White Rose Research Online

eprints@whiterose.ac.uk
https://eprints.whiterose.ac.uk
Universities of Leeds, Sheffield and York

Deposited via The University of Leeds.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/id/eprint/100603/

Version: Accepted Version

Article:
Fortune, S, Cottrell, D and Fife, S (2016) Family factors associated with adolescent self-harm: a narrative review. Journal of Family Therapy, 38 (2). pp. 226-256. ISSN: 0163-4445

https://doi.org/10.1111/1467-6427.12119

© 2016, The Association for Family Therapy and Systemic Practice. This is the peer reviewed version of the following article: "Fortune, S., Cottrell, D. and Fife, S. (2016), Family factors associated with adolescent self-harm: a narrative review. Journal of Family Therapy, 38: 226–256" which has been published in final form at http://dx.doi.org/10.1111/1467-6427.12119. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving.

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

UNIVERSITY OF LEEDS
University of Sheffield
UNIVERSITY of York

Family factors associated with adolescent self-harm: a narrative review.

Abstract

This narrative literature review focuses on family factors that might be amenable to intervention using family therapy (n = 126). Domains of interest include parent/child interactions, inter-parental relationships, child characteristics, parental characteristics, wider system factors, treatment needs and moderators. The focus of family-orientated treatment with this population should focus on maximizing cohesion, attachment, adaptability, family support, parental warmth while reducing maltreatment, scapegoating and moderating parental control. Close working relationships with child protection services and schools represent additional opportunities.

Practitioner Points

1. Over and above any inherited risk, a range of family interactional factors are strongly associated with self-harming behaviours in young people.
2. Therapy has the potential to make a positive difference by focusing on enhancing family cohesion and adaptability, whilst reducing discord and violence. Discussions that enhance perceived parental support and warmth may be particularly helpful.
3. Therapists should attend to issues of perceived difference and potential victimisation (bullying, gender orientation and identity, ethnic minority status) as these may play an important role in self-harm.

Family factors associated with adolescent self-harm; a narrative review

Aim:

Our aim is to produce a narrative literature review of family factors associated with self-harm by adolescents in order to assist therapists in working with such families and support the development of further research in this area by highlighting what is already known (and not known). A number of factors shown to be associated with adolescent self-harm are potentially amenable to change, and even when they are not, greater awareness of these issues may change the ways in which family members think about themselves. We attempt to highlight those areas that might be amenable to change through family therapy

Method/Search strategy:

We expected that the current body of literature would be of variable quality and diverse methodology and therefore chose to conduct a narrative review, attempting to summarise and integrate different primary studies. However, we have tried to be as systematic as possible in our search and reporting strategies.

In this review we have defined self-harm as any form of non-fatal self-poisoning or self-injury (such as cutting, taking an overdose, hanging, self-strangulation and running into traffic), regardless of motivation or the degree of intention to die. This concept overlaps with NSSI (non-suicidal self-injury) which is considered to beself-injury in the absence of suicidal intent (for review see Swannell, 2014). The focus of the search was non-fatal acts of SH, but we included the literature on death by

suicide where it was pertinent to family functioning.

The first author conducted a literature search using Medline (2000 – week 4, June 2015) and Psychinfo (2000 – June, week 5, 2015). A variety of terms was used to define self-harm including: suicide, attempted suicide, overdose, self-injurious behavior, suicidal behaviour, automutilation, drug overdose, self destructive behaviour, self inflicted wounds, self mutilation and suicidal ideation. The search was restricted the search to English language and peer reviewed work from 2000 onwards. This search yielded 4,010 records. A title and abstract review resulted in 156 publications, with others excluded for reasons including reporting prevalence data only, non-peer reviewed, not focusing on adolescents or lack of reporting on suicidal behaviour. A further 30 were excluded following review of the full text, yielding 126 references for inclusion (see Figure 1).

Overview of risk factors associated with self-harm amongchildren and adolescents

Self-harm behaviour results from the convergence of a range of biopsychosocial risk factors across a number of domains including genetic, biological, social, environmental, demographic factors, personality and cognitive styles, and psychiatric morbidity (Beautrais, 2000). Several reviews synthesize the full range of risk factors (e.g., Bridge et al., 2006; Evans et al., 2004), but in this review we

examine in more detail family factors that are associated with suicidal behavior among children and adolescents (Ougrin et al., 2012). In this narrative review we have focused on familyfactors that might be amenable to intervention using family therapy such as family environment, perceived support and factors likely to have a significant impact on the progress of therapy, and although not directly addressed in family therapy, are amenable to intervention using other resources or agencies, for example parental mental illness, educational experiences and family poverty guided by the principles of appraisal of clinical evidence (Oxford Centre for Evidence-based Medicine, 2009) .

We have organised our review into sections on parent-child interaction, including perceived parental support; inter-parent al relationships; child characteristics; parental characteristics; wider systems issues; and factors that influence treatment outcomes.

1. Parent-child interactions

Three overarching reviews (King et al., 2008; Michelson et al., 2012; Wagner et al., 2003) of quantitative research into family factors related to self-harm among children and adolescents reach similar conclusions and identify family interactions, pathology, attachment, child maltreatment, socialization, scapegoating and overall cohesion as important factors. , took a different approach reviewing intervention studies to explore possible means of protecting adolescents from self-harm and noted that family adaptability and cohesion are protective, and family conflict a risk

factor in this population. Similarly Glenn et al., (2015) and Tompson et al., (2012) note that family involvement and the enhancement of child and parent skills are the hallmarks of successful treatment in this area.

Parental support

We identified several longitudinal studies with complex and sometimes contradictory findings regarding parent-child interactions. Connor and Rueter, (2006) recruited 451 families with children aged 12/13 years and collected further data at ages 14, 16 and 17 years, using observational and self-report methods. Over this period around one third (32%) reported suicidal ideation, 14% made a plan, and 4% made a suicide attempt. Structural equation modeling by the authors suggested maternal warmth had a direct negative association with adolescent suicidality, whilst paternal warmth had an indirect negative association mediated via adolescent emotional distress. Surprisingly, observable parental hostility did not predict adolescent emotional distress or suicidality.

Kidd et al., (2006), used data from the National Longitudinal Study of Adolescent Health in the USA (Wave 1: 9,142 adolescents in grades 7-11 in a representative population sample, median age = 16) to explore the interactive effects of parent, peer and school relations at Wave 2 (1-1.5 years after Wave 1) with suicide attempts reported at Wave 2 but also interactions with Wave 1 risk factors and gender. Female gender, history of prior attempts and depressive symptoms (although not a substantial effect) increased the likelihood of reporting attempted suicide. Feeling more connected to parents reduced the likelihood of attempted suicide. For boys

with a past attempts and poor peer relations, the protective effect of high quality parent relations was bolstered by school connectedness.

A large and robust 21 year longitudinal study (n= 1265) in New Zealand found that social background, family and youth functioning measures aged 0-16 years were related to suicidal ideation and attempts aged 15-21 (Fergusson et al., 2000). Predictors of suicidal behaviour were: socioeconomic adversity, marital disruption, poor parent –child attachment, and sexual abuse in childhood, and neuroticism/ novelty seeking in adolescence. With the exception of the socioeconomic and personality factors, childhood factors were mediated via mental health problems and exposure to stressful life events during adolescence/ early adulthood.

Other recent, cross sectional studies have highlighted the importance of perceived family support. Fleming et al., (2007) used data from New Zealand Adolescent Health Survey (9,570 randomly selected year 9-13 students of whom 739, 7.8% reported a "suicide attempt" in the preceding 12 months). Depressive symptoms, alcohol abuse, suicide attempt by a friend, and non-heterosexual attraction were associated with increased risk of suicide attempt. Family factors associated with increased suicide attempts were suicide attempt by a family member and family violence. Parents and other family members caring were associated with decreased risk of suicide attempt. Non-family protective factors were teachers being fair and feeling safe at school.

Cheng and Chan (2007), used questionnaire data from a convenience sample of 1,083 16-year old school children to explore models of risk factor interaction using

structural equation modeling. Suicidality was strongly and independently predicted by depression, substance misuse and attitude to death (seeing death as a way out of problems). Adolescent stress and stressful events had a powerful indirect effect by intensifying depression, substance misuse and attitude to death. Support from family and friends were protective by lessening the intensity of attitude to death and reducing stress. The impact of family support was much stronger than that of peer support.

Flouri and Buchanon (2002) distributed 8500 questionnaires to 14- 18 year olds in schools and youth groups in the UK but had a low response rate (2722/ 8500 = 32%). Adolescents who reported higher positive parental involvement were less likely to report a suicide attempt. Groholt et al., (2000) compared all 13 – 19 year olds from a region of Norway admitted following"attempted suicide" (n=91, included cutting), with a sub-set of a representative population sample from the same region who reported self-harm (n=141), and with the rest of the population sample. They found similar risk factors in both groups although more powerful associations in the hospitalised group, thus: depression, disruptive behaviour disorders and anxiety, low self-esteem, poor perceived support from parents and peers, parental drinking and low socioeconomic status. Ponnet et al., (2005) conducted a cross sectional, representative study using a school-based sample of 2707 adolescents aged 12-17 years in Belgium. They found that boys in a single parent family, and girls in a remarried family reported more "suicidal ideation and self-harming behaviour" than those in other family structures. These associationsheld after controlling for perceived quality of the parent-adolescent relationship.

Baetens et al., (2014) examined NSSI in the representative JOnG! project cohort of 1,439 'non-clinical' 12 year olds from 9 regions of Belgium and found that families in which a adolescent engaged in NSSI had lower parent education, more parental joblessness, and lower income. Adolescents with NSSI reported more parental behavioural and psychological control but perceived equal parental support. A combination of high parent reported control with low support was also associated with NSSI. In a similar study of 367 Belgian adolescents (mean age = 16.07 years) these researchers highlight the direct impact of poor emotional support and criticism on frequency of NSSI in addition to indirect effects via depression and self- criticism (Baetens et al., 2015).

A series of recent studies with smaller clinical samples have also supported the role of family support. In Finland, depressed adolescent outpatients (mean age 16.4 years) reporting DSH were younger, more severely depressed, used more alcohol and perceived less family support than depressed adolescents without DSH (Tuisku et al., 2009). In Israel 53% of consecutive admissions (n=100, mean age = 16.6) to a psychiatric unit rated as 'suicidal' (not necessarily having engaged in self-harm) reported less maternal care and more overprotection on the Parental Bonding Index (Freudenstein et al., 2011). A further study in an Israeli emergency department, 24 consecutive admissions following self-poisoning found these patients were more likely to perceive their mothers as more controlling and less caring, and their fathers as less caring, than a comparison group. These findings remained after controlling for level of psychological symptoms (Diamond et al., 2005). A mixed community and clinical sample study of 124 adolescents in Quebec reported problematic relationships with their parents, but with their siblings (Seguin

et al., 2004). In Turkey, 30 young people (mean age = 17.6 years) who had "attempted suicide" and were admitted, reported more personal and family history of psychiatric disorder and higher depression scores on Beck Depression Inventory, as well as significantly poorer coping skills and poorer problem solving, communication and general functioning scores on the Family Assessment Device, when compared with matched controls (Fidan et al., 2011). A small follow-up study of 58 adolescents found that the relationship between family functioning and ongoing suicidality was disappeared after controlling for depression (Spirito et al., 2003b).

Perceived lack of parental support is also implicated in self-harm in specific circumstances, for example where young people have experienced abuse or in the context of bullying (see later sections on Abuse and on Bullying).

Perceived support may be important, however Kerr, Preuss and King (2006) using data from 220 psychiatrically hospitalised adolescents aged 12-18 who had attempted suicide or expressed suicidal ideation, found that the relationship between social support and psychiatric impairment varied by age, gender and source of support; in girls, low perceived family social support related to greater hopelessness, depressive symptoms and suicidal ideation. In boys, high perceived peer social support related to greater hopelessness, depressive symptoms and suicidal ideation. Other studies have posited a key role for emotional dysregulation (Adrian et al., 2011) or depression (Shilubane et al., 2014) in mediating the relationship between family and peer relational problems and self-harm.

The role of parental support is thus complex and there are conflicting findings. Nevertheless, a number of large, well-conducted studies concur that factors such as perceived parental warmth, connectedness to parents, and parental support may be protective and reduce the risk of self-harm. Perceived peer and school support may also be beneficial but the association is not as strong as that with parents. Gender and the presence of psychiatric disorder, especially depression may mediate or moderate this relationship but it still seems to be of great importance. The implication for therapists is that facilitating conversations that explore how families construct ideas like 'parental support' and attempts to increase the perception of support may protect against further self-harm.

Parental awareness of suicidality

Parents, caregivers and teachers may not be aware of the suicidality of their child, or recognize the full extent of it, even in high-risk populations (Klaus et al., 2009; Spirito et al., 2003a; Thompson et al., 2006). The limited research in this area suggests moderate agreement at best with parental mental illness, child function and gender being factors having an impact on levels of agreement about suicidal phenomena although with mixed findings. A large community-based study (n = 1,046) of children at risk for maltreatment reported that among children reporting suicidal ideation three quarters had parents who were not aware of this and 9/10 had teachers who were not aware of this issue (Thompson et al., 2006). In a study of 448 psychiatrically hospitalized adolescents, those who perceived lower levels of family support and those with a history of multiple attempts were more likely to report a suicide attempt, which their parents had not identified. Parents with

history of depression were more aware of their offspring suicidal ideation (Klaus et al., 2009). A small qualitative study (n=23) of Tier 3 CAMHS clients in the UK suggests this disparity may reflect a "fractured reality" that represents a key element of therapy with this population (Anderson et al., 2012).

Models of family function

Several good quality qualitative studies have attempted to construct 'models' to assist clinicians working with self-harm in the family context. Working with Latina teenagers who have attempted suicide, Gulbas et al., (2011) posit three patterns of family interacting. In reciprocal families, four themes of commitment, respect, awareness and authority were present and associated with fewer attempted suicides. In asymmetrical families the four themes were present but mostly unidirectional and more attempted suicides were observed. In detached families, where attempted suicide was common, the themes themselves were absent. Anderson et al., (2012), analysed of case records of 23 young people aged 9 – 16 years who had "deliberately harmed themselves or attempted suicide" and undergone an extended 5 session, psychodynamically informed assessment. They concluded that the young people were struggling with two incompatible views of reality: one represented by overt family views and their own perceptions of reality. Fortune, Stewart, Yadav and Hawton (2007) carried out a qualitative analysis of 27 young people aged under 25 who had died from suicide. Analysis of chronological life charts of potentially relevant factors from inquest and health records, and from informant interviews, identified three types of suicidal process: 1.

Longstandingbehavioural problems spanning home, school and peers; 2. Psychiatric disorder – with two sub groups – longstanding and acute suicidal process; and 3. Acute stress in response to life events with absence of previous mental illness of self-harm.

Although these models have not been subjected to rigorous empirical testing, the possibility of a lack of reciprocity, or of differing perspectives on family 'reality' being related to self-harm present ideas that could be of interest to therapists when considering the direction of therapy.

Expressed emotion

Expressed emotion has been associated with suicidal behavior among adolescents: EE, measured by the 5 minute speech sample, and parental criticism were associated with 'self-injurious thoughts and behaviours' in a small sample of 36 adolescents (Wedig et al., 2007). In a separate study of 95 adolescents (mean age = 15.5 years) with a diagnosis of Bipolar I or II, high parental expressed emotion was associated with current "suicidal ideation" irrespective of age, gender, symptomatology or family adaptability or cohesion measures (Ellis et al., 2014). A further study of 160 young people aged 7-17 with Bipolar illness found that those with suicidal ideation reported more conflict with mother, less family adaptability, and a greater number of stressful events (Goldstein et al., 2009). A larger 5-year-follow-up study by this group (n = 413, mean age 12.6 years) emphasized the importance of individual and family history of depression (Goldstein et al., 2012).

Perceived parental invalidation, which overlaps with the concept of EE, was particularly problematic for boys in a 6-month follow-up study of n=119 adolescents who had been psychiatrically hospitalized (Yen et al., 2015).

Abuse

Childhood experiences of abuse tend to co-occur in families who are struggling with multiple adversities (Fortune et al., 2005) and these victimisation experiences are thought to disrupt the development of emotional regulation skills (Hooven et al., 2012). Poor emotional regulation is a hall-mark of many adolescents who engage in suicidal behaviours. A longitudinal study of 123 young adults found that those exposed to multiple forms of victimization (including emotional, sexual, physical, witness to violence and property theft) had greater levels of distress and that family dysfunction compounds the effect of victimisation. Conversely, family support moderated the effect of childhood abuse experiences among those with multiple exposures to violence (Hooven et al., 2012). Haynie et al., (2009) evaluated data from the US longitudinal ADD Health Study of 11,949 adolescents and suggested that exposure to violence truncates adolescence and leads to a precious role exit or early entrance to adulthood which may be observed via behaviours such as dropping out of school, criminal behavior or suicidality. Intimate partner violence (from a partner) (OR = 1.62) and exposure to CSA (OR = 1.92) increased the odds of a suicide attempt.

The cumulative and additive effects of abuse, particularly young people exposed to both sexual abuse and physical abuse, is being increasingly recognized (Fergusson et al., 2000; Haynie et al., 2009; McMahon et al., 2010; K. D. Ryan et al., 2000; Wan et al., 2010) and also interacts with a family history of suicidal behavior to

increase risk (Lopez-Castroman et al., 2015). The possibility of abuse should always be considered when working with children and young people but especially so in the context of self-harm.

2. Inter-parental relationships

Parental conflict and getting along poorly are associated with both medically serious suicide attempts and suicide deaths (Beautrais, 2003). Parental divorce is a stressful experience for families and has associated with increased risk of suicidal behaviour (Beautrais, 2000; Kokkevi et al., 2012), although not in all studies (Wan et al., 2010) and may be explained by the increased rates of psychopathology among adults whose marital relationships fail or mediated by quality of the parent/child relationship (Bridge et al., 2006). The data are inconclusive about the impact of various family structures on suicidal behaviours among adolescents (Evans et al., 2004; Sweeney, 2007) although living with neither biological parent emerges in a robust longitudinal study (Nrugham et al., 2008).

3. Child characteristics

Child Mental Health

This review is focused on family factors but the role of child mental health is covered briefly as it is so significant and as the presence of mental health problems in young people is inextricably linked to the other family factors associated with self-harm discussed here. A systematic review of psychiatric disorders in people presenting to hospital after self-harm found that formal psychiatric diagnoses were recorded in four fifths of young people (Hawton et al,

2013). Multiple diagnoses were recorded in most cases, with mood disorders the most frequent, usually depression. Substance misuse, anxiety disorders, adjustment disorders, attention deficit hyperactivity disorders and conduct disorders were alsopresent in a significant minority of cases. Clearly an assessment of thepresence of significant mental health problems in the individual young person needs to be a key part of any assessment following self-harm.

Heritability of suicidal behaviours

In clinical practice parents often ask if their child has inherited suicidal behavior or 'caught' it from peers; there is consensus, based on a range of study methodologies including twin, adoption and family studies that suicidal behaviour does run in families. This risk is over and above the heritability of mental illness between generations (Brent et al., 2002; Bridge et al., 2015; Cox et al., 2012; Mann et al., 2005). The general trend in findings is the pattern of risk is similar for both fatal and non-fatal suicidal behavior. Impulsive aggression among parents and offspring (Cox et al., 2012) increases risk of suicidal behavior among young people ADDIN EN.CITE (Brent et al., 2015; Brent et al., 2002) and may be mediated by childhood sexual abuse (Mann et al., 2005) and in another study a parental history of sexual abuse (Melhem et al., 2007). A recent prospective study of offspring of adult suicide attempters with a mood disorder (n = 701, mean age 17.7 years) used a path analysis to demonstrate a direct effect of parental suicide attempt on risk of attempt by their child, a strong effect of offspring mood disorder

and the role of impulsive aggression as a precursor to mood disorder in the next generation (Brent et al., 2015). A recent experimental study of n = 40 suicidal adolescents and 40 matched psychiatric controls suggested the use of antidepressant medication may reduce impulsive aggression (Bridge et al., 2015).

An important, related issue, for parents is the relative importance of exposure to models of suicidal behavior leading to imitation by their child; a large population based study found that exposure to non-fatal suicidal behavior among siblings and parents (particularly mothers) increased the risk of suicide attempt in young adults more than exposure to familial suicide deaths. The degree of similarity between siblings appears important (Tucker et al., 2015). However, the risk for suicide attempt among boys exposed to suicide paternal or sibling suicide was higher than for females (Marusic et al., 2004; Mittendorfer-Rutz et al., 2008). A family history of DSH has also been association with DSH with intention to die (Hargus et al., 2009). Overall, it appears that suicidal behavior runs in families via both genetic inheritance and modeling. It is difficult to estimate the absolute contribution of these factors given the differing methodologies used to date.

The focus on familial exposure to suicidal behavior does not discount or preclude the importance of peer exposure and contagion, but is outside the scope of this review (for example see de Leo et al., 2008).

Survivors of parental suicide

Some authors have sought to develop theoretical models to aid thinking about these complex situations. Cerel et al., (2000, p. 444) generated a typology of

families in which a parent had died by suicide 1) *functional families* "characterized by no evidence of preexisting family conflict or psychopathology and the suicide took place in the context of chronic physical illness. *Encapsulated families*, in which psychopathology and conflict were generally observed only in the deceased, not in other family members. *Chaotic families*, with clear evidence of psychopathology in multiple family members and/or turmoil prior to suicide".

Child and adolescent survivors of parental suicide bring particular challenges to therapy because of the stigma attached to suicide deaths and the increased rates of mental illness, suicidal behavior and impulsive-aggression in the face of stress within these families (Kuramoto et al., 2009). A small qualitative study (n= 10) highlighted the theme of repeated abandonment experienced both prior and subsequent to the suicide of a parent, which was exacerbated when the family was blamed for 'causing' the death (Ratnarajah et al., 2008). In addition, these families may have experienced significant disruption prior to and/or after the suicide due to poor parental mental health of the deceased, marital problems, financial difficulties and general instability (Cerel et al., 2008; Kuramoto et al., 2009).

A recent systematic review identified nine studies on the impact of parental suicide on psychiatric and psychosocial outcomes of their offspring (5/9 studies were conducted post 2000). The smaller cross sectional studies yielded mixed findings but suggested an increase in anger, shame and anxiety. The larger case-controlled studies reviewed found increased risk for suicide and bipolar disorder and a greater risk if the parental suicide occurred during early childhood ADDIN EN.CITE (Kuramoto et al., 2009).

Gay, lesbian, bisexual or transgender status

Young people who identify as gay, lesbian, bisexual or transgender (GLBT) appear to be at greater risk of suicidal thoughts and self-harm attempts. In the Minnesota Student Survey of 21,927 sexually active 9th and 12th grade students, 2255 (10%) reported same gender sexual experiences of whom 52% reported having thought about suicide and 38% reported a suicide attempt – significantly more than the rest of the sample. Perceived family connectedness, adult caring and school safety significantly protected against suicidal ideation and attempts but GLBT young people reported significantly lower levels of these factors (Eisenberg et al., 2006). Similarly, in the National Longitudinal Study of Adolescent Health, (wave 3, n= 11,153, 18-26 years) GLBT men and women had higher rates of suicidal thoughts, partially mediated by lack of parental support (Needham et al., 2010). In a smaller study of health and adjustment in 245 GLBT young people aged 21-25 family acceptance (based 2-4 hour in-depth interviews) predicted greater self-esteem, social support and general health but also lower levels of "suicidal thoughts or behaviour" (Ryan et al., 2010). It may be that gender orientation and/or identity per se account for only a small proportion of variability in suicidal ideation and attempts, with risk largely mediated through the presence (or not) of protective factors such as perceptions of family support and 'acceptance' and this may also vary by gender with males being particularly vulnerable (Lucassen et al., 2015).

Multiracial status

Schlabach (2013) used data from Wave 1 of the National Longitudinal Study of Adolescent Health (see earlier) to explore well-being amongst multi-racial

adolescents. Multiracial adolescents experienced more negative social and emotional outcomes, including having "seriously considered suicide" than those from mono-racial backgrounds. Outcomes were worse for multiracial adolescents where it was the mother who was from the minority group although a smaller, clinical study did not reflect these findings (Joe et al., 2007). A study of 226 Latina adolescents echoed an earlier finding that familialism reduced family conflict, enhanced self-esteem and was protective against suicide attempts (Kuhlberg et al., 2010). A small study highlighted the interplay between family communication problems and with acculturation leading to social isolation among those who made a suicide attempt (Gulbas et al., 2015) echoed by meta-analysis suggesting that a mismatch in cultural identity and intergenerational cultural conflict within families is associated with poorer mental health (Lui, 2015). These studies are all from the US and research findings do not always translate from one culture to another. However, it seems unlikely that issues of race or ethnic discrimination would not also be relevant to UK youth, and therapists should always attend to issues such as this.

4. Parental characteristics

Parental mental illness

Having a parent with a mental illness increases the risk of suicidal behaviours among their offspring (Beautrais, 2000; Bridge et al., 2006); a large Danish case control study suggests the population attributable risk for paternal psychiatric admission is 3.9% and 6.4% for maternal psychiatric admission (Agerbo et al., 2002).

Maternal depression is associated with increased rates of suicidal beahviour among offspring and may also have an adverse impact of treatment outcomes (Melhem et al., 2007). Parental schizophrenia is a chronic, major mental illness which doubled the risk suicidality amongst offspring after accounting for the impact of SES, suicidal behavior by parents and mental illness in offspring in a large case controlled study in Swedin (Ljung et al., 2013). These authors suggested that emotional and environmental effects of living with a parent with major mental illness are over and the above the inherited genetic risk (Ljung et al., 2013).

Like a number of other parental behaviours, exposure to parental intoxication increases the risk of suicidal behavior among adolescents even after controlling for adolescent drinking patterns, particularly among younger compared with older adolescents (Rossow et al., 2012). The effects of exposure to parental risk factors on the risk of suicidal behavior appears to be multiplicative (Christiansen et al., 2011).

Parental sexual abuse

Parental who have experienced sexual abuse as children have increased suicidal behavior in their own children. It is postulated to operate through several mechanisms including increasing the chance of offspring experiencing abuse themselves, increased rates of impulsive aggression and higher rates of mood disorder. Parental CSA may also affect the quality of the attachment and parenting experience (Melhem et al., 2007).

Survivors of child suicide

Parents bereaved by suicide actively consider their child to still be a part of the family (Maple et al., 2013). A longitudinal cohort study of relatives bereaved by suicide 8-10 years suggested that loosing a child to suicide increases the odds of developing complicated grief, characterised by preoccupation with the deceased, avoidance, irritability, suicidal ideation and psychiatric comorbidity, compared with loosing a spouse or other first degree relative (de Groot et al., 2013). A small (n = 135) community based longitudinal study of parents bereaved by violent or suicidal death of their child found that mothers perceived their families to be more flexible and fathers less close two years after the death than non-bereaved families (Lohan et al., 2002). However, clinicians should remain alert to the hereogeneity of this population (Miers et al., 2012; Mitchell et al., 2009) and the mixed findings about outcomes (Brown et al., 2007) and efficacy of bereavement interventions (Murphy et al., 2002; Pfeffer et al., 2002; Sakinofsky, 2007).

Parental reactions to suicidality

Parent reactions to non-fatal suicidal behavior of their child vary and include distress, worry, guilt, shame, uncertainty, a sense of responsibility (McDonald et al., 2007) and a generally strong sense of negative emotion (Rissanen et al., 2008). Qualitative studies suggest that parents experience self-harm by their child as extremely disruptive to their relationship and a challenge to usual methods of discipline (Byrne et al., 2008). An interesting qualitative study of survivors of suicide deaths in the UK found that family members often struggled with their responses to earlier non-fatal suicidal behaviour for multiple reasons including; communication was often oblique or mixed, support people tended to focus on positive aspects

interactions or behaviour even when their overall behaviour of their loved one was becoming increasingly unusual and they had serious concerns about rupturing relationships by taking more assertive action or involving others in providing care or support (Owens et al., 2011).

Parents in a small qualitative study in Ireland expressed the need for support, enhanced knowledge about suicidal behavior, parenting skills and strategies for managing future self-harm (Byrne et al., 2008). For some families a suicide attempt will precipitate increased utilization of mental health services (Chan et al., 2009), particularly for vulnerable boys (Maschi et al., 2010). However, this may conflict with the general developmental trend for the adolescent of increasing autonomy (Wilson et al., 2011).

5. Wider systems issues

Bullying

A large longitudinal twin study in the UK of 1,116 twin pairs born 1994-95 suggested that more than half of those who had engaged in self-harm at age 12 years, were victims of frequent bullying. Bullied adolescents who engaged in self-harm were more likely than bullied non-self-harming participants to have been exposed to familial suicidal behavior, to have co-occurring mental health problems and experienced physical abuse (Fisher et al., 2012).

A cross sectional study was conducted with 3,881 15-17 year old adolescents where life-style factors were examined (McMahon et al., 2010). School-related factors (bullying and school work difficulties) featured strongly in the risk factors for boys self-harming, while interpersonal factors were more important for girls. However, the cross sectional nature of the study makes it difficult to draw conclusions about causal relationships between school problems and self-harm in boys. Using a large-scale survey sample (n=8,342) in a cross sectional design, (Wang et al., 2012) 21% of the Chinese student participants had experienced bullying during the past 12 months. The results indicated that victimization was significantly correlated with suicide attempts, leading the authors to conclude that full consideration of social and environmental factors needs to be researched to target bullying behavior in Chinese schools. Students who perceived low levels of parental caring were more likely to be bullies and that bullies were more likely to have experienced suicidal ideation. A longitudinal study of 2,141 children assessed at ages 5, 7, 10 and 12 years found that being exposed to recurrent bullying predicted higher rates of self-harm, even when low IQ, pre-morbid problems and family risks were takeninto account (Fisher et al., 2012). However, from intial sample of participants only 62 (2.9%) self-harmed, which means the size of the association between bullying and self harm may be biased. A smaller study was conducted in West Bengal, 199 13-15 year old, male students were recruited to compare mental health and violence related issues in urban and rural areas (Samanta et al., 2012). The authors found a higher rate of bullying and violence in the urban group, who also reported a higher rate of suicidal thinking. However, due to the cross-sectional design and small sample size, inferences cannot be made on about the causal

relationship of these two factors. Espelage and De La Rue (2012) reviewed the literature on the impact of bullying in school, finding it to be a complex issue shaped by the school environment.

These studies seem to suggest victimisation from bullying, among other factors can be a significant risk factor for some young people and thus should always be explored in therapy sessions as a possibly significant factor.

Educational experiences

Adolescents who have limited educational achievement are at an increased risk of suicidal behaviour (Beautrais, 2000). Although a survey sample of 9,142 adolescents aged 11-18 years found no main effects of school relations, they reported that positive relations at school were associated with a positive parent relationship being more protective for boys with have a history of attempted suicide (Kidd et al., 2006). In a cross-sectional study, Fleming et al., (2007) n= 9,570 secondary students completed the New Zealand Adolescent Health Survey, 'teachers being fair' and 'feeling safe at school' were independently associated with decreased rates of suicide attempts. Sun and Hui (2007) asked 1,358 Chinese adolescents between 11-16 years to complete a questionnaire to investigate family, school, peer and psychological factors that contribute to adolescent suicide ideation. Academic pressure was not significantly correlated with depression and suicidal ideation, 'having a sense of school belonging' commonly had a significant positive effect on adolescent's self-esteem, which acted as a significant mediator of suicidal ideation.

In a survey study of 2,722 adolescents between the ages of 14-18 years, attempted suicide was related to low academic motivation (Flouri et al., 2002). Answers to open ended questions put to 6,020 pupils aged 15-16 years were thematically analysed in a large community study (Fortune et al., 2008). School examinations were mentioned by 13% (382) of respondents and in agreement with the previously outlined studies, the pupils indicated support in school to manage these concerns could be a protective factor against suicidal phenomena.

Household economics

Coming from a low-income family increases the risk of suicidal behaviour among children and adolescents (Beautrais, 2000; Engstrom et al., 2004). Recent support for this came from 1,439 12 year old participant's self-report data; finding lower levels of parental education and lower family income were significantly associated with higher rates of children engaging in non-suicidal self-injury (Baetens et al., 2014). However, findings from an earlier longitudinal study conducted in Denmark that found the association between increased risk of suicide and father's SES reduced and became non-significant when family history of mental illness was taken into account (Agerbo et al., 2002) indicating possible mediating factors may be influencing SES as a risk factor in self-harm/ suicidal behaviour. Furthermore, Kerr, Owen and Capaldi (2008) also examined the impact of low SES in childhood on risk of suicidal ideation, finding that for the boys/men they studied, past suicidal ideation increased risk of reoccurrences of suicidal thinking beyond the effects of vulnerability factors such as low SES, claiming this as a less important risk factor in suicidal thinking.

A few clinically relevant studies have explored possible explanations for the association between low SES and self-harm/ suicidal behaviour. Yoder and Hoyt, (2005) found economic pressure was significantly related to parental depressive symptoms which led to parental hostile behaviour, and was associated with adolescent low self-esteem and depression that in turn was related to suicide ideation. These findings suggest economic pressure is indirectly related through family factors to suicide ideation. However, the cross sectional design of this study may mean that interpreting causal relationships between the factors is not possible; it is equally conceivable that economic pressure could be caused by parental depressive symptoms resulting in their inability to gain lucrative employment.

Other factors observed to be connected to a family's SES that had an impact on suicide rates of adolescents included geographical mobility. Haynie, South and Bose (2006) found adolescent girls who were recent 'movers' are 60% more likely than 'non-movers' to report a suicide attempt a year later. The authors also make associations between higher mobility and increased victimisation, social isolation and delinquency, lower rates of school attachment and a higher association with delinquent peers who have also attempted suicide. The contextual effect of living in a community with high household poverty was examined previously (Bernburg et al., 2009), findings agreed that there is an increased risk of adolescent suicidal behaviour in part due to a higher chance of adolescents associating with suicidal others.

6. Factors that influence treatment response

The experiences of adolescents and family members who present to the Emergency Department following an episode of SH may have an impact on their

likelihood to engage with follow-up CAMHS treatment. Participants (consumers and family members) recruited via the NAMI (National Alliance On Mental Illness) website reported that half felt they were treated with respect, but one third felt they were directly punished, stigmatized or not taken seriously by Emergency Department staff (J Cerel et al., 2006). Interested readers are directed to a recent systematic review of service user experiences of self-harm services which reflect similar concerns (Taylor et al., 2009). Several robust studies have highlighted the need to include and address family concerns in the Emergency Department setting in an effort to enhance adherence with treatment (Asarnow et al., 2011; Spirito et al., 2002; Stewart et al., 2002). A pilot study (n = 250) by Wharff and colleagues (2012) trialed a family based crisis intervention in ED and successfully reduced the need for psychiatric hospitalization compared with TAU among adolescents 13-18 years presenting with suicidality in Boston. This is similar to the approach described qualitative by (Ginnis et al., 2015). A very recent treatment development trial (35, 11-18 year olds, SAFETY trial) directly addressed parent motivation and reducing family treatment barriers using an ecological CBT treatment approach with promising reductions in both child and parental depression with high rates of satisfaction with treatment (Asarnow et al., 2015).

Predictors and moderators of treatment response have been identified in several large RCTs evaluating depression treatments. A predictor is a variable present in the adolescent or their family prior to treatment (or treatment allocation in RCTs) and suggests which adolescents are likely to benefit from any form of treatment. Moderators help clinicians understand which adolescents will benefit from a particular treatment, compared with another form of studied treatment

and inform specific treatment choices (Curry et al., 2006). Family income, severity of depression and degree of cognitive distortion were moderators of treatment response in the TADS study whereas the TORDIA study reported that maternal and adolescent depression improved in tandem but there was no correlation between maternal depression and suicidal ideation (Perloe et al., 2014).An RCT (n = 107) of CBT vs. Systemic Behavioural Family Therapy vs. Non Directive Supportive Therapy found that the relationship between suicidality and responsiveness to treatment was mediated by the extent of the adolescents depression, with suicidal youth particularly at risk of dropping out of treatment (Barbe et al., 2004)

A history of sexual abuse has been highlighted by both TADS and TORDIA as a moderator of treatment response but a smaller study by Diamond and colleagues of Attachment Based Family Therapy, did not report this effect (Diamond et al., 2012; Ewing et al., 2015).

Conclusions

The aim of this narrative review was to summarise family factors associated with self-harm by adolescents, which might be amenable to intervention using family therapy. Suicidal behavior among adolescents represents a culmination of factors within both the child and family (Sourander et al., 2006) and can represent a significant challenge to family therapy due to the complex and multifaceted nature of the presentation and the anxiety that suicide risk often creates.

The epidemiological evidence on the importance of family-factors for adolescent suicidal behavior is relatively robust; however, these studies tend to analyse the

presence of risk factors in a discrete way and this information can be hard for practitioners to translate into clinical directions for a family in front of them. In this narrative review we have attempted to examine these family factors in more detail, and include studies which although less methodologically robust, contribute more nuanced perspectives on the therapeutic needs of this population. Brent et al., (2013) caution that in this area of research the risk of shared method variance where predictor (e.g., depression) and outcome (e.g. self-harm) variables are measured using similar methods, as are potential mediators (e.g., parental function) is high.

The current literature indicates that suicidal behaviour runs in families; this risk is over and above the heritability of mental illness between generations (Brent et al., 2002; Cox et al., 2012; Mann et al., 2005). Bereavement by suicide, and the natureof the relationships with the deceased prior to their death can have a profound effect on families.

Families are not always aware of, or have the capacity to respond to, the suicidal behavior of their offspring, particularly in families with low levels of social support and this may need to be addressed as a primary therapy goal. Reactions to self-harm by parents include a range of strong, and often negative emotions. These feelings may be exacerbated by experiences of Emergency Department care, which many patients who have self-harmed and their families perceive as unhelpful, stigmatizing, dismissive or disrespectful.

The focus of family-orientated treatment with this population should focus on maximizing cohesion, attachment, adaptability, family support, *and parental*

warmth while reducing maltreatment, scapegoating and moderating parental control. Therapists need to pay attention to the possibility of bullying, and the vulnerability that gay, lesbian, bisexual or transgender status and minority ethnic status may confer. Predictors and moderators of treatment response include family income, severity of depression (both for the adolescent and maternal depression) and in some studies a history of sexual abuse. Close working relationships with child protection services are important given the significant contribution of interpersonal violence to suicidal behaviours among young people. Collaboration with schools is another opportunity for systemic practitioners given the protective effects of engagement with school and the effects of poverty.

These are all issues with which family therapists are already familiar. When faced with the distress caused by a young person who has self-harmed it is important to remember that family therapists do have the skills and experience to facilitate discussions, with the young person, with their important others and with their wider network, that may make a significant difference. Whilst there is as yet no robust evidence for the effectiveness of any one particular therapeutic intervention the strong evidence for the role of family interactional factors in self-harm suggest that family involvement in therapeutic interventions is vital.

It should also be remembered that although self-harm confers a greater risk of further self-harm and subsequent death by suicide, the majority of adolescents who self-harm will grow up, will leave suicidal behavior behind as they enter adulthood and achieve some functional separation from their families whom they found distressing (Sinclair et al., 2005).

References

Adrian, M., Zeman, J., Erdley, C., Lisa, L., & Sim, L. (2011). Emotional dysregulation and interpersonal difficulties as risk factors for nonsuicidal self-injury in adolescent girls. *Journal of Abnormal Child Psychology, 39*(3), 389-400. Web of Science

Agerbo, E., Nordentoft, M., & Mortensen, P. B. (2002). Familial, psychiatric, and socioeconomic risk factors for suicide in young people: Nested case-control study. *BMJ: British Medical Journal, 325*(7355), 74-77. Web of Science

Anderson, J., Hurst, M., Marques, A., Millar, D., Moya, S., Pover, L., & Stewart, S. (2012). Understanding suicidal behaviour in young people referred to specialist camhs: A qualitative psychoanalytic clinical research project. *Journal of Child Psychotherapy, 38*(2), 130-153.

Asarnow, J. R., Baraff, L. J., Berk, M., Grob, C. S., Devich-Navarro, M., Suddath, R., Piacentini, J. C., Rotheram-Borus, M. J., Cohen, D., & Tang, L. (2011). An emergency department intervention for linking pediatric suicidal patients to follow-up mental health treatment. *Psychiatric Services, 62*(11), 1303-1309. Web of Science

Asarnow, J. R., Berk, M., Hughes, J. L.,& Anderson, N. L. (2015). The safety program: A treatment-development trial of a cognitive-behavioral family treatment for adolescent suicide attempters. *Journal of Clinical Child and Adolescent Psychology, 44*(1), 194-203.

Baetens, I., Claes, L., Hasking, P., Smits, D., Grietens, H., Onghena, P., & Martin, G. (2015). The relationship between parental expressed emotions and non-suicidal self-injury: The mediating roles of self-criticism and depression. *Journal of Child and Family Studies, 24*(2), 491-498. Web of Science

Baetens, I., Claes, L., Martin, G., Onghena, P., Grietens, H., Van Leeuwen, K., Pieters, C., Wiersema, J. R., & Griffith, J. W. (2014). Is nonsuicidal self-injury associated with parenting and family factors? *The Journal of Early Adolescence, 34*(3), 387-405. Web of Science

Barbe, R. P., Bridge, J., Birhamer, B., Kolko, D., & Brent, D. A. (2004). Suicidality and its relationship to treatment outcome in depressed adolescents. *Suicide and Life-Threatening Behavior, 34*(1), 44-55.

Beautrais, A. (2000). Risk factors for suicide and attempted suicide among young people. *Australian& New Zealand Journal of Psychiatry, 34*(3), 420-436. Web of Science

Beautrais, A. (2003). Suicide and serious suicide attempts in youth: A multiple-group comparison study. *The American Journal of Psychiatry, 160*(6), 1093-1099.

Bernburg, J. G., Thorlindsson, T., & Sigfusdottir, I. D. (2009). The spreading of suicidal behavior: The contextual effect of community household poverty on adolescent suicidal behavior

and the mediating role of suicide suggestion. *Social Science & Medicine, 68*(2), 380-389. Web of Science

Brent, D. A., McMakin, D. L., Kennard, B. D., Goldstein, T. R., Mayes, T. L., & Douaihy, A. B. (2013). Protecting adolescents from self-harm: A critical review of intervention studies. *Journal of the American Academy of Child & Adolescent Psychiatry,52*(12), 1260-1271.

Brent, D. A., Melhem, N. M., Oquendo, M., Burke, A., Birmaher, B., Stanley, B., Biernesser, C., Keilp, J., Kolko, D., Ellis, S., Porta, G., Zelazny, J., Iyengar, S., & Mann, J. (2015). Familial pathways to early-onset suicide attempt: A 5.6-year prospective study. *JAMA Psychiatry, 72*(2), 160-168. Web of Science

Brent, D. A., Oquendo, M., Birmaher, B., Greenhill, L., Kolko, D., Stanley, B., Zelazny, J., Brodsky, B., Bridge, J., Ellis, S., Salazar, J., & Mann, J. (2002). Familial pathways to early-onset suicide attempt: Risk for suicidal behavior in offspring of mood-disordered suicide attempters. *Archives of General Psychiatry, 59*(9), 801-807. Web of Science

Bridge, J. A., Goldstein, T. R., & Brent, D. A. (2006). Adolescent suicide and suicidal behavior. *Journal of Child Psychology and Psychiatry, 47*(3-4), 372-394. Web of Science

Bridge, J. A., Reynolds, B., McBee-Strayer, S. M., Sheftall, A. H., Ackerman, J., Stevens, J., Mendoza, K., Campo, J. V.,& Brent, D. A. (2015). Impulsive aggression, delay discounting, and adolescent suicide attempts: Effects of current psychotropic medication use and family history of suicidal behavior. *Journal of Child and Adolescent Psychopharmacology, 25*(2), 114-123. Web of Science

Brown, A. C., Sandler, I. N., Tein, J.-Y., Liu, X., & Haine, R. A. (2007). Implications of parental suicide and violent death for promotion of resilience of parentally-bereaved children. *Death Studies, 31*(4), 301-335. Web of Science

Byrne, S., Morgan, S., Fitzpatrick, C., Boylan, C., Crowley, S., Gahan, H., Howley, J., Staunton, D., & Guerin, S. (2008). Deliberate self-harm in children and adolescents: A qualitative study exploring the needs of parents and carers. *Clinical Child Psychology and Psychiatry, 13*(4), 493-504.

Cerel, J., Currier, G. W., & Conwell, Y. (2006). Consumer and family experiences in the emergency department following a suicide attempt. *Journal of Psychiatric Practice, 12*(6), 341-347.

Cerel, J., Fristad, M. A., Weller, E. B.,& Weller, R. A. (2000). Suicide-bereaved children and adolescents: Ii. Parental and family functioning. *Journal of the American Academy of Child & Adolescent Psychiatry, 39*(4), 437-444.

Cerel, J., Jordan, J. R., & Duberstein, P. R. (2008). The impact of suicide on the family. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 29*(1), 38-44. Web of Science

Chan, Y.-F., Godley, M. D., Godley, S. H.,& Dennis, M. L. (2009). Utilization of mental health services among adolescents in community-based substance abuse outpatient clinics. *The Journal of Behavioral Health Services & Research, 36*(1), 35-51. Web of Science

Cheng, S.-T., & Chan, A. C. (2007). Multiple pathways from stress to suicidality and the protective effect of social support in hong kong adolescents. *Suicide and Life-Threatening Behavior, 37*(2), 187-196.

Christiansen, E., Goldney, R. D., Beautrais, A. L., & Agerbo, E. (2011). Youth suicide attempts and the dose-response relationship to parental risk factors: A population-based study. *Psychological Medicine, 41*(2), 313-319.

Connor, J. J., & Rueter, M. A. (2006). Parent-child relationships as systems of support or risk for adolescent suicidality. *Journal of Family Psychology, 20*(1), 143-155. Web of Science

Cox, L. J., Stanley, B. H., Melhem, N. M., Oquendo, M. A., Birmaher, B., Burke, A., Kolko, D. J., Zelazny, J. M., Mann, J., Porta, G., & Brent, D. A. (2012). A longitudinal study of nonsuicidal self-injury in offspring at high risk for mood disorder. *Journal of Clinical Psychiatry, 73*(6), 821-828. Web of Science

Crowell, S. E., Beauchaine, T. P., McCauley, E., Smith, C. J., Vasilev, C. A., & Stevens, A. L. (2008). Parent-child interactions, peripheral serotonin, and self-inflicted injury in adolescents. *Journal of Consulting and Clinical Psychology, 76*(1), 15-21.

Curry, J., Rohde, P., Simons, A., Silva, S., Vitiello, B., Kratochvil, C., Reinecke, M., Feeny, N., Wells, K., Pathak, S., Weller, E., Rosenberg, D., Kennard, B., Robins, M., Ginsburg, G., & March, J. (2006). Predictors and moderators of acute outcome in the treatment for adolescents with depression study (tads). *Journal of the American Academy of Child & Adolescent Psychiatry, 45*(12), 1427-1439.

de Groot, M., & Kollen, B. J. (2013). Course of bereavement over 8-10 years in first degree relatives and spouses of people who committed suicide: Longitudinal community based cohort study. *BMJ: British Medical Journal Vol 347 Oct 2013, ArtID f5519, 347*. Web of Science

de Leo, D., & Heller, T. (2008). Social modeling in the transmission of suicidality. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 29*(1), 11-19. Web of Science

Diamond, G., Creed, T., Gillham, J., Gallop, R., & Hamilton, J. L. (2012). Sexual trauma history does not moderate treatment outcome in attachment-based family therapy (abft) for adolescents with suicide ideation. *Journal of Family Psychology, 26*(4), 595-605.

Diamond, G., Didner, H., Waniel, A., Priel, B., Asherov, J., & Arbel, S. (2005). Perceived parental care and control among israeli female adolescents presenting to emergency rooms after self-poisoning. *Adolescence, 40*(158), 257-272.

Eisenberg, M. E., & Resnick, M. D. (2006). Suicidality among gay, lesbian and bisexual youth: The role of protective factors. *Journal of Adolescent Health, 39*(5), 662-668.

Ellis, A. J., Portnoff, L. C., Axelson, D. A., Kowatch, R. A., Walshaw, P., & Miklowitz, D. J. (2014). Parental expressed emotion and suicidal ideation in adolescents with bipolar disorder. *Psychiatry Research, 216*(2), 213-216. Web of Science

Engstrom, K., Diderichsen, F., & Laflamme, L. (2004). Parental social determinants of risk for intentional injury: A cross-sectional study of swedish adolescents. *American Journal of Public Health, 94*(4), 640-645.

Espelage, D. L., & De La Rue, L. (2012). School bullying: Its nature and ecology. *International Journal of Adolescent Medicine & Health, 24*(1), 3-10.

Evans, E., Hawton, K., & Rodham, K. (2004). Factors associated with suicidal phenomena in adolescents: A systematic review of population-based studies. *Clinical Psychology Review, 24*(8), 957-979. Web of Science

Ewing, E., Diamond, G., & Levy, S. (2015). Attachment-based family therapy for depressed and suicidal adolescents: Theory, clinical model and empirical support. *Attachment& Human Development, 17*(2), 136-156. Web of Science

Fergusson, D. M., Woodward, L. J., & Horwood, L. J. (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. *Psychological Medicine, 30*(1), 23-39. Web of Science

Fidan, T., Ceyhun, H., & Kirpinar, I. (2011). Coping strategies and family functionality in youths with or without suicide attempts. *Noropsikiyatri Arsivi / Archives of Neuropsychiatry, 48*(3), 195-200. Web of Science

Fisher, H. L., Moffitt, T. E., Houts, R. M., Belsky, D. W., Arseneault, L., & Caspi, A. (2012). Bullying victimisation and risk of self harm in early adolescence: Longitudinal cohort study. *BMJ, 344*, e2683.

Fleming, T. M., Merry, S. N., Robinson, E. M., Denny, S. J., & Watson, P. D. (2007). Self-reported suicide attempts and associated risk and protective factors among secondary school students in new zealand. *Australian and New Zealand Journal of Psychiatry, 41*(3), 213-221.

Flouri, E., & Buchanan, A. (2002). The protective role of parental involvement in adolescent suicide. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 23*(1),17-22.

Fortune, S., Seymour, F., & Lambie, I. (2005). Suicide behaviour in a clinical sample of children and adolescents in new zealand. *New Zealand Journal of Psychology, 34*(3), 164-170.

Fortune, S., Sinclair, J., & Hawton, K. (2008). Adolescents' views on preventing self-harm: A large community study. *Social Psychiatry and Psychiatric Epidemiology, 43*(2), 96-104. Web of Science

Fortune, S., Stewart, A., Yadav, V., & Hawton, K. (2007). Suicide in adolescents: Using life charts to understand the suicidal process. *Journal of Affective Disorders, 100*(1-3), 199-210. Web of Science

Freudenstein, O., Zohar, A., Apter, A., Shoval, G., Weizman, A., & Zalsman, G. (2011). Parental bonding in severely suicidal adolescent inpatients. *European Psychiatry, 26*(8), 504-507. Web of Science

Ginnis, K. B., White, E. M., Ross, A. M.,& Wharff, E. A. (2015). Family-based crisis intervention in the emergency department: A new model of care. *Journal of Child and Family Studies, 24*(1), 172-179.

Glenn, C. R., Franklin, J. C., & Nock, M. K. (2015). Evidence-based psychosocial treatments for self-injurious thoughts and behaviors in youth. *Journal of Clinical Child and Adolescent Psychology, 44*(1), 1-29. Web of Science

Goldstein, T. R., Birmaher, B., Axelson, D., Goldstein, B. I., Gill, M. K., Esposito-Smythers, C., Ryan, N. D., Strober, M. A., Hunt, J., & Keller, M. (2009). Family environment and suicidal ideation among bipolar youth. *Archives of Suicide Research, 13*(4), 378-388. Web of Science

Goldstein, T. R., Ha, W., Axelson, D. A., Goldstein, B. I., Liao, F., Gill, M. K., Ryan, N. D., Yen, S., Hunt, J., Hower, H., Keller, M., Strober, M., & Birmaher, B. (2012). Predictors ofprospectively examined suicide attempts among youth with bipolar disorder. *JAMA Psychiatry, 69*(11), 1113-1122. Web of Science

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 & Adolescent Psychiatry, 39*(7), 868-875.

Gulbas, L. E., & Zayas, L. H. (2015). Examining the interplay among family, culture, and latina teen suicidal behavior. *Qualitative Health Research, 25*(5), 689-699.

Gulbas, L. E., Zayas, L. H., Nolle, A. P., Hausmann-Stabile, C., Kuhlberg, J. A., Baumann, A. A., & Pena, J. B. (2011). Family relationships and latina teen suicide attempts: Reciprocity, asymmetry, and detachment. *Families in Society, 92*(3), 317-323.

Hargus, E., Hawton, K., & Rodham, K. (2009). Distinguishing between subgroups of adolescents who self-harm. *Suicide and Life-Threatening Behavior, 39*(5), 518-537. Web of Science

Hawton, K., Saunders, K., Topiwala, A. & Haw, C. (2013). Psychiatric disorders in patients presenting to hospital following self-harm: a systematic review. *Journal of Affective Disorders,* 151**,** 821-30.

Haynie, D. L., Petts, R. J., Maimon, D.,& Piquero, A. R. (2009). Exposure to violence in adolescence and precocious role exits. *Journal of Youth and Adolescence, 38*(3), 269-286. Web of Science

Haynie, D. L., South, S. J., & Bose, S. (2006). Residential mobility and attempted suicide among adolescents: An individual-level analysis. *The Sociological Quarterly, 47*(4), 693-721.

Hooven, C., Nurius, P. S., Logan-Greene, P.,& Thompson, E. A. (2012). Childhood violence exposure: Cumulative andspecific effects on adult mental health. *Journal of Family Violence, 27*(6), 511-522. Web of Science

Joe, S., Clarke, J., Ivey, A. Z., Kerr, D.,& King, C. A. (2007). Impact of familial factors and psychopathology on suicidality among african american adolescents. *Journal of Human Behavior in the Social Environment, 15*(2-3), 199-218.

Kerr, D. C., Owen, L. D., & Capaldi, D. M. (2008). Suicidal ideation and its recurrence in boys and men from early adolescence to early adulthood: An event history analysis. *Journal of Abnormal Psychology, 117*(3), 625-636.

Kerr, D. C., Preuss, L. J., & King, C. A. (2006). Suicidal adolescents' social support from family and peers: Gender-specific associations with psychopathology. *Journal of Abnormal Child Psychology, 34*(1), 103-114.

Kidd, S., Henrich, C. C., Brookmeyer, K. A., Davidson, L., King, R. A., & Shahar, G. (2006). The social context of adolescent suicide attempts: Interactive effects of parent, peer, and school social relations. *Suicide and Life-Threatening Behavior, 36*(4), 386-395.

King, C. A., & Merchant, C. R. (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research, 12*(3), 181-196. Web of Science

Klaus, N. M., Mobilio, A., & King, C. A. (2009). Parent-adolescent agreement concerning adolescents' suicidal thoughts and behaviors. *Journal of Clinical Child and Adolescent Psychology, 38*(2), 245-255. Web of Science

Kokkevi, A., Rotsika, V., Arapaki, A., & Richardson, C. (2012). Adolescents' self-reported suicide attempts, self-harm thoughts and their correlates across 17 european countries. *Journal of Child Psychology and Psychiatry, 53*(4), 381-389.

Kuhlberg, J. A., Pena, J. B., & Zayas, L. H. (2010). Familism, parent-adolescent conflict, self-esteem, internalizing behaviors and suicide attempts among adolescent latinas. *ChildPsychiatry and Human Development, 41*(4), 425-440.

Kuramoto, J. S., Brent, D. A., & Wilcox, H. C. (2009). The impact of parental suicide on child and adolescent offspring. *Suicide & Life-Threatening Behavior, 39*(2), 137-151. Web of Science

Li, J. J., Berk, M. S., & Lee, S. S. (2013). Differential susceptibility in longitudinal models of gene-environment interaction for adolescent depression. *Development and Psychopathology, 25*(4), 991-1003.

Ljung, T., Lichtenstein, P., Sandin, S., D'Onofrio, B., Runeson, B., Langstrom, N., & Larsson, H. (2013). Parental schizophrenia and increased offspring suicide risk: Exploring the causal hypothesis using cousin comparisons. *Psychological Medicine, 43*(3), 581-590.

Lohan, J. A., & Murphy, S. A. (2002). Family functioning and familytypology after an adolescent or young adult's sudden violent death. *Journal of Family Nursing, 8*(1), 32-49.

Lopez-Castroman, J., Guillaume, S., Olie, E., Jaussent, I., Baca-Garcia, E., & Courtet, P. (2015). The additive effect on suicidality of family history of suicidal behavior and early traumatic experiences. *Archives of Suicide Research, 19*(2), 275-283.

Lucassen, M. F., Clark, T. C., Denny, S. J., Fleming, T. M., Rossen, F. V., Sheridan, J., Bullen, P., & Robinson, E. M. (2015). What has changed from 2001 to 2012 for sexual minority youth in new zealand? *Journal of Paediatrics and Child Health, 51*(4), 410-418.

Lui, P. (2015). Intergenerational cultural conflict, mental health, and educational outcomes among asian and latino/a americans: Qualitative and meta-analytic review. *Psychological Bulletin, 141*(2), 404-446.

Mann, J., Bortinger, J., Oquendo, M. A., Currier, D., Li, S., & Brent, D. A. (2005). Family history of suicidal behavior and mood disorders in probands with mood disorders. *The American Journal of Psychiatry, 162*(9), 1672-1679.

Maple, M., Edwards, H. E., Minichiello, V.,& Plummer, D. (2013). Still part of the family: The importance of physical, emotional and spiritual memorial places and spaces for parents bereaved through the suicide death of their son or daughter. *Mortality, 18*(1), 54-71.

Marusic, A., Roskar, S., & Hughes, R. H. (2004). Familial study of suicidal behavior among adolescents in slovenia. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 25*(2), 74-77.

Maschi, T., Perez, R. M., & Gibson, S. (2010). Examining gender differences in service utilization among children: Nature, nurture, or social network? *Child & Adolescent Social Work Journal, 27*(3), 177-191.

McDonald, G., O'Brien, L., & Jackson, D. (2007). Guilt and shame: Experiences of parents of self-harming adolescents. *Journal of Child Health Care, 11*(4), 298-310.

McMahon, E., Reulbach, U., Corcoran, P., Keeley, H., Perry, I., & Arensman, E. (2010). Factors associated with deliberate self-harm among irish adolescents. *Psychological Medicine, 40*(11), 1811-1819.

Melhem, N. M., Brent, D. A., Ziegler, M., Iyengar, S., Kolko, D., Oquendo, M., Birmaher, B., Burke, A., Zelazny, J.,& Stanley, J. (2007). Familial pathways to early-onset suicidal behavior:

Familial and individual antecedents of suicidal behavior. *The American Journal of Psychiatry, 164*(9), 1364-1370.

Michelson, D., & Bhugra, D. (2012). Family environment, expressed emotion and adolescent self-harm: A review of conceptual, empirical, cross-cultural and clinical perspectives. *International Review of Psychiatry, 24*(2), 106-114.

Miers, D., Abbott, D., & Springer, P. R. (2012). A phenomenological study of family needs following the suicide of a teenager. *Death Studies, 36*(2), 118-133.

Mitchell, A. M., Sakraida, T. J., Kim, Y., Bullian, L., & Chiappetta, L. (2009). Depression, anxiety and quality of life in suicide survivors: A comparison of close and distant relationships. *Archives of Psychiatric Nursing, 23*(1), 2-10.

Mittendorfer-Rutz, E., Rasmussen, F., & Wasserman, D. (2008). Familial clustering of suicidal behaviour and psychopathology in young suicide attempters: A register-based nested case control study. *Social Psychiatry and Psychiatric Epidemiology, 43*(1), 28-36.

Murphy, S. A., Johnson, L., Lohan, J., & Tapper, V. J. (2002). Bereaved parents' use of individual, family, and community resources 4 to 60 months after a child's violent death. *Family & Community Health: The Journal of Health Promotion & Maintenance, 25*(1), 71-82.

Needham, B. L., & Austin, E. L. (2010). Sexual orientation, parental support, and health during the transition to young adulthood. *Journal of Youth and Adolescence, 39*(10), 1189-1198.

Nrugham, L., Larsson, B., & Sund, A. M. (2008). Predictors of suicidal acts across adolescence: Influences of familial, peer and individual factors. *Journal of Affective Disorders, 109*(1-2), 35-45.

Ougrin, D., Tranah, T., Leigh, E., Taylor, L., & Asarnow, J. R. (2012). Practitioner review: Self-harm in adolescents. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 53*(4), 337-350.

Owens, C., Owen, G., Belam, J., Lloyd, K., Rapport, F., Donovan, J., & Lambert, H. (2011). Recognising and responding to suicidal crisis within family and social networks: Qualitative study. *BMJ, 343*, d5801.

Oxford Centre for Evidence-based Medicine. (2009). Oxford centre for evidence-based medicine – levels of evidence (march 2009). Retrieved 1 July 2014, 2014, from http://www.cebm.net/oxford-centre-evidence-based-medicine-levels-evidence-march-2009/

Perloe, A., Esposito-Smythers, C., Curby, T. W., & Renshaw, K. D. (2014). Concurrent trajectories of change in adolescent and maternal depressive symptoms in the tordia study. *Journal of Youth and Adolescence, 43*(4), 612-628.

Pfeffer, C. R., Jiang, H., Kakuma, T., Hwang, J., & Metsch, M. (2002). Group intervention for children bereaved by the suicide of a relative. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(5), 505-513.

Ponnet, K., Vermeiren, R., Jespers, I., Mussche, B., Ruchkin, V., Schwab-Stone, M., & Deboutte, D. (2005). Suicidal behaviour in adolescents: Associations with parental marital status and perceived parent-adolescent relationship. *Journal of Affective Disorders, 89*(1-3), 107-113.

Ratnarajah, D., & Schofield, M. J. (2008). Survivors' narratives of the impact of parental suicide. *Suicide and Life-Threatening Behavior, 38*(5), 618-630.

Rissanen, M., Kylma, J., & Laukkanen, E. (2008). Parental conceptions of self-mutilation among finnish adolescents. *Journal of Psychiatric and Mental Health Nursing, 15*(3), 212-218.

Rossow, I., & Moan, I. S. (2012). Parental intoxication and adolescent suicidal behavior. *Archives of Suicide Research, 16*(1), 73-84.

Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2010). Family acceptance in adolescence and the health of lgbt young adults. *Journal of Child and Adolescent Psychiatric Nursing, 23*(4), 205-213.

Ryan, K. D., Kilmer, R. P., Cauce, A. M., Watanabe, H., & Hoyt, D. R. (2000). Psychological consequences of child maltreatment in homeless adolescents: Untangling the unique effects of maltreatment and family environment. *Child Abuse & Neglect, 24*(3), 333-352.

Sakinofsky, I. (2007). The aftermath of suicide: Managing survivors' bereavement. *Canadian Journal of Psychiatry - Revue Canadienne de Psychiatrie, 52*(6 Suppl 1), 129S-136S.

Samanta, A., Mukherjee, S., Ghosh, S., & Dasgupta, A. (2012). Mental health, protective factors and violence among male adolescents: A comparison between urban and rural school students in west bengal. *Indian Journal of Public Health, 56*(2), 155-158.

Schlabach, S. (2013). The importance of family, race, and gender for multiracial adolescent well-being. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 62*(1), 154-174.

Seguin, M., Lynch, J., Labelle, R., & Gagnon, A. (2004). Personal and family risk factors for adolescent suicidal ideation and attempts. *Archives of Suicide Research, 8*(3), 227-238.

Shilubane, H. N., Ruiter, R. A., Bos, A. E., van den Borne, B., James, S., & Reddy, P. S. (2014). Psychosocial correlates of suicidal ideation in rural south african adolescents. *Child Psychiatry and Human Development, 45*(2), 153-162.

Sinclair, J., & Green, J. (2005). Understanding resolution of deliberate self harm: Qualitative interview study of patients' experiences. *BMJ: British Medical Journal, 330*(7500), 1112.

Sourander, A., Aromaa, M., Pihlakoski, L., Haavisto, A., Rautava, P., Helenius, H., & Sillanpaa, M. (2006). Earlypredictors of deliberate self-harm among adolescents. A prospective follow-up study from age 3 to age 15. *Journal of Affective Disorders, 93*(1-3), 87-96.

Spirito, A., Boergers, J., Donaldson, D., Bishop, D., & Lewander, W. (2002). An intervention trial to improve adherence to community treatment by adolescents after a suicide attempt. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(4), 435-442.

Spirito, A., & Overholser, J. (2003a). The suicidal child, assessment and management after a suicide attempt. *Child and Adolescent Psychiatric Clinics of North America, 12*(4), 649-665.

Spirito, A., Valeri, S., Boergers, J., & Donaldson, D. (2003b). Predictors of continued suicidal behavior in adolescents following a suicide attempt. *Journal of Clinical Child and Adolescent Psychology, 32*(2), 284-289.

Stewart, S., Manion, I. G., & Davidson, S. (2002). Emergency management of the adolescent suicide attemptor: A review of the literature. *Journal of Adolescent Health, 30*(5), 312-325.

Sun, R. C., & Hui, E. K. (2007). Psychosocial factors contributing to adolescent suicidal ideation. *Journal of Youth and Adolescence, 36*(6), 775-786.

Swannell, S. (2014). Prevalence of nonsuicidal self-injury in nonclinical samples: Systematic review, meta-analysis and meta-regression. *Suicide and Life-Threatening Behavior*.

Sweeney, M. M. (2007). Stepfather families and the emotional well-being of adolescents. *Journal of Health and Social Behavior, 48*(1), 33-49.

Taylor, T. L., Hawton, K., Fortune, S.,& Kapur, N. (2009). Attitudes towards clinical services among people who self-harm: Systematic review. *British Journal ofPsychiatry, 194*, 104 - 110.

Thompson, R., Dubowitz, H., English, D. J., Nooner, K. B., Wike, T., Bangdiwala, S. I., Runyan, D. K., & Briggs, E. C. (2006). Parents' and teachers' concordance with children's self-ratings of suicidality: Findings from a high-risk sample. *Suicide and Life-Threatening Behavior, 36*(2), 167-181.

Tompson, M. C., Boger, K. D., & Asarnow, J. R. (2012). Enhancing the developmental appropriateness of treatment for depression in youth: Integrating the family in treatment. *Child and Adolescent Psychiatric Clinics of North America, 21*(2), 345-384.

Tucker, C. J., & Wiesen-Martin, D. (2015). Adolescent siblings' suicide ideation. *Journal of Family Issues, 36*(5), 609-625.

Tuisku, V., Pelkonen, M., Kiviruusu, O., Karlsson, L., Ruuttu, T., & Marttunen, M. (2009). Factors associated with deliberate self-harm behaviour among depressed adolescent outpatients. *Journal of Adolescence, 32*(5), 1125-1136.

Wagner, B. M., Silverman, M. A. C., & Martin, C. E. (2003). Family factors in youth suicidal behaviors. *American Behavioral Scientist, 46*(9), 1171-1191.

Wan, G. W., & Leung, P. W. (2010). Factors accounting for youth suicide attempt in hong kong: A model building. *Journal of Adolescence, 33*(5), 575-582.

Wang, H., Zhou, X., Lu, C., Wu, J., Deng, X., Hong, L., Gao, X., & He, Y. (2012). Adolescent bullying involvement and psychosocial aspects of family and school life: A cross-sectional study from guangdong province in china. *PLoS ONE Vol 7(7), Jul 2012, ArtID e38619, 7*(7).

Wedig, M. M., & Nock, M. K. (2007). Parental expressed emotion and adolescent self-injury. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(9), 1171-1178.

Wharff, E. A., Ginnis, K. M., & Ross, A. M. (2012). Family-based crisis intervention with suicidal adolescents in the emergency room: A pilot study. *Social Work, 57*(2), 133-143.

Wilson, C. J., Rickwood, D. J., Bushnell, J. A., Caputi, P., & Thomas, S. J. (2011). The effects of need for autonomyand preference for seeking help from informal sources on emerging adults' intentions to access mental health services for common mental disorders and suicidal thoughts. *Advances in Mental Health, 10*(1), 29-38.

Yen, S., Kuehn, K., Tezanos, K., Weinstock, L. M., Solomon, J., & Spirito, A. (2015). Perceived family and peer invalidation as predictors of adolescent suicidal behaviors and self-mutilation. *Journal of Child and Adolescent Psychopharmacology, 25*(2), 124-130.

Yoder, K. A., & Hoyt, D. R. (2005). Family economic pressure and adolescent suicidal ideation: Application of the family stress model. *Suicide and Life-Threatening Behavior, 35*(3), 251-264.

Zalsman, G., Levy, T., & Shoval, G. (2008). Interaction of child and family psychopathology leading to suicidal behavior. *Psychiatric Clinics of North America, 31*(2), 237-246.
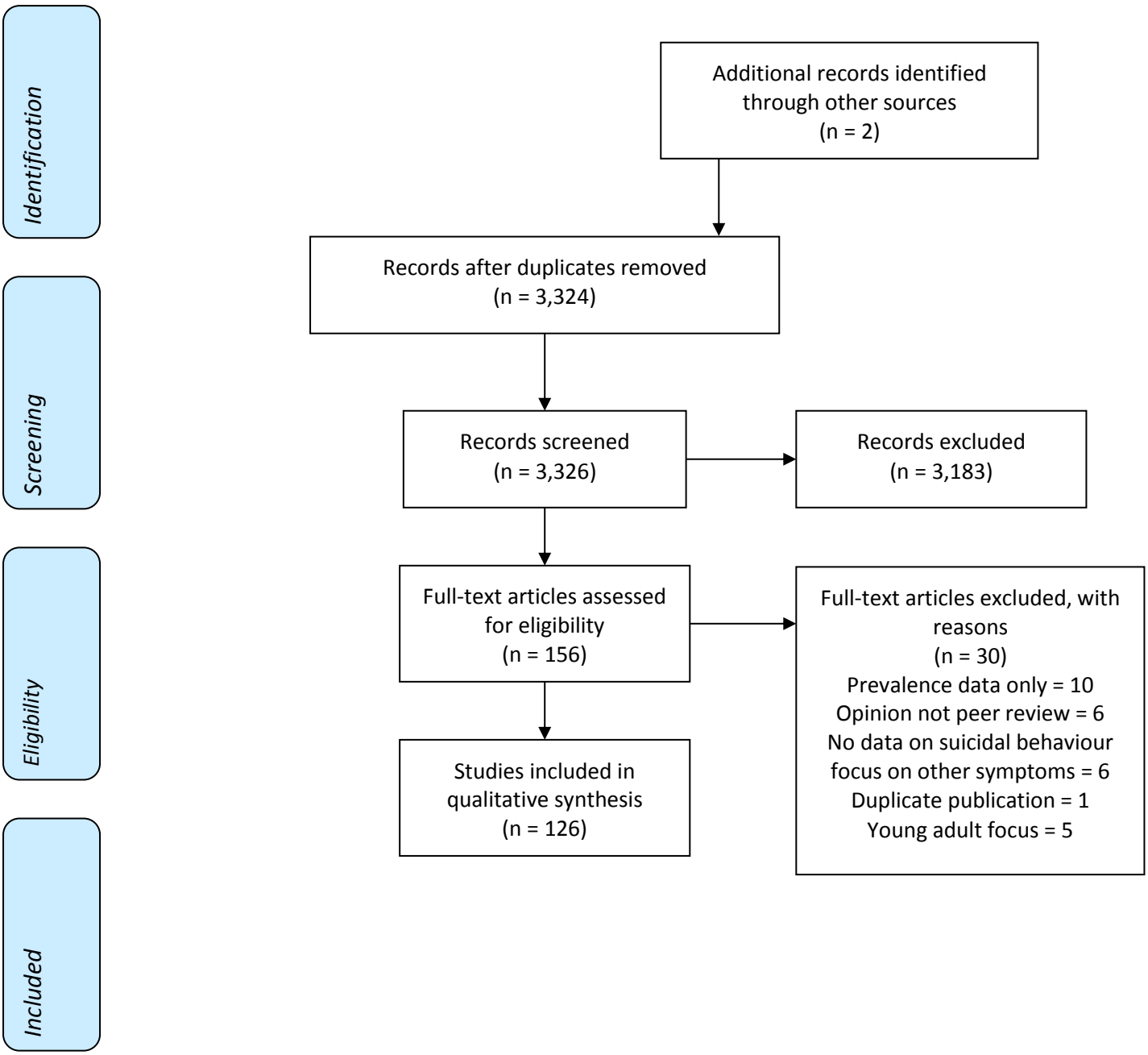
Figure 1. PRISMA Flow Chart of review strategy