the gap in the rate of employment between those with and without mental health problems widens (Evans-Lacko, Knapp, McCrone, Thornicroft, & Mojtabai, 2013).

This review identified several studies showing that job insecurity and business downsizing may also be risk factors for suicide. There is also a large literature indicating that risks to mental health among those who experience job insecurity may be as great as for those who are unemployed (Kim & von dem Knesebeck, 2015; ten Have, van Dorsselaer, & de Graaf, 2015), as well as for employees who keep their jobs and 'survive' a workplace downsizing (Brenner et al., 2014).

In three areas of England there was a significant increase in the proportion of employed men and women who presented to hospital for self-harm and also reported problems with employment in subsequent psychosocial assessment following the 2008 economic downturn (Hawton et al., 2016). In Finland, registry data showed that the risk of suicide for both men and women in unstable employment was twice as high as for those in stable employment. These difference remained significant during times of low and high unemployment (Mäki & Martikainen, 2012).

Analysis of the short-term impacts of the 2007 economic crisis in Australia also suggests that the small but significant rise in suicides among employed men and women may be due to the stress of increased job insecurity and changed working terms and conditions (A. Milner et al., 2014). Researchers in Australia found significantly increased rates of suicide in birth cohorts of men born from 1970-1974 onwards, and speculate that this may be associated with the rise in 'underemployment', i.e. individuals working part-time who would prefer to work full-time (Page, Milner, Morrell, & Taylor, 2013).

Additional analysis of the association between the economic crisis and suicide in Australia found that the elevated risk of suicide in unskilled and manual occupational classes compared to the highest occupation class increased from threefold to six fold following the financial crisis, with a substantial increased risk seen in the technical and trade classes. Possible explanations noted by the authors include a higher likelihood of job insecurity and poorer working conditions in lower class occupations, as well as a shift of workers from high to low class jobs (A. J. Milner, Niven, & LaMontagne, 2015).

Another example comes from South Korea where the association between macroeconomic conditions and suicide can vary according to occupational roles: compared with unskilled workers, the relative risk of suicide for managers tripled during the 2008-2010 recession (Chan et al., 2014). The authors speculate that job insecurity and the pressures of managing company downsizing might have been contributory factors.

### **Unmanageable financial debt**

Unmanageable debt has been associated with increased risks of poor mental health in the UK (Fitch, Hamilton, Bassett, & Davey, 2011; Meltzer, Bebbington, Brugha, Farrell, & Jenkins, 2013) and in the US (Houle, 2014; Zurlo, Yoon, & Kim, 2014). In Spain 90% of women and 84% of men in mortgage arrears and threatened with eviction had poor mental health compared with rates of 15% and 10% in the general population (Vasquez-Vera, Rodriguez-Sanz, Palencia, & Borrell, 2016).

In an analysis of 20 EU countries, including the UK and Ireland, during the recent recession a 0.54% increase in suicides was observed for every 1% increase in indebtedness (Reeves et al., 2015). There is also some evidence of a significant increase in men and women presenting at hospital for NFSB who reported problems with their finances during the recession (Hawton et al., 2016). In subsequent psychosocial assessment women also reported more problems with their housing status.

Interviews in England with both employed and economically inactive individuals who self-harmed as a result of economic pressures document the profound levels of distress experienced as a result of unmanageable debt. For instance, one man described how unmanageable debt and fear of a visit from the bailiffs, coming on top of employment difficulties, was the final tipping point for self-harm (Barnes et al., 2016). Analysis of coroner records of nearly 300 people who died by suicide in England in 2010 and 2011 has also revealed that “4% of suicides entirely related to the recession, employment or financial-related difficulties and [there was] a further 9% where such difficulties contributed a lot to the suicide” (Coope et al., 2015).

In the US, NFSB patients, compared to those treated for accidental injuries, have double the chance of being declared bankrupt within two years, and 1.7 times the rate of having already been bankrupt in the previous two years (Kidger, Gunnell, Jarvik, Overstreet, & Hollingworth, 2011). Meta-analysis of two Hong Kong and two Chinese studies reported that individuals in debt were almost eight times more likely to complete suicide compared to individuals not in debt; when including an additional Finnish study (Hintikka et al., 1998) that looked at NFSB, they were still almost six times more likely to complete suicide or experience a NFSB compared to those not in debt (Richardson, Elliott, & Roberts, 2013).

Stigma and shame may be powerful incentives in some cultures, as in Japan where an individual may feel that the burden of being a debtor to other members of the family or friends (who typically act as guarantors for loans) is greater than that of suicide (J. Chen, Choi, & Sawada, 2010). Credit card and other over-indebtedness was also identified as a significant factor for suicide in a cross-sectional study interviewing relatives of individuals who died by suicide in Hong Kong (K. P. M. Chan, P. S. F. Yip, J. Au, & D. T. S. Lee, 2005).

### **Evictions and home repossession**

There is some limited research on the association between repossession of property, evictions and suicide. The not-for-profit Irish Mortgage Holders Association recently conducted a survey of 488 of its clients and found that 31% had had suicidal thoughts in the previous four weeks, with 22% having active plans for suicide (McCormack, 2016). A Swedish study linked data on 23,000 court imposed rental eviction notices with use of mental health services and records of suicides or deaths of undetermined cause in the following 12 months (Rojas & Stenberg, 2016). After controlling for mental health, socioeconomic status, receipt of social welfare benefits, having a criminal record and being a substance abuser, individuals who received an eviction notice were four times more likely to complete suicide than the general population.

Analysis of trends in rental eviction notices that had been cited as a contributory factor to suicide was conducted in the US (Fowler, Gladden, Vagi, Barnes, & Frazier, 2015). Suicides associated with the risk of loss of housing in 2009 and 2010 were more than double those seen in 2005, prior to the onset of a major US housing crisis in 2006. Eviction- or foreclosure-related suicides accounted for 10% of all financial distress-related suicides in 2005, rising to 16% by 2009. Nearly two-thirds (63%) of all suicides occurred before the actual loss of housing, reflecting the impact of the fear of loss of a home. Analysis of coroner records of suicides in the US also documents how both fear and actual loss of a home, with all of its significance in terms of a loss of identity and being part of a community, could be the ultimate trigger for suicidal actions (Stack & Wasserman, 2007).

Another US study compared data on suicide with changes in rates of home repossession, looking at age-specific effects across the life course between 2005 and 2010 (Houle & Light, 2014). Every 1% increase in the rate of immediate home repossession by home builders and estate agents who still directly owned these homes was significantly associated with a 0.8% increase in the rate of suicide for the 46-64 year age group. Looking at a broader measure of home foreclosure, which covers all stages of this process (receipt of legal notice of foreclosure, the property being put up for public auction or sale, as well as home repossession) there were positive associations between an increase in the rate of foreclosure and the rate of suicide in both the 30-45 and 46-64 year age groups. The size of this association for the 46-64 year age group was more than double that seen in the 30-45 age group. There was also a threefold greater association of suicide in an analysis of civil court cases in Ohio for home repossession compared with individuals who died from other causes (Cook & Davis, 2012).

## Discussion

This chapter has reviewed recent evidence on the association between economic shocks and suicidal behaviour from an economic perspective. This evidence, including UK and Irish studies, is broadly consistent with sociological and economic theories that suggest that individuals experiencing socioeconomic disadvantage during periods of economic change are at increased risk of suicidal behaviour. The review also supports the hypothesis that there can be an elevated risk of suicide when crises end, especially for individuals or communities whose economic circumstances do not recover. These increased risks can last for several years; potentially, they may be further compounded if governments maintain austerity measures in the longer-term beyond the end of any period of economic crisis.

There can be significant differences in risk for population sub-groups. Gender differences were reported in many studies, mainly identifying middle-aged men as a high risk group. This might in part be an artefact of focusing on employment rather than factors that affect individuals of different ages, e.g. any change or perceived change in old-age pensions or the impact of changes in interest rates on different age groups with different levels of debt and capital assets.

It may also indicate, consistent with some economic theories of suicide, that the most socially deprived may be less vulnerable to new economic shocks than individuals with more assets to lose, but this may depend on environmental factors, such as the strength of social welfare protection systems. Patterns of suicidal behaviour in a more equal society, even if overall median incomes are low, may be very different to those seen in societies with wide divergence in levels of income. The variation in the severity and duration of unemployment seen during an economic crisis might increase vulnerability to suicide, but psychologically vulnerable individuals might also be more likely to become unemployed and therefore also at greater risk of suicidal behaviour.

There is also a literature on the association between working conditions, debt and suicide. The review suggests that increased involuntary part-time work, job insecurity and workplace downsizing can be important risk factors for suicidal behaviour. Individuals with pre-existing mental health problems may be particularly vulnerable to the risk of job loss. This evidence base, although limited, is in line with studies that have associated these labour market changes with an increased risk of poor mental health.

There is also empirical evidence that unmanageable debt is a risk factor for suicidal behaviour. The experience of being declared bankrupt, losing one's home or not being able to repay debts to family and friends is not only stressful but can also be humiliating. Indeed, one possible explanation for the rise in suicide rates prior to the economic crisis is the mental health impact of worry about losing a home as economic conditions began to worsen (Coope et al., 2014).

## Limitations

While these studies broadly suggest a positive association between unemployment and/or economic inactivity and suicidal behaviour, there are a number of limitations in the review process. The reader must exercise caution in the way in which the results of studies are interpreted. This is particularly the case when much of the evidence is drawn from very different contexts to those seen in Ireland or the UK.

First, this is a very rapid review focusing solely on English language literature and a limited set of bibliographic databases; thus, not all relevant research may have been identified. While more than 300 relevant papers were included in the review, it was not possible to go through all of these systematically; the chapter has had to draw selectively from this literature.

Second, the review is dominated by aggregate-level time series studies; while these can assess the effect of recessions and economic growth on population suicidal behaviour, more studies are needed that look at the experience of individuals within the population over time. These individual-level studies may be more complex and time-consuming to undertake but can be very revealing and help identify specific risk factors for different types of individuals within the population. This, in turn, can help policy makers and planners decide whether specific interventions might be targeted at specific vulnerable population groups. For instance, individual-level studies that have analysed rates of suicide by age, gender, employment status and other characteristics in several countries, including Australia, Finland, Ireland and UK, have found an elevated risk of suicide in unemployed women who lose their jobs (Corcoran & Arensman, 2011; Hawton et al., 2016; Mäki & Martikainen, 2012; Milner et al., 2014); moreover, the increased risk in some settings may be greater than that for men. Such findings are not typically found in aggregate-level studies, but they may strengthen the case for more focus on actions to support these women.

Third, most of the material examined in this review has concentrated on a narrow range of studies focused mainly on changes in employment rates and income levels during times of economic change. These are just two of many potential indicators of any wider economic malaise or period of recovery. Security of housing tenure, social capital, population density, interest rates and social welfare safety net features, including bankruptcy protection, are among other macro-level factors that may be either protective or increase risk in different contexts.

Fourth, no detailed assessment of the methodological quality of the different studies included in this review has been undertaken. This would be a very extensive undertaking; but, in any case, making comparisons between studies is difficult because of the diversity of methods that have been used. Although generally the studies in this review undertook some multivariate analysis controlling for

some additional factors (other than economic conditions) that might also influence suicidal behaviour, approaches to the inclusion of additional factors are inconsistent. These quality issues are further compounded by differences within and across countries in the way that suicidal events are recorded: the extent to which potential suicides may have been recorded as accidental deaths from some external causes, or as deaths where intent is unidentified, is unknown.

There may also be additional context-specific factors to take into account, such as the level of alcohol consumption in some northern and eastern European countries, or differences in social taboo and shame associated with suicide, job loss and unmanageable debt in Japan and South Korea. The severity and duration of any economic shock may also have a major influence on suicidal behaviour, but one recent critique of studies suggests that this is typically not considered (Oyesanya, Lopez-Morinigo, & Dutta, 2015).

## Implications for policy, practice and research

There are many different facets to suicide prevention policy which go beyond the scope of this chapter. The discussion here is restricted to countering specific economic factors described earlier in the chapter.

One set of actions needs to focus on alleviating some of the risks associated with unemployment. Adequate social welfare payments can help reduce the risk of suicidal behaviour among unemployed people (Cylus, Glymour, & Avendano, 2014; Howden-Chapman, Hales, Chapman, & Keskimaki, 2005; Stuckler, Basu, Suhrcke, Coutts, & McKee, 2009): the effects of unemployment on suicide during past recessions have been more pronounced in countries in southern and eastern Europe where social protection systems are relatively weak (Norström & Grönqvist, 2015).

Such payments can be complemented by active labour market programmes to help support individuals seek and obtain employment (see chapter 4). These programmes may need to focus on individuals for whom unemployment is still a relatively recent occurrence and who therefore may be more vulnerable to suicide as a result of loss of status and income than might be the case for someone who has been long-term unemployed.

Some economists have also argued that, as future income uncertainty increases, so must the level of guaranteed minimum income to protect against suicide risk, in the same way as arguments have been made for minimum income for healthy living rather than just surviving for those who are excluded from work and at higher risk of poverty and social isolation (Bambra, 2011) This may also have implications for safeguarding the value of old age pensions in particular. The income from safety nets needs to be much higher for older compared to young people, as otherwise older people may still not consider their future potential income to be sufficient to avoid suicide (Suzuki, 2015).

There are opportunities for workplaces to provide better psychological support to employees, in addition to standard careers guidance and retraining, as part of any redundancy package. This may help former employees strengthen their ability to cope with changed circumstances and actively seek work. Governments may also play a role. One way of identifying individuals in need who may be reluctant to seek help is to provide information and support about mental health and suicide at job fairs that may be organised or supported by government following major job losses in a locality, as for instance has happened recently in Scotland (Stalker, 2016).

Given the risk associated with job insecurity and workplace downsizing, it is also important to evaluate the effectiveness of workplace occupational health programmes that cover the negative aspects of downsizing, in addition to more traditional measures to promote better mental health at work. This includes support for managers and human resource departments who may be responsible and therefore affected by the downsizing process, as well as for staff who may be experiencing job insecurity. Government can again play a role here by strengthening regulations governing different employment contracts and safeguarding employment rights.

The average UK household is now set to owe close to £10,000 in unsecured debt by the end of 2016, with the total debt to income ratio projected to reach a historical high of 172% by 2020 (Westcott et al., 2015). The current easing of the mortgage credit market may also increase the risk of a return to a higher number of defaults. This emphasises the importance of financial advice and support to those at risk of having unmanageable debts, in order to help reduce the risk of mental health problems and suicidal behaviour (Hintikka et al., 1998; Holkar & Mackenzie, 2016; Kameyama et al., 2011; Wahlbeck

& McDaid, 2012). Measures can include access to not-for-profit debt advice agencies, stricter regulation of lenders and better financial literacy programmes in school.

Early intervention to help those already in debt may be important. In Sweden landlords are required to inform local government authorities if they wish to evict their tenants; this can give the local authority a chance to see if it can help the tenant avoid eviction (Rojas & Stenberg, 2016). Staff working in the banking and finance sectors might also be trained to improve recognition of the risk of suicide among clients who have mortgage and other debt problems (Fitch & Davey, 2010); they could then act as gatekeepers to appropriate psychological and social welfare support services. Debt relief mechanisms can also help. Debt relief orders introduced in 2007 in the UK can, in some circumstances, provide protection against the loss of assets for those who do not own their own home; one survey suggests that their use has been associated with improvements in mental wellbeing (Insolvency Service, 2015).

Research can also be strengthened. Encouraging investment in longitudinal, individual-level research can help improve our understanding of risk factors for suicide during times of economic change for different population groups. For example, valuable insights into the heightened risks of suicide for women in insecure jobs were highlighted through these types of study.

Finally, while estimates have been made of the costs of a suicide (McDaid, 2016b), little is still known about the cost-effectiveness of many actions such as those outlined in this chapter. However, where work has been done, economic analyses suggest that there is also a powerful economic, as well as moral, case for taking action (McDaid, 2016a; McDaid & Kennelly, 2009; Vasiliadis, Lesage, Latimer, & Seguin, 2015). Measures that can help reduce the risk of NFSB and suicide can help avoid costs not only to the health system, but also to many other sectors, such as the police, transport and legal sectors, as well as to society as a whole. This evidence base needs to be urgently expanded in order to strengthen the case for policy makers to invest more resource in suicide prevention.

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# Chapter 4: Social and labour market policies and suicidal behaviour

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## Abstract

Recognising the important role of labour market policies in shaping the experience and occurrence of unemployment and job insecurity, this chapter examines how suicidal behaviour and related common mental disorders could be reduced through labour market policy design. A brief systematic literature review of 23 peer-reviewed papers synthesises the findings from advanced welfare states on the association of three main types of labour market policies – unemployment benefits, active labour market programmes and employment protection – with suicidal behaviour and common mental disorders, including anxiety and depression. Findings point to a mitigating effect of cash benefits and, depending on programme design, a positive impact of active labour market policies on suicidal behaviour and related outcomes. The evidence on employment protection legislation is inconclusive, but atypical work is found to be detrimental to various health outcomes including suicide. Drawing on the social determinants of health as well as social psychology literature, it is argued that labour market policy can influence wider health and wellbeing outcomes through material as well as psychosocial pathways. Unemployment benefits have the potential to mitigate the financial stress that is connected with job loss. Active labour market policies are likely to reduce social stress and isolation through engaging unemployed people in meaningful work, training or education activities but can have a detrimental effect when they are perceived as a work test without prospect on gaining good quality employment. Employment protection legislation impacts on objective job security and thus perceived feelings of insecurity and financial worries. The chapter concludes with implications for policy and research.

# Introduction

Empirical evidence points to a direct causal effect of unemployment on suicide in high income countries, including the United Kingdom (UK) and the Republic of Ireland (e.g., Chang et al, 2013; Toffolutti & Suhrcke, 2014). It has also been established that there is a social gradient in suicide. The experience of unemployment and the extent of social and economic inequalities are, in turn, influenced to some degree by labour market and social security policies. This chapter explores how evidence and theory in the area of labour market policies can contribute to understanding the association between socioeconomic disadvantage and suicidal behaviour, with the aim of drawing lessons for the UK and Ireland.

The next section (2) presents the aim and research questions. This is followed (section 3) by a description of the systematic literature review methodology. The subsequent presentation of evidence from the literature review on labour market policies (section 4) is structured according to the impact of cash benefits, active labour market programmes and employment protection legislation on relevant health outcomes, including suicidal behaviour. The chapter then explores the potential causal pathways and processes to help explain the association between labour market policies, socioeconomic disadvantage and suicidal behaviour and related outcomes from a comparative welfare state perspective (section 5). Following a consideration of the methodological limitations of the review (section 6), the implications for policy and research in the UK and Ireland are considered (section 7).

## Aim and research questions

The aim of this chapter is to explain how labour market policies might impact on the association between socioeconomic disadvantage and suicidal behaviour and related outcomes. Specifically, it asks:

- What is the effect of **social protection measures** on suicidal behaviour and common mental disorders?

- How do **active labour market programmes** affect suicidal behaviour and common mental disorders?
- How does **employment protection and job security** affect suicidal behaviour and common mental disorders?

## Methods

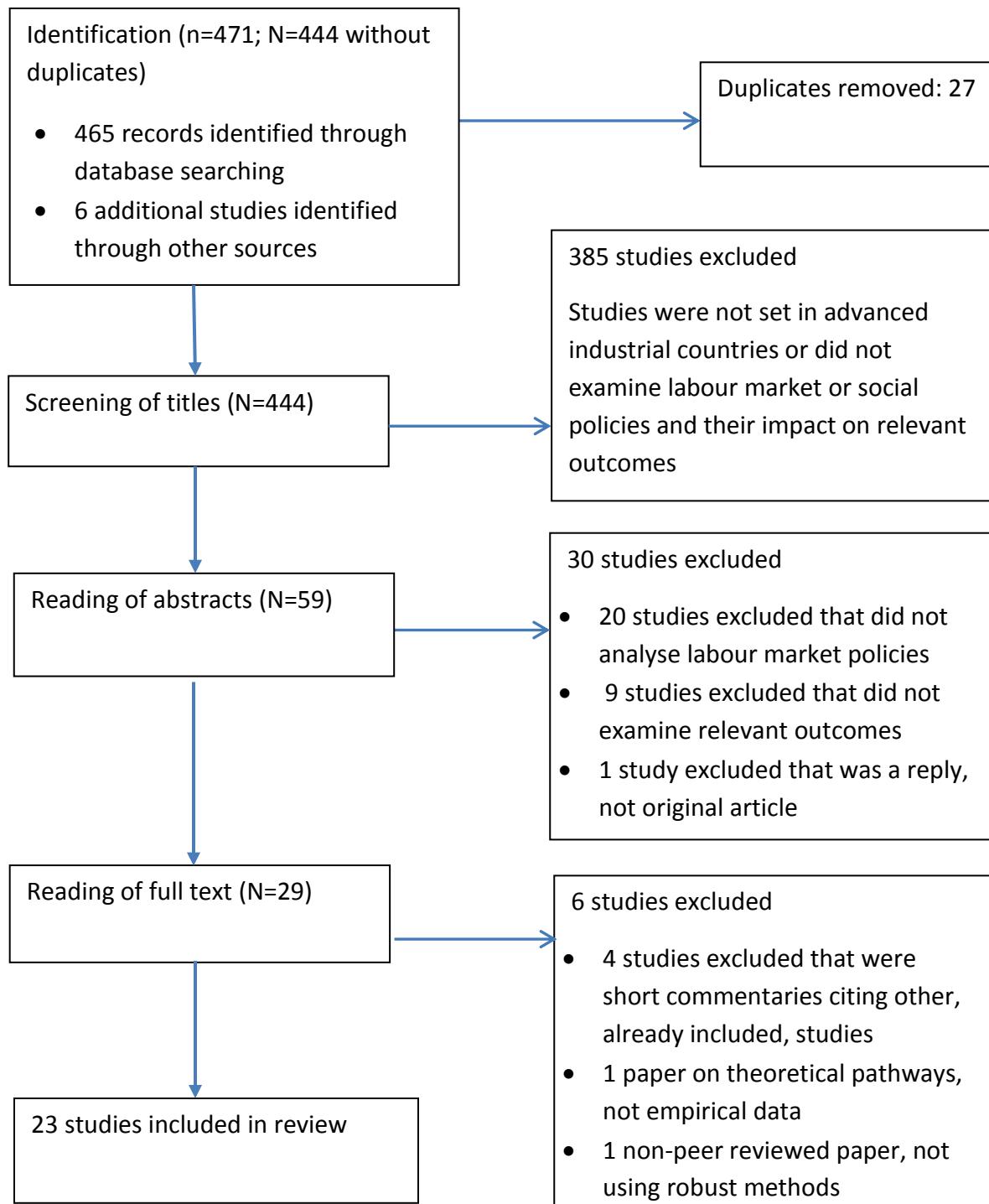
A rapid literature review was carried out using three databases: PubMed, ProQuest and Web of Science. These were searched for relevant studies using the following search terms: ('labo\$r market' OR welfare OR 'unemployment benefit\$' OR 'employment protection' OR 'temporary employment' OR 'benefit conditionality' OR 'benefit sanctions') AND (suicid\* OR anxiety OR 'common mental health\*'). Bibliographies of relevant articles were checked for further useful studies.

The inclusion criteria were:

- Published since 2006
- English language
- Peer reviewed
- Studies of economically advanced democratic countries with an institutionalised welfare state
- Empirical studies using quantitative methods examining a relevant labour market or social policy (social protection benefits, active labour market programmes, employment protection) that explore the relationship between these policies and suicidal behaviour and common mental disorders, including anxiety and depression
- Data sources, statistical tests and analyses are clearly and reliably stated.

Figure 4.1 shows how the number of identified records was reduced in an iterative screening process.

**Figure 4.1: Search strategy flow diagram**



While the literature on the negative impact of unemployment on suicide is vast, the number of relevant articles identified in this search that examined the association between labour market or social protection policies and suicidal behaviour is relatively small (N=23). There is a growing body of literature on the impact of labour market policies on wellbeing and (mental) health, but scant research that explicitly looks at suicidal behaviour as an outcome. I have therefore included some of the most relevant and recent literature on labour market policy effects on wellbeing, mental health or psychosocial outcomes where evidence on suicide was particularly scarce. Only studies using data from economically advanced democratic countries with an institutionalised welfare system were included. Nine studies were single country studies (three on the US and the UK respectively, two on Greece and one on South Korea). Nine studies included multiple European countries and five studies several OECD countries. Fifteen papers used various forms of regression analysis (including two multi-level and four panel-data analyses), three employed a systematic literature review (one of these also a meta-analysis), two were observational studies, one study estimated linear fixed effects and a further one a trend analysis. Qualitative studies were not included as these are the focus of Chapter 6 (Chandler) and Chapter 7 (Smith).

## Findings

### **What is the effect of social protection on suicide?**

Breuer & Rottmann (2014) analysed data from 25 OECD countries, and estimated that a 10% increase in the generosity of unemployment benefits (UB) decreased male suicide rates by more than 2%. Cylus et al (2014), using US data, suggest that the impact of unemployment rates on suicide is offset by the presence of generous state UB, though estimated effects were small in magnitude. Earlier analyses of US data similarly associated welfare cutbacks and low shares of social and health spending in total public spending with increases in suicides (Zimmerman, 2002; Minoiu & Rodríguez Andrés, 2008). Yur'yev et al (2012) also revealed a strong inverse correlation between social expenditure and suicide mortality in the great majority of 26 European countries: the lower the level of social expenditure, the higher the suicide rate. Likewise, Norström & Grönqvist (2014) on the basis of a comparison of 30 countries suggest that the more generous the unemployment protection, the

weaker the detrimental impact of rising unemployment on suicide during the Great Recession. Reeves et al (2015), in contrast, found no effect of UB or total social protection spending on suicide rates.

Karanikolos et al (2013) examined the health effects of budget cuts during the financial crisis and found that, in countries which implemented the most strict fiscal austerity (Greece, Spain and Portugal), suicides increased significantly. This negative impact of a decrease in government spending on suicide was confirmed in another comparison of Eurozone periphery countries (including Ireland) (Antonakakis & Collins, 2015). The authors also found a mitigating effect of UB, although the strength of the effect varied by gender and age group. Likewise, two separate studies on Greece found a negative impact of fiscal austerity on suicide rates among men. The authors argue that men in this age group are most likely to suffer cuts to their salaries and pensions (Antonakakis & Collins, 2014).

By contrast, in Iceland, where austerity measures were rejected and investments in social protection measures were made instead, suicides did not increase (Karanikolos et al, 2013). Similar evidence of the mitigating effect of social protection expenditure was found in longitudinal comparative studies before the 2008-2010 crisis. In contrast, Toffolutti & Suhrcke (2014) found that adverse health effects of increasing unemployment during the latest recession in 23 EU countries were ameliorated by social protection spending on a number of mortality outcomes, with the exception of suicide where the general health-improving effects of social expenditure were not detected. Taken together, these findings nevertheless point to a mitigating impact of generous unemployment benefits on a number of mental health outcomes, including suicidal behaviour. That the evidence on general social protection spending is more mixed, might be explained by the composition of this spending and requires further research.

### **What is the effect of active labour market programmes on suicide and psychological health?**

Stuckler et al (2009), analysing a sample of EU countries for the period 1970-2007, found that higher spending on active labour market programmes (ALMP), i.e. programmes that aim to help unemployed people find work, lowered the effect of unemployment on suicide rates in people younger than 65 years. When this kind of spending was particularly high, the effect of unemployment on suicide rates was actually counteracted. Reeves et al (2015) found that spending on ALMP and high levels of social

capital moderated the unemployment-suicide association that was otherwise found in 20 EU countries from 1981-2011.

Coutts (2009) and Haw et al (2015) reviewed studies on a number of health impacts of ALMP, mainly in Finland and the US. These programmes aimed to enhance job search skills while also promoting better coping strategies with unemployment. The positive health impacts identified in randomised trials included reductions in psychological distress, depression and anxiety, increased subjective wellbeing, higher levels of control, improvements in motivation and self-esteem through feeling needed, having a meaningful activity and experiencing less stigma and improved support. ALMP made a positive impact on psychological health by promoting the inclusion of socially isolated unemployed people through increased social contacts and the generation of some sense of purpose, worth and control. A programme in Michigan, US, provided self-efficacy training in job-search skills and was found to integrate unemployed participants more quickly into the labour market and in better-paid jobs with reduced mental health problems and depression than those in a control group (Coutts, 2009). The findings are more equivocal regarding the persistence of these positive health effects. While some studies report that certain benefits endure for up to two years, others show that these disappear soon after participation in the programme. A common finding was that those with initially low baseline psychological states seem to benefit the most, while those with better occupational skills (who are closer to the labour market) and better baseline values experience smaller improvements. Evaluation studies also reported negative health findings, e.g. when the programmes were perceived as inadequate alternatives to regular work, when participants reported feelings of exploitation or reduced control over their lives, or when low-paid and insecure employment exacerbated financial strain (Coutts, 2009).

In a more recent study, Wulfgramm (2014) came to similar results when looking at life satisfaction effects of ALMP in 21 EU countries. Life satisfaction is lower for ALMP participants than for employed people, but higher than for unemployed people. Those who feel that the activity matches their own skills express a higher life satisfaction than those who feel degraded by the job they had to perform or who entered to avoid benefit cuts. When controlling for UB generosity, however, the positive effect of ALMP disappears.

Using British panel data, Sage (2015a and b) confirmed that, relative to those unemployed who are not participating in a programme, ALMP participants' express higher levels of subjective well-being (using three different indicators); differences to employed people were found to be small, however, and the impact of an ALMP is dependent upon the type of intervention: work-oriented ALMPs are more effective than employment-assistance ALMPs. In an analysis of 17 European countries, Anderson (2009) found that individuals in countries with higher spending on ALMPs report more frequent social interactions and a reduced sense of social exclusion. This positive influence on social connectedness is stronger when labour market policies are geared towards training and skills enhancement.

Overall, the evidence points to a mitigating effect of ALMP on adverse mental health outcomes and suicide. Whether the activity under a specific programme is seen as meaningful and suitable for individual participants is, however, important for achieving positive mental health and wellbeing outcomes.

### **How does employment protection and job security affect suicide and common mental disorders?**

Antonakakis & Collins (2015) suggest that the adverse effects of recessions and fiscal austerity on suicide in the Eurozone periphery could be mitigated by increased UB as well as better employment protection legislation (EPL) that restricts the freedom of companies to hire and dismiss workers. They estimate that strengthening specific elements of EPL could reduce the increase in suicide rates that has occurred since the sovereign debt crisis in those countries. In contrast, Breuer & Rottmann (2014) found that relatively strict EPL increases suicide mortality, potentially due to adverse effects on labour market outsiders who typically struggle to find a job in highly regulated labour markets with little flexibility for employers to hire and lay off staff.

A meta-analysis of psychosocial work environment and mental health indicated that job insecurity was associated with a higher risk of common mental disorders (Stansfeld & Candy, 2006). Butterworth et al (2013) confirmed that work of poor psychosocial quality (characterised by low control, high demands, insecurity, low esteem) has similar detrimental effects on common mental health disorders as unemployment. Kim et al (2006) found that nonstandard employees (i.e. those in part-time, temporary or irregular work) were more likely to be mentally ill (measured as self-reported

depression and suicidal ideation) compared to standard employees in South Korea. Recent data from 22 European countries revealed that job insecurity leads to several negative health outcomes, including depression and anxiety. However, when controlling for potential biases, e.g. pessimistic persons might perceive more job insecurity and poorer health, the health-damaging effect of job insecurity on common mental health problems was not confirmed (Caroli & Godard, 2016). Overall, the evidence on the impact of EPL on mental health outcomes is somewhat inconclusive, since high EPL can lead to unemployment, which is as bad for health as is insecure work.

## Discussion

### **Exploration of pathways and mechanisms between labour market policies and suicidal behaviour**

Two main pathways can theoretically explain the links between labour market policies and suicide.

*Materialist pathways* from labour market policies to health outcomes, including suicide, focus on the economic impact of policies, such as income loss, poverty, job insecurity and other adverse employment conditions. *Psychosocial pathways* highlight the impact of policies on psychosocial factors, including social status, social isolation, stigma, shame, feelings of self-worth and helplessness. Both can be hypothesised to have an additional impact on behavioural and physio-pathological factors that are, in turn, related to suicidal behaviour (see figure 4.2).

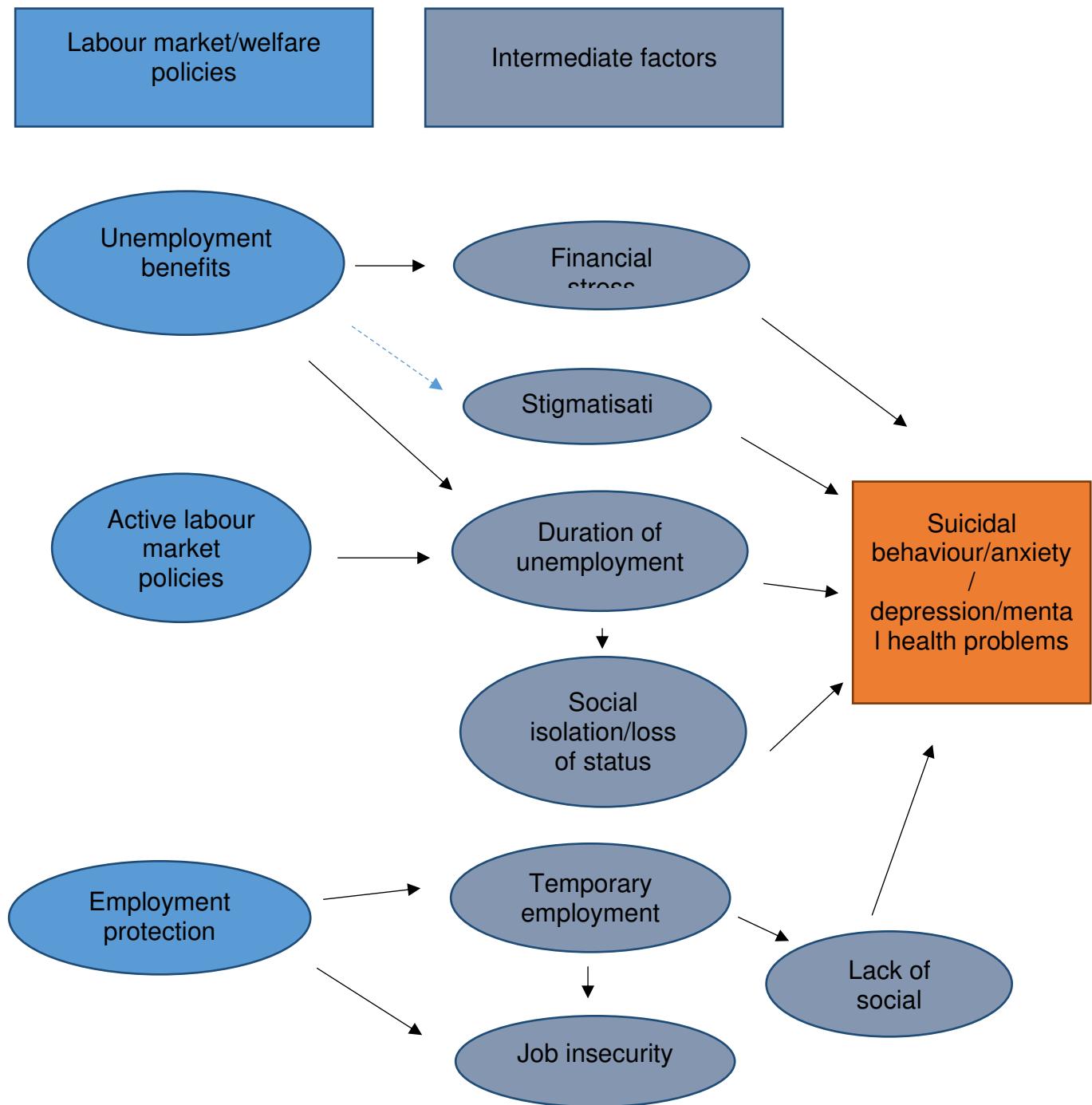
Unemployment benefits (UB) compensate for some of the income loss in case of involuntary unemployment and should somewhat ease financial worries that are related to suicidal behaviour, depending on their generosity. However, means-tested benefits are usually stigmatising for recipients, potentially leading to feelings of shame, loss of status, worthlessness and a deterioration of mental health, all of which may contribute to suicidal behaviour.

Active labour market programmes (ALMP) aiming at reintegrating unemployed people as quickly as possible into the labour market should have a positive impact on shortening the duration of unemployment and reducing social isolation through involving participants in training or education measures. ALMP can replace employment as a source of social contacts, status and self-esteem and can accordingly play a mediating role in addressing psychosocial factors of unemployment by giving some purpose to job seekers.

While so-called 'activation', i.e. policies getting working-age people off benefits and into work, is a common trend throughout Western welfare states, important differences exist. On the one hand, 'enabling' social investment state interventions aimed at upskilling or re-skilling unemployed people and other people out of work through education or training measures. On the other hand, punitive 'workfare' measures can be expected to dilute any beneficial effects on health and even worsen mental health. Positive effects of ALMP on both employment and health outcomes also hugely depend on the availability of good quality jobs. Otherwise, participation in training programmes can be expected to lead to frustration, de-motivation and anxiety.

Useful theoretical insights on the potential effects of labour market policy can be gained from the psychological concepts of 'self-efficacy' and 'locus of control'. If people perceive their lives as internally controllable rather than externally controlled by chance or outside forces, they are more confident in dealing with stressful situations, resulting in lower levels of anxiety (Bandura, 1997).

Figure 4.2: A simplified model of pathways linking labour market and social policies with suicide



Social security policies aiming at income compensation, while relieving poverty and the stress of income loss, treat citizens as passive recipients of welfare, do not strengthen individual coping skills and promote feelings of helplessness: the locus of control is external. Policies which lead to higher levels of anxiety and less internal control could be expected to result in adverse health outcomes, including suicidal behaviour. In contrast, measures such as activation or education enhance social and cognitive capacities and promote self-efficacy and an internal locus of control.

Strong employment protection legislation (EPL) should reduce both objective risks and subjective feelings of job insecurity, and thus be beneficial for mental health. In contrast, weak EPL is likely to increase objective and subjective job insecurity, and also lead to precarious forms of employment, such as temporary or zero-hours contracts, with adverse effects on mental health. Inexperienced workers with low skills are particularly vulnerable in such contexts, since they are most likely to be on contracts which lack access to more generous social protection systems and are more precarious. However, it has to be acknowledged that, in countries with very strict employment legislation, the problem of 'dualisation' (the fragmentation of the labour market into hyper-protected labour market 'insiders' and an insecure fringe of 'outsiders' working in flexible and 'atypical' forms of employment) is common (Emmenegger et al, 2012).

Atypical employment, i.e. work not conforming to the standard model of full-time, regular, open-ended employment with a single employer, is characterised by low wages, low skills, low grades and few social security and employment rights. Atypical workers experience unemployment more frequently than better protected workers on full-time, permanent jobs. Such workers face a much greater uncertainty over future work and income and may have lower control over the work process, resulting in higher levels of stress. Similar to the unemployed, workers in such precarious employment are exposed to various behavioural, psychosocial and physio-pathological pathways that lead to mental and physical health problems (Benach & Muntaner, 2007; Muntaner et al, 2010). Additionally, the exclusion of atypical workers from paid leave and other entitlements in the workplace might confer a lower social status on these workers that is corrosive of their self-esteem (McGann, White & Moss, 2016).

Unionisation and employment protection can influence the risk of mortality, morbidity and occupational injury associated with atypical work, although the pathways linking individual-level

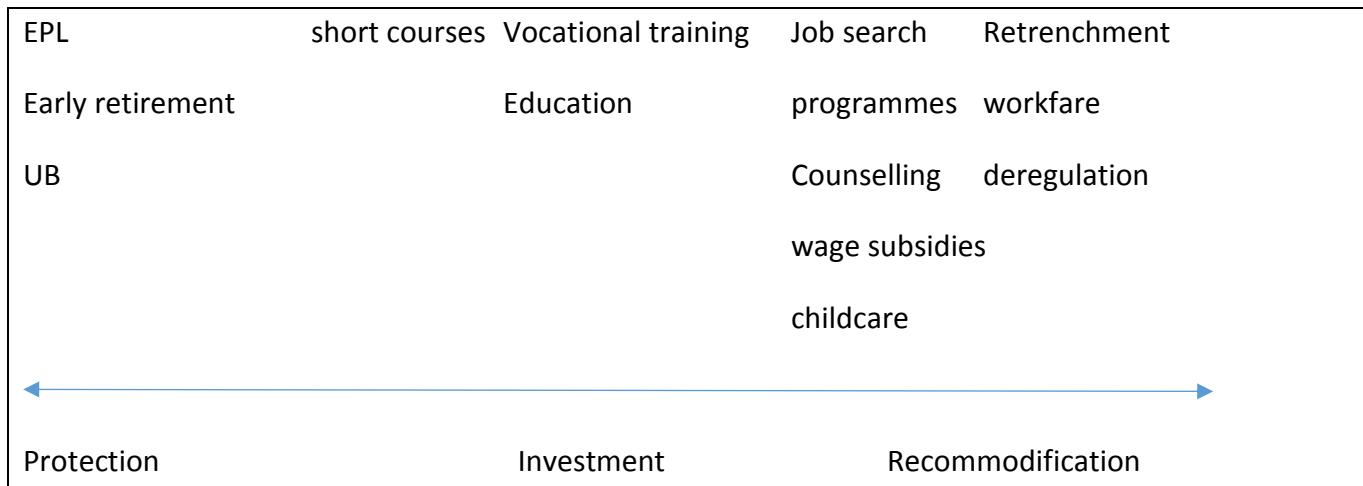
outcomes with such wider labour market characteristics have yet to be fully studied (Muntaner et al, 2010). It is also possible that there is a selection effect, i.e. that workers with poor mental health choose temporary employment over standard employment, as suggested by Dawson et al (2015) in their longitudinal analysis of British panel data.

### **Analysing the mechanisms between labour market policies and adverse health outcomes from a welfare regime perspective**

The comparative welfare state literature highlights important country differences in social and labour market policies as well as in outcomes, such as inequality, poverty or precariousness. These policies and outcomes are influenced by the main underlying ideology of welfare provision in advanced capitalist countries. According to prominent welfare typologies, the UK and Ireland are part of the so-called '*liberal*' welfare regime that stands in contrast to *conservative* and *social-democratic* welfare state regimes. In liberal welfare states welfare is mainly provided through private markets, benefits are not generous and often means-tested. This leads to social stigma of welfare receipt and dualism between the poor and everyone else who can afford private insurance or has access to occupational welfare. Policies are in line with 'liberal work-ethic norms' and principles of self-reliance and individualism (Esping-Andersen, 1990). Industrial relations are characterised by flexible labour markets with low employment protection, weak trade unions and decentralised wage bargaining (Hall & Soskice, 2001).

To analyse the main features of labour market policies in the UK and Ireland, a distinction between different types of labour market policy is useful. A framework by Bonoli (2012) suggests three functions of labour market policy: protection, investment and 'recommodification' (figure 4.3). This framework can be used to explore the potential mechanisms linking labour market policies to mental health and/or suicidal behaviour outcomes.

**Figure 4.3: Labour market policy programmes and their functions**



Source: Bonoli (2012: 58).

Employment protection and cash benefits constitute **protection** measures. Importantly, this protective function varies with the generosity of benefits. In contrast to most Northern and Western European welfare states, where previous income levels even for higher-wage employees are protected by fairly generous earnings-related benefit rates, UB are low in the UK and do not prevent poverty. Ireland was among the countries hardest hit by the Great Recession (2008-10) and introduced some of the harshest measures of fiscal austerity in Europe. In addition, inequality of both income and wealth is high in the UK and on the increase in Ireland. Both the UK and Ireland are among the EU countries with the highest proportion of low-wage workers (Dukelow & Heins, forthcoming). We can thus assume that inadequate UB have a negative impact along both materialist and psychosocial pathways to mental health and suicide outcomes in these countries. The empirical evidence from the reviewed literature indeed largely confirms the detrimental impact of low unemployment benefits or general social spending on suicidal behaviour (e.g. Breuer & Rottman, 2014; Cylus et al, 2014; Norström & Grönqvist, 2014).

Vocational training and education are the clearest examples of **investment**. Shorter skill enhancement courses or work experience programmes that aim to keep unemployed people occupied (known as 'parking' if there is little prospect of quick labour market re-integration), often in order to prevent the depletion of human capital associated with unemployment, lie between protection and investment.

Benefit cuts, workfare (the application of benefit conditionality and sanctions) and deregulation of labour markets are clear examples of **recommmodification**: the guiding principle is providing negative incentives for staying out of employment. Job search programmes, counselling, wage subsidies and childcare provision occupy a space between investment and recommmodification: they remove obstacles to labour market participation, but do not directly invest in jobless people's human capital. The reviewed evidence points to insignificant or even negative effects on wellbeing and mental health of low quality, stigmatising ALMPs, with few opportunities for social interaction and no great sense of meaningfulness (e.g., Sage, 2015a). Comparing the effects of different ALMPs in Sweden on wellbeing, Strandh (2001) found that only 'workplace participation' types of intervention led to a significant improvement of wellbeing. This highlights an important caveat: not every type of activation provides a 'stepping stone' into employment or has positive impact on the psychosocial determinants of suicidal behaviour.

Overall, labour market programmes in the UK and Ireland are close to the recommmodification point on this axis. The UK combines low benefit rates with an emphasis on work tests; participation in various programmes, most notably the Work Programme, is a condition for further benefit receipt, even though some of the offered jobs undermine minimum wages. In Ireland there has recently been a shift in labour market policy design. Until the crisis UB were relatively generous while ALMP were not implemented in practice. Since the crisis, UB have been cut back significantly and a stronger emphasis has been placed on conditionality and activation, although spending on ALMP is still relatively low (Dukelow & Heins, forthcoming).

Since the labour market in both the UK and Ireland is flexible, with the risk of 'no work, low-pay work cycles' for many socially disadvantaged/less skilled people, activation might thus have significant negative impacts. Barr et al (2016) observed that the Work Capability Assessment programme (tests introduced in England in 2008 to assess eligibility for a benefit paid to people who have an illness, health condition or disability that makes it difficult or impossible to work) was associated with an increase in suicides, self-reported mental health problems and antidepressant prescriptions. The greatest increases in these adverse health outcomes were found in the most deprived areas of England, thus widening health inequalities. These findings point to the stress-buffering functions of cash benefits and support the inference that work is not the best form of social inclusion for all types

of out-of-work claimants. British welfare-to-work reforms since the late 1990s have been criticised for increased stigmatisation of the unemployed, creating a ‘culture of self-blame’ that could lead to even more stress in the life of ALMP participants (Dean, 2003: 445).

Friedli & Stearn (2015) criticise the increasing focus on ‘positive psychology’ approaches in many UK workfare programmes which interpret unemployment as a result of having the ‘wrong attitude’ towards work and ignore the structural context of depressed labour markets. The mounting pressure on unemployed people to engage in job search – even when vacancies are not available locally – and training activities, as well as mandatory unpaid labour, increases stress and stigmatisation by contributing to the view that their situation results from personal failure and psychological deficit. It also legitimises the proposition that paid work is the only route to both personal fulfilment and public value, obscuring the structural features of a labour market that produce huge inequalities in income and quality of working conditions. Decisions about psychological motivations (such as ‘willingness’ or ‘readiness’ to work) and thus benefit sanctions involve discretion, resulting in increased anxiety, depression and suicidality among claimants, especially those who are already vulnerable because of mental health problems.

Demoralisation, poor mental health and suicidal behaviour were common among income support recipients targeted by similar ‘workfare’ reforms in Australia a decade ago (Butterworth et al, 2006). The social gradient in suicide is, moreover, reinforced. The distinction between those with and without appropriate levels of optimism is based on a class distinction with different rules for graduates and non-graduates (Friedli & Stern, 2015).

### **Analysing the mechanisms between labour market policies and socioeconomic disadvantage from a welfare regime perspective**

We would theoretically expect to find better population health and smaller health inequalities in countries with more ambitious welfare policies, since not only market incomes but also the supply and quality of collective resources will be important for sustaining health and wellbeing. Collective resources are particularly important for people with low individual resources (Lundberg et al, 2015). The empirical evidence is, however, somewhat contradictory: more egalitarian welfare states are not

always found to have the smallest health inequalities, leading to a debate about a 'paradox' (Mackenbach, 2012).

While activation policies have always been a key feature of the postwar Nordic welfare states, especially in Sweden, a particular combination of labour market and unemployment policies, known as 'flexicurity', developed in Denmark, became famous in the late 1990s. Flexicurity denotes a combination of flexible labour markets (as indicated by low employment protection levels and high job turnover rates) with generous unemployment benefits (at times replacing up to 90% of previous earnings) and supported by ALMP that aim at keeping unemployment spells short (Viebrock & Clasen, 2009).

A recent major review of health inequalities and the social determinants of health has shown that investments in a variety of social policies benefit health by minimising social inequalities. For example, good quality education and safe environments improve the health outcomes of children and young people. Decent work conditions improve adult life expectancy (Marmot, 2010). Since low-skilled and low-status groups are less likely to have enjoyed healthy childhood conditions and more likely to work under more adverse conditions, improving minimum wages and employment security at the lower end of the job scale should also have an impact on the social gradient of suicide.

Looking at the role of employment protection policies in reducing relative disadvantage of unhealthy people in the labour market in 26 EU countries, Reeves et al (2014) found that those with chronic illnesses and health limitations disproportionately experienced unemployment during the 2008-2010 recession. In contrast, before the recession (2006-2008) EPL reduced the labour market disadvantage experienced by unhealthy people considerably. EPL also reduced the risk of job loss in countries experiencing milder recessions, whereas in countries experiencing more severe recessions there was no mitigating effect. Given the negative effect of unemployment on suicide and the particular vulnerability of people with poor health – as individuals in a poor health status have an increased risk of both unemployment and suicide (Lundin et al, 2012) – additional programmes are likely to be needed to protect such groups during severe recessions.

In a literature review Landsbergis et al (2014) conclude that both job insecurity and work organisation hazards play a role in creating and sustaining occupational health inequalities. Lower socioeconomic

position is consistently associated with objective and perceived job insecurity as well as low job control. Employment policies have a potential to reduce these hazards and inequalities: important differences were found between countries such as Spain and Denmark with different welfare state and employment regimes. A large-scale comparative study (Dragano et al, 2011) found that the association of high work stress and depressive symptoms varied according to welfare regime, with the strongest relationship found in the UK and the smallest in Scandinavia, suggesting that weak social protection may worsen the negative effects of poor work organization and job insecurity on mental health.

The risk of suicide and suicide attempts after job loss is smaller in Denmark and Sweden, where income loss, and thus economic stress during periods of unemployment, is much smaller due to a more generous welfare state than in the liberal US (Browning & Heinesen, 2012). The flexicurity principle in Denmark may diminish adverse health effects of job loss since relatively generous UB are supplemented by skills training to promote employability and mobility (Green 2011). McAllister et al (2015) concluded, however, that flexicurity is far from a 'magic bullet', as it appeared to fail in particular low-educated people with longstanding illness. Instead, generous UB combined with ALMP and *strong* EPL (as practised in Sweden) yielded better outcomes for such vulnerable groups.

Afzal et al (2013) also warn that transferring a flexicurity model from a social-democratic welfare state such as Denmark to a liberal welfare state would be difficult due to vastly different wider policy contexts (e.g. weaker trade unions, lower tax rates, etc.) and requires a significant strengthening of the social protection system, especially since the increase in flexible employment conditions has been mainly borne by vulnerable and marginalised segments of the labour force, including those with low skills or health issues.

## Limitations

Findings were often limited due to the lack of individual-level data and control groups. Observational studies correlating suicide rates in countries with varying social protection spending and other macro-level labour market features cannot establish if outcomes at the personal level (such as suicide) were ultimately caused by the features of labour market policies in the respective country due to

potentially unobserved confounding factors. Furthermore, it is difficult to establish which aspect of UB, ALMP or EPL has a particular effect on suicide, mental health or wellbeing outcomes, and the effects of various policies are difficult to entangle, since countries with generous UB often also have progressive ALMP. Studies using individual-level data and employing a control group design often reported inconclusive results and were hampered by low participant numbers.

## Implications for policy, practice and research

Given the importance of socioeconomic disadvantage for suicidal behaviour, a first step would be to adopt policies which lead to their reduction. Different welfare states have been shown to have different effects on social and health inequalities. Redistributive income policies and universal high quality public service provision in health, education, and other welfare areas lead to a more cohesive society than policies based on means-testing that generate divisions between ‘them’ on welfare and ‘us’ hardworking people who can afford to opt out of collective welfare provision.

Achieving a reduction in social and health inequalities, improving wellbeing and reducing suicidal behaviour through labour market interventions will not be cheap and has to overcome sizeable political opposition in liberal welfare states such as the UK and Ireland.

Specifically, it requires:

- Adequate unemployment benefits which enable healthy living
- Enabling and skill-enhancing active labour market programmes leading to sustainable good quality employment, rather than serving as a condition for benefit receipt without any prospect of proper labour market integration
- More protective employment regulation, particularly targeted at vulnerable workers such as those with longstanding health issues
- Taking into account mental health problems and other difficult personal circumstances before issuing sanctions
- Consideration of psychosocial job quality in conjunction with efforts to increase employment rates

- Destigmatisation of unemployment: politicians and the media should avoid a 'blaming culture', the presentation of unemployment as 'a lifestyle', the misrepresentation and generalisation of benefit claimants, and interpreting unemployment as individual failure.

Ignoring material structural factors, such as the quality and remuneration of available work and the chances of integration into the primary labour market, will undermine any potential positive health effects of ALMPs. The research reviewed here highlighted that the aggregation of ALMP spending may blur the effects of specific policies, since different types of ALMP may have very different impacts on wellbeing. It also has to be kept in mind that the success of interventions such as cognitive behavioural therapy depends on the availability of jobs.

There is a lack of research on the mechanisms linking labour market policies to poor health outcomes, including suicidal behaviour.

- More longitudinal research is required to monitor the effects of policy interventions, such as unemployment benefits, employment protection and the different types of ALMP, as well as the interactions between these policies, on adverse health outcomes such as suicidal behaviour, depression and anxiety.
- We particularly need more research, for example through randomised control trials, on the effect of different types of ALMP on mental health, explicitly including suicidal behaviour. The contradictory findings reported in this review might be explained by the differences between programmes.
- It is also unclear if ALMPs benefit all types of participants. Those who are long-term ill, including those with mental health problems, might be especially negatively affected by the increasingly mandatory (workfare) character of ALMPs in liberal welfare states such as the UK.

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# Chapter 5: Socioeconomic disadvantage and suicidal behaviour: psychological factors

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## Abstract

Many studies have explored the link between socioeconomic disadvantage and suicidal behaviour. The role of psychological factors in this relationship is, however, poorly understood and represents a neglected avenue of investigation. The current review seeks to clarify the nature of the relationship between socioeconomic disadvantage and suicidal behaviour, from a psychological perspective, and to identify the psychological mediators and moderators of this relationship. A review of the literature was conducted, using three major databases, focusing on psychological research published in the last 10 years. Additional landmark papers from outside this time period were also included. Findings were interpreted within the Integrated Motivational Volitional Model of suicidal behaviour. Experiences of childhood adversity and negative life events, stress and allostatic load (the 'cumulative physiological toll' of repeated regulation of stress at a biological level), lack of social support, exposure to the suicidal behaviour of others, defeat, entrapment and humiliation were identified as potentially increasing the likelihood of engagement in suicidal behaviour among those experiencing socioeconomic disadvantage. Future research, policy and practice should consider the role of psychological factors in the relationship between socioeconomic disadvantage and suicidal behaviour, as these factors may represent significant opportunities for the development of interventions, treatments, and policy 'safety-nets' to prevent suicidal behaviour in those experiencing socioeconomic disadvantage.

# Introduction

## The extent of suicidal behaviour

Every year around the world more than 804,000 people die by suicide (WHO, 2014), and in England, approximately 200,000 individuals present to hospital with non-fatal self-harm (Hawton et al., 2007). Self-harm is defined as self-injury or self-poisoning irrespective of the apparent purpose of the act (National Institute of Health and Care Excellence, 2002; 2011). Global lifetime prevalence estimates for attempted suicide in adults have been put at 2.7% (Nock et al., 2008), although the 2007 England Adult Psychiatric Morbidity Survey found that 5.6% of respondents reported a lifetime suicide attempt (McManus, Meltzer, Brugha, et al., 2009). Behind the statistics, each suicide is a personal tragedy, where an individual feels so overwhelmed by emotional pain that ending their own life is seen as the only option. There is no single reason why someone chooses to take their own life; the causes of suicide are multifaceted, being psychological, social, economic and cultural in origin (O'Connor & Sheehy, 2000; Hawton, Saunders & O'Connor, 2012; Turecki & Brent, 2016).

## Socioeconomic disadvantage and suicide risk

Socioeconomic disadvantage has been consistently associated with both poor physical (Adler, 1994) and mental health (McMillan, Enns, Asmundson et al., 2010), and particularly associated with suicidal thoughts and behaviours (Hawton, Harriss, Hodder, et al., 2001). There are many different ways of defining and operationalising socioeconomic disadvantage. In this chapter socioeconomic disadvantage includes area-level disadvantage (measured, e.g., via indices of multiple deprivation) and individual disadvantage (e.g. low income, unemployment, underemployment, poverty, welfare receipt etc.). Disadvantage, in the form of unemployment, has also been associated with repetition of self-harm (Kapur et al., 2006) and suicide (Blakely, Collings, & Atkinson, 2003; Gunnell et al., 1999). Suicide has sometimes been described in terms of individuals pursuing a solution to a problem that is a source of 'intense personal suffering' (Shneidman, 1998). For those experiencing socioeconomic disadvantage, such problems are long-term unemployment, indebtedness, and poverty; significant and lasting sources of overwhelming distress within many people's lives, adversely influencing mental and physical wellbeing.

The exact mechanisms by which socioeconomic disadvantage affects psychological wellbeing are unclear. They are, however, believed to fall into two broad categories: increased exposure to stressful life events; and decreased resources to be able to manage and respond to such events (McLeod & Kessler, 1990). We have structured this report according to these two categories: first, the relationship between suicidal thoughts/behaviours and the experience of stressful life events; and, second, the relationship between socioeconomic disadvantage and the psychological resources that may buffer or amplify these effects.

The two broad domains believed to be implicated in the relationship between socioeconomic disadvantage and psychological distress are also consistent with several contemporary theoretical models of suicide: the Integrated Motivational-Volitional model of suicidal behaviour (IMV; O'Connor, 2011; O'Connor et al., 2016), the Interpersonal Theory of suicide (IPT; Joiner, 2005; Van Orden et al., 2010), and the Three Step Theory (3ST; Klonsky & May, 2015). In this chapter we use the IMV model to interpret the results of the current review since it is the most detailed model of the final pathway to suicidal behaviour.

### **The IMV model (O'Connor, 2011; O'Connor et al., 2016)**

The IMV model (see figure 5.1) is a tripartite framework for understanding self-harm and suicidal thoughts (ideation) and behaviours (enactment) that integrates and extends other prominent theories of suicidality. The IMV model is composed of pre-motivational, motivational, and volitional phases.

The *pre-motivational* phase centres around a diathesis-stress paradigm, where pre-existing vulnerability factors, e.g. personality traits such as social perfectionism (defined as having high, often unrealistic, beliefs of what others expect of you), or an environmental factor such as deprivation, combine with stressful life events to increase the likelihood that an individual may experience suicidal thoughts. The second *motivational* phase contends that the final common pathway to suicide occurs when an individual feels defeated, trapped, and humiliated, i.e. as though they have 'lost the battle', have no prospect of escape or rescue from their problems, and are ashamed of their situation.

Movement between defeat and entrapment, and entrapment and suicidal ideation, is moderated by numerous variables termed 'threat-to-self' and 'motivational' moderators, respectively. Examples of threat-to-self moderators would be brooding rumination, whereby individuals repetitively focus upon problems as opposed to solutions, or employ maladaptive social problem-solving strategies.

Motivational moderators include thwarted belongingness, where individuals feel disconnected from those around them but crave connection to them, or the absence of social support. These two types of moderator can either facilitate or inhibit the passage from feeling defeated, trapped, or humiliated to suicidal behaviour. The motivational phase represents the period in which a person is thinking about suicide and/or forming the intention potentially to act upon their thoughts. The final *volitional* phase is the most crucial: variables from this domain of the model determine whether people who think about suicide are more likely to attempt suicide. Impulsivity (engaging in behaviour apparently with little reflection or evaluation of consequences), the capacity to engage in suicidal behaviour (including fearlessness about death and lack of sensitivity to physical pain) and exposure to the suicidal behaviour of friends and family are key examples of volitional phase variables.

## Aim and research questions

The aim of this report is to review the literature on the role of psychological factors in the relationship between socioeconomic disadvantage and suicidal behaviour. We also draw upon previous research that has identified risk and protective factors for suicidal ideation and suicide attempts more broadly, with a view to incorporating these into the landscape of evidence pertaining to the deleterious effects of socioeconomic disadvantage on suicidality. Based upon the research findings in this area, we highlight a number of implications for research, policy and practice that could ameliorate the effects of socioeconomic disadvantage, in its various forms, upon suicidal thoughts and behaviours.

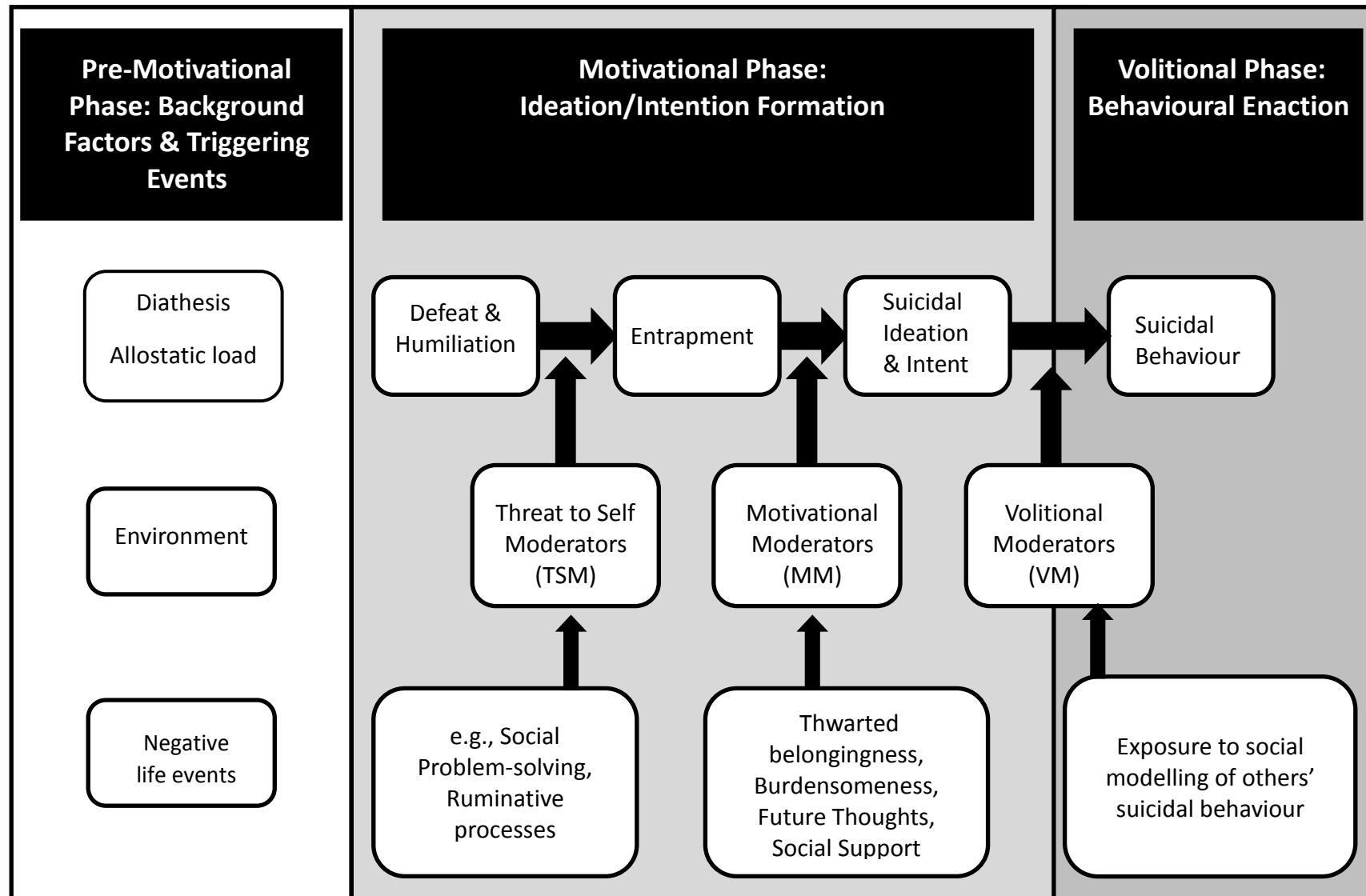
We set out to investigate the following research questions:

- What is the nature of the relationship between socioeconomic disadvantage and suicidal behaviour, from a psychological perspective?
- What are the psychological mediators and moderators of this relationship<sup>7</sup>?

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<sup>7</sup> Moderators affect the direction/strength of a relationship between two variables, and mediators explain the relationship between two variables. Here the two variables are socioeconomic disadvantage and suicidal behaviour.

Figure 5.1: Tailored version of The Integrated Motivational-Volitional model of suicidal behaviour (IMV; O'Connor, 2011)



## Methods

We conducted a search of the research literature, focusing on the last 10 years (2006-2016), using three databases (Web of Science, PsychINFO and Medline). A preliminary scoping search suggested that there were relatively few papers that had explored the role of psychological factors in the relationship between socioeconomic disadvantage and suicidal behaviour. We decided, therefore, to keep our main search deliberately broad so as to maximise the likelihood of finding (i) studies including psychological variables which potentially examine socioeconomic disadvantage and suicidal behaviour or (ii) studies of psychological factors and suicidal behaviour that have also explored socioeconomic disadvantage.

Studies were included in the review if they: 1) were published in a peer-reviewed journal; 2) were in the English language; 3) included an adult sample; and 4) investigated the relationship between socioeconomic disadvantage and suicidal behaviour OR investigated the relationship between psychological factors and socioeconomic disadvantage OR investigated the relationship between psychological factors and suicidal behaviour.

Search terms employed are detailed in box 6.1, and were combined in the format A and B; A and C; and B and C. Search terms for psychological factors were those delineated by contemporary evidence-based theoretical models of suicidal behaviour, as being associated with suicidal behaviours. As noted above, the theoretical model we utilised in the current review was the IMV model (O'Connor, 2011; O'Connor et al., 2016).

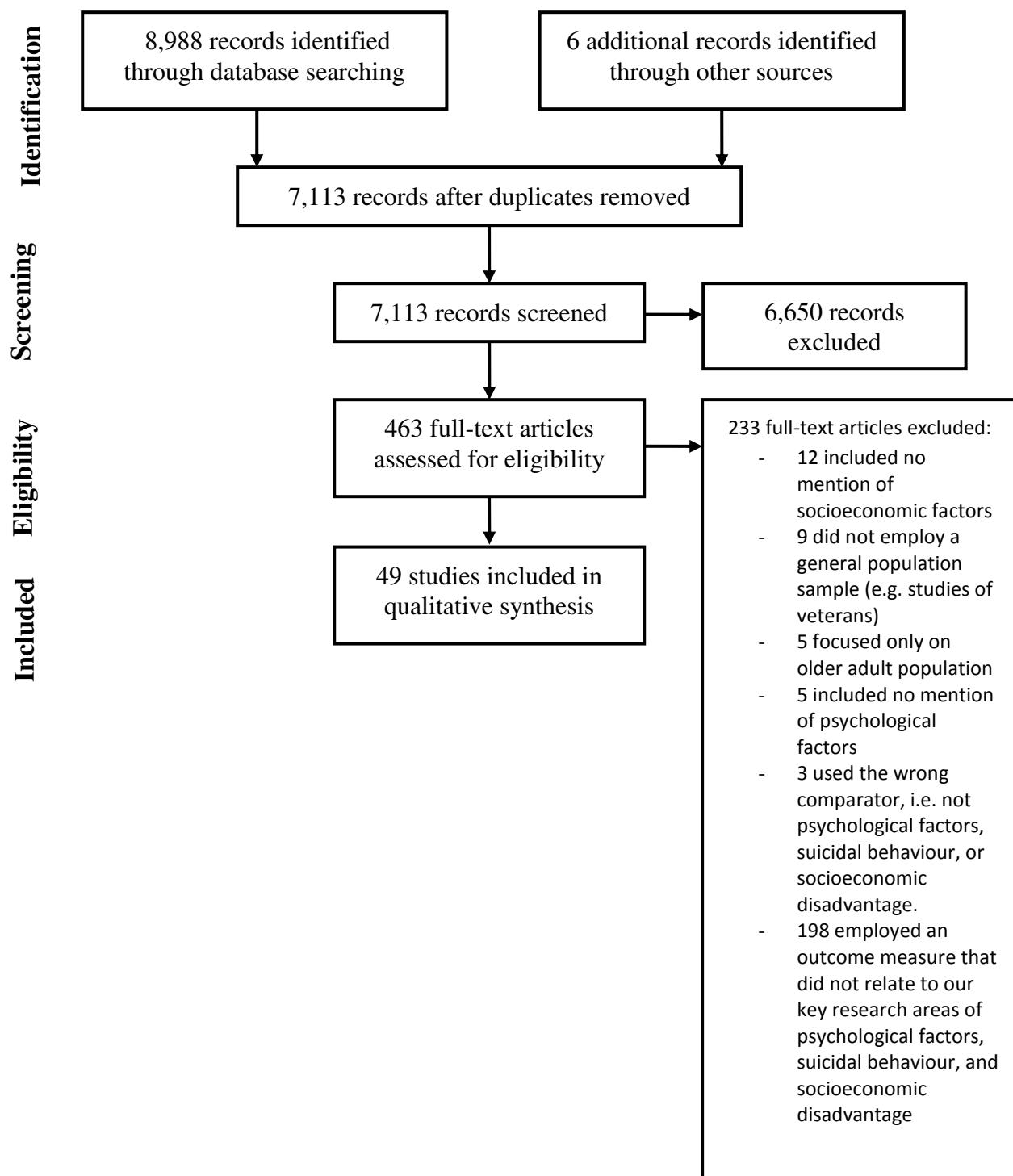
**Box 5.1: Search terms employed in the current literature review**

A	B	C
perfectionism psychiatric disorder OR psychiatric diagnosis OR psychiatric illness self critic* problem solving ruminat* future thinking OR future orientation social support impulsiv* defeat entrapment humiliation OR shame exposure OR social model* OR social norm*	socioeconomic status social deprivation poverty income level status disadvantage	suicid* self-injur* self-harm*

The search yielded a total of 8,994 hits, which was reduced to 7,113 results following removal of duplicate entries. Cochrane Collaboration-endorsed online systematic review software, Covidence (Veritas Health Innovation)<sup>8</sup>, was used to screen the titles and abstracts. 6,650 papers were excluded because they did not meet the inclusion criteria detailed above, leaving 463 papers that were retained for full-text screening. Of these, 233 were excluded, leaving 230 that we determined as being broadly relevant to the current review, although the vast majority concerned only the relationship between socioeconomic disadvantage and suicidal behaviours, with no mention of the role of psychological factors, and were therefore excluded. Outputs from the database search were supplemented with additional papers from hand-searching the reference lists of papers returned in the database searches, along with 'landmark' papers of note, and other papers known to the authors. Forty-nine papers were included in the final review. See Figure 5.2 for a flow-chart of the review process.

<sup>8</sup> Covidence is an online software platform for organising and tracking the process of a systematic review. The results of the database searches are imported into Covidence, where title and abstract screening can then take place, followed by full-text screening and data extraction.

**Figure 5.2: Flow-chart of review process**



# Findings

## Introduction

Given timescale, space constraints and breadth of the review, a full systematic review of the research literature with quality assessment of the studies was not feasible. Furthermore, the literature around socioeconomic disadvantage and suicide *per se* has already been covered extensively in the review paper (Platt, 2017). We therefore present a narrative review of what we believe to be the most important psychological evidence, informed by the IMV model (O'Connor, 2011). The psychological factors we discuss in the current report are detailed in box 5.2 below. These were the factors that yielded relevant results in the literature search.

### **Box 5.2: Psychological factors associated with suicidal behaviour and socioeconomic disadvantage**

- Stressful life events and childhood adversity
- Stress response and allostatic load
- Social support, connectedness and social integration
- Thwarted belongingness
- Help-seeking and access to help
- Rumination
- Defeat, Entrapment, humiliation and shame
- Burdensomeness
- Exposure to the suicidal behaviour of others

## **Negative life events, socioeconomic disadvantage and suicide**

### *Stressful life events and childhood adversity*

Experiencing stressful life events has a well-documented relationship with psychological distress. For example, a landmark study by Felitti et al. (1998) demonstrated that the likelihood of a suicide attempt in adulthood dramatically increases in line with exposure to adverse childhood experiences (ACEs), such as neglect or abuse, that occur within the first 18 years of life. Indeed, those with exposure to four or more ACEs were 12.2 times more likely to have made a lifetime suicide attempt than those with no ACEs (Felitti et al., 1998). Greater numbers of ACEs were found in individuals whose parents were of lower socioeconomic status, as indexed by years of education (Bjorkenstrom et al, 2013).

While socioeconomic disadvantage appears to increase the likelihood of experiencing ACEs, exposure to ACEs can also significantly impact upon individuals' socioeconomic status later in life (Barrett, Kamiya, & O'Sullivan, 2014; Liu et al., 2013). Those who had experienced ACEs were more likely to be unemployed relative to those reporting no ACEs; the likelihood of unemployment rose with increasing numbers of ACEs reported (Liu et al., 2013). This effect was most pronounced for men: males reporting 1-3 ACEs were twice as likely to be unemployed, and 3.6 times more likely to be unemployed if they reported 4 or more ACEs. The association between ACEs and unemployment was, however, partially mediated by the presence of social support for both men and women. Liu et al.'s (2013) findings converge with other evidence demonstrating that childhood adversity in the form of sexual abuse is particularly pernicious for later-life economic status in men aged 50-65 years old; they are three times more likely to be unemployed as a result of permanent sickness or incapacity than employed, if they have experienced childhood sexual abuse (Barrett et al., 2014).

Socioeconomic disadvantage *not only directly* influences the likelihood of engaging in suicidal behaviour, *but also indirectly* influences suicidal behaviour by increasing exposure to stressful life events, which is another independent risk factor for suicidal behaviour. Although it is difficult to infer the direction of effect, Aschan et al. (2013), examining data from a large cross-sectional community survey of South-East London households, found that increased exposure to stressful life events, e.g. childhood physical/sexual abuse, protracted periods of ill health or bereavement, was reported in both the suicide ideation and suicide attempt groups. It was only in those reporting a suicide attempt, however, that stressful life events mediated the relationship between socioeconomic disadvantage and suicidality. In the presence of high levels of socioeconomic disadvantage, experiencing more negative life events is associated with increased likelihood of having attempted suicide (Aschan et al., 2013).

Recency of stressful life events may also be a critical consideration. Acute stressors, e.g. interpersonal and partner conflicts, are strongly associated with suicide attempts. Baca-Garcia et al. (2007) report found that there was a 29.4 times greater likelihood of having made a suicide attempt among those who had an argument with their partner compared to those who had not.

**Summary:** Exposure to negative life events heightens risk of attempting suicide. Socioeconomically disadvantaged individuals are disproportionately likely to experience such negative life events, thus

increasing their likelihood of suicidal behaviour. Furthermore, experiencing childhood adversity elevates the likelihood that individuals will become socioeconomically disadvantaged in later life; unemployment is more likely among those who have ACEs, particularly men who have experienced childhood sexual abuse. Greater socioeconomic disadvantage is also a backdrop against which experiencing more negative life events increases the likelihood of having attempted suicide.

### *Stress response and allostatic load*

The ‘cumulative physiological toll’, across multiple bodily stress systems, of repeated stress regulation at a biological level is termed ‘allostatic load’ (Seeman, Epel, Gruenewald, et al., 2010; McEwen & Seeman, 1999). Lower socioeconomic status has been associated with an elevated rate of allostatic load build-up, relative to individuals of the same age of higher socioeconomic status (Seeman et al., 2004), as has neighbourhood deprivation (Schulz et al, 2012). The evidence regarding the relationship between socioeconomic status and allostatic load is, however, inconsistent (see Dowd, Simanek, & Aiello, 2009 for discussion). Cortisol is a glucocorticoid ‘stress’ hormone, the release of which is stimulated by the hypothalamic-pituitary-adrenal (HPA) axis, the body’s stress regulation system (Sapolsky et al., 2000). Dysregulation of the HPA axis has been noted in those who have attempted suicide (Jokinen & Nordström, 2009). A recent meta-analysis exploring the relationship between cortisol release and suicidal behaviour (O’Connor, D.B, Ferguson, Green, et al., 2016) found no significant overall effect of suicide attempt history on cortisol *per se*, but differential effects by age: among those under 40 years of age, *higher* cortisol levels correlated with having made a suicide attempt, whereas for those over 40 years old *lower* cortisol levels correlated with having made a suicide attempt. O’Connor and colleagues consider several potential explanations, one of which relates to allostatic load and differing age-specific responses to stressors across the lifespan. For younger individuals exposed to life stress, their HPA axis activity will be elevated (as their bodies are responding to stressful situations), resulting in higher basal cortisol levels for those experiencing psychological distress and suicidality. This constant increased HPA axis activity accumulates over time as higher allostatic load. When these individuals are older, their HPA axis response is blunted (reduced) due to cumulative biological wear and tear, and those who are most distressed, i.e. the most suicidal, will therefore exhibit lower cortisol levels. It would be useful, however, to explore whether differences in the nature of suicide attempts across the lifespan (for example, the lower

incidence of suicide attempts as we get older) affects the cortisol–suicide attempts relationship. For example, as the figures from the most recent UK Adult Psychiatric Morbidity Survey (APMS; McManus, Bebbington, Jenkins et al., 2016) show, reports of lifetime suicide attempts decrease with age in individuals who are 65 years and older. In short, however, in older adults the HPA axis becomes dysregulated.

**Summary:** Exposure to stress and adversity across the lifespan may gradually reduce individuals' biological stress regulation resources. Socioeconomic disadvantage itself is a stressor linked to increased allostatic load, but it may also influence allostatic load indirectly by increasing the likelihood that individuals will experience adverse childhood experiences and other stressful life events. Increased allostatic load brought about by the chronic and acute stresses associated with socioeconomic disadvantage may contribute to HPA axis dysregulation and, subsequently, to suicidality.

### **Psychological resources, risk markers, socioeconomic disadvantage and suicide**

#### *Social support, connectedness and social integration*

Social support has also been posited as a psychological buffer for suicidal ideation. After controlling for depression and hopelessness, greater social support from friends and family was the only factor significantly associated with lower suicidal ideation in a sample of undergraduate students (Chioqueta and Stiles, 2007). Other research has also demonstrated this effect prospectively (Handley et al., 2012).

Low levels of social integration are four times more common in the most socioeconomically deprived groups of society, relative to the most affluent groups (Böhnke, 2008). Reduced social support has emerged as a strong correlate of higher psychological distress in low income populations, after controlling for perceived stress and coping (Caron and Liu, 2011). Reduced social integration is also associated with death by suicide, independent of presence of psychiatric disorder (Duberstein et al., 2004). Presence of social support has been found to be lower among unemployed, relative to underemployed, people, potentially suggesting that even a small amount of paid employment can bolster psychological resources in terms of social support (Creed & Moore, 2006). This is consistent with Backhans and Hemmingsson's finding (2011) that those who have high levels of social support at

work experience greater mental distress following unemployment than those who rate their work-based social support as low. The degree of connectedness experienced at work may play a key role in shielding individuals from psychological distress following unemployment. There is promising evidence that social support acts as a buffer against psychological distress for those who are suicidal and those experiencing socioeconomic disadvantage (Chioqueta and Stiles, 2007; Handley et al., 2012). It is important, however, to note a caveat. For socioeconomically disadvantaged individuals, social support may only protect against psychological distress among those experiencing the most extreme types of poverty-related stress, e.g., living with someone with an alcohol/drug problem or being hassled by debt-collectors (Moskowitz, Vittinghoff, & Schmidt, 2012).

**Summary:** Low social support increases the likelihood of suicidal behaviour, whereas high social support is a protective factor. The socioeconomically disadvantaged often experience lower levels of social support, putting them at greater risk of suicidal behaviour. Social support may only be protective, however, when individuals experience extreme stress.

#### *Thwarted belongingness*

Social isolation and lack of connectedness are two elements involved in the development of thwarted belongingness (Van Orden et al., 2010), a correlate of suicidal ideation (Van Orden et al., 2008). Among those reporting low levels of positive support from friends and family, thwarted belongingness is high (Christensen et al, 2014), indicating that social support is an important component of belonging and connectedness.

**Summary:** Low social support experienced by individuals at socioeconomic disadvantage may reduce belongingness, increasing the likelihood of developing suicidal ideation.

#### *Help-seeking and access to help*

Previous work has suggested those who are socioeconomically disadvantaged are less likely to seek professional help for mental health problems (Millman, 2001). Individuals who are unemployed are less likely to utilise health services more generally, but they have a greater need for help-seeking for psychological problems than those in employment (Åhs & Westerling, 2006). Irrespective of perceived need for psychological care, socioeconomic disadvantage impacts upon availability of help: a recent

study by Carr and colleagues (2016) found that those in the most deprived areas were 27% less likely to be referred to specialist mental health services following GP presentation for self-harm than individuals whose GP practice was located in affluent areas.

**Summary:** Although socioeconomically disadvantaged individuals appear to perceive a greater need to seek help for psychological problems, actual help-seeking is reduced in this population, and only limited help may be offered to those in the most deprived areas.

### *Rumination*

Rumination is a pattern of thinking whereby individuals either repetitively focus upon negativity and their problems (labelled brooding), or they contemplate potential solutions to problems (labelled reflection) (Treynor et al., 2003). Brooding is the component of rumination consistently associated with suicide and self-harm (Morrison & O'Connor, 2008; O'Connor & Noyce, 2008). When individuals exhibit low to moderate levels of reflection, however, the relationship between perceived stress and suicidal ideation is strengthened by brooding (Cole et al., 2015). Brooding, therefore, appears to intensify suicidal ideation in cases where individuals struggle to direct their attention towards solutions, rather than problems. There is also evidence that brooding, but not reflection, plays a mediating role in the relationship between the impact of negative life events and suicidal ideation (Chan, Miranda and Surrence, 2009). An experimental study which manipulated individuals' perceived social status by inducing feelings of social success or inadequacy showed that those who perceived their social status to be low employed more ruminative coping styles, relative to those who underwent a high social status manipulation (Jackson et al., 2011). Socioeconomically disadvantaged individuals who feel they are of lower social status could therefore be more prone to ruminative thinking (e.g. Jackson et al., 2011), which may, in turn, increase the likelihood of suicidal ideation. This is consistent with Wetherall, Daly, Robb, et al (2015) who demonstrated that income rank (i.e. perceived social position) is more predictive of suicidal ideation and attempts than absolute income. Rumination, however, is more strongly associated with suicidal ideation than suicide attempts and does not differentiate between those who think about suicide and those who attempt suicide (Dhingra et al., 2015).

**Summary:** Rumination is associated with suicidal ideation and attempts. Those who perceive themselves to be of lower status, i.e. individuals experiencing socioeconomic disadvantage, appear to be prone to more ruminative thinking.

#### *4.3.5 Defeat, entrapment, humiliation and shame*

Defeat, entrapment and humiliation have received much research attention in relation to psychological distress (e.g., Gilbert & Allen, 1998; Gilbert et al., 2009; Rasmussen et al., 2010), although we found no studies that had explored their role in the association between socioeconomic disadvantage and suicide. The deleterious effect of defeat upon suicidal ideation has been demonstrated prospectively (Taylor, Gooding, Wood, et al., 2011), with defeat (but not entrapment) predicting suicidal ideation when study participants were followed-up one year later, even when initial levels of defeat and depression were taken into account. Both defeat and entrapment influenced the strength of the relationships between perceived social support and suicidal behaviour, and between negative judgements of individual's own problem-solving ability and suicidal behaviour (Taylor, Wood, Gooding, et al., 2010). Defeat and entrapment may also influence other important markers of risk for suicidal behaviour, as well as exerting a direct influence, where they inhibit perceptions of social support, problem-solving ability and autobiographical memory, which also play a role in social problem-solving ability (Johnson, Tarrier, & Gooding, 2008). Experiencing social disadvantage may involve feeling as though one has sunk to the lowest point and that there is no prospect of rescue or escape, which are key features of defeat and entrapment.

In individuals admitted to hospital following self-harm, entrapment has been shown to mediate the relationship between defeat and suicidal ideation (Rasmussen et al., 2010). The relationship between entrapment and suicidal ideation is stronger among those who cannot think positively about the future (Rasmussen et al., 2010). Specifically, individuals who have fewer positive future thoughts and feel highly trapped are more suicidal; however, given the cross-sectional design of the study by Rasmussen et al. (2010), we cannot infer whether feeling trapped leads an individual to lose their ability to conceptualise their future positively, or whether it is this inability to think positively about the future that results in an individual feeling trapped. More recent experimental work has found that inducing feelings of defeat (in those who feel trapped) reduces positive future thinking, relative to baseline levels, and that this is also related to brooding rumination (O'Connor & Williams, 2014). This

suggests that it is when an individual experiences *both* defeat and entrapment that positive future thinking becomes reduced. Entrapment has been shown to predict re-admission to hospital following self-harm in the four years after an initial suicide attempt (O'Connor, Smyth, Ferguson, et al., 2013).

Feelings of humiliation and shame are of particular relevance to the current review. Socioeconomic disadvantage may lead people to feel insecure within their social environment and make more negative comparisons between themselves and others. This hypothesis is supported by Wetherall et al. (2015) who found that that perception of income rank relative to others was more strongly predictive of suicidality than income itself. A higher level of competitive striving – to not miss out or appear inferior – has been associated with both depression (Gilbert, McEwan, Bellew, et al., 2009) and self-harm (Williams, Gilbert, & McEwan, 2010); this is greatest among those who consider their social rank to be inferior to that of others. In one study, feelings of external social shame regarding social rank mediated the relationship between striving to avoid inferiority and depressive symptoms (Gilbert et al., 2009). Individuals experiencing socioeconomic disadvantage may be particularly vulnerable to shame and feelings of inferiority, and thus at higher risk of psychological distress and self-harm. Furthermore, it is argued that a greater 'sense of poverty', i.e. self-perception that familial financial circumstances means belonging to a lower social class, is the pathway through which actual poverty is associated with higher psychological distress (Reyes & Yujucio, 2014). Among those who 'do well' and advance into further education or employment from a background of socioeconomic disadvantage, the sense of poverty they have experienced may still increase their vulnerability to psychological distress (Reyes & Yujucio, 2014).

**Summary:** Defeat, entrapment and humiliation are associated with suicidal ideation and behaviour. Feelings of shame related to impoverished financial circumstances, feeling beaten down by life and trapped, may be common among those experiencing socioeconomic disadvantage, thus increasing the likelihood of suicidal ideation and enactment.

#### *Burdensomeness*

The feeling that one is a burden and that others would be better off without you has been consistently associated with suicide, even beyond other strong predictors such as hopelessness (Van Orden, Lynam, Hollar, et al., 2006). Analysis of suicide notes has also suggested that burdensomeness

is significantly associated with suicidality, and of using more lethal means to end one's life (Joiner, Pettit, Walker, et al., 2002). Burdensomeness is thought to mediate the relationship between perfectionism, another strong correlate of suicidality, and suicidal ideation. It has been posited that the feeling of failing to meet others' high expectations, characteristic of social perfectionists, may lead to individuals feeling they are a burden upon those around them (Rasmussen, Slish, Wingate, et al., 2012). It may also be an important component of poverty-related self-stigma among those experiencing socioeconomic disadvantage, with individuals on low incomes often reporting that they feel society views them as a burden (Reutter et al., 2009).

**Summary:** Burdensomeness has been consistently associated with suicidal behaviour and this has also been implicated in the self-stigma of being in poverty. Socioeconomically disadvantaged individuals may therefore be disproportionately more likely to feel a burden upon others, resulting in an increased propensity to engage in suicidal behaviour.

#### *Exposure to the suicidal behaviour of others*

Knowing someone who has attempted suicide or died by suicide, or who has engaged in non-suicidal self-harm, has been associated with a greater likelihood of having attempted suicide or engaged in self-harm oneself (McMahon, Corcoran, Keeley, et al.; 2013; Muehlenkamp, Hoff, Licht, et al., 2008). Exposure to the suicidal behaviour of others is a key variable that differentiates individuals with suicidal ideation from those who have engaged in suicidal behaviour (Dhingra, Boduszek & O'Connor, 2015; O'Connor, Rasmussen, & Hawton, 2012). Indeed, in a recent study, adolescents who had been exposed to suicidal behaviours by friends and family were eight times more likely to report that they had engaged in self-harm themselves (McMahon et al., 2013). Given the association between suicidal behaviour and socioeconomic disadvantage (e.g. Hawton et al, 2001a; 2001b; 2016), it is highly likely that individuals experiencing disadvantage will have been exposed to the suicidal behaviour of others, thus markedly increasing their own risk of suicide.

**Summary:** Knowing someone who has attempted or died by suicide increases the risk of engaging in suicidal behaviour. Given that suicidal behaviour is more prevalent among those who are socioeconomically disadvantaged, this increases the likelihood that they will have been exposed to the suicidal behaviour of others, and consequently their own risk of suicide.

### *Additional factors*

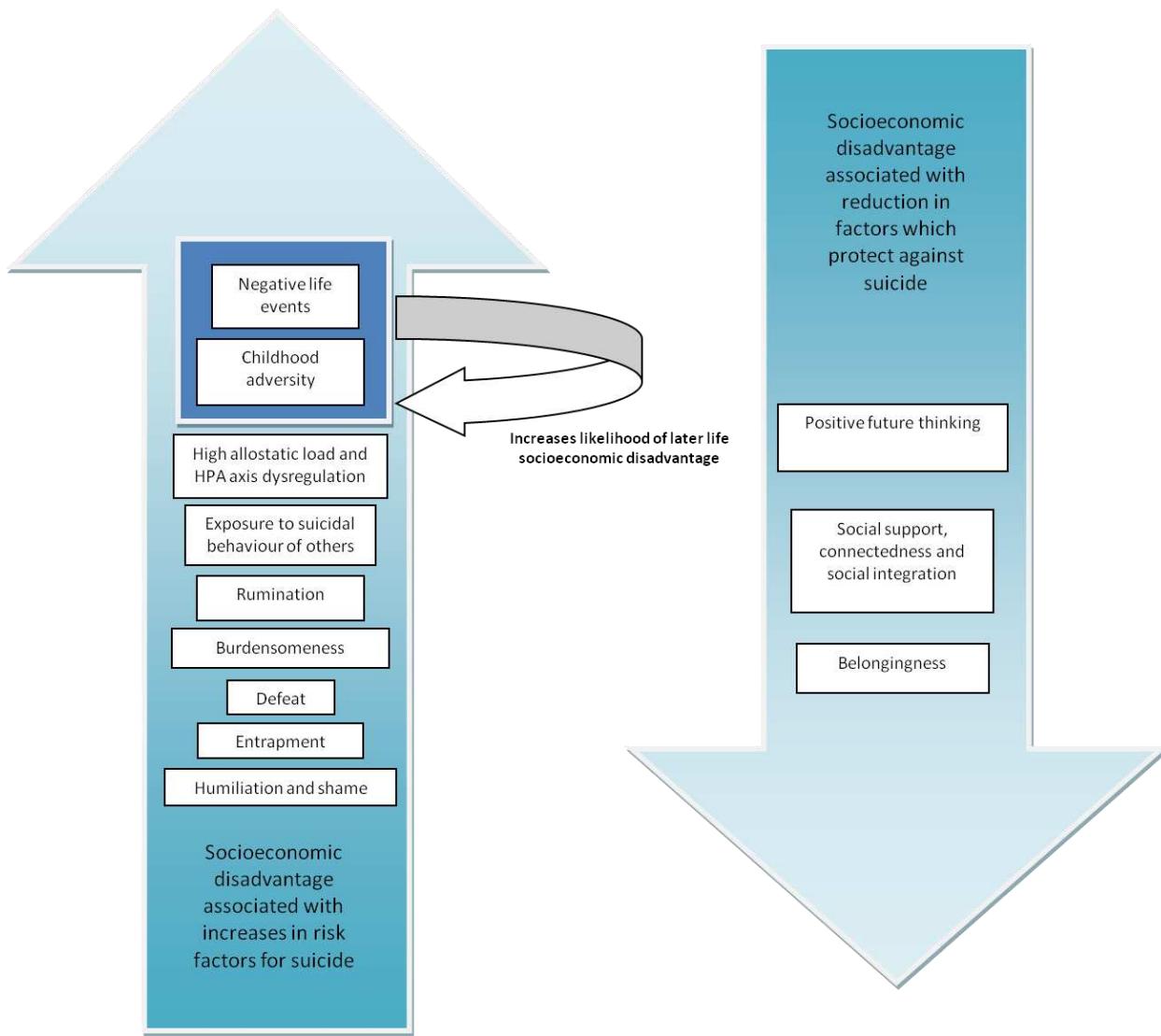
There are numerous other factors associated with suicidal ideation and enactment, including impulsivity, problem-solving and emotion regulation, but their relationship to socioeconomic disadvantage is uncertain. Due to space constraints, we focused only upon those factors with clearly demonstrable associations to socioeconomic disadvantage. A full discussion of the broad spectrum of psychological variables associated with suicidality can be found in an extensive review by O'Connor and Nock (2014).

## Discussion

### **Introduction**

As highlighted earlier in this chapter, McLeod and Kessler (1990) have argued that socioeconomic disadvantage exerts a deleterious influence upon physical and psychological wellbeing in two key ways: by increasing exposure to stressful life events, and by reducing the availability of coping resources. Consistent with this perspective, we have explored a number of psychological risk and protective factors for suicidal behaviour in the context of socioeconomic disadvantage, with a view to answering two overarching research questions: 1) What is the nature of the relationship between socioeconomic disadvantage and suicidal behaviour, from a psychological perspective; and 2) What are the psychological mediators and moderators of this relationship? Here we synthesise the findings of our review, which are interpreted within the context of the IMV model (O'Connor, 2011). Based upon our findings (illustrated in figure 5.3), we discuss the ways in which socioeconomic disadvantage may increase exposure to risk factors for suicidal behaviour, and the ways in which it may reduce the presence of factors that may protect against suicidal behaviours.

**Figure 5.3: Psychological factors proposed to be involved in the relationship between socioeconomic disadvantage and suicide**



### **Socioeconomic disadvantage is associated with factors that may increase risk of suicide**

The evidence suggests that the relationship between socioeconomic disadvantage and adversity/negative life events is bi-directional: experience of negative life events is greatest among those with highest socioeconomic disadvantage (Aschan et al, 2013; Bjorkenstrom et al, 2013); crucially, however, experiencing significant life stress or childhood adversity is also linked to a greater likelihood of becoming socioeconomically disadvantaged in later life (Barrett et al., 2014; Liu et al.,

2013). In the review, only exposure to negative life events and childhood adversity exhibited such a bi-directional relationship with socioeconomic disadvantage in the context of suicidal behaviour.

Socioeconomic disadvantage in and of itself may be considered a long-term stressor (Seeman et al., 2004), and this long-term exposure to stressful events fatigues the body's stress response systems, leading to higher allostatic load (McEwen & Seeman, 1999). Over time, dysregulation of HPA axis activity ensues after long-term exposure to stress, such as socioeconomic disadvantage, and the biological ability to respond to stress is compromised, potentially leading to heightened psychological distress and suicidal behaviour (O'Connor D.B. et al., 2016). As noted earlier, however, future research needs to explore how the nature of suicide attempts across the lifespan (lower incidence of suicide attempts with older age) affects the cortisol–suicide attempts relationship.

Individuals experiencing socioeconomic disadvantage have a higher incidence of suicidal behaviour than those who are socioeconomically advantaged (e.g. Hawton et al., 2001a; 2001b) and are therefore more likely to be exposed to the suicidal behaviour of others. Such exposure has been found to differentiate between those who think about, and those who engage in, all types of self-harm (e.g. Dhingra et al., 2015; O'Connor et al., 2012). It is possible that exposure to others' suicidal behaviours plays a dual role in increasing risk of suicide, as losing someone to suicide is a stressful life event independently of the social modelling of suicidal behaviour that it will also result in.

Childhood adversity and allostatic load may be viewed as variables within the pre-motivational phase of the IMV model (O'Connor, 2011) which increase vulnerability to adverse reactions to acute stress (e.g., negative life events), and the development of suicidal ideation. ACEs may be considered a component of acquired capability within the IMV model, increasing suicide risk by normalising pain tolerance and decreasing fearlessness about death (Van Orden et al., 2010; Ribeiro et al., 2013). Exposure to suicide is a key volitional phase variable within the IMV model (O'Connor, 2011).

Feelings of defeat, entrapment and humiliation have received considerable research attention and are robustly associated with suicidal ideation and enactment (Gilbert & Allan, 1998; O'Connor et al., 2015). The role of these variables in the relationship between socioeconomic disadvantage and suicide appears reasonably clear: feeling that one is unable to escape from a situation of low income, unemployment or incapacity, or long-term individual or neighbourhood poverty, may induce feelings

of entrapment and defeat. The perception of belonging to a lower or inferior social class, either by poverty 'self-stigma' (Reutter et al, 2009) or by the societal stigma towards, and vilification of, those who are unemployed or claiming benefits, leads to feelings of shame and burdensomeness, characterised within the IMV motivational phase (O'Connor, 2011). Troublingly, the 'sense of poverty' appears to have a negative effect on psychological wellbeing, even when actual financial circumstances are stable and/or improving (Reyes & Yujucio, 2014).

Whilst amplifying risk factors for suicidal behaviour, the experience of socioeconomic disadvantage may also mute key protective factors, such as social support and connectedness. Within the IMV model (O'Connor, 2011) presence of social support is a motivational moderator, inhibiting the transition from entrapment to humiliation/shame and, as such, a protective factor for suicidal behaviour. It is not difficult to see how disadvantage, in the form of unemployment and/or low income, could have a significant negative impact upon individuals' ability to participate in social events and to afford travel to visit relatives or friends. Lack of financial resources to access opportunities for social support, even within pre-existing networks of friends, family, and colleagues, may leave socioeconomically disadvantaged individuals stranded in a socially barren desert, isolated from potentially life-saving sources of support and at increasing risk of suicide. Of particular note is that individuals who perceive a high level of social support at work fare psychologically worse when unemployed than those who perceive low work-based social support (Backhans and Hemmingsson, 2011). Individuals experiencing acute socioeconomic disadvantage may have fundamentally different vulnerability profiles and, consequently, different suicide prevention needs relative to those experiencing longer-term socioeconomic disadvantage.

## Implications for policy, practice and research

From a psychological perspective, socioeconomic disadvantage may be such a pernicious contributor to the likelihood of suicidal behaviour because of its global effect upon individuals: not only does it increase the presence of risk factors for suicide it also diminishes the factors that may prove protective against suicidal behaviour. Based upon the evidence from our review we highlight a

number of implications for policy, practice (see box 5.3) and research concerning the psychological factors implicated in the relationship between socioeconomic disadvantage and suicidality.

Evidence from the psychological literature suggests that low socioeconomic status is associated with increasing exposure to, and presence of, risk factors for suicidal behaviour, as well as being associated with decreasing access to coping resources and protective factors. The nuances of these relationships are, however, poorly understood and represent areas for urgent research focus. The scant psychological evidence concerning the relationship between socioeconomic disadvantage and suicide suggests numerous points where research may be targeted in order to inform intervention and policy development, to ameliorate the effects of deprivation, or even reduce socioeconomic disadvantage itself.

#### **Box 5.3: Key implications for policy**

1. Socioeconomically disadvantaged individuals with high allostatic load, and therefore at greater risk of suicide, may be more likely to present to services with physical as opposed to mental health complaints. These could represent important extra opportunities for intervention to prevent suicide, even though the person may not present to services specifically for suicidal thoughts.
2. Similarly, staff at services accessed by individuals who are experiencing socioeconomic disadvantage but not necessarily presenting with suicidal thoughts per se, e.g. job centres and food banks, should receive specialist training in recognising and understanding psychological distress and responding appropriately to individuals who may be suicidal.
3. The socioeconomic support needs of those who have experienced stressful life events or childhood adversity should, therefore, also be considered, alongside emotional support needs.
4. Recognising the elevated suicide risk of those exposed to suicidal behaviour and providing additional support is generally a woefully neglected aspect of suicide prevention. Socioeconomically disadvantaged individuals should be offered additional support following suicidal behaviour among family members and close friends.
5. Opportunities for policy or practice change may take the form of ensuring sufficient availability of support information at points of potential frequent contact for those experiencing socioeconomic disadvantage, e.g. job centres, food banks, health centres, addiction services etc., to reinforce the idea that there are possibilities for 'escape' from socioeconomic distress other than suicidal behaviour, and to provide non-judgemental, compassionate support.
6. Support should also be provided for those in 'socioeconomic recovery', e.g. who have re-joined the workforce, as their 'sense of poverty' may continue to negatively affect their wellbeing even when not currently experiencing financial hardship.

In sum, socioeconomic disadvantage increases the presence of, and exposure to, risk factors for suicidal behaviour, including experience of negative life events and exposure to the suicidal behaviour of others, as well as diminishing access to protective factors, such as social support. The psychological fallout of socioeconomic disadvantage is manifold, leading individuals to feel trapped and defeated in the face of both acute and chronic economic hardship. To develop interventions to ameliorate these deleterious effects, we must look beyond the basic existence of this relationship to the psychosocial mechanisms through which socioeconomic disadvantage causes individuals to see taking their own lives as the only option.

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# Chapter 6: Explaining the relationship between socioeconomic disadvantage, self-harm and suicide: a qualitative synthesis of the accounts of those who have self-harmed

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## Abstract

This chapter aims to generate a sociologically informed account of the ways in which socioeconomic disadvantage may contribute to self-harm or suicidal thoughts/actions. The review draws on the accounts of people who have self-harmed or died by suicide, and the interpretations of these accounts by researchers. Several common themes were identified which are relevant to understanding the relationship between self-harm, suicide and socioeconomic deprivation, including: self-harm and suicide as methods of coping with distress or enacting control; and self-harm and suicide as understandable outcomes of experiencing shame or accumulating disadvantage across the lifecourse. Three mechanisms which may help to illuminate the association between socioeconomic disadvantage and higher rates of suicidal behaviour are discussed: first, cumulative disadvantage, where negative experiences across the lifecourse are understood to increase the likelihood of self-harm or suicide; second, the role of emotions and inequalities, where negative emotions – particularly anger and shame – provide an explanatory link between acts of self-harm/suicide and the experience of living with socioeconomic disadvantage; and, third, where living with socioeconomic disadvantage is thought to shape how futures are talked about and imagined, and the ability of an individual to enact control or *agency* in their life. The chapter concludes with a discussion of implications for policy, practice and research. The relationship between socioeconomic deprivation, self-harm and suicide should be taken seriously across a range of policy arenas, including welfare, education, employment and

housing. Tackling this issue will require effective collaborations between health practice and policy, and other arenas (welfare, housing etc.), as well as a government response that avoids penalising and (further) stigmatising those who are financially vulnerable.

## Introduction

This chapter advances a sociological exploration of the relationship between self-harm, suicide and socioeconomic disadvantage. In contrast to the majority of sociological research on suicide (Stack 2000; Wray et al. 2011), this chapter draws on qualitative studies, with a focus on interpretation, meaning and the ways in which self-harm and suicide are constructed in the accounts of people who have self-harmed or died by suicide. There are challenges associated with attempting to synthesise accounts of self-harm and suicide, leading from long-standing debates regarding the relationship between these practices. Despite strong arguments for treating self-harm and suicide as separate, however, this review was conducted on the basis that there are important reasons to include accounts of both (non-fatal) self-harm and suicide.

Cutting, overdosing, burning, and even hanging or jumping, are not *inherently* suicidal or non-suicidal; they become so via a complex process of meaning-making that occurs through interactions between an individual and the social and cultural contexts they inhabit (Chandler 2016). Further, an act of self-harm may be interpreted in different ways, by different people, at different times. This perspective severely unsettles attempts to 'fix' the meaning of particular acts as either 'non-suicidal' or 'suicidal' in nature. Rather, this approach to understanding social action, and social life, underlines the need for a flexible, interpretive orientation, one which takes seriously – but critically – the accounts of those who have self-harmed or died by suicide.

The following review synthesises qualitative research with people who have self-harmed or died by suicide. The majority of this work reports on interviews with those who have self-harmed: studies which recruit patients admitted to hospital following self-harm, and community-based studies where participants' self-harm may not have come to the attention of formal health-services. The accounts of those who have died by suicide are represented in qualitative studies of suicide notes or of coroner reports (a proportion of which include suicide notes). There are methodological challenges associated with each of these forms of research, including the status of the accounts provided in interviews or suicide notes. Should these be taken as providing insight into the 'reasons' why people harm themselves? Do they need to be understood as artful

narratives, which explain or justify action to a particular audience? Are they stories told in order to influence others? It can be suggested that accounts can fulfil all these functions, and as such must be treated cautiously. A critical, sociological perspective necessitates a focus on the reasons that accounts might be provided, the form such accounts take, and on the ways in which the telling of accounts is shaped by social and cultural contexts (Scott and Lyman 1968; Riessman 1993).

This chapter presents findings from a rapid review of qualitative literature with people who have self-harmed, or died by suicide. The following section summarises the methods used to locate relevant literature. The chapter then presents three mechanisms which may help to illuminate the statistical relationship between socioeconomic disadvantage and higher rates of suicide. Firstly, cumulative disadvantage, where negative experiences across the lifecourse are understood to increase the likelihood of self-harm or suicide. Secondly, the role of emotions and inequalities, where negative emotions – particularly anger and shame – provide an explanatory link between the experience of living with socioeconomic disadvantage and acts of self-harm/suicide. Thirdly, narrative *agency*, where living with socioeconomic disadvantage shapes the way people think and talk about the future, and through this, their ability to enact control (or agency) in their life. The chapter proceeds with a discussion of these mechanisms, and the limitations of the review, before concluding with messages for research, policy and practice.

## Aim and research question

The overall aim of this chapter is to generate a sociologically informed account of the ways in which socioeconomic disadvantage may contribute to self-harm or suicidal thoughts/actions. The review draws on the accounts of people who have self-harmed or died by suicide, and the interpretations of these accounts by researchers. Through a qualitative synthesis of accounts across a range of studies, the review seeks to identify potential mechanisms which may help to explain the statistical relationship found between socioeconomic deprivation and higher rates of suicide.

The overarching research question asked by the review was:

- What explanations of the relationship between self-harm/suicide and socioeconomic status are indicated in the qualitative literature with people who have self-harmed?

Within this, the review attended to the ways in which the accounts of people who had self-harmed or died by suicide addressed this question; and the ways in which researchers addressed this question. The value of a qualitative synthesis is that it allows new research questions to be asked of literature that may not have originally, or explicitly, addressed the topic of interest (Rhodes and Treloar 2008). Indeed, while the review was able to locate some papers which directly reported on a relationship between socioeconomic deprivation and suicide/self-harm, many did not.

## Methods

A rapid review of literature reporting on 'qualitative' studies of self-harm and suicide was conducted. This was not a systematic review, but made use of search terms and academic databases to quickly get a sense of the overall shape and number of papers reporting qualitative research which addressed the relationship between self-harm, suicide and socioeconomic deprivation (SED). Papers were retrieved using key word searches of the following academic databases: ASSIA, JSTOR, IBBS, Web of Science and CINAHL. Papers were initially included if they: used qualitative methods; engaged with accounts of those who had self-harmed or died by suicide; were carried out in high income countries. Studies in low and middle income countries were excluded for this particular rapid review, because the brief was to focus primarily on understanding socioeconomic disadvantage in the UK, therefore countries with broadly similar economies were focused upon – whilst remaining aware of significant differences e.g. in welfare systems.

Papers were excluded for the following reasons: focusing on non-humans; practitioner accounts only; did not include accounts of individuals who had self-harmed/died by suicide; euthanasia; located outside of UK/US/Europe/Australia/NZ; single case study reports; quantitative methods; service development. The search was restricted to English language publications, but had no restrictions on date of publication (though no suitable publications prior to 1999 were identified).

The results were further refined by excluding papers that did not address or report socioeconomic contexts. However, some papers that did not report socioeconomic context were later re-incorporated in order to expand on themes identified in those that did report such context (e.g. shame, trauma, loss, agency and control).

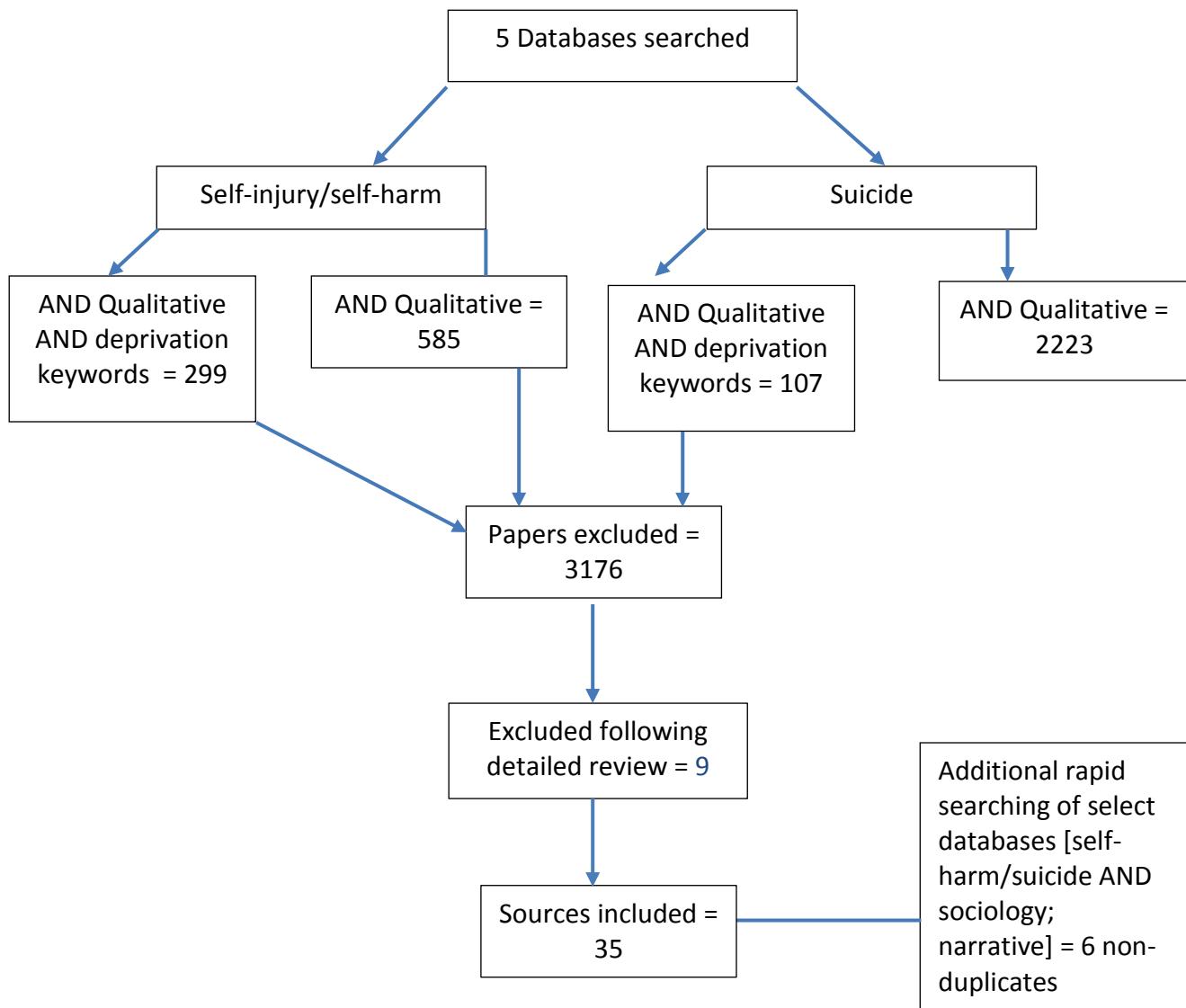
Table 6.1 gives an overview of the search terms used. During the search, it became apparent that using the filter 'qualitative' did not always capture research papers known to exist, which reported qualitative research with people who had self-harmed. As such, alternatives were tested – 'narrative' and 'sociology' – which were partially successful in identifying additional relevant papers.

**Table 6.1 Search terms used**

Methods filter	Practice filter	Socioeconomic deprivation filter
Qualitative	AND	Self-harm
OR	OR	Depriv*
Sociology	Self-injury	OR
OR	OR	Socioeconomic
Narrative	Suicide	OR
		Unemploy*
		OR
		Social class
		OR
		Poverty

Following initial, focused searches the SED term was removed in order to identify qualitative papers where SED was not the focus, but may have been discussed. Potentially suitable abstracts were examined, and promising papers followed up to check on methods and engagement with the issue of SED. This approach led to the identification of further papers that either reported SED, or engaged with issues relevant to SED, in findings or analyses. Figure 6.1 provides an overview of this process.

**Figure 6.1 Flow chart depicting literature search**



Where search results in individual databases returned more than 200 hits, the first 200 were reviewed.

Details of the 35 papers included in the review are summarised in box 6.1.

### **Box 6.1: Papers included in the review**

Seven studies directly reported on SED, using qualitative methods: three from the US (Abrams and Gordon 2003; Stack and Wasserman 2007; Elliott et al. 2014), one from Canada (Kidd 2004), and three from the UK (Redley 2003; Huey et al. 2014; Barnes et al. 2016). Kidd and Huey et al. interviewed people experiencing homelessness or insecure housing, focusing on accounts of suicide and self-injury, respectively. Stack and Wasserman conducted a qualitative analysis of coroner reports, investigating the relevance of economic strain to understanding completed suicides. Elliot et al. and Barnes et al. interviewed people admitted to hospital following self-harm, addressing the role of economic hardship in explaining acts of self-harm. Redley interviewed 50 people admitted to hospital following self-harm, all of whom lived in an area of socioeconomic deprivation. Abrams and Gordon contrasted the accounts of six young women who had self-harmed, half living in urban, socioeconomically deprived areas, and half living in more affluent, suburban areas.

Additional studies did not focus primarily on SED, but addressed this as a theme in findings. Neale (2000) explored motives and suicidality among patients admitted with overdoses of illicit drugs, most of whom were living with socioeconomic disadvantage. Cleary (2012) interviewed men and examined the role of masculinities, including unemployment and job loss. Two studies held interviews with self-harm patients shortly after admission to hospital (Herrestad and Biong 2010; Pavulans et al. 2012).

Four studies with prison-based populations were included. Borrill et al. (2005) interviewed female prisoners who had carried out a 'near-miss' suicide attempt. Marzano and Rivlin, with colleagues, interviewed male and female prisoners, exploring experiences of self-harm and suicidal practices (Marzano et al. 2011; Rivlin et al. 2013; Rivlin et al. 2013). Byng et al (2015) interviewed male prisoners before and after release, contrasting those who engaged in self-harm, or had thoughts of suicide, with those who did not. Participants in each of these studies were mostly from poorer socioeconomic backgrounds, or reported financial insecurity as an ongoing concern.

Eight community-based studies with individuals who had self-harmed were included. In recent years there has been a steady proliferation of studies addressing self-injury (mostly self-cutting) in relatively youthful, community based samples (Marshall and Yadzani 1999; Alexander and Clare 2004; Kokaliari and Berzoff 2008; Adler and Adler 2011; Barton-Breck and Heyman 2012; Chandler 2013; Brossard 2014; McDermott et al. 2015). These do not often address socioeconomic context in any detail, with Abrams and Gordon (2003) a significant exception. A selection of these papers was included in the review because they highlight comparable themes, and some report explicitly on socioeconomic context, though not necessarily deprivation.

Two studies addressing 'suicide' among community samples were included. Everall et al. (2006) interviewed young people who had considered or attempted suicide. Fullagar (2003) addressed understandings about suicide among young people who mostly did not report self-harm or suicide (although three did), with SED being a key feature of the findings.

Three studies addressed accounts of people living with long-term mental illness, a significant proportion of whom also reported self-harm or suicide attempts (Gilbert et al. 2012; Oliffe et al. 2012; Padgett et al. 2012).

Studies by Langer and colleagues (Langer et al. 2008; Shiner et al. 2009) and Mallon and colleagues (2016) report on sociological autopsies, using mixed methods to analyse coroner reports of completed suicides. Finally, a study by Olson et al. analysed suicide notes from three different ethnic groups in the US (Olson et al. 2011).

# Findings

## Key themes relevant to the review

The studies included in this review draw on accounts from a diverse range of groups: people who are drug-dependent, who have been incarcerated, who are homeless, who are living with poor housing, in poor urban, and poor rural areas. The studies also include more affluent groups: college students, young people who live at home, who attend school, who are 'high achievers', people who work. Participants across these studies report engaging in or considering a wide range of self-harmful practices: cutting, burning, jumping, overdosing, shooting and hanging. Each participant has a rich life history, elements of which are drawn upon to provide meaningful accounts to a researcher (or to a range of 'others' in a suicide note) to explain these self-harmful actions. Cutting across the diversity and richness of the accounts indicated in the papers reviewed, four common themes relevant to the research question were identified.

- Self-harm or suicide as an **outcome of disadvantage**, typically early trauma and loss, but also including experiences of homelessness, poor housing, unemployment, job loss and financial crises.
- Self-harm or suicide as a **response to shame**, with shame associated with relationship breakdown, economic insecurity, job loss and joblessness.
- Self-harm or suicide as a **way of 'coping'** with distress, anger, difficult situations (including related to money or housing) and relationship problems.
- Self-harm or suicide as an **embodied method of enacting control** over the self/body, often in the face of an interpersonal or structural context within which the individual feels little control.

Accounts across the studies differed in terms of how far self-harm and suicide were framed as actions relating to, or outcomes of, disadvantage. The first two themes (disadvantage and shame) were more likely to frame self-harm and suicide as an understandable *outcome* of particular states (shame) or circumstances (particularly trauma and loss). In contrast, the last two themes (way of coping and enacting control) implicated self-harm and suicide as practices that were used by individuals in *response* to, or as a way of *tackling*, the symptoms of living with socioeconomic deprivation: frustration, lack of options, the difficulty of living day to day.

## Mechanisms

Each of these themes can be, and in some cases were, connected to the experience of living with socioeconomic disadvantage. However, in many cases, such links were absent, with analytic discussion of 'context' relating only as far as interpersonal networks. In the following discussion, I draw out three potential mechanisms which help to connect the identified themes with the research question, these are:

- Cumulative disadvantage
- Shame, anger and inequalities
- Narrating control and agency.

### *Cumulative disadvantage*

Cumulative disadvantage is frequently raised as an important route through which self-harm or suicidal practices emerge. The way in which this mechanism is described varies: from relatively simplistic, 'additive' analyses, which refer to the accumulation of risk factors across the lifecourse, to more nuanced analyses which explore *how* the accumulation of 'risk factors' might result in suicide or self-harm becoming a possible or probable course of action.

Huey et al.'s (2014) analysis of the accounts of homeless women is an example of the former. The authors demonstrate that women who reported self-injury also reported a greater frequency of 'stressors' (abuse, trauma, loss) in their life history. They propose the potential existence of a "cumulative traumatic effect" (p. 156) which results in self-injury and requires further investigation. Similar connections between trauma (especially in early life) and later self-harm or suicide are made across several of the other studies reviewed. Research with prisoner populations frequently identified experiences of earlier trauma and loss as relating to a recent 'near-miss' suicide attempt (Borrill, Snow et al. 2005; Marzano, Fazel et al. 2011).

"I'd just had enough . . . I sat there and I thought 'I might as well just die.' And get it over and done with and be with my [late] daughter where I want to be. In peace" (Case 6, Female Prisoner in Marzano et al. 2011 p. 870).

Similarly, Padgett et al.'s (2012) interviews with people experiencing long-term mental ill-health and homelessness emphasised the importance of early trauma, again highlighting loss as particularly relevant.

The notion of cumulative disadvantage (Huey, Hryniwicz et al. 2014), cumulative adversity (Padgett, Smith et al. 2012) or cumulative despair (Olson, Wahab et al. 2011) is instructive in terms of highlighting the importance of attending to the life histories of individuals who self-harm or die by suicide. Padgett et al. note that this may be challenging in cases where individuals are experiencing acute proximal stressors, such as current homelessness or mental ill-health. However, these analyses do not always fully engage with the reasons *why* such experiences of loss, trauma, adversity or disadvantage might culminate in self-harm or suicide; or why similar experiences do not result in self-harm or suicide in other people.

Another omission in much of the writing about cumulative disadvantage is a lack of engagement with structural explanations for such accumulations. This relates to the tendency in some papers to frame accounts about trauma and loss in terms of individual risk factors. Any sense that such risk factors may be more likely to accumulate in the life stories of particular groups of individuals was generally absent. However, there are clear reasons to suspect that those from poorer backgrounds, or who are living with and through socioeconomic deprivation, are more likely to experience at least some types of trauma or loss. Most starkly, there are well established health inequalities in the UK, and elsewhere, which shape the likelihood that younger people growing up in poorer communities will lose significant others prematurely (Marmot and Wilkinson 2006; Mackenbach 2012). Indeed, research on youth transitions in the context of socioeconomic deprivation have highlighted the existence and impact of the unequal burden of bereavement for young people growing up in poverty (MacDonald and Shildrick 2013).

Experiences of unemployment, job loss, housing insecurity, debt and working in low-skilled, low-status jobs are also highlighted as experiences which accumulate in the life stories of people who have self-harmed or died by suicide (Stack and Wasserman 2007; Oliffe et al. 2011; Olson, Wahab et al. 2011; Cleary 2012). Particularly in research on hospital-treated self-harm, such experiences were frequently highlighted in both interview accounts and subsequent analyses as playing a significant role in explanations for self-harm (Neale 2000; Cleary 2012; Barnes, Gunnell et al. 2016).

“I looked at my suicide note afterwards... Most of it was about the bank” (‘Zoe’, in Barnes et al. 2016 p. 4).

“I can wholeheartedly say it’s definitely the situation with the bedroom tax that pushed me over the edge” (‘Jenny’, in Barnes et al. 2016 p. 4).

In some cases, further explanations – economic strain (Stack and Wasserman 2007) and lack of control (Cleary 2012). – were offered as potential ways of better understanding the relationship between cumulative disadvantage and suicide/self-harm.

Economic strain, discussed by Stack and Wasserman, draws on General Strain Theory (GST). GST is used to explain a range of ‘problematic’ behaviours, including criminality, drug and alcohol use. The theory suggests that such behaviours are the outcome of three interrelated factors: blocked goals, loss and exposure to noxious stimuli (Stack and Wasserman 2007: 104). Stack and Wasserman report that economic strain incorporating each of these factors was evident across their analysis of coroner reports of suicides. This included job loss, financial difficulty, fear of losing a home (e.g. due to repossession), and a mismatch between hoped for and actual earnings. Importantly, they note that economic strain in combination with other strains (particularly in interpersonal life, e.g. loss of a partner) was common. However, arguably economic strain theory does little more than the additive analyses highlighted above. It demonstrates that a range of economic strains appear related to suicides (at least in coroner reports), and that these often ‘cluster’ with other types of strain. The theory does not fully account for how and why such experiences result in suicide or self-harm.

The two mechanisms discussed in the following sections, which each incorporate the concept of control, offer further insights into this challenging issue.

#### *Shame, anger and inequalities*

Self-harm and suicide are frequently described as responses to, or ways of attempting to cope with, (extreme) emotional distress (Williams 1997). Sociologists have firmly established the social, interactional and embodied nature of emotions (Williams 2001; Denzin 2007). Theorists have also identified relationships between emotions and social structure (including socioeconomic disadvantage), particularly via studies of shame and anger (Freund 2006; Ross and Mirowsky 2009; Chase and Walker 2012), emotions which also emerged in the reviewed studies.

Anger was often highlighted by participants as an explanation for particular acts of self-harm (Neale 2000; Redley 2003; Everall, Bostik et al. 2006; Huey, Hryniwicz et al. 2014), and anger was a feature of many of the analyses of suicide notes (Shiner, Scourfield et al. 2009; Olson, Wahab et al. 2011). Of particular interest, Abrams and Gordon (2003) note that anger (as opposed to ‘pain’)

appeared more significant in the accounts of 'urban' young women in their sample compared to 'suburban' (more affluent) women.

Within the sociology of emotions, anger is particularly closely tied to theories which link social structure and inequalities with emotional experience (Williams 1998; Reay 2005; Schieman 2006). There are several ways in which experiences of anger may be directly related to SED, including the effects of relative inequalities (which may be linked to the 'blocked goals' addressed in Stack and Wasserman's economic strain theory); experiences of perceived (or indeed actual) injustice; and cumulative neighbourhood effects, including feeling (or indeed being) 'trapped' in poor areas (Schieman 2006). An assumption in much writing on anger is that those in less powerful positions (including people living with SED, Black and minority ethnic groups, and women) are more likely to experience anger, as well as being less able to express anger (Taylor and Risman 2006). This sheds some light on the frequent identification of anger in accounts of self-harm and suicide. It may relate to an understanding of self-harm as a way of 'expressing' anger against the self, rather than others (as in many accounts of self-harm via cutting) (Brossard 2014; Chandler 2016); and as an 'explosion' of anger following a protracted period of 'suppression' (as in accounts from suicide notes which express anger towards others, for instance by framing the suicide as an act of revenge) (Neale 2000; Fincham et al. 2011).

"... when I can't express any anger [...] it's easier just like, if I just go and cut myself"  
('Harriet', in Chandler 2016 p. 84).

"I have lost my wife. I have lost my kids. I am going to lose my house. They can all f\*\*\* off. I would rather burn the house than give it to that bitch" (Male suicide note, in Fincham et al. 2011 p. 160).

The reviewed literature underlines the complexity and diversity within accounts of anger among those who have self-harmed or died by suicide, as well demonstrating how attending to emotional experience and expression may help to illustrate the relationship between SED and suicide/self-harm.

Shame was less explicitly highlighted in individual accounts in reviewed studies, but was drawn out specifically in several analyses, particularly in those addressing youth suicide (Fullagar 2003; Everall, Bostik et al. 2006; McDermott, Roen et al. 2015). Others, such as Kidd's (2004) study of homeless young people, highlighted the role of social stigma, or felt worthlessness, which may be

understood in terms of shame. Papers which analysed coroner reports and suicide notes frequently highlighted the role of job loss, financial difficulties and problems with the law – all of which are situations which may invoke feelings of shame in individuals (Stack and Wasserman 2007; Shiner, Scourfield et al. 2009).

Shame has been a particular focus in the sociology of emotions (Scheff 2003) and is explicitly linked to anger in some analyses, with suppressed shame emerging as anger (Turner and Stets 2006: p. 31). Shame, like anger, is associated with individuals in positions of powerlessness (Turner and Stets 2006: p. 33). Relatedly, recent work has explored shame as a psychosocial aspect of poverty and has argued for the ubiquity of shame among poorer groups living in diverse national contexts (Ridge 2011; Chase and Walker 2012; Walker et al. 2013). Such work provides a further connecting link between the experiences of cumulative disadvantage (addressed above) and the outcome of self-harm or suicide.

“It is all the worries that young people have to deal with... . Being under 18 and stuck at home with nothing to do [unemployed] ... and relationship or family issues... . You feel let down, sort of rejected ... it can start with the smallest worry and just get bigger. Sometimes it can just get too much to deal with. You just don’t want to deal with it anymore...”  
(‘Buffy’, in Fullagar 2003 p. 298).

According to Scheff (2003), shame is a ‘slippery’ and ‘taboo’ concept that is not often named, but is nonetheless essential in maintaining social bonds. Indeed, shame is only possible because of the social, arising out of a consideration of how we perceive that others see us: if our perception of how others see us is negative or deficient, we experience shame. This conceptualisation of shame can be identified across the papers reviewed: analyses of suicide notes implicate both anticipated and experienced shame (Olson, Wahab et al. 2011), while accounts of those who have self-harmed suggest a deep concern with imagined (or confirmed) negative perceptions of others about the self (Brossard 2014; McDermott, Roen et al. 2015). In some cases, these accounts were clearly gendered: “We’re [men] afraid of seeming weak or something. Because we have to have this image of being macho” (‘Adam’ in Cleary 2012: 501). Time and again, accounts reported in the reviewed studies addressed the concept of shame, both in terms of circumstances that were being faced (job loss, relationship breakdown, interpersonal conflict) and in terms of the experience of considering or carrying out self-harm and suicide.

“...this is the worst it’s been ... it’s my fault for not holding a job” (‘Carol’, in Elliot et al. 2011 p. 494

“I am so sorry that I disappointed you again. I just made one too many mistakes” (Male suicide note, in Olson et al. 2011 p. 1488)

Shame has been identified previously in literature on suicide (Lester 1997; Wiklander et al. 2003; Bryant and Garnham 2015). However, empirical investigations of the relationship between shame and suicide – both quantitative and qualitative – are rare and have generated mixed results (Kölves et al. 2011; Wiklander et al. 2012). Further, existing research and commentary tends to individualise shame, rather than considering it in wider social context. The link between shame, socioeconomic deprivation and suicide is rarely articulated, much less systematically investigated (Bryant and Garnham 2015).

This review proposes that shame and anger be considered more closely in terms of understanding the pathway between socioeconomic deprivation and self-harm/suicide. Addressing the role of socioeconomic deprivation in relation to shame may help to expand or illuminate the mixed results of existing studies addressing associations between shame and suicide.

#### *Narrating control and agency*

The concepts of control and agency offer a further way of understanding the relationship between socioeconomic deprivation, self-harm and suicide. For sociologists, the concept of agency refers to the ability of an individual to make choices and take action freely. It is related closely to the notion of control: we might talk of ‘being in control’ or ‘having control’ over our lives, which would imply we have some degree of agency. In almost all the studies, narratives illustrating a *lack* of control and limited or restricted agency were found – participants referred to feeling trapped, having few choices (Redley 2003; Kidd 2004).

“I was just thinking it is just a trap, no matter what I do I always end up back on drugs. Back on the street. Dumped again. Just go in circles, it doesn’t matter how many steps forward you go, you end up taking more steps backwards” (Young woman, in Kidd 2004 p. 39).

These types of account were especially related to the experience of living with socioeconomic deprivation. Participants talked of having little hope, and feeling little control over, gaining housing security, getting a job or having positive relationships with others. At the same time, some papers also engaged with the ambivalent nature of self-harm, suicide and agency. While

experiences of limited agency and lack of control feature heavily, *acts of self-harm* and suicide can also be understood as inherently agentic: involving (some) individuals taking clear and decisive actions towards harming themselves, or ending their own lives (Redley 2003; Byng, Howerton et al. 2015).

Redley's (2003) paper is key in terms of analysing the relationship between agency, self-harm, suicide and socioeconomic deprivation, with several other papers referring to the study and confirming some of Redley's central arguments (Cleary 2012; Gilbert, Farrand et al. 2012; Byng, Howerton et al. 2015). Redley suggests that the 50 people he interviewed spoke of living lives that were "other than the life [they] desired" (p. 369). Redley connects these accounts to the experience of living in poverty, on a deprived housing estate: a *sensual*, all-encompassing experience which made talking about one's life in this way more probable. For sociologists, the way that we talk about our lives can have an important influence on how we act (Mills 1940; Scott and Lyman 1968). Redley's analysis highlights that feelings of restricted agency are not limited to those living with socioeconomic deprivation; but they are more likely. This resonates strongly with accounts in other reviewed papers: of individuals who report living with disappointment, cumulative disadvantages, frustration and lack of options, all of which are more likely when access to financial resources is limited.

Byng et al.'s (2015) research is also instructive, as it compares groups of men transitioning out of prison, some of whom had repeatedly self-harmed, some who had self-harmed just once, and some who had never harmed. Crucially, Byng et al. found that almost all the sample reported histories of abuse, loss and trauma, but that such reports did not correlate neatly with self-harm or suicidal practices. What seemed to distinguish different groups of men was not their experiences *per se*, but rather the way in which their experiences were narrated, and the types of selves implied in their narratives. These were diverse, and complex, underlining the importance of considering *how* people talk about themselves and their lives, and how this may relate to their actions (Redley 2003; Byng, Howerton et al. 2015).

Byng et al. noted that participants varied in terms of how much 'control' they implied they had over their lives currently and in future, as well as how much 'mastery' they had – the way they talked about their ability to carry out particular actions. They identified a group of men whose narratives were 'fractured', indicating little control, a sense of entrapment and despair which echoed accounts in other reviewed studies (Redley 2003; Cleary 2012). These men included both

those who had 'attempted suicide' multiple times and some men who had never attempted but who engaged in significant substance use, characterising themselves as not having the 'balls' to go through with a suicide attempt. Another group of participants indicated higher degrees of control and mastery over their lives, suggesting greater hopes for the future and more confidence in their ability to achieve goals. However, this group included some men who had previously attempted or contemplated suicide, in some cases involving significant degrees of planning, or describing being 'thwarted' at the last minute. Byng et al. suggest, tentatively, that having a high sense of mastery might also be related to completing suicide; and that such individuals may appear at first to be at 'lower' risk of suicide, having few or no previous attempts, and presenting a self that is 'in control'. While Byng et al. do not address gender explicitly, their analysis has clear relevance to previous work addressing the gendered nature of suicide and self-harm (Canetto and Cleary 2012; Wyllie et al. 2012).

A focus on narratives of control and agency forms the final mechanism proposed by this review. The papers discussed here offer a starting point for considering the diverse ways in which living with cumulative disadvantage, and the extent to which individuals feel 'in control', may be both experienced and expressed. Such an approach takes seriously the different ways in which self-harm and suicide are talked about and understood by individuals, and takes steps to connect these with broader structural conditions. This moves beyond the cumulative disadvantage mechanism, which addresses the additive effects of particular experiences of trauma, loss and adversity, and helps to explain *how* such experiences might be connected with self-harm and suicide.

## Discussion

### Summary of findings and proposed mechanisms

There are important interrelationships between each of the proposed mechanisms discussed in this chapter. Theorists argue that the experience of shame can lead to and from disempowerment or a reduced sense of agency (Turner and Stets 2006; Chase and Walker 2012). This allows us to connect the mechanism of cumulative disadvantage to experiences of shame *and* a lack of control and agency. The research reviewed here demonstrates that a dominant way of narrating self-harm and suicide is to frame it as an (understandable) response to such a lack of control. More closely analysed work, such as that by Byng et al. and Redley, highlights how embodied expressions of

entrapment and frustration can emerge in some, but not all, of the accounts of those who experience negative life experiences. These analyses offer a way of understanding the multifaceted ways in which disadvantage is understood and given meaning, and the similarly complex pathways between disadvantage, self-harm and suicide.

As highlighted by several papers, these mechanisms may be particularly relevant for understanding suicide among men, especially in terms of commentary about the more restricted choices available to low income men (Cleary 2012; Oliffe, Ograniczuk et al. 2012). However, as noted by Mallon and colleagues, such discourse raises significant questions about female suicides (not to mention self-harm); and we need to be especially careful about exaggerating differences between men and women or 'othering' female suicide (Jaworski 2014; Mallon, Galway et al. 2016). The vast majority of qualitative research with people who self-harm addresses female dominated samples, yet raises similar themes with regard to the use of self-harm as a way of enacting control; playing out painful experiences of shame via acts that are interpreted as self-punishment; and relating these to accumulations of trauma and disadvantage (Harris 2000; Marzano et al. 2011; Huey, Hryniwicz et al. 2014).

A particularly telling finding across some of the reviewed studies was a tendency to interpret accounts which related cumulative disadvantages, experiences of anger or shame and a lack of control as *individual* risk factors predisposing a person to suicide or self-harm. In some, though by no means all, cases, analyses did not go beyond a narrow view of context, referring to family or interpersonal bonds only, resulting in a failure to address wider socioeconomic inequalities and social injustice. This is deeply problematic, but perhaps an inevitable result of the dominance of psychological and psychiatric perspectives in suicide research and the potential for (some) qualitative research to limit itself to 'private troubles' without considering how these relate to 'public issues' such as social structures and inequalities (Mills 1959).

### **Limitations**

This review has a number of important limitations. First, it is based on a rapid review of the literature; consequently, some relevant studies may have been overlooked. In particular, given the focus upon publications which appeared likely to generate findings related to the research question, several papers based on research with people who had self-injured which did not address the theme of socioeconomic disadvantage were excluded. Second, the themes identified in the review are not comprehensive, but rather reflect the research aim of identifying potential

mechanisms to explain the relationship between socioeconomic deprivation, self-harm and suicide.

Third, the review is limited by the data available. While a strength of qualitative syntheses is the ability to draw widely on a range of different studies, a weakness is the inability to access the primary data or to understand fully the contexts in which the data were collected (Rhodes and Treloar 2008). Further, the review has indicated significant differences in the way in which data are analysed by researchers. While some follow my own approach of responding to qualitative data as a particular, situated account, others report data more straightforwardly, resulting in an analysis which is little removed from quantitative studies of risk factors. Indeed, researchers should seriously consider the ethics of engaging in qualitative research if the accounts that they collect are to be reduced to quantitative measures of 'stress'. In such cases it may be more appropriate to conduct surveys, given the not insignificant burden associated with conducting or taking part in qualitative interviews about 'sensitive' topics (Sampson et al. 2008).

## Implications for policy, practice and research

Notwithstanding these limitations, the findings of the review carry a number of implications for policy, practice and research. There is a clear need for qualitative research addressing self-harm and suicide to engage more meaningfully with the role of socioeconomic contexts in shaping the meanings and trajectories of these practices. A good starting point would be to ask more often about, and to report, the socioeconomic background and status of research participants, as well as making greater efforts to include participants from more diverse socioeconomic backgrounds. Particularly with research on 'non-suicidal self-injury', community studies appear strongly biased towards relatively affluent and educated groups (Kokaliari and Berzoff 2008; Chandler 2013). Additionally, researchers should take great care when designing and analysing qualitative studies with participants who have self-harmed, to ensure that justice is done to the richness of the accounts generated.

Practitioners should attend closely to the role of structural conditions in shaping self-harm and suicidal practices. This should include attention to the greater burden of trauma and loss that poorer populations may carry, and an understanding of the link between such experiences and greater vulnerability to self-harm and suicide. Moreover, attention should be paid to the role of

employment, education, housing and income/debt. Mental health services should foster or further develop ties with relevant agencies so that they are able to offer practical and meaningful support with day to day 'troubles' which undoubtedly add to the burden of stress, frustration and anger that recur frequently in accounts of people who self-harm. This requires an understanding of mental health, self-harm and suicide as not solely related to individual deficiencies, disorders, internal imbalances in brain chemistry or problematic internal conversations. It also requires an understanding of the concrete ways in which structural, material conditions can impact on emotional states, cultivating hopefulness or hopelessness.

Policy-makers need to take seriously the negative emotional repercussions of living in poverty, being unemployed or facing unemployment. Feelings of shame and anger lead from such experiences, and have been directly connected with practices of self-harm and suicide. The shame and anger individuals may experience as a result of living in poverty or facing financial hardship are affected not only by levels of financial support available (e.g. out of work benefits, housing benefits etc.), but also by the cultural meanings associated with accessing such support. Current political and popular discourse about 'scroungers' and the focus on 'benefit fraud' (as compared to, e.g., corporate tax avoidance) serve potentially to exacerbate shame and anger among those relying on benefits, or who are facing unemployment, not to mention those who are unable to work as a result of illness or disability (Standing 2014).

The accounts of those who have self-harmed or died by suicide, and sociological analyses of these, underline the significant harms that result from living with financial insecurity, poor housing, restricted employment choices, and stigmatising and alienating welfare systems. Experiencing such hardships does not *cause* self-harm or suicide in any straightforward sense; however, related feelings of entrapment, anger, frustration, lack of agency and shame have been shown to be clearly implicated in narratives which seek to explain self-harm and suicide. In order to ameliorate these effects, a huge amount of work needs to be done: mental health protection and improvement should be understood as a priority not just in health policy, but also in welfare, education, employment and housing policies. This is not a novel suggestion. However, despite widespread awareness of the interrelated and multifactorial ways in which structural conditions can contribute to distress, there remains a highly dominant – and indeed a highly dangerous – narrative that frames mental health, self-harm and suicide as related to internal processes, perhaps to interpersonal traumas, but neglects to acknowledge fairly well established links

between such 'private troubles' and the 'public issues' of welfare, housing, education and employment (Mills 1959; Dorling and Gunnell 2003).

Three specific recommendations follow from the analysis presented in this chapter. First, welfare, housing and employment policies should be evaluated on the basis of the impacts that they have on mental health, including rates of self-harm and suicide. This should include consideration of both the level of support *and* the manner in which is provided. Second, the negative discourse relating to poverty should be tackled. Politicians, the media and other public figures should avoid using divisive, stigmatising language in relation to the lives of those living with socioeconomic deprivation, or who may at various points in their lives use benefits and welfare services. Third, welfare, housing and employment practitioners and policy-makers should be made more aware about the relationship between economic hardship, financial and housing insecurity and mental ill-health, self-harm and suicide.

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# Chapter 7: In their own words: How do people in the UK understand the impacts of socioeconomic disadvantage on their mental health and risk factors for suicide?

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## Abstract

Although the links between socioeconomic deprivation and negative health outcomes have been extensively explored, few studies focus explicitly on mental health and/or consider people's own explanations for the negative health impacts of deprivation. This chapter aims to begin addressing this gap by reviewing studies describing lay perspectives on the role of socioeconomic deprivation in mental health outcomes. It synthesises the findings of the 27 relevant publications (relating to 25 studies) that were identified in database searches (supplemented by reference mining and the use of citation tools). The results highlight the complex and dynamic relationships linking experiences of socioeconomic deprivation to experiences of poor mental health. Nonetheless, it is possible to identify some broad 'policy messages' from this review. First, efforts to maintain, or replace, large employers in areas with limited employment opportunities are likely to have particularly positive impacts on mental health in deprived areas (and, in the absence of this, interventions to support the mental health of affected communities are likely to be needed). Second, the findings highlight that people feel there is a strong link between psychological experience, such as stress, fear, anger, guilt and a sense of being unfairly treated or ignored, and their mental and physical health status. This suggests that policy decisions to reduce public spending on welfare and to increase the conditionality and monitoring of benefits recipients, which are likely to increase stress, fear, etc, will have negative consequences for mental health. Third, recognised contributors to poor mental health relating to 'lifestyle behaviours', such as alcoholism, drug use and smoking, are consistently described across studies as 'coping'

mechanisms or forms of escapism, suggesting that policy interventions aimed at this level are unlikely to succeed unless they are accompanied by efforts to tackle more fundamental causes.

## Introduction

As this chapter makes clear, an increasing body of evidence points to a significant association between socioeconomic disadvantage and negative mental health experiences, including suicidal behaviour. This suggests that unequal experiences of mental ill-health and suicidality can be understood as a 'health inequality'. This term refers to "systematic differences in the health of people occupying unequal positions in society" (Graham 2009: p3), with an explicit recognition that such differences are socially produced and therefore avoidable, unfair and unjust (Whitehead 2007).

The UK has been identified as a global leader in researching and seeking to address health inequalities (Mackenbach 2011), having produced much of the research evidence underlying popular theories for the persistence (and growth) of health inequalities within high income settings. Nonetheless, some important gaps are evident. First, there has been limited consideration of the relevance of these theories for understanding unequal patterns of mental ill-health and suicidality (as opposed to assessments of health more broadly conceived, which often employ indicators of physical health). Second, only a small strand of health inequalities research considers individuals' own accounts of the impact of socioeconomic deprivation on the health and wellbeing of themselves, their families and neighbours (Popay et al. 1998, Mackenzie et al. 2016). These two gaps are, to some extent, interlinked, since measures of mental health often depend on people's own accounts.

## Aims and overview of chapter

Two distinct aims guided this chapter. The first, and primary, aim is to improve understanding of the mechanisms/processes that might help to explain the association between socioeconomic disadvantage and suicidal behaviour by undertaking a rapid review of research evidence exploring

how people in the UK<sup>9</sup> understand the impacts of socioeconomic deprivation on their mental health and/or recognised risk factors for mental ill-health and suicidality. The approach taken to the rapid review is explained in section 3, while section 4 provides an overview of the key findings. The discussion (section 5) then addresses the second, subsidiary aim of considering how the results of this rapid review relate to popular (research informed) theories of health inequalities in high-income countries. Finally, the conclusion (section 6) considers the implications for research, policy and practice.

## Methods

The main search string was as follows: ("focus group\*" OR interview\* OR deliberative OR survey)) AND (disadvantage\* OR poverty OR depriv\* OR poor OR inequ\*)) AND (health OR suicid\* OR depress\* OR anxi\*). Year of publication was restricted to 'last 15 years' in the searches (although earlier studies identified via reference mining were included). Searches were also limited to studies written in English and focusing on the UK, regions of the UK and/or Ireland. These searches resulted in 7,576 hits, each of which was considered for relevance based on the title and abstract using the inclusion criteria listed in box 7.1.

<b>Box 7.1: Inclusion criteria</b>
<ul style="list-style-type: none"><li>• Written in English</li><li>• Focuses on UK, Ireland or region/nation within one of these states.</li><li>• Contains relevant empirical data.</li><li>• A main focus of study involves public perceptions of the relationship between deprivation/inequalities and: (i) suicidality / mental ill-health OR (ii) one or more recognised risk factor(s) for suicidality / mental ill-health (unemployment, increased/harmful alcohol consumption, illicit drug use, long-term conditions, chronic pain, long-term prescription drug use, smoking, unhealthy BMI, low physical exercise, traumatic/critical life event(s), masculinity, social isolation, exposure to others who have died from suicide).</li></ul>

We did not include studies that did not have a substantive empirical focus on people's perceptions of how health experiences are shaped by inequalities/deprivation. Studies that examined relationships between indicators of socioeconomic status and indicators of physical and mental

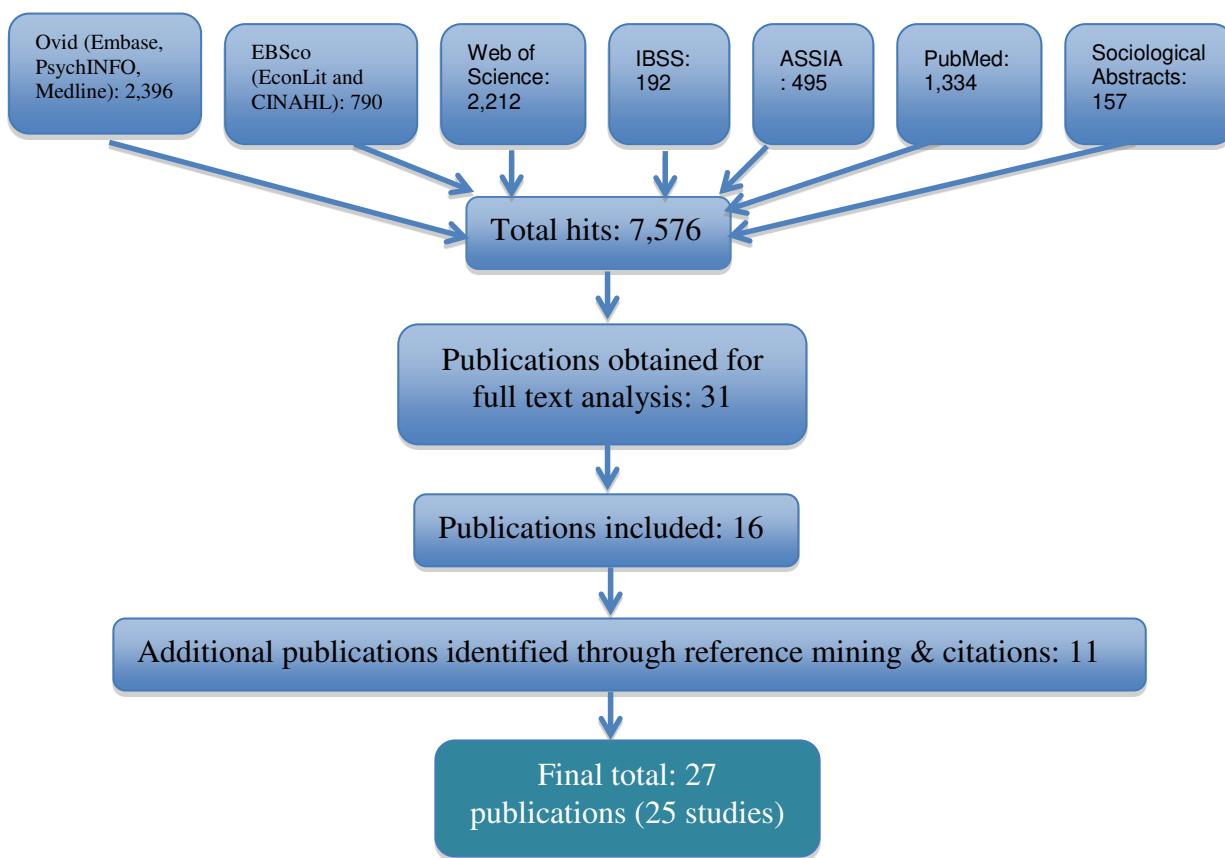
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<sup>9</sup> Ireland was also included in the search strategy but no relevant empirical evidence relating to Ireland was identified, though one included study did focus on Irish communities living in England.

health, but which did not explore people's own understandings of this relationship, were excluded.

As figure 7.1 summarises, based on our searches and initial screening, 31 publications were downloaded and read in full, of which 16 were deemed to meet the inclusion criteria. The reference lists of these 16 articles were checked for further relevant articles; citation tracking tools were also used to help identify newer articles. This process garnered an additional 11 relevant publications, resulting in the inclusion of 27 publications in total, covering 25 distinct studies.

**Figure 7.1: Flow-chart summarising literature search results**



To avoid 'counting' the same studies more than once where single studies had been written up in multiple publications, such publications were treated collectively (where more than one publication had a focus that strongly fitted our inclusion criteria) or only one publication was included (if, for example, it was clear that one publication more explicitly focused on health and inequalities than others from the same study). Where authors had written both non-peer reviewed and peer-reviewed publications from the same study, only the peer-reviewed publication was included.

Table 7.1 summarises the geographical location and methodological approach of the 25 studies. Most were based on interviews or focus groups, with a smaller number using other qualitative methods and surveys and only one study (with two publications) employing a mixed methods approach (Popay et al. 2003a, Popay et al. 2003b). Not all of the studies employing qualitative techniques (which provided the more in-depth accounts) clearly stated the number of participants; it is likely, however, that interviews or focus group discussions with over 1,000 participants were carried out in the studies reviewed. Over half of the included studies focused on England (though there was variation within this, in terms of the specific regional focus), with smaller numbers looking at the (now devolved) regions or across Britain. The earliest included study was published in 1983 (Blaxter 1983) and the most recent was published in 2016 (Mackenzie et al. 2016). Taken together, these studies paint an extremely complex and dynamic picture of the relationship between socioeconomic deprivation and mental health/ill-health, with multiple pathways linking material, structural and social contexts to mental health experiences.

**Table 7.1: Summary of the methodological approach and geographical focus of included studies**

<i>Methodological approach</i>	<i>Number of studies</i>	<i>Geographical focus</i>	<i>Number of studies</i>
Qualitative interviews and/or focus groups (some of which used prompts)	15	England	13 (6 in North England, 4 in South England, 1 in Midlands, no further information given for 2 studies)
Other (ethnographic, photovoice, drawing, etc)	5	Scotland	6
Survey	3	Wales	2
Mixed methods	2	Britain / multiple regions	4
<b>Total</b>	<b>25</b>	<b>Total</b>	<b>25</b>

## Findings

### Are people aware of the association between socioeconomic disadvantage and poor health?

Several of the earlier studies found that the communities most negatively affected by health inequalities were also the least likely to acknowledge the existence of these inequalities (Blaxter 1983, Blaxter 1997, Popay et al. 2003a, Macintyre et al. 2005) and less likely to talk about the role of material, structural and environmental factors in health inequalities. However, in interviews, participants nonetheless described multiple links between poverty and ill-health (Blaxter 1983, Popay et al. 2003a). Blaxter's interviews with middle-aged, working-class grandmothers in a Scottish city suggested that people were more comfortable with the idea of a link between unemployment and poor mental health (notably depression and low morale) than between unemployment and physical illness (Blaxter 1983). Blaxter (1983) suggests this may be a consequence of a moral imperative to be healthy. However, the more recent studies tend to identify a greater acceptance of the existence of deprivation-related (mental and physical) health inequalities (Davidson et al. 2006, Davidson et al. 2008, MacDonald & Shildrick 2013, Mackenzie et al. 2016). It is possible that this reflects methodological differences (e.g. in the way questions were asked) but it is also possible that the change reflects greater public awareness of the existence of health inequalities following the mass of research (and related media coverage) that has developed in the past few decades, particularly from the mid-1990s onwards. One implication of the greater awareness evident in more recent studies is that this can contribute to a sense of injustice and stigmatisation among those affected, as highlighted by a quote from one participant in a recent Scottish study:

'Nearly every day I'm picking this paper up, I'm reading about the life expectancy wae [with] me and [compared to] maybe staying doon in London... they're absolutely kicking you every way they can, like. And if you're in a poor area, you'll always be in a poor area... Naebody's [Nobody's] gonna try and help you oot [out of] it, but if you're in an affluent area, to hell wae [with] the rest.... They'd like to have an exclusion zone roon [round] some of these places... I've heated their bums wae [with] coal... we've served wur [our] cause. If they could dae [do] away wae [with] you noo [now], they would dae away wae you, because you're a drain on society... They want me, noo, to work 'til I'm sixty-seven. I've no chance of working to I'm sixty-seven. I'll no' see sixty-seven.' ('John' quoted in Mackenzie et al. 2016: p8)

This suggests that care is needed in promoting public awareness of health inequalities research since simply highlighting the existence of these inequalities may have a stigmatising impact on communities labelled 'deprived'.

### **How do people explain the relationship between deprivation and poor mental health?**

The 25 included studies identify multiple, interactive pathways linking experiences of socioeconomic deprivation to experiences of poor mental health. Figure 7.2 provides a simplified overview of the key factors and pathways highlighted in these studies. As the key makes clear, Figure 7.2 is divided into six factor types that participants described impacting on health.

In addition, many of the studies described factors that could 'amplify' the negative health impacts of the factors highlighted in figure 7.2 (e.g. experiences of racial harassment/prejudice or the inadequacy felt by men who were unable to provide a sufficiently high income for their family to thrive but lived in contexts in which traditional gender roles remained strong). Dolan's (2007) interview-based study of working class men living in Coventry provides a particularly acute example, with participants suggesting that their gender meant they were unable to discuss their feelings and that this led directly to health problems, a sense of being trapped and, in some cases, suicidal behaviour. These kinds of 'amplifiers' are summarised at the top of figure 7.3.

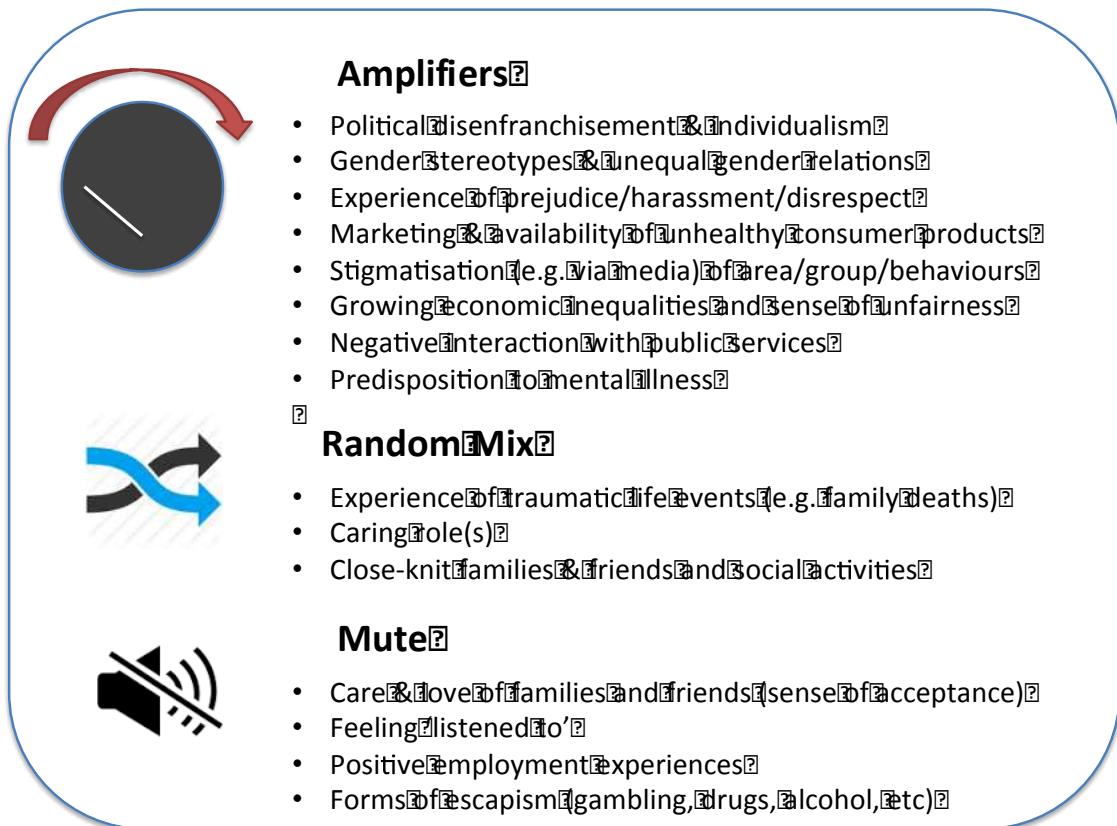
**Figure 7.2: Key factors and pathways between socioeconomic deprivation, mental health problems and suicide, as described by participants in studies included in review**



**Key**



Figure 7.3 'Amplifiers', 'randomisers' & 'mutes' of negative experiences in Figure 2<sup>10</sup>



This figure also highlights that there were a smaller number of factors that participants recounted in ways that suggested they could have a positive *or* negative impact on the relationships captured in figure 7.2 (those listed under 'random mix'). Examples of these kinds of factors included critical life events, such as the loss of family members or friends, particularly at an early age or in difficult circumstances (e.g. deaths relating to suicide and drugs/alcohol). In some cases, these experiences seemed to act as 'amplifiers', compounding the negative health impacts of multiple other factors in participants' lives (MacDonald & Shildrick 2013). In other examples, however, the same kinds of experiences were described in ways that suggested that they served as an impetus for participants to change their lives in positive ways, actively challenging the accumulation of negative impacts on their health (MacDonald & Shildrick 2013). It is worth noting that MacDonald & Shildrick's (2013) biographical interviews with 186 teenagers living in Teesside found that the

<sup>10</sup> 'Amplifiers' refers to factors that seemed to make negative health experiences captured in Figure 7.2 worse. 'Random mix' refers to factors that were described in ways that suggested they could work to exacerbate or ameliorate negative health issues captured in Figure 8.2, while 'mutes' were factors that people described as ways of reducing, or coping with, the negative pathways illustrated in Figure 7.2.

extent of bereavements and other critical life events (including suicides) experienced by the participants seemed much higher than the average UK population.

Finally, participants described some factors as a means of 'muting' (or coping with) other negative aspects of their lives. Some of these, such as the love and care of friends and family, or feeling 'listened to', came across as wholly positive in mental health terms (Backett-Milburn et al. 2003, Garthwaite et al. 2015). However, participants across multiple studies also described using alcohol, drugs, smoking, unhealthy foods and gambling as forms of escapism/coping mechanisms (i.e. ways of 'muting' stressful and upsetting life events), even though they were well aware of the negative impacts of these activities on their health, wellbeing and finances (Graham 1987, Backett-Milburn et al. 2003, Bolam et al. 2004, Davidson et al. 2006, Dolan 2007, Parry et al. 2007, Roberts 2009, MacDonald & Shildrick 2013, Garthwaite et al. 2015).

The following section examines the mechanisms/processes summarised in figure 7.2 in more detail. It is organised in line with the colour-coded key accompanying figure 7.2, which (as will be described) reflects existing theories about the causes of health inequalities. An attempt is made to discuss these by order of importance, beginning with the factors that seemed most important to most participants across most studies. Although this means of organising the findings is heuristically useful, it necessarily simplifies and stabilises what, in reality, most studies described as a complex and dynamic set of relationships. Moreover, the narrative nature of many of the study write-ups, and the fact that this review is based on studies which have already been refracted through the subjective lens of the author(s), means that efforts to 'count' how often a particular factor/mechanism is mentioned across the studies does not necessarily reflect the overall importance of this factor/mechanism to participants.

The findings highlight that closures of major employers can have acute, widespread and multiplicative negative impacts on the mental health of affected communities, stretching far beyond material factors relating to income. The review also stresses the importance of what researchers call 'psychosocial pathways' in explaining how material, environmental and public service related factors impact on health. 'Psychosocial pathways' describe the links between people's lived experiences, including their perceptions of their relative social status and their sense of control over their lives, and biological and physical changes, such as high blood pressure and high levels of stress hormones.

# Mechanisms and processes that might help to explain the association between socioeconomic disadvantage and risk factors for suicide

## Structural factors

### *Employment and economic policies*

Across the studies, it is clear that employment opportunities and experiences often have a central role in people's lives. Accounts of the closure of major employers were often emotive, as the following extract, taken from an interview with a woman living in the Welsh valleys, illustrates:

"Well the first link to go was the mines. But that was ok after a while, it was devastating for the miners. That was ok really because then some of 'em could get work here. In the steelworks. Some people moved away but a lot of 'em came back as well. A lot of the miners came back and the second chain, the second link in the chain was British Steel. When it was announced it was closing. And to me that was a death knell in the town. And everybody stood still, oh my god. And it was like, if that chain was broken and it was flung away and everybody just, they just didn't know what to do, none of us really." ('Martha' quoted in Walkerdine 2010: p.111)

This quotation captures what was evident across studies of communities experiencing multiple large employer closures: these changes not only threaten people's livelihoods and incomes but also a particular way of life, and the impacts tend to be multiple (Roberts 2009, Walkerdine 2010, Garnham 2015, Rind & Jones 2015, Mackenzie et al. 2016). Many participants, for example, spoke with nostalgia about the days in which large employers were at their height, emphasising the strong social ties that this way of life facilitated, the 'buzz of people' (Terry, oral history participant, quoted in Garnham 2015), as well as employers' investment in local sporting facilities (e.g. Rind & Jones 2015):

In contrast, participants reflected that the closures had triggered a breakdown of social connections and the emergence of a collective sense of hopelessness. The resulting worklessness contributed further to feelings of hopelessness and depression, both recognised risk factors for

suicide, as well as reducing income, increasing stress and lower living standards (e.g. Garnham, 2015). When combined with an increasingly minimal and heavily regulated welfare support system, these closures resulted in feelings among several participants that they were being pushed into jobs that they considered to be damaging for their mental health, with 'call centre' work singled out as a particularly pernicious example by a GP working in Easington (Roberts 2009: pp41-42). As, Macdonald & Shildrick summarise:

'This was not employment that was based on terms and conditions, formal or informal, or which was notable for the fair or compassionate treatment of workers (for example, paid sick leave was rarely available). They worked for employers who were as quick to fire as they were to hire. [...] They are more likely to encounter work that generates ill health and face a stronger likelihood of speedy expulsion back to unemployment when they suffer ill health.'

(MacDonald & Shildrick 2013: p.151)

Many of the participants and study authors attributed this situation to the political and economic policy decisions of local and national actors, which contributed to a sense that these communities were being treated unfairly to the benefit of others (Roberts 2009, Walkerdine 2010, Garnham 2015, Rind & Jones 2015, Mackenzie et al. 2016).

#### *Structural 'amplifiers' and 'mutes'*

A sense of being treated unfairly, in turn, contributed to some accounts of political disenfranchisement, further exacerbating people's sense of hopelessness e.g.:

"It's a waste of time voting, Labour or Conservative, they are all the same, they are there for themselves, they don't live here, they don't know what it is like" (participant quoted in Cattel 2001: p.1508)

Several studies referred to the stigma associated with living in particular areas. Some participants in Parry et al (2007) study claimed that this directly limited their employment opportunities, contributing further to people's sense of injustice and fatalism.

Additionally, Roberts (2009) argues that gender stereotypes, centred on traditional male providers, amplify the negative impacts of unemployment for men (and, in turn, their families), in

a context in which many new jobs are deemed to be more suitable for women. As noted earlier, Dolan's (2007) interviews with working class men living in four different parts of Coventry found that some participants believed that this inability to discuss feelings and their physical consequences led directly to a sense of feeling trapped and health problems, including suicidal behaviour.

More optimistically, MacDonald & Shildrick's (2013) study included some accounts of positive employment experiences which suggest that, where meaningful employment opportunities exist, they can provide people with a sense of purpose and something to focus on, which can, in turn, help people to deal with (or at least not be consumed by) grief, stress, worry and unhealthy addictions.

### **Psychosocial factors**

#### *Individual experiences (stress, fear, anger, stigma and shame)*

Across the studies, the most common psychosocial pathway linking socioeconomic deprivation to poor mental health outcomes involved stress (Blaxter 1983, Graham 1987, Morrow 2000, Cattel 2001, Backett-Milburn et al. 2003, Popay et al. 2003a, Popay et al. 2003b, Bolam et al. 2004, Davidson et al. 2006, Scanlon et al. 2006, Canvin et al. 2007, Parry et al. 2007, Davidson et al. 2008, Roberts 2009, Walkerdine 2010, Watson & Douglas 2012, MacDonald & Shildrick 2013, Garnham 2015). Stress was described as contributing directly to depression, anxiety, panic attacks and anger, and indirectly to social isolation (e.g. via family arguments) and poor decision-making (e.g. around managing limited finances or consumption of harmful products). In Dolan's (2007) interviews with working class men living in Coventry, in order to cope with stress (and isolation – see below), many men reported turning to other behaviours, including drinking and violent behaviour and some reported that this had culminated in suicide attempts.

While stress was the most frequent psychosocial experience to be mentioned, 'fear' appeared to be one of the most damaging and often related to previous negative social interactions, including, for example, having/witnessing children removed by social services (Canvin et al. 2007), being sanctioned, patronised or otherwise treated badly in job centres (Garnham 2015, Garthwaite et al. 2015), running out of food or being evicted (Garthwaite et al. 2015), being the subject of violence (including racial and sexual violence) or other criminal acts (Morrow 2000, Cattel 2001, Canvin et al. 2007, Parry et al. 2007, Roberts 2009, MacDonald & Shildrick 2013, Garthwaite et al. 2015).

This, in turn, could lead to people avoiding interactions with the public services which were intended to provide a basic ('safety net') level of support (Canvin et al. 2007).

Other psychosocial factors commonly described at the individual level included shame and stigma (Morrow 2000, Cattel 2001, Popay et al. 2003a, Popay et al. 2003b, Davidson et al. 2006, Canvin et al. 2007, Parry et al. 2007, Davidson et al. 2008, Watson & Douglas 2012, Garnham 2015, Garthwaite et al. 2015, Mackenzie et al. 2016) and, in a smaller number of studies, 'anger' (Graham 1987, Morrow 2000, Cattel 2001, MacDonald & Shildrick 2013) and feelings of being of relatively low social status based on sense of relative income/wealth and self-worth relating to employment status (Vassilev et al. 2014) or neglect in the neighbourhood in which they lived (Watson & Douglas 2012). In most cases, these experiences were described as interacting with one another, with negative consequences for mental health and risk factors for suicide. Shame, stigma and fear, for example, were described as directly impacting on mental health but also combining to fuel a perceived need to spend money on items that could not really be afforded (e.g. to ensure children looked 'smart enough' so that neighbours would not report them to social services for neglect (Cattel 2001)). Anger and a sense of injustice were occasionally referred to in ways that suggested these experiences could be positive for mental health (e.g. in instances where it had caused participants to work collectively to try to challenge the source of the perceived problem (Cattel 2001, Davidson et al. 2008)). These examples were balanced, however, by awareness of negative health consequences (e.g. smoking as a means of dealing with parental anger (Graham 1987)).

#### *Social capital/cohesion and social isolation*

Participants' accounts suggested that deindustrialisation impacted negatively on community cohesion and social ties, leaving affected communities with fewer people to talk to or to go to for support (e.g. to borrow small amounts of money) (Davidson et al. 2006, Davidson et al. 2008, Garnham 2015, Rind & Jones 2015). In some studies, participants claimed that a lack of social support was exacerbating their health problems, including depression:

"I can positively say, if I'd had someone to lean on, someone to talk to, to console me, it [my bad health – depression and heart] would not have gone this far . . . basically, I was totally alone . . ." (male resident of Cathall, quoted in Cattel 2001: p.1509)

As noted above, Dolan (2007) found the working class men in his study reported a combination of isolation and stress as a trigger for unhealthy behaviours which had culminated in suicide attempts for some.

#### *Psychosocial amplifiers and 'mixers'*

Multiple factors appeared to amplify the negative psychosocial experiences described by study participants. This included worklessness (Vassilev et al. 2014), traumatic experiences, such as abuse (Roberts 2009, Vassilev et al. 2014), more mundane experiences, such as negative comments from teachers at school (MacDonald & Shildrick 2013), and a general sense of unfairness/injustice (Popay et al. 2003a, Popay et al. 2003b, Garnham 2015).

Most studies suggested that strong social networks could help 'mute' other negative pathways captured in figure 8.2. This only helped those who felt part of such supportive networks, however. In the context of the lack of social capital in areas affected by large-scale deindustrialisation (described above), many participants' accounts suggested that their social networks were limited. One study found that tight familial networks, while often positive in their effects, could also impact negatively on wellbeing in situations where people felt that, as a result of a shared experience within the network (e.g. a bereavement), they were unable to turn to other family members for support (Cattel 2001). Another (mixed methods) study, focusing on patients with long-term health conditions, noted that relying upon others for every day, routine activities came at an emotional cost to both provider and recipient (Vassilev et al. 2014), highlighting the limits to this form of support.

### **Material (wealth and income)**

#### *Income and debt*

Although income and income inequalities are widely believed to play an important role in health inequalities more generally (Marmot 2010), few participants explicitly linked income to health. Rather, participants tended to focus on a wide range of material and financial resources which combined to contribute to poor housing, stress and anxiety (especially when debt was involved) (Watson & Douglas 2012), a sense of not having many choices/options available (Bolam et al. 2004), stigma and guilt (e.g. not being able to afford to provide treats for children or, in some cases, to provide adequate food and clothing) (Parry et al. 2007). In one study, however, 'John' (quoted earlier) reflected that, prior to the introduction of the minimum wage, he had been told

by one of his bosses that he was earning less than the security dogs he worked alongside (Mackenzie et al. 2016). This suggests that low wages contribute directly to low self-esteem, fuelling a sense of injustice. Reflecting this, Vassilev and colleagues' (2014) study of 300 GP patients with long-term conditions found that access to material resources (particularly income and wealth) played a central role in the way that people assessed their social status.

### *Material amplifiers and 'mutes'*

Several studies highlighted consumerism and the marketing of unnecessary and/or overly expensive products as factors that 'amplified' the negative impact of restricted incomes on their mental health (Bolam et al. 2004, Davidson et al. 2006). A related sense of social pressure to buy certain items (Cattel 2001, Popay et al. 2003a, Popay et al. 2003b), gambling (Davidson et al. 2006) and a need to replace items / address damage following experiences of crime or antisocial behaviour were also mentioned as factors exacerbating the negative impact of low incomes.

## **Environmental**

### *Housing*

Poor quality housing (high rise flats, in particular) was directly linked to feelings of hopelessness, depression, social isolation and/or a sense of being uncared for in six studies (Cattel 2001, Popay et al. 2003b, Bolam et al. 2004, Parry et al. 2007, Davidson et al. 2008, Garnham 2015).

Participants in Davidson et al's (2008) research explained that both the direct, negative emotional and physical consequences of poor housing and the difficulties facing those attempting to improve this situation contributed directly to experiences of depression:

"If you open your door and it's full of rubbish and what have you, it makes you feel depressed, you know." ('Margaret', low SES participant living in Greater Glasgow, quoted in Davidson et al. 2008: p.174)

"The amount of times I've been so depressed because of the way the house is has been unbelievable, that's their fault. I begged for help, they never gave me it. I begged for help and they shut the door in my face. I begged for help and the councilors werenae [were not] there. So you come to the end of the rope eventually, and you've got nowhere else to go, so you do get depressed." ("Jane", low SES participant living in Greater Glasgow, quoted in Davidson et al. 2008:p.176)

Several studies described less direct pathways linking poor housing to negative mental health outcomes. In Parry et al's (2007) study, poor housing was identified as a cause of shame and stigma, leading to feelings of being unsafe and contributing to arguments within the household (e.g. in relation to space for children to undertake homework). The same study (Parry et al. 2007) and several others (Blaxter 1983, Bolam et al. 2004, Davidson et al. 2008) linked poor housing to chronic ill-health, a risk factor for poor mental health.

#### *Local shops, facilities (including play and sports facilities) and transport*

Poor quality, limited, local shops and facilities (e.g. play parks), combined with limited transport options, were linked by participants to lack of exercise (Morrow 2000, Backett-Milburn et al. 2003, Khanom et al. 2015) and poor diets (Popay et al. 2003b, Khanom et al. 2015), as well as to negative psychosocial experiences, reflecting the sense that wealthier areas fared much better.

#### *Anti-social behaviour, violence and crime*

Many of the participants described anti-social behaviour, violence and crime as features of some more deprived neighbourhoods. For example, Dolan's (2007) interview-based study of working class men in north-east Coventry found that the men living in a more disadvantaged community reported a constant sense of threat of physical violence and intimidation, leading to a sense of social isolation, and described feeling that the only way to protect themselves and their families was to mimic this behaviour. Another study specifically examined relationships between neighbourhood crime rates, perceptions of crime and disorder, and common mental illnesses (Polling et al. 2014). The results of this cross-sectional survey suggest that actual neighbourhood crime rates do not impact on common mental illnesses but that *worrying about* the local area and *individual experience* of crime are strongly and independently associated with common mental illnesses. However, the authors suggest that this may be because perceived neighbourhood disorder captures 'aspects of the experience of living in disordered neighbourhoods that crime rates are unable to' (Polling et al. 2014: p.899).

#### *Environmental amplifiers and 'mutes'*

Key 'amplifiers' of environmental factors included a perceived lack of investment in the area (e.g. in housing, shops and transport) (Cattel 2001, Walkerdine 2010, Garnham 2015), the 'dumping' of problem families in neighbourhoods that were already struggling (Parry et al. 2007), and a failure

of public services to respond to reported/recognised problems (Parry et al. 2007, Davidson et al. 2008, Roberts 2009).

### ***Lifestyle-behavioural***

#### *Alcohol, drugs, smoking and poor diet*

As noted already, health damaging 'lifestyle behaviours' were often described in ways which suggested they were a rational/inevitable response to difficult circumstances (Blaxter 1983), and participants across studies acknowledged the subsequent negative health impacts. In Dolan's (2007) study, men described a direct pathway between stress/isolation, unhealthy behaviours (especially drinking and violence) and mental ill-health, including suicide attempts. Considering the studies collectively, it is striking that these varied lifestyle-behaviours are consistently explained as coping mechanisms or forms of escapism, as table 7.2 summarises:

**Table 7.2 The consistency with which lifestyle-behaviours were described as 'coping' mechanisms or forms of escapism**

<i>Lifestyle-behaviour</i>	<i>Illustrative quotation</i>
Drugs and alcohol	'Both older adults and younger people linked the absence of facilities for young people to problems with vandalism, anti-social behaviour and the likelihood of turning to 'drugs and alcohol, because there's f***k all" (Parry et al. 2007: p.128)
Smoking	'For many of the mothers who were caring on a full-time basis for children, smoking a cigarette emerged as their only luxury and their only leisure activity. It was a moment of self-caring which, unlike a cup of tea or coffee, needed no preparation. For women caring in poverty, a packet of cigarettes, additionally, can be their only item of personal expenditure.' (Graham 1987: p.55)
Unhealthy diet	'[P]eople are always going to buy cakes, it's just the pills of life. They eat cakes and biscuits and sweets and so on, that taste nice so they make you think of different things' (female resident of an inner city estate in Greater Glasgow, quoted in Davidson et al. 2008: p.176)

#### *Lifestyle-behavioural 'amplifiers' and 'mixers'*

Key 'amplifiers' of lifestyle behaviours identified in studies are corporate marketing and retailing of health-damaging products (Bolam et al. 2004, Davidson et al. 2006, Khanom et al. 2015). Additionally, as noted earlier, critical life events (such as incarceration and bereavement) were described in ways that suggested they could both exacerbate negative lifestyle behaviours or

stimulate a commitment to change (MacDonald & Shildrick 2013), while negative psychosocial factors, particularly stress and isolation, were consistently described as contributors to unhealthy lifestyle behaviours.

### **Lifecourse accumulation and health selection**

Although Figure 7.2 does include a time-dimension, participants' accounts strongly support the idea that negative experiences can be cumulative, making it increasingly difficult over the lifecourse for people living in deprived circumstances to respond positively to the complex web of negative influences captured in Figure 7.2. 'Health selection', in which poor health limits a person's income (e.g. via the jobs that it is possible to do), played a role in this, with participants in several studies attributing their exit from the labour market to ill-health (MacDonald & Shildrick 2013, Garthwaite et al. 2015).

## **Limitations**

Given the difficulty of searching for a relatively broad set of criteria (and the multiple potential search terms), it is not possible to be certain that all the relevant literature has been identified. In particular, searches in some databases had to be restricted to journal articles in order to make them manageable within the time available; as a result, it is less likely that relevant books and PhD theses were identified. Nonetheless, the reference mining and citation tracking that were undertaken helped to address some of the limitations of the database searches and demonstrated that many of the included studies cited each other, suggesting that most relevant studies had been identified.

## **Implications for policy, practice and research**

Given the complex and dynamic relationships linking experiences of socioeconomic deprivation to experiences of poor mental health and other risk factors for suicide (see figures 7.2 and 7.3), singular policy changes, or interventions, are unlikely to achieve substantial improvements. The kinds of policies that seem most likely to achieve a large-scale positive change involve efforts to maintain, or replace, large employers offering secure forms of employment suited to the skills of those living in socioeconomically deprived communities. This is because of the multiple roles that large-scale employers can play in a community, from the basic provision of jobs and, therefore,

income and material wealth to the more socially cohesive impact of neighbours working (and often socialising) alongside each other. These kinds of positive social impacts appear to have been enhanced in situations in which large-scale employers had invested in local resources (e.g. community sports facilities). Unfortunately, however, most of the studies included in this review described these positive effects in historical terms. Newer forms of employment, such as call centre work, tended to be described in much more precarious terms and were directly linked to experiences of stress, a risk factor for unhealthy behaviours which were, in turn, linked by participants in some studies to their accounts of suicidal behaviour. Where large employers do close, mental health support services and interventions are likely to be vital for affected communities.

The findings also emphasise the importance of psychosocial pathways. Fear, stress and a sense of relatively low status and social injustice were all described in ways which highlight the negative consequences that these kinds of feelings have for people's mental health. This underlines the importance of the ways in which public servants (from teachers to Job Centre staff and social workers) interact with the communities they serve. Indeed, in several cases, single experiences of disrespect, coercion or discrimination appeared to have had long-term consequences for the individuals affected. It follows that the increased conditionality of welfare support (combined with cuts in public spending), in which those seeking benefits are required to provide an increasingly vast array of information to demonstrate their commitment to finding work (or to support their claim to be unable to work), may well have negative consequences for the mental health of claimants.

Finally, the studies reviewed consistently describe proximal, behavioural contributors to poor mental health and suicidal behaviour, such as alcoholism, drug use and smoking, as 'coping' mechanisms or forms of escapism (i.e. as almost inevitable responses to the multiple other factors impacting on wellbeing). This suggests that policy interventions aimed at this level are unlikely to succeed unless they are accompanied by efforts to tackle at least some of the more fundamental determinants of poor mental health and wellbeing described in this chapter.

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# Chapter 8: Conclusions

This report has confirmed the evidence of a strong link between socioeconomic disadvantage and suicidal behaviour, providing a deeper understanding of the nature of this association, how it might be explained, and a consideration of the implications for policy and practice (i.e., what needs to be done). This report has explored key issues from different disciplinary perspectives, including economics, geography, psychology, public health, social policy and sociology. In this chapter, we attempt to synthesise the findings in the form of a model which sets out the pathways to suicidal behaviour, highlighting socioeconomic determinants which increase the risk of suicidal behaviour. There are many existing models of suicide and self-harm which feature a wide range of determinants and pathways (see, e.g., Turecki & Brent, 2016; New Zealand Associate Minister of Health 2006; US DHHS, 2012; WHO, 2014; Teuton et al., 2014). Socioeconomic factors are included in some, but not all, of these models and at different levels of the socio-ecological model (see chapter 1). For example, 'economic turmoil' is an element of 'lack of social cohesion', a population-level risk factor in the model by Turecki & Brent (2016); 'socioeconomic factors' is a societal risk factor in the New Zealand model (New Zealand Associate Minister of Health 2006); 'high unemployment and economic recession' and 'socioeconomic deprivation' are societal risk factors in the Health Scotland model (Teuton et al., 2014); and 'job or financial loss' is an individual-level risk factor in the WHO model (WHO, 2014). (No socioeconomic determinants are included in the U.S. model (US DHSS, 2012).)

The model presented below (figure 8.1) differentiates between three levels of determinants (societal, community and individual); and for each level, socioeconomic determinants are differentiated from other determinants. The list of socioeconomic determinants is intended to be reasonably comprehensive, distinguishing this model from those that are available in the literature. A considerable degree of selectivity was necessary, however, when considering which non-socioeconomic determinants to include in the model, given the vast array of factors that are considered to increase the risk of suicide. Two main criteria for inclusion of non-socioeconomic determinants have been adopted: first, there is solid evidence that the risk factor is of major importance in explaining variations in suicidal behaviour (a key example being availability of, and access to, lethal means of suicide); second, there is empirical evidence or a sound theoretical basis for linking the risk factor to both socioeconomic disadvantage and suicidal behaviour.

At the societal level, the main socioeconomic determinants which are likely to increase risk of suicidal behaviour relate to economic recession and uncertainty, typically including high level of unemployment, weak social protection (especially inadequate employment benefits), poor (or non-existent) active labour market programmes, weak (or non-existent) employment protection, and a high level of poverty. At the community level, lack of local job opportunities, the closure of, or downsizing in, local workplaces, and the level of deprivation in the local area are major risk factors for suicidal behaviour. At the individual level, socioeconomic determinants that increase risk of suicidal behaviour include labour market circumstances (unemployment, precarious employment, under-employment, job insecurity, being in a manual (especially unskilled) occupation) and low socioeconomic position (low income/poverty, poor educational attainment, renting (rather than home ownership) and living in an area of deprivation).

Non-socioeconomic determinants of suicidal behaviour included in the table are numerous, wide-ranging and varied. We would single out in particular those determinants which, as we have seen, are likely to influence suicidal behaviour among disadvantaged individuals and in communities and time periods characterised by economic recession and uncertainty. At the societal level, public stigma towards those who have engaged in suicidal behaviour and/or who are unemployed or outside the labour market, and high levels of alcohol consumption, will be likely to increase the risk of suicidal behaviour in those who are socioeconomically vulnerable. At the community level, the high incidence of, and exposure to, suicidal behaviour, weak social capital, poor quality physical environment (especially housing) and poor quality and/or accessibility and/or acceptability of local services, all of which are more likely in disadvantaged areas, will increase the risk of suicidal behaviour in these areas. The list of non-socioeconomic determinants at the individual level is particularly long and powerful, encapsulating the features of everyday experience that can often accompany (but does not define) socioeconomic disadvantage and can contribute to suicidality. These include psychological factors (e.g., feelings of defeat, entrapment, humiliation, shame, powerlessness), adverse experiences across the lifecourse (especially in childhood), negative recent or chronic life events, financial strain, relationship breakdown, health-damaging behaviours, and poor physical and mental health.

In the final chapter, we build on the evidence presented in the report and make recommendations about how the link between socioeconomic disadvantage and suicidal behaviour might be broken.

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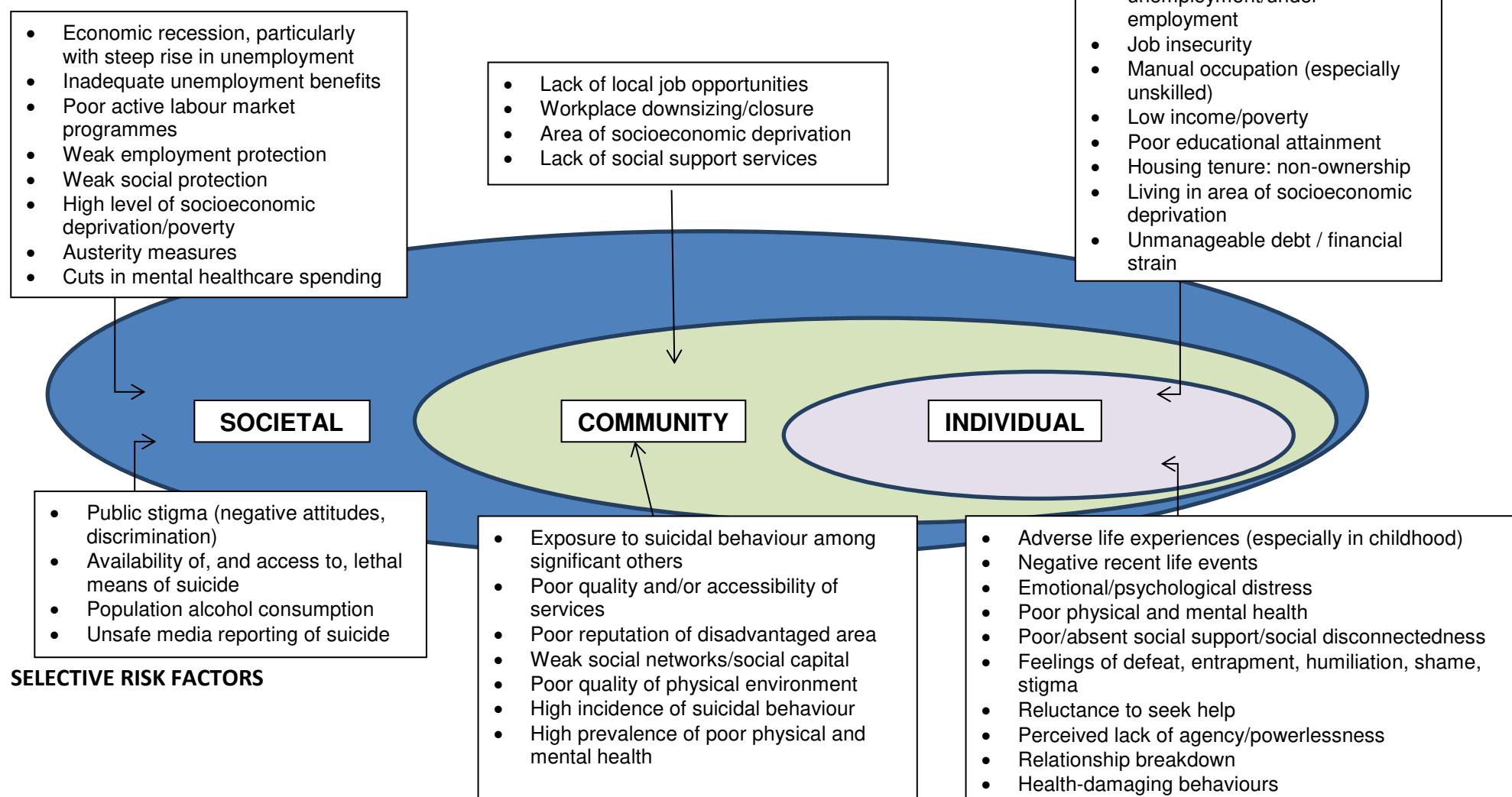
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**Figure 8.1 Model of suicidal behaviour, highlighting socioeconomic risk factors**

**SOCIOECONOMIC RISK FACTORS**



# Chapter 9: Recommendation

Suicide is preventable. Suicidal behaviour is not inevitable but concerted action across a wide range of disciplines will be required to reduce the risk of suicide, attempted suicide and self-harm among socioeconomically disadvantaged individuals, families and communities. Suicide is everybody's business and recommendations arising from this report are aimed at a range of agencies, both local and national, to address issues at societal, community and individual levels.

## Societal level: requiring national action

***National suicide prevention strategies in the UK and Ireland should recognise the strong association between suicidal behaviour and area-level socioeconomic deprivation, targeting efforts on both people and places.*** Alongside a focus on high risk groups, such as men in their middle years (regardless of where they live), these universal strategies should also focus on the most deprived areas with the highest rates, taking a *proportionate universalism*<sup>11</sup> approach to reducing geographical inequalities in suicide, providing more support to meet additional needs in these areas.

### ***Effective cross-governmental, coordinated approaches to suicide prevention are required.***

Mental health services should be improved and protected and the prevention of suicidal behaviour should be government priorities in welfare, education, housing and employment policies, in addition to health policy. The development of all welfare, housing and employment policies should include an evaluation of potential unintended impacts on mental health and suicidal behaviour.

***Suicide prevention strategies need to be multi-faceted, focusing on the alleviation or mitigation of labour market-related adversity,*** recognising the health-related risks associated with unemployment, including, for example, the provision of adequate social welfare payments complemented by improved support for individuals to seek, obtain and retain employment.

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<sup>11</sup> Proportionate universalism is an approach to reducing health inequalities which advocates improving the health of all, but the health of the poorest the most. Suicide prevention interventions should be provided universally 'but with a scale and intensity that is proportionate to the level of disadvantage' (Marmot, 2010, p.15).

Policies which lead to the reduction of socioeconomic inequalities should be adopted as part of trying to reduce suicide. Such policies should seek to reduce income inequalities and ensure universal high quality public service provision in health, education, housing and social security.

***Effective support and signposting should be provided to individuals who are threatened with, or have recently suffered, job loss*** and who therefore may be more vulnerable to suicidal behaviour as a result of reduced status and income. This is particularly important in the context of changes that create large-scale unemployment.

***Workplaces should have in place a suicide prevention plan and provide effective psychological support to all employees***, especially those who may be experiencing job insecurity and including those who might be affected by downsizing. This support should be offered together with standard careers guidance and retraining, as part of any redundancy package.

***Poverty and debt need to be destigmatised.*** The media and public figures need to recognise the impact of this stigma and avoid using language or portraying poverty and debt in a way that increases the felt stigma of those living with socioeconomic disadvantage, and who are likely to receive benefits and use welfare services at various points in their lives.

## **Community and individual level: requiring local action**

***There needs to be greater awareness among welfare, housing and employment practitioners and policy-makers of the impact of economic hardship,*** financial and housing insecurity, loss, and trauma on mental ill-health, suicidal behaviour and self-harm.

***Every local area should have a suicide prevention plan in place. 'Priority places' in the community*** (such as hospitals, custody suites, job centres, foodbanks), ***especially those in the areas of highest deprivation, should be a key part of local suicide prevention plans,*** potentially providing appropriate services or fostering ties with relevant agencies.

**Staff and volunteers at services accessed by individuals who are experiencing socioeconomic disadvantage, including job centres and food banks, should receive specialist training in recognising, understanding and responding compassionately to individuals who are in distress and may be suicidal.**

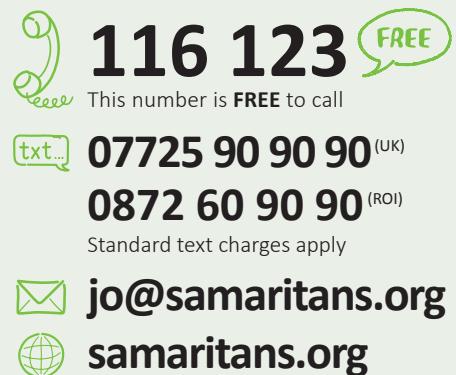
**There should be early intervention to help those in debt or in financial distress.** Financial advice and support should be easily available and accessible. Staff working in the banking, finance and employment support sectors should be trained to improve recognition of suicide risk, so they are capable of helping individuals access appropriate psychological and social welfare support services.

**People bereaved or affected by suicide or suicidal behaviour in others should be offered additional psychological and material support.** This applies particularly to people living with socioeconomic disadvantage.

## Reference

Marmot, M. (2010). *Fair society, healthy lives: The Marmot review: strategic review of health inequalities in England post-2010*. London: UCL, available at <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

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