Why Do Adolescents Self-Harm?

An Investigation of Motives in a Community Sample

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Abstract. *Background:* Given the high rates of self-harm among adolescents, recent research has focused on a better understanding of the motives for the behavior. *Aims:* The present study had three aims: to investigate (a) which motives are most frequently endorsed by adolescents who report self-harm; (b) whether motives reported at baseline predict repetition of self-harm over a 6-month period; and (c) whether self-harm motives differ between boys and girls. *Method:* In all, 987 school pupils aged 14–16 years completed a lifestyle and coping questionnaire at two time points 6 months apart that recorded self-harm and the associated motives. *Results:* The motive "to get relief from a terrible state of mind" was the most commonly endorsed reason for self-harm (in boys and girls). Interpersonal reasons (e.g., "to frighten someone") were least commonly endorsed. Regression analyses showed that adolescents who endorsed wanting to get relief from a terrible state of mind at baseline were significantly more likely to repeat self-harm at follow-up than those adolescents who did not cite this motive. *Conclusion:* The results highlight the complex nature of self-harm. They have implications for mental health provision in educational settings, especially in relation to encouraging regulation of emotions and help-seeking.

Keywords: self-harm, reasons, motives, adolescent, repetition

Self-harm, defined as any type of intentional self-injury or self-injurious behavior regardless of suicidal intent (Hawton et al., 2003), is a significant public health problem, especially among young people (Hawton, Saunders, & O'Connor, 2012). Adolescent self-harm also represents one of the leading causes of hospital admission in young people in the UK (e.g., O'Loughlin & Sherwood, 2005) and it is strongly associated with risk of future suicide (Goldacre & Hawton, 1985; Owens, Horrocks, & House, 2002). Whereas much research has highlighted the characteristics of those individuals who present to hospital following self-harm, there are relatively few large-scale studies of adolescent self-harm in the community (O'Connor, Rasmussen, Miles, & Hawton, 2009). This is problematic as the majority of adolescents who self-harm do not present to clinical services (Groholt, Ekeberg, Wichstrom, & Haldorsen, 2000; King, 1997; Ystgaard et al., 2009).

Recent attempts to investigate the prevalence of adolescent self-harm in the community in the UK have found that approximately 13–14% of adolescents report having engaged in self-harm, with girls being significantly more likely to self-harm than boys (Hawton, Rodham, Evans, & Weatherall, 2002; O'Connor et al., 2009; O'Connor, Rasmussen, & Hawton, 2012, 2014). In addition, research has highlighted a number of risk (e.g., depression, hopelessness, bullying, sexual/physical abuse, exposure to the self-harm of others) and protective factors (e.g., good problem-solving skills, peer relationships), which gives insight into why some adolescents are more vulnerable to self-harm than others (e.g., Fliege, Lee, Grimm, & Klapp, 2009; Gutierrez, 2006; Hawton et al., 2012; O'Connor et al., 2012); however, our understanding of the motives behind these behaviors remains limited. A more detailed appreciation is imperative for the development of interventions in this population (Hawton, Cole, O'Grady, & Osborn, 1982).

Motives for Adolescent Self-Harm

There is growing evidence that adolescents report multiple reasons for self-harm, and that the behavior is primarily an expression of intolerable psychological pain. For example, Scoliers and colleagues (2009) investigated self-harm motives in a sample of 30,477 adolescents from six European countries by examining motives in terms of two overarching dimensions; one which represents externally directed reasons (e.g., "I wanted to find out if someone really loved me") and the other reflecting internally directed reasons (e.g., "I

wanted to get relief form a terrible state of mind"). The findings were clear: Adolescents were significantly more likely to report wanting to die, escape, or obtain relief from their situation, than they were to report wanting to change or "manipulate" another person (Scoliers et al., 2009).

This finding is consistent with research from adult populations (Bancroft et al., 1979; Michel, Valach, & Waeber, 1994). For example, Holden, Kerr, Mendoca, and Velamoor (1998) examined the motives of 251 individuals (aged 14–63 years) who attended a crisis and short-term intervention unit of a psychiatric hospital and concluded that internally directed motivations for suicidal behavior represent valid indicators of intent to die as well as overall suicide risk. In addition, research has also shown that self-harm is rarely the result of a single motive (e.g., to get attention), as most individuals identify multiple reasons/motives for the behavior (e.g., Hjelmeland et al., 2002; McAuliffe, Arensman, Keeley, Corcoran, & Fitzgerald, 2007).

Theoretical work in the field also supports the idea that self-harm often serves multiple functions (Brown, Comtois, & Linehan, 2002; Haines, Williams, Brain, & Brown, 1995), and that it is important to distinguish between interpersonal and intrapersonal/automatic functions (Klonsky & Glenn, 2009; Nock & Prinstein, 2004). In addition, this work suggests that considering the functions of self-harm may be particularly relevant within a clinical context as the functions may have implications not only for the assessment but also the treatment of self-harm (Nock & Prinstein, 2005). These findings are unfortunately in stark contrast to the view often expressed by professionals, who perceive adolescent self-harm as being driven by a wish to manipulate others (see Hawton et al., 1982; Schnyder, Vlach, Bichsel, & Konrad, 1999).

Gender Differences

While research into adolescent self-harm shows clear differences in prevalence rates between boys and girls, with girls being significantly more likely to self-harm than boys (Hawton & Harris, 2008; Madge et al., 2008; O'Connor et al., 2009), evidence for the existence of gender differences in motivation is equivocal. On the one hand, Scoliers et al. (2009) found that girls reported significantly more motives for their self-harm than boys did, and this difference held for both intrapersonal and interpersonal motives. These findings could possibly be interpreted as girls having greater insight into the complexity of the motivations or simply that they are generally more emotionally literate or willing to admit to diverse motives. By contrast, however, Hjelmeland and colleagues (2002) and Skögman and Öjehagen (2003) found no significant gender differences in self-reported motivations for self-harm (although it is worth bearing in mind that most of the patients in both of the latter studies were adults). Given the gender differences in self-harm rates, and the potential differences in motives for self-harm, we thought it was important to look again at gender within the current study. To allow comparability with other adolescent studies, we chose to employ the same methodology as Scoliers et al. (2009).

The Present Study

This investigation stems from a wider study of self-harm in Northern Irish adolescents aged 14–16 years, the full details of which are described elsewhere (O'Connor, Rasmussen, & Hawton, 2014). In the current paper, our primary aim was to examine the motives reported by adolescent boys and girls who had self-harmed. More specifically, we wished to examine (a) whether these motives were more likely to be intrapersonal or interpersonal, (b) whether differences existed in the motives chosen by girls when compared with boys, and (c) whether motives at baseline were predictive of future self-harm over a 6-month follow-up period. This study is important as no research, to date, has investigated whether motivations for past self-harm are predictive of self-harm over time in a community adolescent sample, and the findings could have potential utility in terms of intervention and prevention efforts.

Consistent with Scoliers et al. (2009), we hypothesized that young people would be significantly more likely to endorse internally directed (intrapersonal) "cry of pain" motives than externally directed "cry for help" (interpersonal) motives (Hypothesis 1). Such a hypothesis is consistent with recent theoretical developments that highlight the role of feelings of defeat and entrapment (i.e., internal pain) in self-harm and suicidal behavior (e.g., O'Connor, 2011; Williams, 2014). Second, given the ambiguous findings on gender differences, we also wished to examine whether boys and girls differed in the motives they reported following self-harm. In a cross-sectional study, Scoliers et al. (2009) found that girls were more likely to report multiple motives than boys. We therefore hypothesized that girls would report more reasons for self-harm than boys would (Hypothesis 2). Finally, building on the evidence that psychological pain is particularly associated with self-harm, we also predicted that those adolescents who reported intrapersonal motives for self-harm at baseline would be significantly more likely to repeat self-harm over the follow-up period than those individuals who did not report intrapersonal reasons at baseline (Hypothesis 3).

Method

Sample

The sample included 987 school pupils aged 14–16 years (mean age 14.7 years, SD = .60). There were 423 boys (43%) and 564 girls, with 97% of the sample being White. They were a subsample of 3,596 pupils who completed the Northern Ireland Lifestyle and Coping Survey (O'Connor et al., 2014). The subsample represents all participants who completed the survey at two time points (time one [T1] and time two [T2] 6 months later). In the original survey, a representative sample of all schools in Northern Ireland agreed to take part (n = 28) and although all schools were invited to take part in the 6-month follow-up, only 16 out of the 28 schools agreed. The present study is based

on responses from pupils in these 16 schools. A comparison of the schools that participated in both the T1 and T2 parts of the study showed that pupils who took part in both parts of the study were significantly more likely to be from the grammar rather than the secondary school sector, $\chi^2(1, n = 3,596) = 5.71, p < .02$. In addition, significantly fewer schools with more than 17% of pupils eligible for free school meals agreed to participate in the follow-up, $\chi^2(1, n = 3,596) = 101.48, p < .001$. There was no difference based on the location of the school; urban versus rural, $\chi^2(1, n = 3,596) = .62, ns$. Finally, when comparing the original sample ($n = 35,960$) with the subsample included in the following analyses ($n = 987$) we did not find any difference in self-harm rate, $\chi^2(1, n = 3,520) = 1.76, ns$.

The follow-up response rate within schools varied between 19 and 79%. Therefore, to determine whether the young people who took part in the follow-up survey differed from those who declined, we conducted further analysis. This demonstrated that those young people who reported self-harm at T1 were less likely to complete the follow-up questionnaire than those young people who did not report self-harm at T1, $\chi^2(1, n = 2,235) = 7.46, p < .05$; however, they did not differ in terms of the motives provided for self-harm at T1.

Measures and Procedure

All participants completed the Northern Ireland Lifestyle and Coping Survey in school. This was adapted from the Child and Adolescent Self-Harm in Europe (CASE) Lifestyle and Coping Questionnaire (Hawton et al., 2002; Madge et al., 2008). They also completed a brief version of the survey 6 months later. The original questionnaire was developed in collaboration with experts in school-based studies and underwent extensive piloting in schools and an adolescent psychiatric unit and has already been administered in eight countries (England, Republic of Ireland, Scotland, The Netherlands, Belgium, Norway, Hungary, and Australia). We only report on those questions pertinent to the present study here (see O'Connor et al. 2014 for full details of the procedure and measures included in the Northern Ireland Lifestyle and Coping Survey). As part of the survey, the young people were asked to answer questions on self-harm. Self-harm (at baseline) was recorded if an adolescent responded *yes* to the following question "Have you ever deliberately taken an overdose (e.g., of pills or other medication) or tried to harm yourself in some other way (such as cut yourself)?" While this methodology does include a description of the act in terms of method used, for the current analyses we did not use the description to classify the act as self-harm because excluding those who chose not to write a description might yield an underestimate of prevalence as some respondents deemed describing the act as too personal and painful.

In addition, respondents were asked to endorse if their most recent self-harm episode was explained by any of the following motives: "I wanted to show how desperate I was feeling," "I wanted to die," "I wanted to punish myself,"

"I wanted to frighten someone," "I wanted to get my own back on someone," "I wanted to get relief form a terrible state of mind," "I wanted to find out if someone really loved me," and "I wanted to get some attention" (derived from Bancroft et al., 1979). At follow-up 6 months later, respondents were asked whether they had self-harmed since they first completed the survey.

Ethical approval was obtained from the Department of Psychology Ethics Committee at the University of Stirling. Parents were informed of the study by letter and asked to notify the school if they did not want their child to participate. On the day of participation, pupils were given the choice of opting out and not participating. The survey was administered in a school assembly hall or classroom setting, and each pupil was provided with a sealed, anonymous envelope in which to return their questionnaire. All pupils were given a debriefing sheet containing information about support organizations (e.g., helplines). An anonymous and confidential code was employed to link the pupils' responses between the two time points. All data were collected in 2009.

Statistical Analyses

A series of univariate logistic regression analyses and chi-square tests were conducted to test the association between self-harm and associated variables and to determine entry into the multivariate analyses. In the univariate logistic regression analyses, to adjust for potential clustering effects, the Huber–White sandwich estimator method using logistic regression with school as a clustering variable was used. Within the multivariate logistic regression analyses, standard errors were again adjusted for within-school clustering. All analyses were conducted using SPSS (version 21). For comparison purposes, we chose to report the data without controlling for depression and anxiety as this has not been done in previous research using the same methodology (e.g., Madge et al., 2008; Scoliers et al., 2009); however, separate analyses were conducted that controlled for these variables and this did not affect the outcomes.

Results

Self-Harm Motives at Baseline

At baseline, 8.9% ($n = 88$) of the 987 respondents (564 girls and 423 boys) reported at least one episode of self-harm in their lifetime. Girls were almost 2.5 times ($OR = 2.43$; 95% CI = 1.472–4.002) more likely to report self-harm than boys were (11.8% [66/558] vs. 5.2% [22/420], respectively). "Wanting to get relief from a terrible state of mind" was the most commonly reported motive by the young people (62.5%). "Wanting to frighten someone" (14.8%), "wanting to get their own back on someone" (10.2%), and "wanting to get some attention" (12.5%) were the least commonly reported (see Table 1). Based on

the classification scheme of Scoliers et al. (2009), 79.5% of those who had self-harmed reported at least one intrapersonal motive, 40.9% reported at least one intrapersonal motive, and 31.8% reported at least one intrapersonal together with one interpersonal motive.

Gender Differences in Baseline Motives for Self-Harm

More boys than girls reported wanting to frighten someone ($\chi^2 = 18.90$, $df = 1$, 14; $p < .05$), and significantly more girls than boys reported wanting to die ($\chi^2 = 3.79$, $df = 1$, 14; $p < .05$). Additionally, more boys than girls reported at least one cry for help motive (59.1% and 34.8%, respectively, $\chi^2 = 4.01$, $df = 1$, 14; $p < .05$), but there was no significant difference with respect to intrapersonal motives ($\chi^2 = .84$, $df = 1$, 14; $p = ns$).

About half of those who self-harmed (55.6%) reported more than one self-harm motive ($n = 49$), but girls and boys did not differ in how frequently they reported multiple motives (54.5% and 59.1%, respectively, $\chi^2 = 1.82$, $df = 1$, 14; $p = ns$). See Table 1 for a breakdown of the motives cited by gender.

Predicting Repeat Self-Harm

During the 6-month follow-up period, 26.1% ($n = 23$) of those who self-harmed at baseline reported having self-harmed again (four boys and 19 girls). Univariate logistic regression was used to determine which motives cited by those who engaged in self-harm at baseline predicted repeat self-harm in the subsequent 6-month period. These analyses revealed that the motives "I wanted to get relief from a terrible state of mind" (intrapersonal) and "I wanted to find out whether someone really loved me" (interpersonal) were independently associated with repeat self-harm (see Table 2). Reporting a wish to die at baseline was not predictive of further self-harm during the follow-up.

Table 1. Motives given for most recent episode of self-harm, by gender ($n = 66$ girls, 22 boys)

Motive	Girls N	N (%)	Boys N	N (%)	Total %
To show how desperate I was feeling	13	19.7	6	27.3	21.6
To die	28	42.4	5	22.7	37.5
To punish myself	24	36.4	6	27.3	34.1
To frighten someone	6	9.1	7	31.8	14.8
To get my own back on someone	5	7.5	4	18.2	10.2
To get relief from a terrible state of mind	44	66.7	11	50.0	62.5
To find out whether someone really loved me	12	18.2	6	27.3	20.5
To get some attention	5	10.6	4	18.2	12.5
Citing at least one type of motive:					
Intrapersonal	54	81.8	16	72.7	79.5
Interpersonal	23	42.4	13	59.4	40.9

Note. Similar to Scoliers et al. (2009), Motives 1, 4, 5, 7, and 8 are categorized as interpersonal, while Motives 2, 3, and 6 are categorized as intrapersonal reasons.

Table 2. Univariate logistic regression analyses of motives predicting repeat self-harm at Time 2 (at 6 months)

	OR	95% CI	p
To show how desperate I was feeling	0.350	0.04–2.95	.29
To die	0.469	0.11–1.99	.26
To punish myself	1.434	0.540–3.82	.43
To frighten someone	0.620	0.06–7.03	.67
To get my own back on someone	0.918	0.07–12.87	.95
To get relief from a terrible state of mind	14.448	1.43–145.71	.01
To find out whether someone really loved me	0.064	0.00–0.99	.03
To get some attention	0.425	0.03–5.31	.47
Citing at least one type of motive:			
Intrapersonal	N/A	N/A	.00
Interpersonal	0.398	0.08–1.93	.21

Table 3. Multivariate associations of most recent episode of self-harm at baseline with repeat self-harm

	OR	95% CI	p
To get relief from a terrible state of mind	11.194	1.383–90.595	.024
To find out whether someone really loved me	0.099	0.012–0.843	.034

Univariate logistic regression was also used to determine whether citing intrapersonal or interpersonal motives at baseline predicted repeat self-harm in the subsequent 6-month period. Only intrapersonal responses were found to have a significant relationship with repeat self-harm ($p <$ .005). As there were no cases of repeat self-harm where the young person did not cite at least one intrapersonal motive, the odds ratio could not be calculated.

Next, the two self-harm motives that emerged from the univariate analyses (i.e., "I wanted to get relief from a terrible state of mind" and "I wanted to find out whether someone really loved me") were entered into multivariate regression analyses (see Table 3). Adolescents who cited "I wanted to get relief from a terrible state of mind" as a motive were more than 17 times more likely (OR = 17.77, 95% CI = 1.63–190.70) to report self-harm at the 6-month follow-up period (controlling for the other motive). By contrast, those who cited "I wanted to find out whether someone really loved me" as a motive at baseline were significantly less likely (OR = 0.047, 95% CI = .004–.569) to repeat self-harm (controlling for the other motives).

Discussion

This school-based study addressed three research aims and three associated specific hypotheses. First, in support of Hypothesis 1, we found clear evidence that intrapersonal self-harm motives were more likely to be endorsed by the adolescents than interpersonal motives. However, it is worth noting that over half of the adolescents reported multiple motives, with "I wanted to get relief from a terrible state of mind" being the most frequently endorsed motive by both boys and girls. This is in keeping with previous research in adolescent samples from England (Hawton et al., 2002), Scotland (O'Connor et al., 2009), Continental Europe (Scoliers et al., 2009), and studies of both adolescents (Hawton et al, 1982) and adults presenting to hospital following self-harm (Bancroft et al., 1979; Hjelmeland et al., 2002; Schnyder, Valach, Bichsel, & Michel, 1999). It is also consistent with previous research that has suggested that it is likely that self-harm serves several functions concurrently (Suyemoto, 1998), and therefore the complexity of self-harm must not be underestimated (Skegg, 2005). Importantly, while the behavior may have some communicative element, the overarching theme of the behavior in adolescents is related to emotional pain. The present findings reinforce the notion that for the majority of young people self-harm is not primarily a manipulative act. They also illustrate that to simply consider the seriousness of a behavior in relation to whether

intention to die has been expressed or not is misleading (Loughrey & Kerr, 1989).

From a theoretical point of view, our findings lend support to research that has argued for a need to distinguish between different functional reasons for engaging in self-harm. For example, Nock and Prinstein (2004) proposed four primary functions that fit along two dichotomous dimensions of automatic versus social behavior and reinforcement that is either positive or negative. While the measure of motives included in our study does not allow for a full evaluation according to this framework, our findings certainly map onto the distinction between social/interpersonal and intrapersonal/automatic behaviors. More specifically, our findings are consistent with functional research that suggests that the most frequently endorsed function among adolescents is to reduce negative emotions (automatic negative reinforcement; Nock & Prinstein, 2004).

In support of the second hypothesis, we found evidence of significant gender differences, with girls being more likely to report "wanting to die," and boys being more likely to endorse wanting "to frighten someone." While these reasons were the most infrequent motives reported by both boys and girls more generally, the gender difference is similar to findings by Laye-Gindhu and Schonert-Reichl (2005) that boys more frequently reported self-harming in order to communicate with others. Similarly, Lloyd-Richardson, Perrine, Dierker, and Kelley (2007) found that boys were more likely than girls to express wanting to make others angry, while girls were more likely than boys to want to punish themselves. It is possible that these gender differences are related to differences in socialization patterns, with girls being more likely to direct their feelings inward, whereas boys are more likely to direct their distress outwards (Crick & Zahn-Waxler, 2003; Parker et al., 1998). This suggestion may also help to explain the gender difference in intention to die, as we found girls were more likely than boys to report wishing to die. Overall, such findings support the conclusion by Laye-Gindhu and Schonert-Reichl (2005) that research on self-harm should always take into account differences between boys and girls.

Finally, we were specifically interested in examining whether self-harm motives at baseline predicted future self-harm, 6 months following baseline. To this end, the analyses showed that adolescents who reported self-harming to "get relief from a terrible state of mind" were significantly more likely to repeat self-harm, while those who reported self-harming to "find out whether someone really loved me" were significantly less likely to repeat self-harm. This finding supports our hypothesis (Hypothesis 3) and is consonant with earlier research that has suggested that more intense emotions may be implicated in greater emotional dysregulation, which, in turn, increases the risk

of self-harm (Gratz, 2006). However, this finding is at odds with Hjelmeland et al. (1998), who reported that motives for self-harm did not predict repetition of self-harming behavior in a European sample of 776 self-harming individuals aged 15+ who took part in the WHO/Euro Multicentre Study on Parasuicide. Crucially, though, this latter study focused largely on adults (the majority of participants were aged 30–59 years) who presented to hospital following a self-harm episode (primarily following an overdose). We believe the prospective element of this study is important because it highlights two key motives that ought to be taken into consideration when assessing risk of future self-harm in community-based, school-attending adolescents.

Implications

Understanding the motives that underpin self-harm in young people is vital to the development of appropriate intervention and treatment programs. Research has shown that young people often do not seek help before self-harming (Hargus, Hawton, & Rodham, 2009; Ystgaard et al., 2009), which is a concern given our finding that the most frequently endorsed reason for self-harm in our study was to get relief from a terrible state of mind. This finding mirrors what has been reported elsewhere (Boergers, Spririto, & Donaldson, 1998; Hawton et al., 1982; Rodham, Hawton, & Evans, 2004). What is more, those young people who reported self-harming as a result of psychological pain were 17 times more likely to repeat self-harm over the 6-month follow-up period. Given the gender differences in motives, we also believe that there is value in considering whether interventions and treatments to reduce/manage self-harm should be tailored separately for girls and boys. An additional challenge is how to encourage young people to seek help earlier and how to determine whether the pattern of help-seeking varies as a function of self-harm motives. The findings also suggest that personal and social development efforts should usefully be aimed at promoting emotional regulation skills and developing effective methods for dealing with stress and communication.

Limitations and Future Research

Although these findings offer additional insights regarding the motives for adolescent self-harm and therefore contribute to our understanding of adolescent self-harm more generally, they must be interpreted in the light of some limitations. First, although the study sample was relatively large, the proportion of adolescents who reported self-harm at baseline was modest (8.9%; $n = 88$) and the number of people who self-harmed between T1 and T2 was small ($n = 23$). Although the odds ratio in the predictive analyses for "I wanted to get relief from a terrible state of mind" is impressive, we would urge caution given that the confidence intervals are also large. Similarly, it is worth noting that the follow-up response rate for those young people who reported self-harm at T1 was lower than for young people who did not report self-harm at T1, which could have led to a bias in the final sample composition. We therefore acknowledge that reliance on self-reported behavior only is a limitation that could have resulted in an underestimation of the rates of self-harm. We also recognize that both substance use and self-injurious acts are covered within our self-harm question. While these behaviors are often discussed separately in the literature, in studies where the young people's answer to this question has been compared with a description of the self-harm act, the overwhelming majority of the acts are of self-harm. In addition, as the study involved a standardized list of self-harm motives it precluded respondents generating any additional motives, and the format did not allow us to measure the degree of wish to die. Given the variation in extent of intent to die (Harriss, Hawton, & Zahl, 2005), this may explain why we did not find that reporting a wish to die at T1 was predictive of self-harm at follow-up. Furthermore, this list is not exhaustive, and does not, for example, include motives such as lack of social connectedness or a wish to belong, which have been highlighted elsewhere as being important interpersonal factors related to adolescent self-harm (e.g., Kaminski et al., 2010). However, we believe that the utility of administering a standardized questionnaire outweighs the limitations as it allows for direct comparison across different studies and countries. Given our limited sample size, unlike Scoliers et al. we were unable to explore differences in motives in younger versus older adolescents. Thus, it is possible that further gender differences may have been evident if our sample had been amenable to further analysis by age.

Conclusion

The findings of this study highlight the utility of examining the motives underpinning adolescent self-harm. In particular, they point to specific motives that predicted self-harm repetition over 6 months, which ought to be considered when assessing risk of self-harm repetition. Clearly, an enhanced understanding of the motives behind self-harm can play a valuable role in the prevention of further self-harm through the development of appropriate treatment or coping strategies. Furthermore, the results highlight the complexity of the motives underpinning self-harm, the fact that the motives are many, and that efforts to tackle adolescent self-harm need to be made with recognition of this complexity.

Acknowledgments

References

Bancroft, J., Hawton, K., Simkin, S., Kingston, B., Cumming, C., & Whitwell, D. (1979). The reasons people give for taking overdoses: A further inquiry. *British Journal of Medical Psychology*, *52*, 353–365.

Boergers, J., Spirito, A., & Donaldson, D. (1998). Reasons for adolescent suicide attempts: Associations with psychological functioning. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37*, 1287–1293.

Brown, M., Comtois, K., & Linehan, M. (2002). Reasons for suicide attempts and nonsuicidal self-injury in women with borderline personality disorder. *Journal of Abnormal Psychology, 111*, 198–202.

Crick, N. R., & Zahn-Waxler, C. (2003). The development of psychopathology in females and males: Current progress and future challenges. *Development and Psychopathology*, *15*, 719–742.

Fliege, H., Lee, J-R., Grimm, A., & Klapp, B. F. (2009). Risk factors and correlates of deliberate self-harm: A systematic review. *Journal of Psychosomatic Research*, *66*, 477–493.

Goldacre, M., & Hawton, K. (1985). Repetition of self-poisoning and subsequent death in adolescents who take overdoses. *British Journal of Psychiatry*, *146*, 395–398.

Gratz, L. (2006). Risk factors for and functions of deliberate self-harm: An empirical and conceptual review. *Clinical Psychology Review*, *27*, 236–239.

Groholt, B., Ekeberg, O., Wichstrom, L., & Haldorsen, T. (2000). Young suicide attempters: A comparison between a clinical and an epidemiological sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 868–875.

Gutierrez, P. M. (2006). Integratively assessing risk and protective factors for adolescent suicide. *Suicide and Life-Threatening Behavior*, *36*, 129–135.

Haines, J., Williams, C. L., Brain, K. L., & Wilson, G. V. (1995). The psychophysiology of self-mutilation. *Journal of Abnormal Psychology, 104*, 471–489.

Hargus, E., Hawton, K., & Rodham, K. (2009). Distinguishing between subgroups of adolescents who self-harm. *Suicide and Life-Threatening Behavior*, *39*, 518–537.

Harriss, L., Hawton, K., & Zahl, D. (2005). Value of measuring suicidal intent in the assessment of people attending hospital following self-poisoning or self-injury. *British Journal of Psychiatry*, *186*, 60–66.

Hawton, K., Cole, D., O'Grady, J., & Osborn, M. (1982). Motivational aspects of deliberate self poisoning in adolescents. *British Journal of Psychiatry, 141*, 286–291.

Hawton, K., & Harris, L. (2008). Deliberate self-harm by under 15 year olds: Characteristics, trends and outcomes. *Journal of Child Psychology and Psychiatry*, *49*, 441–448.

Hawton, K., Harriss, L., Hall, S., Simkin, S., Bale, E., & Bond, A. (2003). Deliberate self-harm in Oxford, 1990–2000: A time of change in patient characteristics. *Psychological Medicine*, *6*, 987–995.

Hawton, K., Rodham, K., Evans, E., & Weatherall, R. (2002). Deliberate self-harm in adolescents: Self-report survey in schools in England. *British Medical Journal, 325*, 1207–1211.

Hawton, K., Saunders, K. E. A., & O'Connor, R. C. (2012). Self-harm and suicide in adolescents. *The Lancet*, *379*, 2373–2382.

Hjelmeland, H., Hawton, K., Nordvik, H., Bille-Brahe, U., De Leo, D., Fekete, S., … Wasserman, D. (2002). Why people engage in parasuicide: A cross-cultural study of intentions. *Suicide and Life-Threatening Behavior, 32*, 380–393.

Hjelmeland, H., Stiles, T. C., Bille-Brahe, U., Ostamo, A., Renberg, E. S., & Wasserman, D. (1998). Parasuicide: The value of suicidal intent and various motives as predictors of future suicidal behaviour. *Archives of Suicide Research, 4*, 209–225.

Holden, R. R., Kerr, P. S., Mendonca, J. D., & Velamoor, V. R. (1998). Are some motives more linked to suicide proneness than others? *Journal of Clinical Psychology*, *54*, 569–576.

Kaminski, J. W., Puddy, R. W., Hall, D. M., Cashman, S. Y., Crosby, A. E., & Ortega, L. A. G. (2010). The relative influence of different domains of social connectedness on self-directed violence in adolescence. *Journal of Youth and Adolescence*, *39*, 460–473.

King, C. A. (1997). Suicidal behavior in adolescence. In R. W. Maris, M. M. Silverman, & S. S. Canetto (Eds.), *Review of suicidology* (pp. 61–95). New York, NY: Guilford.

Klonsky, E. D., & Glenn, C. R. (2009). Assessing the functions of non-suicidal self-injury: Psychometric properties of the inventory of statements about self-injury (ISAS). *Journal of Psychopathology and Behavioural Assessment*, *31*, 215–219.

Laye-Gindhu, A., & Schonert-Reichl, K. A. (2005). Nonsuicidal self-harm among community adolescents: Understanding the "Whats" and "Whys" of self-harm. *Journal of Youth and Adolescence*, *34*, 447–457.

Lloyd-Richardson, E. E., Perrine, N., Dierker, L., & Kelley, M. L. (2007). Characteristics and functions of nonsuicidal self-injury in a community sample of adolescents. *Psychological Medicine*, 37, 1183–1192.

Loughrey, G., & Kerr, A. (1989). Motivation in deliberate self-harm. *The Ulster Medical Journal*, *58*, 46–50.

Madge, N., Hewitt, A., Hawton, K., De Wilde, E. J., Corcoran, P., Fekete, S., … Ystgaard, M. (2008). Deliberate self-harm within an international community sample of young people: Comparative findings from the child and adolescent self-harm in Europe (CASE) study. *Journal of Child Psychology and Psychiatry*, *49*, 667–677.

McAuliffe, C., Arensman, E., Keeley, H. S., Corcoran, P., & Fitzgerald, A. P. (2007). Motives and suicide intent underlying hospital treated deliberate self-harm and their association with repetition. *Suicide and Life-Threatening Behavior*, *37*, 397–408.

Michel, K., Valach, L., & Waeber, V. (1994). Understanding deliberate self-harm: The patients' views. *Crisis, 15*, 172–178.

Nock, M. K., & Prinstein, M. J. (2004). A functional approach to the assessment of self-mutilative behavior. *Journal of Consulting and Clinical Psychology*, *72*, 885–890.

Nock, M. K., & Prinstein, M. J. (2005). Contextual features and behavioral functions of self-mutilation among adolescents. *Journal of Abnormal Psychology*, *114*, 140–146.

O'Connor, R. C. (2011). Towards an integrated motivational-volitional of suicidal behaviour. In R. O'Connor, S. Platt, & J. Gordon (Eds.), *International handbook of suicide prevention: research, policy and practice* (pp. 181–198). Chichester, UK: Wiley Blackwell.

O'Connor, R. C., Rasmussen, S., & Hawton, K. (2012). Distinguishing adolescents who think about self-harm from those who engage in self-harm. *British Journal of Psychiatry*, *200*, 330–335.

O'Connor, R. C., Rasmussen, S., & Hawton, K. (2014). Adolescent self-harm: A school-based study in Northern Ireland. *Journal of Affective Disorders*, *159*, 46–52.

O'Connor, R. C., Rasmussen, S., Miles, J., & Hawton, K. (2009). Self-harm in adolescents: Self-report survey in schools in Scotland. *British Journal of Psychiatry*, *194*, 68–72.

O'Louglin, S., & Sherwood, J. (2005). A 20-year review of trends in deliberate self-harm in a British town, 1981-2000. *Social Psychiatry and Psychiatric Epidemiology*, *40*, 446–453.

Owens, D., Horrocks, J., & House, A. (2002). Fatal and non-fatal repetition of self-harm. Systematic review. *British Journal of Psychiatry*, *181*, 193–199.

Parker, G., Roy, K., Wilhelm, K., Austin, M., Mitchell, P., & Hadzi-Pavlovic, D. (1998). "Acting out" and "acting in" as behavioural responses to stress: A qualitative and quantitative study. *Journal of Personality Disorders*, *12*, 338–350.

Rodham, K., Hawton, K., & Evans, E. (2004). Reasons for deliberate self-harm: Comparison of self-poisoners and self-cutters in a community sample of adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 43*, 1–8.

Schnyder, U., Valach, L., Bichsel, K., & Michel, K. (1999). Attempted suicide – do we understand the patients' reasons? *General Hospital Psychiatry*, *21*, 62–69.

Scoliers, G., Portzky, G., Madge, N., Hewitt, A., Hawton, K., de Wilde, E. J., & van Heeringen, K. (2009). Reasons for adolescent deliberate self-harm: A cry of pain and/or a cry for help? Findings from the Child & Adolescent Self-Harm in Europe (CASE) Study. *Social Psychiatry and Psychiatric Epidemiology*, *44*, 601–607.

Skegg, K. (2005). Self-harm. *The Lancet*, *366*, 1471–1483.

Skögman, K., & Öjehagen, A. (2003). Motives for suicide attempts – the views of the patients. *Archives of Suicide Research*, *7*, 193–206.

Suyemoto, K. L. (1998). The functions of self-mutilation. *Clinical Psychology Review*, *18*, 531–554.

Williams, J. M. G. (2014). *Cry of pain*. London, UK: Little, Brown Book Group.

Ystgaard, M., Arensman, E., Hawton, K., Madge, N., van Heeringen, K., Hewitt, A., … Fekete, S. (2009). Deliberate self-harm in adolescents: Comparison between those who receive help following self-harm and those who do not. *Journal of Adolescence, 32*, 875–891.

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