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## **Exploring Sibling Relationships and Experiences in Adolescent Non-Fatal Self-Harm: A Systematic Review and Grounded Theory Study**

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*Submitted in partial fulfilment of the degree of*

*Doctorate in Clinical Psychology*

University of Edinburgh

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## **DClinPsychol Declaration of Own Work**

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# 1 Thesis Abstract

**Background:** Non-fatal self-harm is associated with negative health outcomes and common among adolescents. Family factors have been implicated as contributing to the onset and maintenance of adolescent self-harm but can also have protective effects as well. Self-harm has also been found to be distressing for family members. Most research has focussed on understanding the role and experiences of parents or the family in general. Siblings have largely been overlooked, despite most young people having at least one sibling and the unique characteristics of sibling relationships.

**Objectives:** A *systematic review* was conducted to identify, summarise and evaluate studies that investigated any possible associations between sibling relationship dimensions and non-fatal self-injurious thoughts and behaviours (SITBs) in adolescence. An *empirical study* was conducted to develop a theoretical understanding of the sibling experience of adolescent self-harm and explore if there were any unmet needs in knowledge or support for siblings.

**Methods:** *Systematic review:* A comprehensive literature search identified eligible studies that reported on associations between sibling warmth, conflict, and/or differential treatment with adolescent self-injurious thoughts or behaviours. Study quality was appraised with the shortened Research Triangle Institute Item Bank (RTI-IB) and findings were collated in a narrative synthesis. *Empirical study:* Eight participants (ages 16 to 23 years) took part in online interviews about their experience growing up with an adolescent sister who engaged in self-harm. This study was informed by constructivist grounded theory methods.

**Results:** *Systematic review:* Thirteen studies were identified that presented mixed results. Due to poor study quality, no conclusions could be drawn about associations with warmth or differential treatment. There was some indication that sibling conflict was positively

associated with certain SITBs, but these associations were often no longer significant when mental health problems were considered. Inconsistency in construct definitions, varied populations, poor psychometric quality of measures, and issues with confounding were among identified problems that made it hard to compare studies and have confidence in their results. *Empirical study:* Siblings varied in what they knew and understood about their sister's self-harm, but all were impacted on an intrapersonal and interpersonal level. They were mostly overlooked by health services. Siblings adapted through self-sacrifice, minimising personal distress, disengagement, and seeking social support outside of their sister and parents. Most siblings also tried self-harm themselves. Over time, siblings found ways that helped with coming to terms with their experience. Interactions with others shaped individual experiences. Siblings also provided suggestions on support for others.

**Conclusions:** *Systematic review:* No conclusive associations between sibling relationship dimensions and adolescent self-injurious thoughts or behaviours were evidenced.

Methodological limitations of the evidence base were identified to inform future research.

*Empirical study:* Adolescent self-harm is often difficult for siblings. It is important that families and professionals consider and address siblings' needs. Further research into sibling experiences of adolescent self-harm is also indicated.

## **2 Lay Summary**

In this study, non-fatal self-harm (from now on called self-harm) describes all the behaviours someone does to hurt themselves that did not end their life (both done to try and end one's own life and those done without this kind of motivation). Things like self-cutting or overdoses are included, but accidents, problematic eating behaviours and substance misuse are not. Self-harm is common among teenagers and has been linked with negative influences on someone's health. Family factors have been found to increase the risk that someone starts to hurt themselves and that they keep doing this. Family factors can also have positive effects, like stopping someone from hurting themselves in the first place or continuing to do this. Teenage self-harm can be stressful for their family members. Studies looked at how this affects parents or the whole family. Siblings have not been paid much attention, even though siblings have a special role in the lives of teenagers and most young people have at least one sibling. This thesis aimed to study siblings and adolescent self-harm in two research projects.

For the first project, a thorough search was done to find all past studies that explored links between sibling relationships and self-harm among teenagers. For sibling relationships, the specific focus was on how close siblings were, if there was any conflict, or if siblings felt their parents treated them differently from each other. Thirteen studies were found but their results were different from each other. Because of problems in how studies were done, no conclusions could be made about links between self-harm and how close siblings were or if they felt treated differently were. Sibling conflict might be related with more reports of certain types of self-harm, but these links were usually not there anymore when the researchers also included mental health problems. There were several problems with how these studies were done and the many different ways in which this happened also made it difficult to compare results. Future studies should make sure not to make the same mistakes.

In the second project, eight young adults (16-23 years old) who grew up living with a teenage sister who self-harmed were interviewed over video call. They talked about how they learned about their sister's self-harm, what this was like for them and how this influenced their life. These interviews were compared to each other and analysed to find what was important and affected the siblings' experience. Siblings came from families in which a lot was going on. Their sisters did not only self-harm, but also had mental health problems. Often family members did not speak about difficult feelings or experiences with each other. It was different for each sibling how much they knew and understood about their sister's self-harm, but all were impacted by this experience. Siblings prioritised helping their sister and parents over what they wanted or needed themselves. Other ways they coped included avoidance, downplaying their own stress, and most siblings tried to self-harm themselves. Many siblings also relied on support from others, but usually not from their sister and parents. As time passed, siblings found ways that helped with coming to terms with their experience. Interactions with others influenced how siblings experienced their sister's self-harm. Siblings also thought about ways to help others in a similar situation. It became clear that families and professionals need to not only pay attention to the teenager who self-harms, but also look out for siblings and their needs. The sibling experience of self-harm should be studied more.

### 3 Systematic Review

#### **A Systematic Review of Sibling Relationships and Non-Fatal Self-Injurious Thoughts and Behaviours in Adolescence**

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Griffiths<sup>1,2</sup>

*Suggested running head:*

A Systematic Review of Sibling Relationships & Adolescent Self-Harm

This chapter has been written in line with submission guidelines for *Child Psychiatry & Human Development* (Appendix A). To demonstrate relevant research competences additional pages were required, but a shortened version will be prepared to submit for publication.

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## **Abstract**

This systematic review (PROSPERO CRD42020199513) explored the ways in which sibling relationship dimensions (i.e. warmth, conflict, differential treatment) are associated with self-injurious thoughts and behaviours (SITBs) in adolescence. The search strategy consisted of database searching, reference list searching of included papers and expert identification.

Thirteen ethically approved, quantitative studies with adolescent samples that assessed at least one sibling relational dimension and type of self-injury written in English were identified ( $n=14,651$ ). Risk of bias was assessed with the shortened RTI item bank. A narrative synthesis highlighted mixed results. Due to poor study quality, no conclusions could be drawn about associations with warmth or differential treatment. There was some indication that sibling conflict was positively associated with certain SITBs, but these associations were often no longer significant when mental health problems were considered. Methodological limitations of the evidence, such as flaws and inconsistencies in measured constructs, were identified to inform future research.

*Keywords:* Systematic review, sibling relationship, differential treatment, non-fatal self-harm, adolescents

## **Introduction**

Non-fatal self-harm is a behaviour people typically start engaging in during adolescence (1,2). Whether self-injurious thoughts and/or behaviours (SITBs) should be differentiated in terms of suicidal intent or motivation is a contested topic within the scientific community. Some argue that non-suicidal self-injury (NSSI) is distinct from suicide attempts, while others view self-harm as being on a continuum or underpinned by multiple motivations (1). However, both suicidal and non-suicidal thoughts and behaviours are public health concerns linked with negative health outcomes among adolescents, including substance misuse, mental illness, (re)hospitalisations, and death by suicide (1,3–7). Accordingly, all types of SITBs are considered in this review and referred to with terminology used by the original study authors.

SITBs are included as part of the diagnostic criteria of several depressive disorders and borderline personality disorder in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (8). SITBs are common among Scottish adolescents, with 13.8% reported having engaged in self-harm at least once by age 16 (9). Among 18 to 23-year-olds, 18.6% disclosed lifetime NSSI, 21.3% suicidal ideation, and 9% attempted suicide (1). At the end of 2020, 10% of British 16 to 25-year-olds reported engaging in self-harm and 21% disclosed suicidal thoughts since the COVID-19 pandemic began (10).

Previous narrative and systematic reviews recognised family relationships as potential contributors to the onset and/or maintenance of adolescent SITBs, but also found protective effects (11–13). However, research focussed on the role of parent-child relationships or family functioning in general. Given that most children and adolescents in the United Kingdom have at least one sibling they live with (14), a further understanding of any associations of sibling relationships and SITBs is important and the focus of this review.

### ***Sibling Relationships & Adolescent Well-Being and Behaviour***

Previous research predominantly focused on the influence of parent-child relationships on childhood development and well-being, but fortunately, in recent decades, there has been an increased interest in the influence of sibling relationships (15–17). Similar to parent-child relationships, sibling relationships are involuntary, hierarchical (e.g. dominance of older siblings), and imply a long-lasting bond (17–19). However, more closely resembling peer relationships are its egalitarian features (e.g. ages relatively close, shared interests) (17–19). Sibling relationships are emotionally intense and ambivalent, typically characterised by both positive and negative interactions (17,20–22). Various family constellation factors, such as age and sex differences, birth order, the amount of siblings, and gender tilting within a family, impact sibling closeness and conflict (16). Several research groups characterised different types of sibling relationships: harmonious (high warmth, low conflict), conflictual (high conflict, low warmth), and affectively intense (high warmth, high conflict) (23). Adolescent relationships may also be uninvolved (low warmth, low conflict) (23).

Sibling dynamics can also change over time (20,23). During adolescence, young people seek to develop their own identity, strive for more autonomy and increased importance is placed on peer relationships (18,24,25). This can lead to increased competition and conflict as well as feelings of alienation or jealousy among siblings (16,24,26). Nevertheless, other studies report a decline in conflict during adolescence as a consequence of reductions in the intensity of the relationship and amount of time spent together (26,27). Furthermore, siblings can also be sources of support for adolescents navigating new developmental challenges (e.g. older siblings offering advice) and provide solidarity in disagreements with parents (24,28). Enhanced social cognitive skills may also facilitate mutual understanding and further closeness among adolescent siblings (27). Intimacy among adolescents may be influenced by sibling gender constellation, as especially pairs of sisters remain close (29). Late adolescence

comes with other challenges for siblings to navigate, including moving out of the family home (30). Studies typically find that relationships become closer once one sibling moved away, due to reasons such as an increased appreciation for time together and a decreased sense of rivalry and conflict (31–34).

Family systems theory assumes interdependence between different dyadic subsystems within a family (35,36). Therefore, attention must also be paid to the influence of larger family dynamics, such as parental differential treatment, on sibling relationships (17,37,38). The way adolescents interpret differential treatment is important: siblings relationships are more likely negatively impacted if differences are seen as unfair or favouritism (26,38–40).

Several reviews have found associations between sibling relationships and adolescent well-being and behaviour (15,17,29,38). A meta-analysis by Buist and colleagues demonstrated that more warmth, less conflict, and less perceived differential treatment between siblings related to significantly less psychopathology (15). These effects were strongest for sibling conflict, while caution is needed in relation to the association between sibling warmth and internalising problems as the Fail-Safe number for this meta-analysis was not robust. The relationship between differential treatment and internalising problems was weaker for adolescents than younger children and more pronounced for brother pairs than for pairs of sisters or with a brother and sister. A smaller age difference between siblings resulted in stronger associations between conflict and internalising problems. A limitation to this review is that studies were mostly conducted in low-risk community samples, as sibling relationships may have a different association to psychopathology among youth with clinically significant problems (15,38). A further drawback authors acknowledged was that all studies were conducted in Western countries. However, this may not have been as limiting as initially thought. Preliminary evidence from a study of younger adolescents in India and the

Netherlands found that cross-cultural differences in the quality of sibling relationships (particularly warmth) did not change its impact on psychopathology (41).

Based on their review of the literature, Dirks and colleagues noted that particularly frequent destructive and more severe conflicts were linked with internalising and externalising problems in childhood and adolescence. Conflict and sibling negativity prospectively predicted increased psychopathology beyond family functioning and earlier psychological adjustment (38). No consistent pattern emerged about the impact of birth order in the context of well-being and sibling negativity. Negative effects of sibling conflict appeared to be less pronounced if there was also sibling warmth. Dirks and colleagues found that birth order or dyadic characteristics did not affect the link between less internalising problems and positive sibling relationships. They also noted that greater intimacy may relate to externalising behaviour of younger siblings among brother pairs, as imitating antisocial behaviour is more likely to occur in supportive relationships.

A different review conducted by Feinberg and colleagues emphasised that the causal influence between adjustment and sibling relationships is likely bidirectional (e.g. youth without warm sibling relationships may be at risk of depression and those with depression may form less close sibling bonds) (17). Some caution is warranted, as directions of causality could rarely be clarified since only a minority of the reviewed studies used longitudinal data. Feinberg and colleagues suggested that positive sibling relationships may also buffer any potential adverse effects from stressful life events or negative interactions with parents or peers on adolescent mental health.

Stormshak and colleagues used an ecological perspective to examine research about sibling outcomes. They noted that children's ability to self-regulate emotions was linked to positive sibling relationships, but the direction of this association was unclear (29). A subsequently published study found that the relationship between sibling warmth and

adolescent psychopathology and prosocial behaviour was partially mediated by self-regulation skills (42). Stormshak and colleagues also found that engagement in antisocial behaviour and substance use was associated with coercive and collusive (i.e. close coalitions that undermine parenting and promote deviancy) sibling relationship patterns.

It is important to note that three of the above reviews were not systematic literature reviews (17,29,38). As searches may not have been as exhaustive or rigorous, it is possible that relevant studies that may have changed conclusions drawn in these reviews were missed. Furthermore, none of the four reviews included a structured quality appraisal of included studies. This makes it is harder to determine which findings to have the most confidence in.

Several mechanisms were hypothesised to underlie relationships between relational dimensions and adolescent well-being. As siblings have intense relationships and spend a lot of time together, their interactions provide a key context for *social learning* through observation, modelling and reinforcement (17,38). Conflictual sibling relationships may provide a training ground for negative social interactions that increase the risk of externalising problems (15,17,29,38). On the other hand, close sibling relationships provide opportunities to develop and practice emotional regulation and social skills that can promote well-being and supportive interpersonal relationships (17,38). Sibling warmth can also facilitate a secure *attachment* relationship that allows for the development of positive social-cognitive biases (15). Yet, a lack of secure attachments may instil biases such as attributions of hostile intent or mistrust of others, which potentially increase the risk of psychopathology (15,38). According to *social comparison* theory people compare themselves to others, especially those who are similar and available (15,17). Siblings often compare themselves to each other (15,17). Experiencing parents as favouring a sibling may lower one's self-worth and lead to negative interactions within the family, which in turn, can lead to psychological problems (15,43).

### ***Adolescent Self-Injury & Family Relationships***

Potential associations between sibling relationships and SITBs in adolescence appear to have been largely overlooked. A study from Séguin and colleagues did not find any differences between the perceived quality of dyadic sibling relationships among adolescents who reported non-fatal suicidal thoughts and behaviours and those who did not (44). However, they only considered the overall quality of the sibling relationship.

Mechanisms hypothesised to underpin associations of sibling relational dimensions with adolescent behaviour and well-being may also be relevant for SITBs. From a social learning perspective, sibling conflict can lead young people to adopt a coercive interpersonal style, which is related to a decreased ability to manage negative emotions and communicate effectively (17). On the other hand, supportive relationships in which siblings help each other manage negative affect allow opportunities to enhance emotion regulation and social skills (38). Emotion dysregulation and interpersonal difficulties are associated with SITBs among adolescents (45–47). Sibling interactions that lack warmth or are highly conflictual may also lead a young person to adopt negative social-cognitive biases and manifest as an insecure attachment relationship. Such insecure attachment may place a child more at risk of developing SITBs later (48). Furthermore, based on social comparison theory, parental favouritism can lead to lowered self-esteem and family conflict (15,43), both of which are associated with increased adolescent SITBs (13,49).

### ***Rationale***

Most adolescents have siblings. Adolescent well-being is associated with the quality of sibling relationships. Similar mechanisms may underpin an association with SITBs. This systematic review identified, summarised, and evaluated all relevant studies to improve our understanding of any associations between sibling relationship dimensions and adolescent

SITBs. This could provide important insights that can be used for prevention and intervention efforts aimed at reducing adolescent self-harm.

## **Methods**

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement (50) and Synthesis Without Meta-analysis (SWiM) (51) reporting guidelines were consulted when writing up this review. Its protocol was registered on the international prospective register of systematic reviews PROSPERO (CRD42020199513; Appendix B).

## ***Definitions***

**Adolescence.** Current understandings of the biological and social developments that mark the transition from childhood to adulthood have informed the adoption of an inclusive definition of adolescence: ages 10 to 24 years (52).

**Sibling Relationship Dimensions.** In line with another systematic review on sibling relationships (15), three relational dimensions were considered in this review: conflict, warmth, and differential treatment. Sibling conflict consisted of negative aspects of the relationship like bullying, arguing, aggression and coercion, while sibling warmth reflected positive aspects of a sibling relationship, including closeness, support, admiration, and intimacy (15,20,53). Differential treatment (also referred to as sibling rivalry) was defined as the perception that parents behave differently towards a sibling compared to themselves (15). The rationale for adopting the same definition of sibling relationship dimensions as used by Buist and colleagues (15) was that this would allow for consistency and potential comparison of the findings across the reviews.

**Non-Fatal Self-Injurious Thoughts and Behaviours.** There is heterogeneity in how SITBs are conceptualised across studies (54). In line with Dhingra and colleagues' approach based on the Self-Injurious Thoughts and Behaviours Interview (SITBI; 55), SITBs are taken to include suicidal ideation (having thoughts of killing oneself), suicide plans (having made a plan to kill oneself), suicide gestures (having done something to make others believe one wanted to kill oneself in the absence of intent to do so), suicide attempts (having tried to kill oneself), NSSI thoughts (having thoughts of hurting oneself without wanting to die) and/or NSSI behaviours (purposefully hurting oneself without intent to die). Studies that used definitions that combined two or more of the above concepts (e.g. grouping suicide attempts and NSSI behaviours together as self-harm) were also included in the synthesis.

### *Search Strategy*

The search strategy was created in consultation with a university librarian and key terms from reviews in similar areas were considered. The strategy was piloted to confirm that relevant articles identified during initial scoping were included. The following electronic databases were searched on the 5<sup>th</sup> of September 2020 from inception to then: APA PsycInfo (since 1806), Embase Classic+Embase (since 1947), MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily (since 1946), Scopus (since 1788), ProQuest Dissertations & Theses Global (since 1861), Applied Social Sciences Index & Abstracts (ASSIA; since 1987) and Sociological Abstracts (since 1952). Terms searched included truncation and were: ("self harm\*" OR "selfharm\*" OR "self injur\*" OR "selfinjur\*" OR "self cut\*" OR "selfcut\*" OR "self destruct\*" OR "selfdestruct\*" OR "self mutil\*" OR "selfmutil\*" OR overdos\* OR "self inflict\*" OR "selfinflict\*" OR suicid\* or parasuicid\* OR NSSI OR nonsuicid\*) AND (sibling\* OR brother\* OR sister\* OR favo\*) AND (adolescen\* OR young OR youth OR child\* OR teen\* OR juv\* OR student OR college).

All studies were imported into Covidence software (56), which automatically removed duplicate records. The first author subsequently did an initial screening using titles and abstracts. Studies were included for full-text screening if its eligibility was unclear. Next, the full text of a randomly selected subset of 20% of these studies was independently screened by both the first and second author in October 2020. Both authors were in full agreement and the first author screened the remainder of the studies. Study authors were contacted if further information was required before deciding if all eligibility criteria were met. The additional search strategy consisted of the first author searching reference lists of included studies to identify further studies for inclusion and showing four experts in the field which studies had been identified to ensure no relevant research was missed. Any subsequently identified studies were also subjected to full-text screening.

### ***Eligibility Criteria***

To avoid publication bias and because this is an under-researched field, both relevant grey literature (i.e. dissertations; conference proceedings not otherwise reported) and peer-reviewed journal articles were eligible if they met the following criteria:

- Assessed at least one dimension of sibling relationships (as the review looks at associations between this and non-fatal SITBs).
- Assessed at least one type of non-fatal self-injurious thoughts or behaviours (as the review looks at associations between this and sibling relationship dimensions).
- Consisted of an adolescent sample (ages 10-24). To make sure that a study's findings were reflective of adolescents, studies that also included younger and/or older participants were only included if more than 50% of the participants' ages fell within the 10-24 years age range, if adolescent data was reported separately, or if authors were willing to provide information related to adolescent participants.

- Consisted of a sample of participants with siblings (as otherwise the key construct of sibling relationship dimensions would not be applicable). Studies that included adolescents without siblings in their total sample were only included if it was specified how many participants had siblings because otherwise it would not be possible to accurately interpret the findings (e.g. if groups are compared but it is not stated how the number of participants with siblings is distributed across groups).
- Had a quantitative design (to allow comparisons of the statistical strength of any associations found across different relational dimensions and SITBs).
- Reported or were able to confirm having received relevant ethical approvals (to ensure that review findings and recommendations would be based on ethically sound research).
- Were written in English or a full English translation was available (to ensure all authors of this review would be able to read the included studies).

Studies that did not meet all of the above criteria were excluded from this review.

### ***Data Extraction***

The first author created a data extraction form. This form was piloted on one randomly selected study and subsequently uploaded to Covidence. The first author extracted the following information for each included study: author(s), year and type of publication, design, where and when data was collected (including number of time points for longitudinal designs), sampling strategy, inclusion and exclusion criteria, sample characteristics and size, comparison group, assessment of sibling relationship dimensions, assessment of self-injury, analyses, results, and identified study limitations. Data for different types of relational dimensions and SITBs were extracted separately as each study may have reported on more than one. Four randomly selected studies were independently extracted by the second author to ensure consistency. Inter-rater reliability analysis using Cohen's kappa indicated almost

perfect agreement ( $\kappa=.806$ ). Any discrepancies were resolved through discussion and consensus.

### ***Data Synthesis***

Preliminary searches had shown clinical and methodological heterogeneity rendering it unlikely that statistical analysis would be appropriate to use when comparing findings across studies. In line with guidance (57), a narrative approach was therefore used to synthesise findings across the different sibling relationship dimensions as detailed in the review protocol (Appendix B). Within each relational dimension, results were grouped in terms of SITB type to explore the direction and size of effects. Possible sources of variability and the quality of the different studies were also considered.

### ***Quality Appraisal***

Studies consisted of various observational study designs. Several tools for quality assessment of non-randomised studies were considered due to a lack of consensus about how to best assess the quality of observational studies when exposures are not controlled by the researcher (58,59). Ultimately, the shortened Research Triangle Institute Item Bank (RTI-IB) for assessing risk of bias and confounding in observational studies of interventions or exposures (60; Appendix C) was selected. This tool can be used with cohort-, cross-sectional -, and case-control study designs and provides a more thorough assessment compared to the Newcastle-Ottawa Scales, the most commonly used risk of bias tool for non-randomised studies (61). The shortened RTI-IB consists of 13 questions across six domains of bias (selection, confounding, performance, detection, attrition, and selective outcome reporting) rated as 'yes', 'no', 'partially', 'not applicable', and 'cannot determine'.

In line with guidance (60) only items relevant to the body of literature were selected by the first author. Three items were removed a priori and a further item capturing differences in the length of follow-up was also dropped as this was only relevant to one study. To still allow for comparisons in terms of attrition bias in longitudinal studies, item 8 remained included. In line with other research (62,63), responses were recategorised in terms of the level of risk (Appendix C). The first and second author agreed that studies could still be assigned 'low risk' on the first item if inclusion criteria differed in relation to group status (e.g. participants with suicidal ideation in one group and those without in the control group) as long as all other criteria were the same across groups. When assessing the quality of the measures used, self-report measures were not seen as necessarily less reliable and valid than objective proxy measures (e.g. hospital admission for suicide attempt), considering the nature of the constructs of interest. Therefore, studies could still receive 'low risk' if they included single-item measurements, as long as the item was taken from an established measure and all their other measures were valid and reliable. Several variables were identified as potential confounders, including participant age and gender, birth order, dyadic gender composition (when an identified sibling was used), and depression (38,64–67).

The first and second author co-rated four randomly selected studies to ensure criteria were applied consistently. Inter-rater reliability analysis using Cohen's kappa indicated almost perfect agreement ( $\kappa=.929$ ). Discrepancies were resolved through discussion and consensus. The first author appraised the remaining studies, but any ambiguities were discussed with the second author.

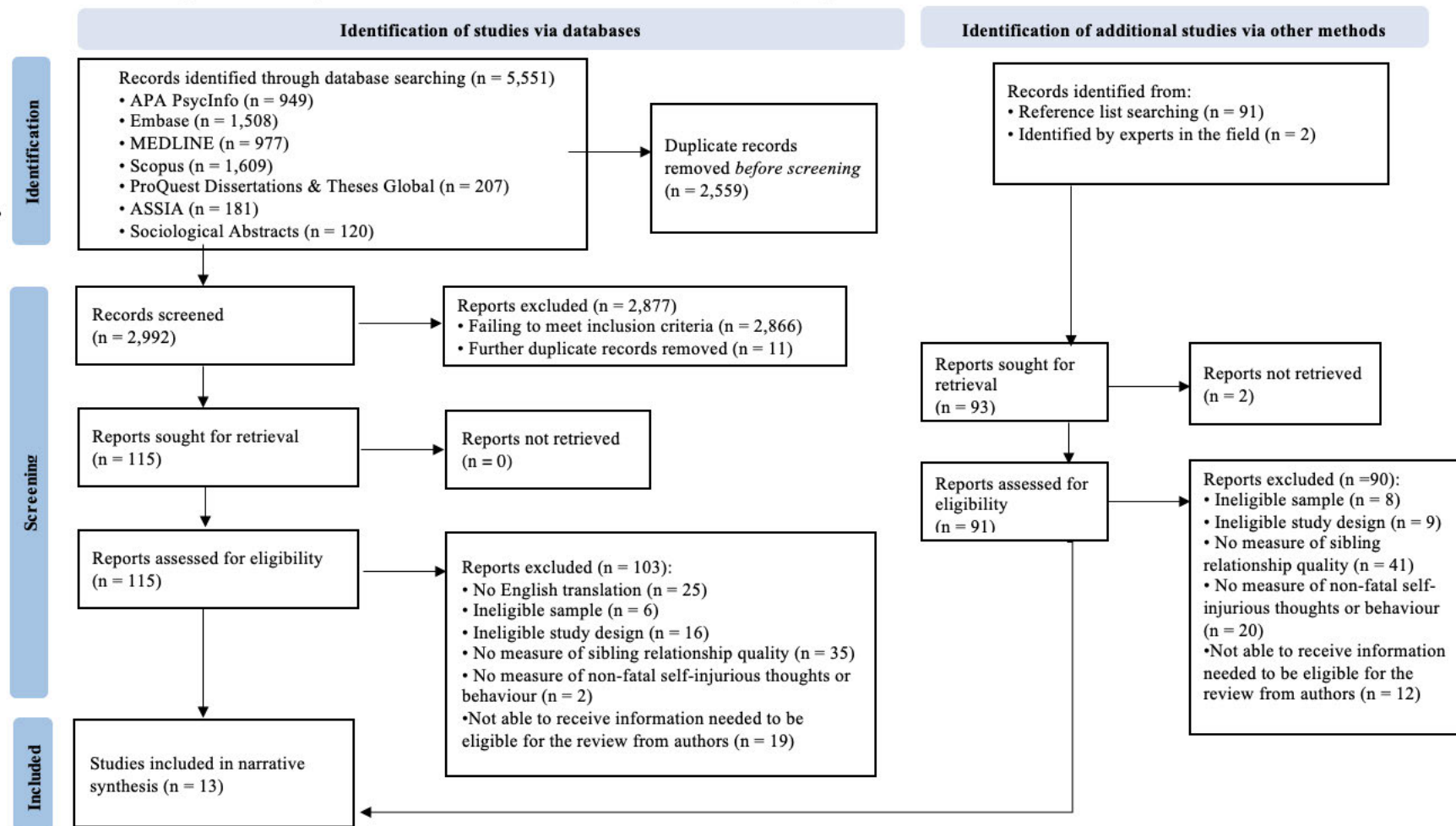
## **Results**

### *Search Summary*

A total of 5,551 records were found through database searching. Once duplicates were removed, abstracts of 2,992 studies were screened. A further 93 records were identified through reference list searching and expert recommendations. A full-text review was carried out for 218 studies and 205 studies were excluded, mostly due to measuring general family dynamics rather than sibling relationships. Reasons for not being able to receive the information needed for the review from authors included authors no longer having access to data needed, not responding to requests, or being unable to be contacted. Ineligible study designs included case reports, qualitative studies, and reviews. Several studies were included after contacting the authors for clarifying information (Appendix D). Additional information about the search is shown in Figure 1.

**Figure 1**

*PRISMA 2020 Flow Diagram*



### *Study Characteristics*

Information about characteristics of the included studies has been summarised in Table 1. Two dissertations and eleven journal articles were identified. Authors of three journal articles (68–70) provided unpublished findings relevant to this review (Appendix E). Six studies had a cross-sectional design, two were case-control, four were cohort studies and one study had a mixed design (case-control for comparison with controls and cohort for follow-up of the patient group). Two studies used data from the same longitudinal study (71,72). Four studies investigated multiple sibling relationship dimensions (68,70,73,74). Three studies looked at social relationships in general but included information related to siblings (69,74,75). One study's original aims related to depression rather than SITBs (68). Seven studies researched multiple SITBs (69,70,72,74–77). Suicidal ideation (69,70,72,77–80) and suicide attempts (72–77) were the most commonly studied SITBs.

At least 14,651 adolescents with siblings were assessed. This pooled sample only included participants from the Bowes and colleagues' sample from the Avon Longitudinal Study of Parents and Children (ALSPAC) (71,72) to avoid potentially including the same participants multiple times. Most studies involved one adolescent reporting on their sibling relationship, but four studies (68,70,78,81) included sibling pairs and a total of 1,718 dyads were assessed. Eight studies had a relatively balanced sex ratio (no more than 60% of the sample belonging to one sex), four had predominantly female participants (70,73,75,76) and another study consisted mostly of male participants (69). The youngest participant was ten years old and the oldest one was 28 years old. Tschan and colleagues (70) were the only study with participants outside of the specified age range as they included siblings up to age 28, but the majority of their sibling sample fell well within the adolescent range ( $16.88 \pm 4.02$ ). Two studies excluded participants with twins

(71,78). The average participant age was 14.5 years (for longitudinal studies age during the first measurement taken) and 54.1% were female. Participants were recruited from nine different countries, most commonly from the United States (five studies). Eleven studies were conducted in what are described as Western countries (82). Recruitment occurred across a range of settings. Schools were the most popular recruitment site (seven studies including four exclusively). Other participants were recruited from healthcare (four studies including two exclusively), social care (one exclusively), and community settings (four studies including three exclusively). Six studies reported on samples that were part of larger longitudinal studies (68,71,72,74,77,78).

**Table 1***Summary of Characteristics Included Studies (presented in order of mean participant age)*

<b>Author (year), country, publication type</b>	<b>Study design &amp; recruitment</b>	<b>Sample size &amp; characteristics: group, gender, mean age (<math>\pm</math>SD if reported), follow-up timing.</b>	<b>Warmth</b>	<b>Conflict</b>	<b>Differential treatment</b>	<b>Self-injury</b>
Bowes et al. (2014), United Kingdom, <i>article</i>	Cohort.  Recruited from the community as part of a longitudinal study (ALSPAC). Excluded those with a twin (n=173) or without a sibling (n=477).	n=3,452 had complete data across sibling bullying and self-harm at 18. 53.3% female T1: 12.1 years ( $\pm$ 0.8) T2 at age 18.		Modified OBQ to assess sibling bullying in the past six months (victimisation only).		Participants were asked "Have you ever hurt yourself on purpose in any way (e.g. by taking an overdose of pills or by cutting yourself)?" If yes, participants were asked how many times in the last year (coded 0 if absent in the past year and 1 if present).
Dantchev et al. (2019), United Kingdom, <i>article</i>	Cohort.  Recruited from the community as part of a longitudinal study (ALSPAC). Excluded participants without siblings (n=477) and those presenting with a DSM-IV Axis 1 diagnosis prior to sibling bullying exposure (n=475).	n=2,372 had complete data across sibling bullying and SITB measures at age 24. T1: 12.1 years T2 at age 18 T3 at age 24		Modified OBQ to assess sibling bullying in the past six months (both victimisation and perpetration).		At 18, participants were asked "Have you ever hurt yourself on purpose in any way (e.g. by taking an overdose of pills or by cutting yourself)?" If yes, participants were asked how many times in the last year (coded 0 if absent in the past year and 1 if present). At 24, participants were asked about lifetime suicidal ideation (coded 0 if absent and 1 if present) and the same question about self-harm as at 18 but with two additional questions that differentiated between lifetime suicidal and non-

Author (year), country, publication type	Study design & recruitment	Sample size & characteristics: group, gender, mean age ( $\pm$ SD if reported), follow-up timing.	Warmth	Conflict	Differential treatment	Self-injury
Bar-Zomer et al (2018) Israel, <i>article</i>	Cross-sectional.  Recruited through convenience sampling and schools.	n=279 58.8% female 13.5 years ( $\pm$ 1.9)		An adapted bullying questionnaire was used to assess sibling bullying and victimisation on a 4-point scale.		suicidal self-harm (coded 0 if absent and 1 if present).  Four MFQ items assessed for passive and active suicidal ideation in the last two weeks. Answers rated as 0 incorrect, 1 sometimes correct, 2 correct.
Buist et al. (2019), the Netherlands, <i>article</i>	Cohort.  Recruited from schools as part of a longitudinal study (RADAR). Families chose which sibling (age $\geq$ 10) participated.	n=412 sibling dyads Age gap 3.03 years ( $\pm$ 1.8)  Older siblings 53.4% female T1: 15.4 years ( $\pm$ 2.3)  Younger siblings 56.6% male T1: 12.3 years ( $\pm$ 1.2)  Followed for 6 annual waves.	Support subscale of the short version of the NRI: 12 items rated on a 5-point scale. Higher scores reflected more perceived support.	Negative interaction subscale of the short version of the NRI: 6 items rated on a 5-point scale. Higher scores reflected more perceived conflict.		Current depression was reported using the RADS-2. The scale included the following item: I feel like hurting myself. Answers ranged from 1 almost never to 4 most of the time.
De Man et al. (2003), Hong Kong, <i>article</i>	Cross-sectional.  Recruited from one government subsidised secondary school.	n=317 adolescents 51.7% female 14.1 years ( $\pm$ 0.9)			Differential parental treatment subscales SIDE compared past year affection received and control experienced from a parent to sibling closest in age. Lower scores (sibling favoured) to higher scores (self-favoured). Relative scores reflected direction of favouritism, absolute scores only if there was much/some/no favouritism.	SSI: 19 items assessing suicidal thoughts. Higher scores reflect greater suicidal ideation.

Author (year), country, publication type	Study design & recruitment	Sample size & characteristics: group, gender, mean age ( $\pm$ SD if reported), follow-up timing.	Warmth	Conflict	Differential treatment	Self-injury
Hedeland et al. (2016), Denmark, <i>article</i>	Case-control. Recruited from hospitals (patients) and schools (age- and gender matched controls).	n=381 patients of which n=325 had sibling(s) 93% female 14.8 years  n=296 controls of which n=278 had sibling(s) 88% female 14.6 years	Own questionnaire. Close relationship if adolescents felt able and wanted to talk to siblings about their problems and that their siblings would help in any situation. Staff classified relationships for patients.			Patients were admitted due to a suicide attempt with acetaminophen.
Levy (1998), United States, <i>dissertation</i>	Cross-sectional. Recruited from medical sites (public and private).	Total n=125 adolescents 14.9 years ( $\pm$ 1.9)  n=55 attempted suicide 74% female  n=70 control 83% female	The SRQ has 48 items rated on a 5-point scale and is completed in relation to the sibling closest in age. It includes various subscales that contribute to a warmth/closeness factor.	The SRQ also included various subscales that contributed to form a conflict factor.	The SRQ has maternal and paternal partiality scales can be summed to create a rivalry factor. As 11% of participants did not have a male caretaker, maternal partiality was used instead.	Medical staff identified adolescents who presented to the emergency room after attempting suicide or were admitted to hospital following a suicide attempt.
Van Meter et al. (2019), United States, <i>article</i>	Cross-sectional. Recruited from households identified via a national study (NCS-R) and also from schools.	n=6,447 (of which n=6,064 had siblings they had contact with) 51.7% female 15.2 years ( $\pm$ 0.1)	Modified version of a supportive interaction scale. Asked how much relying on and opening up to sibling(s). Coded responses created sibling relationship positivity scores ranging from 0-6.	Modified version of a negative interaction scale. Asked how often sibling(s) make too many demands on them and argue with them. Coded responses created sibling relationship negativity scores range from 0-6.		The CIDI asked about suicidal thoughts, plans, and attempts. Past year suicidal thoughts, plans and attempts are reported collectively.
Suárez-Soto et al. (2018), Spain, <i>article</i>	Cross-sectional. Recruited from the child welfare and juvenile justice system.	n=227 adolescents of which n=216 had sibling(s) 63.9% male 15.3 years ( $\pm$ 1.5)		Sibling victimisation module of the Spanish and Catalan versions of the JVQ: six items scored absent 0 or present 1.		Translated YSR items: item 18 (“I deliberately try to hurt or kill myself”) and item 91 (“I think about killing myself”). Reported on a scale from not at all 0 to very often 2 how often in the past six months.

Author (year), country, publication type	Study design & recruitment	Sample size & characteristics: group, gender, mean age ( $\pm$ SD if reported), follow-up timing.	Warmth	Conflict	Differential treatment	Self-injury
Silverman (2003), United States, <i>dissertation</i>	Case-control & cohort (follow up assessments after discharge for those who attempted suicide).  Recruited from hospitals.	n=61 who attempted suicide 70.5% female T1: 15.7 years ( $\pm$ 1.3) Follow-up post discharge: T2 at 6 months later (n=42) T3 at 1 year later (n=38) T4 at 18 months later (n=30)  n=32 controls (matched on age, sex, ethnicity, family SES, Axis 1 diagnosis, hospital site) 59.4% female T1: 15.7 years ( $\pm$ 1.3) No follow-up			Differential parental treatment subscale SIDE compared paternal and maternal affection received and control experienced in the past year to an identified sibling (preference given to biological relatedness; then same sex; then smallest age difference). Higher scores showed greater control of or affection for the sibling.	Hospitalisation following a suicide attempt determined group status at T1. Suicide ideation over past six months at T1-T4 was assessed with 6 DISC items - if endorsed up to four further questions (averaged to create a total score from 0 to 2). At T2-T4 also own interview questions about further suicide attempts in past six months.
Tschan et al. (2019), Switzerland & Germany, <i>article</i>	Case-control.  Consecutively recruited from inpatient units (NSSI; CC) and high schools (NC). One sibling per adolescent participated (usually closest in age).	n=56 with NSSI disorder n=33 clinical control (CC) n=50 non-clinical control (NC) 100% female 16.2 years ( $\pm$ 1.6)  n=73 siblings of target adolescent girls 60.3% female 16.9 years ( $\pm$ 4.0)	ASRQ measured sibling relationships across 14 subscales on a 5-point scale. One of its three higher order factors is warmth/closeness. BSQ measured four dimensions of brother-sister relations, including empathy.	ASRQ included a higher order factor for conflict.  BSQ subscale measured coercion (power and control of one sibling by the other).	ASRQ included rivalry subscales (answered 0 neither is favoured, 1 one of us is sometimes favoured, and 2 one of us is usually favoured) that contributed to a higher order factor for rivalry.	NSSI was assessed with questions based on DSM-5 research criteria for NSSI disorder.  German YSR included one item assessing suicidal ideation and one item for deliberate acts of self-harm in the past six months.
Wagner & Cohen (1994), United States, <i>article</i>	Cross-sectional.  Recruited from the community as part of a longitudinal study. Siblings were only sampled from families with both children living with the biological mother and the sibling being aged 12-19 (ideally sibling closest in age to the study child).	n=178 sibling pairs  Study children 53% male 16.6 years  Participating siblings 53% female 16.7 years			A maternal warmth index was created with the CBCL (maternal affection & communication subscales) and a maternal support subscale. A harsh maternal discipline index was based on a discipline subscale and the PAPS. Differential treatment was assessed with a difference score	Suicide ideation in the past six months was assessed with six DISC items (scored 1 for no, 2 for somewhat or sometimes and 3 for yes). Another DISC item assessed lifetime suicide attempts.

Author (year), country, publication type	Study design & recruitment	Sample size & characteristics: group, gender, mean age ( $\pm$ SD if reported), follow-up timing.	Warmth	Conflict	Differential treatment (older minus younger sibling) for both indexes.	Self-injury
Tucker & Wiesen- Martin (2015), United States, article	Cohort.  Recruited from schools as part of a national longitudinal study (Add Health). One dyad per family and twins were excluded.	n=1,055 pairs 51% female  Older siblings: T1: 17.1 years ( $\pm$ 1.2) Younger siblings: T1: 14.8 years ( $\pm$ 1.3)  T2 at 1 year later	Self-developed items: 1. How much time do you spend together? 2. How much time do you spend with the same friend or group of friends? 3. How often do you feel love for your sibling? Higher scores indicated warmth in relationships.			At both waves adolescents were asked “During the past 12 months, did you ever seriously think about committing suicide?” (coded 0 if not or 1 if yes).

*Note.* Abbreviations: ALSPAC = Avon Longitudinal Study of Parents and Children; OBQ = Olweus Bullying Questionnaire; DSM = Diagnostic and Statistical Manual of Mental Disorders; MFQ = Mood & Feelings Questionnaire; RADAR = Research on Adolescent Development and Relationships; NRI = Network of Relationships Inventory questionnaire; RADS-2 = Reynolds Adolescent Depression Scale—second edition; SIDE = Sibling Inventory of Differential Experience; SSI = Scale for Suicide Ideation; SRQ = Sibling Relationship Questionnaire; NCS-R = National Comorbidity Survey Replication; CIDI = Composite International Diagnostic Interview; JVQ = Juvenile Victimization Questionnaire; YSR = Youth Self-Report; DISC = Diagnostic Interview Schedule for Children; NSSI = non-suicidal self-injury; ASRQ = Adult Sibling Relationship Questionnaire; BSQ = Brother-Sister Questionnaire; CBCL = Child Behaviour Checklist; PAPS = Power Assertive Punishment Scale; Add Health = The National Longitudinal Study of Adolescent to Adult Health.

## Quality Included Studies

Information provided by study authors was considered during the appraisal process (Appendix D). When authors made unpublished findings available, the appraisal still related to the overall study quality. Methodological quality differed as illustrated in Figures 2 and 3.

**Figure 2**

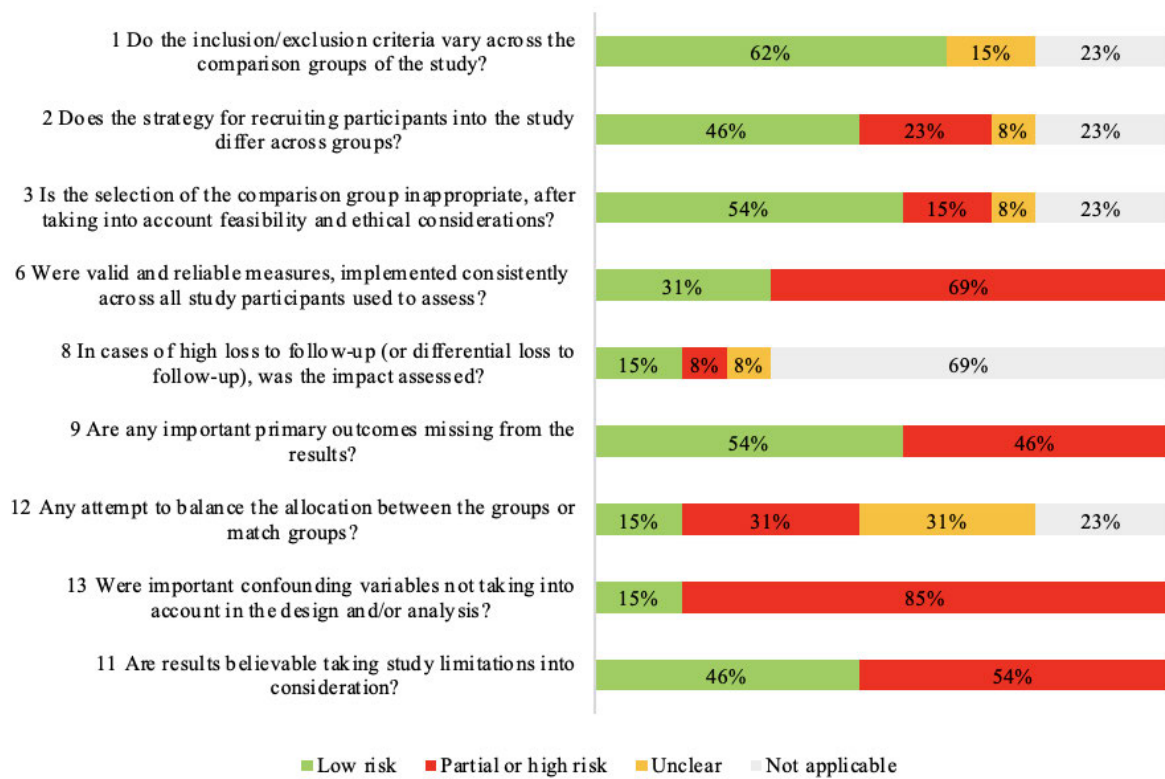
### Summarised Quality Appraisal per Study

	1 Do the inclusion/exclusion criteria vary across the comparison groups of the study?	2 Does the strategy for recruiting participants into the study differ across groups?	3 Is the selection of the comparison group inappropriate, after taking into account feasibility and ethical considerations?	6 Were valid and reliable measures, implemented consistently across all study participants used to assess inclusion/exclusion criteria, intervention/exposure outcomes, participant health benefits and harms, and confounding?	8 In cases of high loss to follow-up (or differential loss to follow-up), was the impact assessed?	9 Are any important primary outcomes missing from the results?	12 Any attempt to balance the allocation between the groups or match groups?	13 Were important confounding variables not taking into account in the design and/or analysis?	11 Are results believable taking study limitations into consideration?
Bowes et al (2014)	•	•	•	-	+	-	•	+	+
Dantchev et al (2019)	•	•	•	-	+	+	•	+	+
Bar-Zomer & Klomek (2018)	+	+	+	-	•	+	-	-	+
Buist et al (2019)	•	•	•	+	•	+	•	-	+
De Man et al (2003)	?	?	+	+	•	-	?	-	-
Hedeland et al (2016)	?	-	-	-	•	-	-	-	-
Levy (1998)	+	-	-	+	•	-	?	-	-
Van Meter et al (2019)	+	+	+	-	•	+	?	-	+
Suarez-Soto et al (2018)	+	+	+	+	•	+	-	-	+
Silverman (2003)	+	+	+	-	-	-	-	-	-
Tschan et al (2019)	+	-	+	-	•	+	?	-	-
Wagner & Cohen (1994)	+	+	?	-	•	-	+	-	-
Tucker & Wiesen-Martin (2015)	+	+	+	-	?	+	+	-	-

Note. Classified as low risk (+); partial/high risk (-); unclear (?); not applicable (•).

**Figure 3**

*Summarised Quality Appraisal by Item*



All studies full sample fell within the specified age range, except for one study (70). Most studies used an appropriate comparison group (seven out of ten studies that included one) and consistently applied inclusion and exclusion criteria (eight out of ten studies). However, one study did not report all criteria used (80) and another study did not clarify if the criteria used to recruit adolescents who attempted suicide (e.g. no known liver disease) had also been applied to the control group (75). Seven studies accounted for all described outcomes in their results, but in the absence of study protocols, it is hard to know if all originally considered outcomes were published. Other studies did not clearly or fully report their outcomes, including not commenting how many participants endorsed suicidal ideation (80) and how many participants re-attempted suicide (76). Four studies involved high or differential loss to follow-up, two of which appropriately addressed its impact through imputation (71,72).

Bias due to confounding was a significant issue in most included studies. Potentially important confounding variables such as depression were not, or only partially, accounted for in the design or analysis of eleven studies. Eight studies did not take or report steps to address unequal participant distribution across groups despite numbers across groups substantially differing in some cases. Four studies recruited participants across groups differently (e.g. patients from national hospitals but controls from schools in a specific region; see 75). This may have introduced unmeasured influence on the construct(s) of interest.

Both definitions and the psychometric quality of self-report measures of relational dimensions varied widely. Validated measures used included (subscales from) the Network of Relationships Inventory (NRI) (83), Sibling Relationship Questionnaire (SRQ) (84), Adult Sibling Relationship Questionnaire (ASRQ) (85), Brother-Sister Questionnaire (BSQ) (86), Juvenile Victimization Questionnaire (JVQ) (87), and the Sibling Inventory of Differential Experience (SIDE) (88). Reliability measures (i.e. internal consistency, test-retest reliability) are considered good to excellent for the NRI, SRQ, ASRQ, SIDE and the BSQ empathy subscale and sufficient for the BSQ coercion subscale and the JVQ (68,70,73,76,87). The SRQ and SIDE also demonstrated reasonable test-retest reliability (73,76). Most of these measures are appropriate for use with young people, although it is unclear if the ASRQ has been validated for use with adolescents. Wagner and Cohen used an indirect approach (77). They asked siblings to report personal experiences of maternal warmth and discipline using questionnaires from other studies (89–91) on the basis of which they calculated scores reflecting on different perceptions within a dyad (older minus younger sibling). Maternal reports of warmth and discipline from study children demonstrated good test-retest reliability over a two-year period for study children in their sample (not available for sibling participants). However, this indirect approach may not be a valid and reliable measure of rivalry, as adolescents did not actually report if they felt treated differently from their sibling.

Four studies (71,72,74,79) adapted measures used in previous research. Bar-Zomer and colleagues (79) modified a bullying measure (92) to refer to siblings rather than peers. They reported good to excellent internal consistency ( $\alpha=.90-.91$ ). In the studies based on data from the ALSPAC cohort, an adapted version of the Olweus Bullying Questionnaire (OBQ) (93) was used. Participants reported on siblings instead of peers and in a six-month period instead of ‘the last couple of months’ as the original measure. Acceptable internal consistency was reported ranging from  $\alpha=.74$  to  $\alpha=.80$  (71,72). Van Meter and colleagues (74) adapted positive and negative interaction scales (94) originally developed to reflect on relationships with spouses, friends and relatives in general to refer to siblings. Internal consistency of the original measure ranged from ( $\alpha=.76$  to  $\alpha=.84$ ), but psychometric properties in the current sample and its appropriateness for use with adolescents are unknown. Two studies assessed warmth without a validated instrument, which poses a significant risk of not adequately capturing this concept. Tucker and Wiesen-Martin asked participants three self-developed questions (see Table 1) at both waves, but they were not able to match answers to the responding sibling based on information from the first wave (78). Its internal consistency ranged from  $\alpha=.55$  to  $\alpha=.58$ . There was a small positive association between reports from older and younger siblings ( $r=.47$ ,  $p=.001$ ). Hedeland and colleagues also developed their own measure. Sibling relationships were seen as close if adolescents felt able and wanted to talk to siblings about their problems and that their siblings would help in any situation (75). They deemed patients as too vulnerable to complete the measure themselves, so instead medical staff categorised the sibling relationship as close, intermediate, or dissociated based on discussions with patients and their background knowledge of his/her family situation. Control subjects appeared to have classified their own sibling relationships. Their use of self-report for control subjects and informant-report for patients further limits the validity of an

already self-developed questionnaire, because it is possible that medical staff view the quality of their sibling relationships differently from the adolescents themselves.

In terms of SITBs, there was also considerable heterogeneity in definitions and the quality of measures used. Three studies included an objective proxy measure, namely hospital presentations due to attempted suicide. Hedeland and colleagues only considered suicide attempts with acetaminophen (75). Levy and Silverman included any means of suicide (73,76), but Silverman did stipulate a score of at least two on the Lethality of Suicide Attempt Rating Scale (95) confirmed by two independent raters ( $ICC=.88$ ). Silverman excluded adolescents with a history of suicidal behaviour from the control group, while both Levy and Hedeland and colleagues may have included adolescents with a history of suicide attempts in their control group. Furthermore, Hedeland and colleagues also excluded all participants with multiple suicide attempts during the study period from their patient group. The eligibility criteria used limits what these two studies (73,75) can demonstrate about differences between adolescents who attempted suicide and those who did not. Most studies used self-report to measure self-harm, a common approach in psychopathology research (96). Some measures differentiated SITBs in terms of suicidal intent, others did not. Validated self-report measures for young people included the Scale for Suicide Ideation (SSI) (97), Mood & Feelings Questionnaire (MFQ) (98) items, Reynolds Adolescent Depression Scale—second edition (RADS-2) (99) items, Diagnostic Interview Schedule for Children (DISC) (100,101) items, and Youth Self-Report (YSR) (102) items. Internal consistency reported in these studies were good for the MFQ, RADS-2, DISC and YSR, ranging  $\alpha=.72$  to  $\alpha=.94$ . De Man and colleagues did not report the reliability of the SSI in their specific study, but the SSI has previously demonstrated good reliability (97). Some modified tools were also used. Tschan and colleagues reformulated DSM-5 criteria for NSSI disorder as questions (70). They reported excellent interrater reliability ( $\kappa= 0.90$ ) for NSSI disorder diagnosis. Van Meter and

colleagues modified the Composite International Diagnostic Interview (CIDI) (103) for use with adolescents to assess suicidal ideation and behaviour, but did not report on its reliability. Four other studies included self-developed items (reliability not reported). Tucker and Wiesen-Martin created one item to assess suicidal ideation (78). The ALSPAC study also used a single self-developed question at the age 18 assessment and three more own at the age 24 assessment (71,72), although they based their phrasing on items used in the Child & Adolescent Self-Harm in Europe study (104). Silverman also included a self-developed interview to assess further suicide attempts during the follow-up period (76).

In summary, most included studies assessed at least one variable in unreliable or invalid ways (although some approaches used did seem to have face validity). Consequently, there is a significant risk that studies failed to accurately capture relevant sibling relationship dimensions and/or SITBs. Most of the research also failed to account for potential confounders. It is therefore impossible to draw any certain conclusions based on findings from these studies.

### ***Findings***

**Conflict.** Eight studies looked at associations between SITBs and sibling conflict (68–74,79). Participants reported on conflict in relation to a specific sibling in three studies (68,70,73) and with respect to all available siblings in the rest (69,71,72,74,79). All studies used different measures of conflict, except for the two studies based on the ALSPAC sample (71,72). The overall quality of six out of eight studies was considered satisfactory. Yet, this section also included unpublished findings from two of these studies that involved less sophisticated statistical analysis than their published results (Appendix E). A schematic representation of the results' direction reported across studies is shown in Figure 4.

**Figure 4**

*Directions of Conflict Findings*

Conflict	Suicidal Ideation	NSSI	Self-Injurious behaviour	Suicidal Ideation & Behaviour	Suicidal Ideation & Self-Injurious Behaviour	Suicide Attempts
Bowes et al. (2014)			= / ↑			
Dantchev et al. (2019)	= / ↑	=	= / ↑			= / ↑
Bar-Zomer et al. (2018)	= / ↑					
Buist et al. (2019)			↑			
Levy (1998)						=
Van Meter et al. (2019)				= / ↑		= / ↑
Suárez-Soto et al. (2018)					=	
Tschan et al. (2019)	=	= / ↑	= / ↑			

*Note.* No significant difference (=); significant positive association (↑). Studies highlighted in green were appraised as having a low overall risk of bias, while those in red were considered at risk of substantial bias (based on RTI-IB item 11).

Three studies investigated the relationship with suicidal ideation. Tschan and colleagues (70) did not discover associations between suicidal ideation and conflict or coercion in the relationship among their sibling sample (Appendix E), but any effect may have been hard to detect due to the low prevalence of suicidal ideation (4.1%) among these participants. This study was also rated as having a higher potential risk of bias compared to the two other studies that did find some limited evidence of an association. Bar-Zomer and colleagues considered potential links between having any involvement in sibling bullying more than once a week with simultaneous reports of suicidal ideation among Israeli adolescents (79). Close to a third (30.2%) of their participants involved in sibling bullying experienced suicidal ideation compared to 12.9% of those not involved in sibling bullying ( $\chi^2(1)=10.436, p<.005$ ). They further found that sibling bullying was not significantly associated with suicidal ideation in a moderation model that included secure maternal attachment. In a moderation

model with secure paternal attachment, sibling bullying ( $Z=2.14$ ,  $OR=2.31$ ,  $p<.05$ ) and the interaction between sibling bullying and paternal attachment ( $Wald=0.04$ ,  $OR=2.35$ ,  $p<.05$ ) were significantly associated with suicidal ideation. This relationship was no longer significant once controlled for concurrent depression. Approximately one-third of adolescents who reported being involved in sibling bullying at least once a week at age 12 (35.4% of victims, 31% of bullies, 3.57% involved in both) reported lifetime suicidal ideation at age 24 in the study from Dantchev and colleagues (72). Compared to adolescents not involved in sibling bullying, odds of suicidal ideation were increased for victims (unadjusted  $OR=1.52$ ,  $p=.002$ ; imputed adjusted  $OR=1.47$ ,  $p=.005$ ), but not for perpetrators. Bully-victim status also did not increase odds of suicidal ideation once adjusted for potential confounding and a Bonferroni correction.

Two studies looked at conflict in relation to NSSI. Dantchev and colleagues (72) looked at experiences of sibling bullying at least once a week at age 12 and NSSI at age 24. NSSI at age 24 was endorsed by 16.2% of victims of sibling bullying, 14% of those who bullied their sibling and 16.1% of those involved as both a sibling and a bully. Compared to those not involved in sibling bullying during early adolescence, the odds of engaging in NSSI at 24 were not significantly higher for those who were a victim of sibling bullying, a bully, or both. Tschan and colleagues (70) also did not find any significant group differences in sibling conflict and coercion between girls with NSSI disorder and girls who had not engaged in NSSI. Conflict reported by siblings of girls with and without NSSI were also not significantly different. They did find that the level of coercion reported among siblings differed ( $BSQ$  coercion ( $F(2, 65)=4.43$ ,  $\eta^2=0.12$ ,  $p=.016$ ). Post hoc analysis showed siblings of girls with NSSI disorder reported more coercion than siblings of girls with mental illness but without NSSI ( $d=1.08$ ,  $p<.05$ ) and siblings of girls without mental illness and NSSI ( $d=0.67$ ,  $p<.05$ ). However, this finding should be interpreted with caution considering overall study quality.

Their sample also exclusively included siblings of girls hospitalised for NSSI. This may not be reflective of girls who engage in NSSI within the community.

Four studies considered possible associations with self-injury irrespective of suicidal intent. Unpublished findings from Buist and colleagues (68) found small positive associations between negative sibling interactions and how often Dutch siblings felt like hurting themselves (Appendix E). Only 5.5% of siblings of girls with and without NSSI in the study from Tschan and colleagues reported sometimes having deliberately tried to hurt or kill themselves (Appendix E). Among these participants, there was no association between self-harm and sibling conflict, but there was a weak significant correlation between the level of reported coercion in the relationship and more reported self-harm (Appendix E). Two studies based on data from the ALSPAC study considered the impact of sibling bullying during early adolescence on having engaged in self-harm at age 18 (71,72). Bowes and colleagues found that 14.1% of 18-year-olds who were victims of sibling bullying reported self-harm in the past year compared to 7.6% of those not victimised (71). They found that the odds of self-harm increased among those who reported being bullied by siblings once or twice (OR=1.57,  $p<.05$ ), about once a week (OR=1.86,  $p<.05$ ) and several times a week (OR=2.56,  $p<.05$ ). However, those who experienced sibling bullying two or three times a month were not at higher risk of later self-harm. Once their analysis was adjusted for potential confounding variables (sex; emotional and behavioural problems at age seven, peer victimisation at age eight, depression at age ten, first-born child or not, number of siblings, maternal marital status, parental social class, maternal education, maternal history of depression, domestic violence, maltreatment), significantly increased odds of self-harm were only found among those who experienced being bullied several times a week (OR=2.26,  $p<.001$ ). In an imputed version of this adjusted logistic regression a slightly different pattern between the frequency of being victimised and odds of self-harm was found. Increased odds of self-injury were

found among those who experienced sibling bullying two or three times a month (OR=1.39,  $p<.05$ ), about once a week (OR=1.53,  $p<.05$ ) and several times a week (OR=2.18,  $p<.05$ ), but not for those who experienced it only once or twice in the past year. When further sensitivity analyses were conducted that adjusted for concurrent depression at age 18, having been victimised several times a week continued to place an adolescent at increased risk of self-harm (OR=2.02,  $p<.001$ ). Victimization accounted for 19.3% of variance when predicting later self-harm (71). Taken together, their findings suggest that the frequency of victimisation is an important factor to consider, as those most frequently victimised by siblings had a greater increased risk of self-harm at 18. Dantchev and colleagues used the same sample to consider the potential influence of regularly being involved in sibling bullying in any way (victim, perpetrator or bully-victim) (72). When they considered all who were victimised at least once a week together, they did not find that those participants were at an increased risk of self-harm at 18. This difference may be related to the difference in exclusion criteria used by both research groups: Dantchev and colleagues excluded any participants diagnosed with mental illness at seven years old, while Bowes and colleagues did not. Early mental illness may have been a potential confounding variable in the significant relationship found between sibling victimisation and increased risk of self-harm by Bowes and colleagues. Regular victimisation was also not significantly associated with odds of self-harm at 18 in an imputed analysis (adjusted for sex, maternal depression, internalising/externalising problems at age seven, peer bullying involvement, maltreatment and domestic violence) by Dantchev and colleagues (72). Bullying a sibling on at least a weekly basis also did not change odds of later self-harm in their study, but those involved as bully-victims had significantly higher odds of later self-harm (unadjusted OR=2.06,  $p<.001$ ; imputed adjusted OR=1.85,  $p=.001$ ).

Two studies considered the collective influence on SITBs (69,74). Van Meter and colleagues investigated associations of sibling conflict with any suicidal, plans or attempts

during the previous year. Initially, sibling relationship negativity was associated with higher odds of any suicidality in logistic regression analysis controlled for age, sex, and family structure (OR=1.25,  $p<.05$ ). This was no longer significant once the number of classes of lifetime mental disorder was taken into account. When these controlled analyses were separated by lifetime mental disorder classes, relationship negativity only increased odds of suicidality for adolescents with behaviour disorder (OR=1.19  $p<.05$ ). Suárez-Soto and colleagues defined suicidality as having experienced suicidal ideation or having deliberately tried to hurt or kill themselves in the past six months. There was no significant difference in suicidality among those who reported sibling bullying and those who did not (Appendix E).

Three studies investigated suicide attempts. In Levy's doctoral research (73) having experienced sibling conflict did not differentiate adolescents who had attempted suicide from those in the control group, but control participants may have had a history of suicide attempts. This dissertation was also subject to more methodological limitations than the two published self-report studies that found an association with lifetime suicide attempts (although only under specific circumstances). In the study by Dantchev and colleagues (72) lifetime suicide attempts were reported by 8.3% of participants who had been victims of regular sibling bullying, 2% who had bullied their sibling, and 4.9% who were involved in both ways when participants were approximately 24 years old. When each group was compared to those who had not been involved in sibling bullying, only those who were victimised experienced higher odds of having ever attempted suicide (unadjusted OR=2.20,  $p=.001$ ; imputed adjusted OR=2.19,  $p=.002$ ). Van Meter and colleagues (74) found sibling relationship negativity predicted higher odds for lifetime suicide attempts in logistic regression controlling for age, sex and family structure (OR=1.26,  $p<.05$ ). However, this did not remain significant when further adjusted for the number of classes of lifetime mental disorder nor once analyses were separated by class of lifetime mental disorder.

**Warmth.** Six studies looked at associations between SITBs and sibling warmth (68,70,73–75,78). This included unpublished findings from two studies (Appendix E). Participants considered warmth in relation to a specific sibling in four studies (68,70,73,78) and in reference to all available siblings in the other studies (74,75). All studies used different warmth measures. Four out of six studies in this section were deemed to be subject to significant methodological limitations that reduce confidence in their findings, particularly the study conducted by Hedeland and colleagues. The unpublished result included from one of the two superior quality studies pertained only to the first wave and did not take confounding into account beyond stratifying results in older and younger siblings (68 Appendix E). A schematic representation of the direction of the results is shown in Figure 5.

**Figure 5**

*Directions of Warmth Findings*

Warmth	Suicidal Ideation	NSSI	Self-Injurious behaviour	Suicidal Ideation & Behaviour	Suicide Attempts
Buist et al. (2019)			= / ↓		
Hedeland et al. (2016)					↓
Levy (1998)					=
Van Meter et al. (2019)				= / ↓	= / ↓
Tschan et al. (2019)	=	= / ↓	=		
Tucker & Wiesen-Martin (2015)	= / ↓				

*Note.* No significant difference (=); significant negative association (↓). Studies highlighted in green were appraised as having a low overall risk of bias, while those in red were considered at risk of substantial bias (based on RTI-IB item 11).

Two studies considering associations with suicidal ideation and results varied (70,78).

Although both studies were deemed to be subject to a substantial risk of bias, the statistical

analysis conducted by Tucker and Wiesen-Martin was more sophisticated and accounted for potential birth order differences. Tschan and colleagues did not find significant correlations between suicidal ideation and warmth nor empathy among their sibling sample (Appendix E). However, as noted previously, this may be due to the low prevalence of suicidal ideation in their sample. Tucker and Wiesen-Martin found a different relationship among younger and older siblings (78). Their multivariate logistic regression model (controlled for suicidal ideation reported during the first assessment, sex, age, sibling ethnic composition, parental income and maternal warmth) showed that sibling warmth reduced the likelihood of suicidal ideation during the second wave for older siblings ( $n=846$ ,  $OR=.65$ ,  $p<.05$ ), but not younger siblings. They also investigated if siblings' suicidal ideation was similar and found that sibling warmth did not increase the odds that both siblings experienced suicidal ideation at the second wave.

One study considered young people who engage in NSSI (70). Tschan and colleagues found significant group differences between girls with NSSI disorder and girls without experience of NSSI (ASRQ warmth ( $F(2, 134)=7.42$ ,  $\eta^2=0.10$ ,  $p<.01$ ); BSQ empathy ( $F(2, 134)=5.39$ ,  $\eta^2=0.08$ ,  $p<.01$ )). Their Bonferroni-corrected post hoc analysis showed that girls with NSSI disorder reported less warmth ( $d=0.73$ ,  $p<.01$ ) and less empathy ( $d=0.68$ ,  $p<.01$ ) in sibling relationships than girls without experiences of mental illness and NSSI. There were no differences in the amount of warmth and empathy reported by their siblings.

Authors of two studies provided unpublished correlational findings regarding positive sibling relationships and self-injury irrespective of suicidal intent. Buist and colleagues found a small negative association between perceived sibling support and how often younger siblings felt like hurting themselves, but no association existed for older siblings (Appendix E). Tschan and colleagues did not find any associations between deliberate acts of self-harm

and perceived warmth and empathy among siblings of female adolescents with and without NSSI disorder (Appendix E).

Van Meter and colleagues (74) investigated associations of sibling warmth with any suicidality during the previous year. Odds of any suicidal thoughts or behaviours were lower for those experiencing more sibling relationship positivity (OR=0.80,  $p<.05$ ) taking adolescent age, sex, and family structure (living with two biological parents or not) into account. Odds remained lower once further adjusted for the number of classes of lifetime mental disorder as well (OR=0.79,  $p<.05$ ). Logistic regression models separated by class of lifetime mental disorder (controlled for age, sex, family structure, and the number of other categories of lifetime mental disorder) were also conducted. Sibling relationship positivity remained associated with lower odds of any past year suicidality for adolescents with substance use disorder (OR=0.68,  $p<.05$ ) or behaviour disorder (OR=0.68,  $p<.05$ ), but not for those with mood disorder, anxiety disorder or without any disorder.

Three studies researched suicide attempts (73–75). The study conducted by Van Meter and colleagues was of superior quality. They found that sibling relationship positivity was only significantly related to lower odds of lifetime suicide attempts once the number of classes of lifetime mental disorders was taken into account in addition to age, sex, and family structure (OR=0.83,  $p<.05$ ) (74). When controlled logistic regression models were stratified by class of lifetime mental disorder, sibling relationship positivity lowered odds of having ever attempted suicide among adolescents with substance use disorder (OR=0.66,  $p<.05$ ) or behaviour disorder (OR=0.71,  $p<.05$ ). The other two studies were subject to a greater risk of bias and looked at differentiating adolescents that presented to hospital after a suicide attempt from controls (but did not consider past history of suicide attempts). Hedeland and colleagues found that 35% of adolescents who attempted suicide were seen as being close with their siblings, while 57.5% of adolescents in the control group of healthy adolescents described

their relationship with their sibling as close. It was not reported if this was a significant between-group difference. Levy (73) did not find that warmth differentiated adolescents who attempted suicide from those in the control group.

**Differential Treatment.** Five studies with significant methodological weaknesses considered associations between SITBs and perceived differential treatment. Four studies directly asked adolescents if they felt treated differently from a specific sibling (70,73,76,80). Rivalry could be measured in absolute (amount but not direction) and relative terms (both amount and direction). Levy reported one result without specifying if the direction of favouritism was considered: no significant between-group differences in terms of differential paternal treatment were found, but those who attempted suicide differed from controls in terms of maternal rivalry (coefficient=.24, Wald=8.13, OR=1.27, p=.004). Other results are considered in terms of absolute or relative differential treatment. Two studies used the SIDE (76,80), but differed in how the participant completed it with respect to which sibling was identified and how relative favouritism was scored (Table 1). See Figure 6 for an overview of the direction of the results found among studies examining if the amount of differential treatment was associated with SITBs.

**Figure 6**

*Directions of Absolute Differential Treatment Findings*

Differential Treatment (Absolute)	Suicidal Ideation	NSSI	Self-Injurious behaviour	Suicide Attempts
De Man et al. (2003)	↑			
Levy (1998)				= / ↑
Tschan et al. (2019)	=	= / ↑	=	

*Note.* No significant difference (=); significant positive association (↑). Studies highlighted in red were considered at risk of substantial bias (based on RTI-IB item 11).

Two studies considered if absolute differential treatment related to suicidal ideation. Tschan and colleagues (70) did not find an association between rivalry and suicidal ideation among siblings, but again, this could relate to the low prevalence of suicidal ideation among these participants (Appendix E). On the other hand, De Man and colleagues found small correlations between suicidal ideation and different types of rivalry among Chinese adolescents in Hong Kong (80): differential maternal affection ( $r=0.27$ ,  $p<.0001$ ), maternal control ( $r=0.21$ ,  $p<.0001$ ), paternal affection ( $r=0.20$ ,  $p<.0001$ ) and paternal control ( $r=0.16$ ,  $p<.005$ ). In their stepwise multiple regression, perceptions of mothers as differentially affectionate accounted for 7% of the variance when predicting suicidal ideation ( $F(1,315)=23.87$ ,  $p<.0001$ ;  $\beta=.18$ ,  $t=2.06$ ,  $p=.04$ ). Other types of rivalry did not add to the prediction of ideation but were moderately associated with differential maternal affection.

Only Tschan and colleagues (70) looked at its relationship to NSSI. They reported differences in the amount of rivalry experienced (ASRQ rivalry ( $F(2, 134)=14.27$ ,  $\eta^2=0.18$ ,  $p<0.01$ ), such that girls who met criteria for NSSI disorder reported more sibling rivalry than girls without a history of mental illness and NSSI ( $d=1.05$ ,  $p<.01$ ). There were no differences in terms of the amount of rivalry reported by siblings across the three groups. Tschan and colleagues also looked at deliberate acts of self-harm (not differentiated based on suicidal intent). Among siblings of adolescent girls, reporting more rivalry did not correlate with endorsing self-injurious behaviour, but an association may have been difficult to detect due to the low prevalence (5.5% endorsed self-harm).

A link to suicide attempts was considered by Levy. Higher levels of maternal favouritism predicted placement in the group of those who attempted suicide in a forward stepwise logistic regression (absolute favouritism coefficient=.23, Wald=7.27, OR=1.25,  $p=.007$ ), but not once birth order and parent-adolescent relationships were taken into account.

Other studies considered if it mattered which sibling was favoured. An overview of the direction of their results is shown in Figure 7.

**Figure 7**

*Directions of Relative Differential Treatment Findings*

Differential Treatment (Relative)	Suicidal Ideation	Suicide Attempts
De Man et al. (2003)	=	
Levy (1998)		↓
Silverman (2003)	=	= / ↑
Wagner & Cohen (1994)	= / ↑ / ↓	

*Note.* No significant difference (=); significant positive association (↑); significant negative association (↓).

Studies highlighted in red were considered at risk of substantial bias (based on RTI-IB item 11).

Three studies studied suicidal ideation and findings were mixed. De Man and colleagues (80) did not find any correlations between suicidal ideation and relative differences in maternal and paternal control and affection. Similarly, Silverman (76), who used the same measure as De Man and colleagues, also did not find any significance of rivalry when modelling the trajectory of suicidal ideation and including sex as a covariate. On the other hand, Wagner and Cohen (77) found that the kind of relative differential treatment associated with increased suicidal ideation differed among younger and older siblings. Their analyses controlled for the sex and age of both siblings and revealed that the suicide ideation of older siblings was not influenced by differences in maternal warmth, but younger siblings reporting less maternal warmth were more likely to endorse suicidal ideation ( $\beta=.21$ ,  $t(163)=2.71$ ,  $p<.01$ ) adding 4.66% of variance in its prediction. This effect remained significant when controlled for the differences in discipline but did not predict suicide ideation beyond what was predicted by

the level of warmth a younger sibling reported. For older siblings, differences in maternal discipline were more relevant. Older siblings reporting harsher treatment were more likely to endorse suicide ideation ( $\beta=.16$ ,  $t(163)=2.01$ ,  $p<.05$ ) adding 2.38% of variance. This effect remained significant when also taking differences in warmth into account, yet turned out to be accounted for by the level of discipline an older sibling reported. Feeling treated more harshly also approached significance when predicting suicidal ideation of younger siblings, but once controlled for differences in warmth this trend was no longer found. Wagner and Cohen also found that a greater relative difference in harsh discipline predicted a greater difference among siblings in terms of suicide ideation ( $\beta=.23$ ,  $t(163)=3.08$ ,  $p<.01$ ), such that harsher discipline was associated with more suicide ideation (also significant once controlled for differences in warmth). More relative maternal warmth was associated with less suicidal ideation, but this was no longer significant when controlled for differences in discipline.

Two dissertation projects looked at suicide attempts among American adolescents. Silverman (76) did not find any significant differences in rivalry reported by adolescents who attempted suicide and those in the control group. Levy commented participants who felt favoured by their mother were more likely to be in the control group but did not report the relevant statistical result (73). Silverman also looked at the risk of future suicide attempts within an 18-month follow-up period. Differential maternal affection and control did not predict this risk. On the other hand, when accounting for socioeconomic status, paternal favouritism correctly predicted group status of 85% of participants over the year and a half follow-up period, including 93% of those without subsequent attempts and 50% of those who attempted again ( $\chi^2(3, n=53)=19.59$ ,  $p<.001$ ). Differences in parental affection were significant in this model (est.=3.06, SE=1.05, OR=21.3,  $p<.01$ ), with higher scores indicating that an adolescent feels their father was more affectionate towards their sibling.

## **Discussion**

### ***Key Findings***

**Conflict.** The overall quality of most studies was considered satisfactory. The majority of the evidence showed some indication that more sibling conflict (especially involvement in sibling bullying) related to increased reports of suicidal ideation, NSSI, self-injurious behaviour (regardless of intent), 12-month suicidality (defined as suicidal thoughts, plans, attempts), and lifetime suicide attempts (68; Appendix E,70–72,74,79). These associations were weak, as effect sizes ranged from negligible to small. Only one study of inferior quality found a medium-sized effect for the association between how much coercion siblings reported and having a sister with NSSI disorder (70). Moreover, these associations were often no longer significant when past or current mental illness diagnosis and/or depressive symptoms were considered. The one study that collectively considered suicidal ideation and self-harm did not find any association (69; Appendix E).

Preliminary associations between more sibling conflict and increased reports of certain SITBs fit with previous research that found similar associations between conflict and psychopathology and maladaptive behaviour (15,29,38). Based on the available evidence, it is hard to ascertain which theorised mechanism offers the most likely explanation for any positive associations between conflict and several SITBs. As mental health problems appeared to be an important confounder, many of the positive associations found with SITBs may actually be more reflective of previously established links with psychopathology.

**Warmth.** Most studies were at risk of substantial bias. Results were mixed, with some very limited evidence that sibling warmth was negatively associated with reports of NSSI, suicidal ideation, self-injurious behaviour (regardless of intent), 12-month suicidality (defined as suicidal thoughts, plans, attempts), and lifetime suicide attempts (68,70,74,75,78).

Except for the medium-sized effects found for a negative association between empathy and warmth in sibling relationships and NSSI disorder, all other significant effects were trivial. Since greater family support and connectedness has generally been associated with reduced SITBs among adolescents (105,106), it is surprising that a more convincing association with sibling warmth was not found. It may have not been possible to detect this due to the methodological limitations of the included studies. However, the tentativeness of a negative association between sibling warmth and SITBs was in line with prior research that failed to find robust a link to internalising problems (15).

In contrast to prior research that suggested that birth order did not impact associations between positive sibling relationships and internalising problems (38), this appeared to be important with respect to certain SITBs. More warmth was only associated with a lower likelihood of later suicidal ideation among older siblings (78), while for younger siblings this related to less reports of self-injurious behaviour (68; Appendix E). It cannot be explored if mental illness is possibly a relevant confounding factor, as only one of the studies that assessed warmth accounted for this. However, this study found that the reduced odds of 12-month suicidality and lifetime suicide attempts associated with increased sibling relationship positivity were only significant among adolescents with lifetime diagnoses of substance use disorder or behaviour disorder (74). It is possible that warm sibling relationships have such protective effects among adolescents with these disorders as they may experience more conflict and less support from peers (107,108). Yet there is also evidence that the friendship quality of adolescents who misuse substances and demonstrate antisocial behaviour is similar to that of their peers (109). Findings about specific associations with birth order and/or certain diagnoses were only supported by one study each, neither of which sufficiently accounted for other confounding variables. Therefore, these findings may not reflect true generalisable associations.

**Differential Treatment.** All five studies were subject to significant methodological limitations. Findings painted an unclear picture of associations between absolute or relative differential treatment and SITBs. There was minimal evidence for any association. Any significant results tended to only be supported by one study and often no longer remained significant when relevant confounding factors were accounted for (70; Appendix E,73,76,77,80). Most effect sizes were negligible to small. Exceptions were large effect sizes reported for associations with absolute rivalry and NSSI and relative differential treatment and future suicide attempts, but these large effects should still be interpreted with serious caution due to the significant potential of bias in both studies. The only association considered in multiple studies was between relative rivalry and suicide attempts: one dissertation found that siblings who felt favoured by their parents were less likely to have presented to hospital due to a suicide attempt and in another dissertation less perceived paternal affection seemed to predict risk of subsequent suicide attempts (73,76).

Previously, differential treatment had been linked with negative effects if adolescents interpreted this as unfair (26,38–40). It is therefore interesting to note that the two studies that specifically assessed for perceived favouritism did not find an association with suicidal ideation, while the study that did not consider if adolescents perceived reported differences in maternal treatment as unfair found a significant relationship (76,77,80). In general, a lack of strong associations between differential treatment and adolescent SITBs fits with previously found less pronounced or non-existent relationships between differential treatment and outcomes for adolescents (15,110). Adolescents may be less aware or affected by differential treatment due to their increased focus on peers (18,24). It is also possible that the poor study quality resulted in a failure to detect any true associations.

### *Limitations of the Evidence Base*

Most studies had a balanced number of male and female participants. However, four studies consisted overwhelmingly of girls (70,73,75,76) and one of boys (69), so these findings may not be applicable to adolescents of the opposite sex. Nearly all studies were conducted in Western countries and most studies included a majority of participants from White backgrounds (among the six studies that reported information about ethnicity). This further limited the generalisability of results. A notable exception was Levy's dissertation that specifically recruited mostly African American participants. As most studies recruited low-risk community samples, it is unclear if effects would be the same among adolescents with significant psychopathology.

The overall quality of the evidence base is poor. All studies that studied differential treatment and most of those that researched sibling warmth came with significant limitations that made it impossible to draw any conclusions with certainty. The evidence related to sibling conflict tended to be of better quality. All studies were observational (mostly cross-sectional designs) and several reported correlational results that did not provide any insights into the direction of the effects. This is a drawback as it is possible that adolescent well-being is influenced by sibling relationships, but it may also be true that those who are better-adjusted form more beneficial sibling relationships (16). In general, the confidence that can be placed in the findings of most of these studies was limited by a lack of accounting for plausible confounders and/or potentially not having adequately measured the relevant constructs due to using not previously validated and potentially unreliable measures (although some seemed to have face validity). In seven studies relational constructs were assessed only in reference to a specific sibling (usually the one closest in age, so not randomly chosen), even though it is possible that adolescents with multiple siblings may experience different levels of sibling conflict, closeness, and differential treatment than those

reported with regards to the identified sibling. Nine studies only asked one sibling to evaluate the relationship and are therefore not able to capture the interactive nature of sibling relationships as research is recommended to do (16). Studies differed significantly in how they defined and measured the relevant constructs with respect to both SITBs and relational dimensions (e.g. conflict defined as bully victimisation versus coercion), which complicated comparisons. Studies did not allow for the simultaneous consideration of different relational dimensions within the same sibling dyad.

### ***Strengths & Limitations of the Review***

To our knowledge, this is the first systematic review on this important topic. Studies were grouped in the synthesis by relational dimension and studies that assessed similar SITB concepts were reported alongside each other. A thorough and inclusive approach to identifying literature was taken, with comprehensive search terms and an extensive search strategy that involved database searching, reference list searching, contacting authors, and asking expert opinions to endeavour to include all eligible studies. The inclusion of dissertations and unpublished findings decreased the potential influence of publication bias. However, a language bias may have been introduced as only records with a full English translation were included. Another methodological limitation is the initial screening being carried out by the first author only. However, the second author was involved in all other stages of the review process and both raters were in almost perfect to full agreement throughout. A further limitation lies in the content of the included studies. There was such variety in terms of design, constructs measured, and confounders that were accounted for that it was difficult to compare studies and establish any clear conclusions with confidence.

### *Implications for Future Research & Clinical Practice*

With respect to the overall evidence base, future studies should measure both relational dimensions and SITBs more accurately. The use of established validated measures appropriate for adolescents should become standard practice. Using single-item and self-developed measures should be discouraged. Particularly in terms of SITBs, there is debate on definitions, such as whether suicidal intent differentiates acts or thoughts. Reframing from asking multiple questions at once (e.g. one question to indicate if you ever took an overdose and/or cut yourself) would increase precision of what is measured and allow researchers to interpret findings based on their own stance. Similarly, with relational dimensions, more precision may help us understand if there are certain kinds of conflict, closeness or differential treatment (or combinations among these constructs within the same sibling relationship) that are especially important to consider in the context of adolescent well-being. Studies are encouraged to assess all relational qualities with respect to all available siblings. If this is not possible, it should at least be reported whether participants had more siblings beyond those assessed. In general, consensus upon definitions of constructs would facilitate greater comparison across studies. Potential confounders, such as mental health problems, should be accounted for in the design of future research. Longitudinal designs would allow for useful insights into the direction of any potential causal associations between sibling relationships and SITBs. Among the various relational dimensions, differential treatment was investigated in the least number of studies, all of which were subject to significant methodological limitations. More rigorous research is therefore especially warranted in this area. Research about sibling warmth seems to be improving in recent years but could also benefit from increasingly thorough investigations.

Since the review painted an unclear picture of the ways in which sibling relationship dimensions related to adolescent SITBs, it is hard to provide clear advice for clinicians. There

seemed to be some indication that sibling conflict may be related to certain SITBs. Therefore, clinicians are encouraged to inquire about sibling conflict with adolescents and consider if this may have a contributing role to the onset or maintenance of SITBs. If so, a systemic approach to treatment may be warranted.

## **Summary**

This systematic review explored associations between sibling relationship qualities and self-injurious thoughts and behaviours in adolescence. Based on a comprehensive search of the literature, thirteen studies were eligible for inclusion in this review. No conclusions could be drawn about associations between SITBs and sibling warmth or differential treatment as the quality of these studies was poor and their findings were mixed. There seemed to be some indication that more sibling conflict related to increased reports of certain SITBs. However, these associations were often no longer significant when mental health problems were considered and may therefore have been more indicative of relationships with general psychopathology. In general, the quality of the current evidence was limited by significant methodological issues that should be addressed in future research.

## **Compliance with Ethical Standards**

*Conflict of Interest:* The authors declare that they have no conflicts of interest.

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*Ethical Approval:* This article does not contain any studies with human participants performed by any of the authors. All studies included in the review were confirmed to have received ethical approval.

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## **4 Preface to the Empirical Study**

For my doctoral research I wanted to develop a meaningful theoretical understanding of the sibling experience of adolescent self-harm using grounded theory.

My initial plan was to conduct in-person interviews with siblings (ages 12-19) of adolescents with a self-harm history that were currently accessing NHS Lothian CAMHS. This study particularly aimed to give adolescent siblings a voice as most of our current understanding relied on adult interpretations.

The project was part of a larger study exploring family experiences of adolescent self-harm and received ethical approval from the South East Scotland Research Ethics Committee on the 6<sup>th</sup> of March 2020 (REC reference 20/SS/0015). However, on the 17<sup>th</sup> of March 2020 all new recruitment to studies from the University of Edinburgh and NHS Lothian was suspended because of the national lockdown. Subsequent advice recommended that research projects were redesigned without NHS involvement and using remote data collection methods to be feasible in light of uncertainty due to the COVID-19 pandemic.

The empirical study presented in this portfolio is the outcome of my adapted project.

## 5 Empirical Study

### A Grounded Theory of Sibling Experiences of Adolescent Self-Harm

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This chapter has been written in line with submission guidelines for *Qualitative Health Research* (Appendix F).

*Keywords:* Sibling experience, non-fatal self-harm, adolescence, grounded theory

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## **Abstract**

Adolescent non-fatal self-harm has been found to be distressing for parents and friends, but less is known about what this is like for siblings. Siblings (n=8, M<sub>age</sub>=20.5 years) were recruited for online interviews. A framework of the sibling experience of adolescent self-harm was developed using constructivist grounded theory. All participants had sisters who self-harmed and also experienced mental health problems. Siblings varied in what they knew and understood about their sister's self-harm, but all were impacted on an intrapersonal and interpersonal level. Siblings were largely overlooked by health services. All siblings demonstrated self-sacrificing behaviour. Other coping strategies included minimising personal distress, disengagement, and seeking social support outside of their sister and parents. Most siblings also tried self-harm themselves. Over time, siblings found ways that helped with coming to terms with the experience. Interactions shaped individual experiences. Families and professionals should consider and address siblings' needs in response to adolescent self-harm.

## **Introduction**

Non-fatal self-harm (from now on called self-harm) is defined as any self-injury or self-poisoning irrespective of the extent of suicidal intent or motivation, but excluding accidents, disordered eating, and substance misuse (Teuton et al., 2014). Self-harm is common among adolescents in the United Kingdom, especially girls (Patalay & Fitzsimons, 2021). Almost one in four adolescents reported self-harm in the past year and 7.4% disclosed ever having attempted suicide by age 17 (Patalay & Fitzsimons, 2021). Self-harm is associated with poor outcomes for adolescents (e.g. Borschmann et al., 2017; Mars et al., 2014).

Self-harm is also distressing for family members and friends (Fisher et al., 2017; O'Connor, 2021). Numerous studies explored the parental experience of adolescent self-harm and showed that parents tend to experience a range of complex negative emotions, a perceived lack of support, and a sense of helplessness (Arbuthnott & Lewis, 2015; Curtis et al., 2018). Although it was noticed that self-harm disrupted wider family dynamics and functioning, experiences of siblings have largely been overlooked (Byrne et al., 2008; Ferrey et al., 2016b; Scaife, 2018). This is unfortunate considering that most British adolescents live at home with at least one sibling (Office for National Statistics, 2021). Family systems theories also highlight the dynamic ways both individuals and processes among dyads influence everyone in the family as well as the unique importance of sibling relationships (Bowen, 1978; Cox, 2010; Cox & Paley, 1997; Minuchin, 1985). This study will therefore explore the sibling experience of adolescent self-harm.

### ***Family Environments Associated with Self-Harm***

As most siblings grow up living together, it is important to consider relevant contextual factors. Recent reviews found that family environments of adolescents who self-harm are associated with a perceived lack of connectedness within the family, conflict, invalidation,

parental criticism, rigidity, or the use of harsh punishment (Ati et al., 2021; Bean et al., 2021; Diamond et al., 2021). There are often difficulties with open communication within families of adolescents who self-harm, especially about negative emotions (Kelada et al., 2016; Rogers & Schmidt, 2016). Repeated experiences of emotional invalidation and observations through socialisation processes could lead adolescents to develop emotion regulation difficulties, which may make them more likely to engage in self-harm (Buckholdt et al., 2009; Sim et al., 2009). Stressors occurring within a family, such as a relative's mental or physical illness, witnessing or experiencing abuse, and neglect have also been associated with increased adolescent self-harm (Aggarwal et al., 2017; Ati et al., 2021; Bean et al., 2021; Diamond et al., 2021). Family cohesion and support as well as parental involvement and understanding can be protective (Ati et al., 2021; Bean et al., 2021; Diamond et al., 2021).

### ***Sibling Experiences of Self-Harm***

**Family Perspectives.** Parental views on the ways adolescent self-harm impacted siblings have been studied. Parents expressed concerns about neglecting the needs of their other children or their own distress impacting their other children's well-being (Ferrey et al., 2016a; Krysinska et al., 2020; Oldershaw et al., 2008; Rissanen et al., 2008). According to parents, sibling reactions to self-harm varied and included devastation, anger, resentment, anxiety, mixed emotions or a desire to help (Byrne et al., 2008; Ferrey et al., 2016b). Perceived sibling concerns included feeling responsible, exacerbating self-harm, and stigma (Ferrey et al., 2016b).

Views from the adolescent who self-harmed on sibling experiences were also explored. Scaife (2018) interviewed eight adult women with a history of non-suicidal self-injury (NSSI) to retrospectively learn about their adolescent sibling relationships. Almost all participants felt supported by siblings, yet they also experienced emotional and physical

distance in these relationships. No one discussed their self-harm with siblings as adolescents, even though they knew most siblings were aware of it. Some participants felt victimised, misunderstood, or blamed by siblings for their self-harm. Participants were also concerned about letting siblings down or causing them distress because of their self-harm.

**Sibling Experiences.** Spillane and colleagues (2020) included three siblings into their study of family experiences of adults with hospital presentations following high-risk suicidal behaviour. They noted one unique theme to the sibling experience, namely the feeling of needing to take on a parental role in response to sibling suicidality. To the researcher's knowledge, there are two studies to date that specifically studied self-harm from the siblings' perspective (Ball, 2010; Tschan et al., 2019).

Ball (2010) interviewed adults who experienced having a brother (n=5) or sister (n=3) who attempted suicide but lived. Their siblings were usually between the ages of 10 to 19 when they attempted suicide (n=6), while most participants were at least 20 years old at this time (n=6). Seven participants were older siblings and only one participant was living with their sibling at the time of the attempt. Siblings' emotions following the attempt resonated with a grief reaction. Initial reactions often included shock, although for some siblings this was lessened due to prior awareness of mental health problems. Guilt became apparent through reflections on the ways their (lack of) words or actions may have led to the attempt and were linked with a sense of responsibility. Siblings often worried about future attempts and the potential loss of their brother or sister. Other reactions included helplessness, anger, and sadness. Several siblings felt their own mental health was negatively impacted.

The ways siblings adapted to their experience were also explored (Ball, 2010). Participants tried to understand their sibling's motive for their attempt, but often their brother or sister would not discuss this with them. Some siblings (and parents) became increasingly

cautious around the sibling who attempted suicide to avoid causing further distress. Most siblings tried to suppress their own feelings from their family, but in two families the attempt contributed to increased openness in affective communication. Family dynamics usually changed and included some siblings taken on parentified roles or becoming mediators. While some experienced negative changes within family relationships (e.g. distancing, one-sidedness), others reported feeling closer to their family than before. Despite familial secrecy about the attempt, most siblings confided in people they trusted outside of the family. Continuing with daily routines, accepting their sibling's choices, and a sense of realistic hope promoted personal growth and resilience for some siblings. Siblings felt excluded and overlooked by mental health services, expressing a general lack of support for themselves but also recognising their own barriers to help-seeking. This study's approach of interpretative phenomenological analysis (IPA) was appropriate for its aims but did not allow for a theoretical understanding of the processes involved in having a sibling who attempted suicide. Its sample mostly consisted of adult siblings who were not living with their sibling at the time of the attempt and also had limited generalisability (e.g. almost exclusively older siblings, mostly female, 50% received some psychological training for their jobs).

Tschan and colleagues (2019) developed their own 'Sibling Questionnaire' to explore the reactions of siblings (n=9 sisters, n=12 brothers) to NSSI of hospitalised female adolescents. Twelve siblings reported noticing their sister's NSSI and 90.5% were concerned about it. The majority believed their sister might also attempt suicide (n=18). Most siblings expressed sadness, desperation, and helplessness. A minority also reported anger (n=7), fear (n=4) and guilt (n=3). Eighteen siblings felt relief about their sister's hospitalisation. Nine siblings saw their sister's NSSI as having impacted their whole family. Six participants saw their parents as able to handle NSSI. Five siblings felt they got less parental attention than their sisters and that parents were afraid to enforce boundaries with their sister. A third of the

siblings talked to their sister about her NSSI, and many found this helpful for their sisters but stressful for themselves. Most siblings felt left alone with their sister's issues (n=15). A minority experienced their involvement with their sister's therapy as reasonable (n=8). Several siblings reported that they would never understand their sister's NSSI (n=8). Siblings endorsed a variety of reasons why they had not engaged in NSSI, including better stress management strategies (n=9) and feeling less burdened by their family circumstances (n=8). Three older siblings reported personal experiences with NSSI that started before their sister's.

The study from Tschan and colleagues (2019) provided some helpful insights into the sibling experience of NSSI from hospitalised adolescent girls. Their non-validated questionnaire showed satisfactory internal consistency, face validity and was reviewed by experts. However, given minimal previous research about sibling experiences of self-harm, a qualitative enquiry would have been more appropriate. There is the risk that the chosen questions were not necessarily the ones most relevant to the sibling experience. By only asking participants to report on a scale, it is difficult to appreciate the reasons or nuances underneath what siblings reported. Publication of the translated version of the questionnaire would have increased the study's transparency by demonstrating if all findings were reported.

### ***Sibling Experiences of Mental Illness***

Given the scarcity of literature about the sibling experience of adolescent self-harm and considering that mental illness and self-harm often co-occur (e.g. Cipriano et al., 2017; Hawton et al., 2012), literature about sibling experiences of mental illness was also reviewed. This was restricted to looking at youth sibling experiences of mental health problems, as differences in life experience, developmental stage, and the amount of time spent with the sibling make this a distinct experience from that of adult siblings (Ma et al., 2015). Sibling experiences of adolescent depression or borderline personality disorder were seen as

especially relevant because self-harm is part of their diagnostic criteria. However, there unfortunately did not seem to be any dedicated studies. Both eating disorders and substance use disorders involve the sibling engaging in behaviours that are harmful to their health. These studies were therefore paid particular attention in addition to experiences of mental health problems in general. Similar to the research about family experiences of self-harm, most of the literature was based on qualitative studies that presented a limited range of perspectives confined to specific contexts.

Young people with a sibling with mental illness are well-documented to experience a range of complex emotions that at times substantially impact their own well-being (Ma et al., 2015, 2017). A lack of understanding about their sibling's psychiatric problems has been linked to a sense of hopelessness and helplessness (Areemit et al., 2010; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015). Most siblings experienced a heavy sense of responsibility for their brother or sister, which some siblings reflected contributed to having lost their role as a child (Areemit et al., 2010; Ma et al., 2015; Varnell, 2014).

Changes in family dynamics were widely reported. Many siblings experienced more conflict or distance from their sibling, while others felt closer due to increased loyalty and quality time (Areemit et al., 2010; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015; Withers et al., 2014). Changed bonds with any further siblings were rarely considered, but one study found that mutual support contributed to increased closeness among the siblings without an eating disorder (Fjermestad et al., 2020). Many siblings described relationships with parents as becoming distant, due to feeling overlooked or that their brother or sister receives preferential treatment (Ma et al., 2015; McLaughlin et al., 2016). Other siblings continued to feel supported by their parents or even noticed improvements in their relationship (Areemit et al., 2010; Fjermestad et al., 2020; Havard, 2019). Many siblings recognised the stress their family was under and became the 'well-sibling' within their family

to not add to this (Areemit et al., 2010; Ma et al., 2015; Varnell, 2014). This was also found in quantitative research. Sanders and colleagues (2014) found that adults who grew up with a sibling with mental illness were more likely to identify with roles as the ‘hero’ (e.g. high achieving, mature, responsible) and ‘lost child’ (e.g. not receiving sufficient attention for their own needs) in their family. Siblings also shifted into parental roles or became confidants to their sibling and/or parents (Areemit et al., 2010; Havard, 2019; Ma et al., 2015; Varnell, 2014). Many siblings started to take on parental responsibilities (Areemit et al., 2010; Ma et al., 2015; Varnell, 2014). This provided some siblings relief from powerlessness, while others found this burdensome.

Studies rarely mention the impact of sibling mental illness on peer relationships (Ma et al., 2015). Some siblings described unchanged dynamics with friends, while others found that they had to include their sibling in their friendships or had less time to socialise (Fjermestad et al., 2020; Varnell, 2014). Other siblings felt that their peers saw them as a sibling of a young person with mental health problems (Areemit et al., 2010). Some siblings of adolescents with an eating disorder started to notice their friends’ eating behaviours more (Fjermestad et al., 2020).

The main coping strategies described by siblings included distraction and avoidance, changing their own behaviour to accommodate their brother or sister, seeking a sense of normalcy, minimising their own distress, and staying positive (Callio & Gustafsson, 2016; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015; Varnell, 2014; Withers et al., 2014). Although asking for help was not always easy, siblings also described seeking social support from their parents or outside of the family (Callio & Gustafsson, 2016; Fjermestad et al., 2020; Ma et al., 2015; Varnell, 2014; Withers et al., 2014). Siblings of adolescents with an eating disorder tended to prioritise others’ needs over their own (Areemit et al., 2010; Havard, 2019; Varnell, 2014). Ma and colleagues (2015) noticed that adult siblings were less

likely to cope by avoidance or accommodation, as they found that these strategies negatively impacted their own life. They speculated that young people's developing emotional and cognitive abilities may preclude their use of coping strategies adults have found helpful (e.g. viewing the sibling as separate from their mental health problems). Youth also have less experience dealing with sibling mental illness and adult siblings are more likely to have received support in developing healthier coping skills. In addition to how they dealt with distress, some siblings of adolescents with an eating disorder shared positive ways in which they changed because of their experience (Fjermestad et al., 2020; Varnell, 2014).

### ***Rationale***

Adolescent self-harm is associated with distress among parents and peers. Siblings have largely been overlooked and their own perspective of their experience has only been the focus in two studies. In one of these studies, although the majority of siblings were of an adolescent age when they attempted, most participants were adults and not living with their sibling at this time. Their experience likely differs from that of siblings who are younger and living with their brother or sister while their self-harm is ongoing. Both previous studies were also limited in the scope of self-harm that was considered and no theoretical understanding of the sibling experience was developed. To address these gaps in the existing research, young adults who grew up living with an adolescent sibling who engaged in ongoing self-harm were interviewed to find out how they experienced their sibling's self-harm. Siblings were also asked to share their thoughts on ways to address any identified unmet needs.

### **Methods**

The Charmaz criteria from the Guideline for Reporting and Evaluating Grounded Theory research studies (Berthelsen et al., 2018) were consulted when this study was written up.

## ***Design***

Given the minimal prior research, a qualitative study design was used. Various qualitative methodologies, such as IPA, were considered, but ultimately a grounded theory methodology was adopted because of its alignment with the study aims of developing a meaningful theoretical understanding of the sibling experience and its rigorous analytical approach. When using grounded theory, researchers interact with their data through simultaneous data collection and analysis and consideration of various theoretical explanations before constructing the most likely theoretical interpretation of the phenomenon (Charmaz & Henwood, 2017). There are multiple genres of grounded theory (Mills et al., 2017). This project aligned with a symbolic interactionist and social constructivist position, in which people are seen as creating their own realities through how they construct their views and actions, as part of both individual and collective processes (Charmaz, 2014). Therefore, the theory that emerged in this study is seen as co-constructed and representative of individual perceptions, researcher-participant interactions, and their social context.

## ***Recruitment***

Participants learned about the study through a Qualtrics survey that contained the Participant Information Sheet (Appendix G). This link was published on 13<sup>th</sup> of November 2020 and widely distributed. The study was advertised on various community boards, via mailing lists and social media by several organisations, and promoted through three targeted Facebook ads for young adults aged 16-24 living in the United Kingdom (Appendix H). The researcher also promoted the study through Twitter and Facebook within personal social networks. A total of 128 people reviewed the Participant Information Sheet. After reviewing information about the study, any young adults that indicated they were interested in potential participation were asked to answer some screening questions and provide their contact details.

Potential participants were contacted at least 24 hours after they first expressed their interest to allow time to contemplate the study before being asked if this is something they are willing to take part in. The researcher made sure study information was understood, questions were answered, and further study eligibility questions were asked in a screening call (Appendix I). When a participant was eligible and provided verbal consent, the distress protocol (Appendix J) was outlined before agreeing a date and time for the interview. Before the interview, participants were sent a pre-participation email (Appendix K) with the distress protocol attached. They were also asked to complete an invitation-only Qualtrics survey that contained the consent form and asked for necessary personally identifiable information (Appendix L).

**Eligibility Criteria.** Participants had to have one (or more) sibling(s) who they knew engaged in self-harm at least twice as an adolescent and whom they lived with for most of an average week when their self-harm started. Participants needed to be aged 16 to 24 years old, have grown up, and currently live, in the United Kingdom. They also needed to speak English, have access to a private confidential space and video calling technology.

Being unable or unwilling to provide written informed consent was an exclusion criterion. Participants who reported their sibling with the self-harm history was diagnosed with severe intellectual disability or developmental disorder were also not eligible, because self-harm within this population is considered to be distinct in its typical presentation, aetiology, and function (Hagopian & Leoni, 2017; Summers et al., 2017). Similarly, those with a sibling with an eating disorder or substance misuse in the absence of any other self-harm were excluded. Furthermore, participants with an immediate family member who died by suicide were excluded as their family experiences with fatal self-harm may influence their perspective on the topic of interest. As interviews were conducted from home during the

COVID-19 pandemic when interactions outside of one's household were limited, those currently living with their sibling with the self-harm history were excluded to facilitate privacy and provide an emotionally safe space before and after the interview.

### ***Researcher's Role***

The researcher practiced reflexivity throughout the study via diary entries and regular discussions with supervisors. This project was inspired by clinical experience with both adolescents with siblings who self-harmed and adolescents who self-harmed, which led the researcher to appreciate its systemic impact. Subsequent literature searches highlighted the dearth of research directly studying the sibling experience. Pre-conceived notions during early stages of the study included adolescents being more likely to disclose self-harm to a sibling initially and potentially asking siblings to keep this a secret from parents, worry from siblings about potential serious consequences, and siblings feeling a need keep their sibling safe or not create any further distress. If parents were aware, they might be less available for siblings, which siblings may resent or be understanding of. These were based on an initial exploration of relevant research as well as clinical and personal experiences. The researcher did not have experience of living with a sibling who engaged in self-harm as far as she knew, but she did grow up with a biological sister and several stepsiblings in adolescence and has had loved ones experiencing mental illness.

Participants were informed of the researcher's motivation for the project and her role as a trainee clinical psychologist. Memos were written in a reflective diary about methodological decisions and dilemmas. Diary entries were also made after each participant interaction to consider possible dynamics (e.g. power differentials) and what aspects of the experience initially stood out. Some of the researcher's initial assumptions were challenged

and additional topics (e.g. participants' personal experiences with self-harm) were explored in later interviews based on experiences with earlier participants.

### *Participants*

One interested young adult was ineligible due to a reported developmental disorder diagnosis of the sibling. All other screenings resulted in study participation. The final sample consisted of five female and three male participants. Their ages ranged from 16 to 23 years ( $M=20.50$ ,  $SD=2.06$ , mode: 21 & 22) and all currently lived in England. All participants identified one biological sister with a self-harm history: three participants had a younger sister who self-harmed and five an older sibling (all male siblings had an older sister). Four participants also had other biological -, half -, or stepsiblings in addition to the identified sister. All participants were aware their sister had cut herself. Four participants described their sister had also taken an overdose and two other participants were aware their sister had experienced suicidal ideation. Other self-injurious behaviours some siblings knew or suspected their sister engaged in included burning ( $n=2$ ) and hitting herself ( $n=1$ ). Some participants also said their sister engaged in disordered eating ( $n=2$ ) and substance use ( $n=1$ ). The age at which participants reported their sisters started to self-harm ranged from 12 to 17 years ( $M=13.81$ ,  $SD=1.69$ , mode: 12 & 13). Almost all participants were adolescents (ages ranged from 10 to 16 years) when they first learned about their sister's self-harm, but one participant was six years old. Two participants were aware of their sister's ongoing self-harm or suicidal ideation. At the time of the interview, six participants were regularly in touch with their sister (e.g. daily or weekly), one occasionally, and one described having almost no contact.

### *Interviews*

The researcher conducted semi-structured interviews to explore participants' experiences between December 2020 and June 2021. A preliminary interview guide had been constructed (Appendix M) in collaboration with the researcher's supervisors and was piloted with two professionals with experience of working with young adults. In line with guided theory principles, the interview schedule was treated as a flexible tool and interviews were guided by what participants felt comfortable sharing (Charmaz, 2014). Participants in later interviews were asked about key aspects of the sibling experience that were raised in earlier interviews. Before ending each interview, participants were asked if there was anything else they had expected or wanted to discuss. After this, participants gave feedback on a summary of their interview. Interviews lasted longer than anticipated and ranged from 51 to 93 minutes ( $M=75.75$ ,  $SD=12.12$ ), but the researcher made sure participants were willing and able to continue. Participants said they did not feel overly distressed afterwards. Detailed feedback on the first two interviews was provided by the academic supervisor to help refine the researcher's interviewing techniques.

### *Ethical Considerations*

This study received university sponsorship (Appendix N) and ethical approval from the Research Ethics committee of the School of Health in Social Science at the University of Edinburgh for the project as outlined in the proposal and after amendments (Appendix O).

Research that asks about self-injurious thoughts or behaviours has not been found to have iatrogenic effects and is not associated with significant increases in psychological distress or risk of self-harm (Hom et al., 2017; Lloyd-Richardson et al., 2015). Nevertheless, steps were taken to support participants in managing any potential emotional demands associated with the interviews. Ethical recommendations around conducting self-harm

research during the COVID-19 pandemic were incorporated (Townsend et al., 2020). Participants were informed of interview topics in advance to allow them to emotionally prepare and provide informed consent. They were asked to rate their mood before and after the interview and received signposting about available supports that operated during the pandemic (Appendix P). Rather than providing a set mood mitigation strategy, the researcher considered with each participant what helps them manage their mood. Participants were asked to inform a supportive trusted adult that they were participating in the study to facilitate access to social support beforehand and afterwards. They also received a follow-up email (Appendix Q) within a week after the interview. Additional measures implemented for the remote context included agreeing a safe word to use if participants were concerned about being overheard and letting participants know their chosen trusted adult and/or emergency services would be contacted in case of a crisis as part of the distress protocol (Appendix J).

As essential in research within this field (Hom et al., 2017; Lloyd-Richardson et al., 2015), limits to confidentiality were clearly explained in the participant information and consent forms and reiterated before starting the interview. In line with other research (Ball, 2010; Chandler, 2018; Fisher et al., 2017; Scaife, 2018), confidentiality would be waived if participants disclosed imminent risk to themselves or named others. Imminent risk was defined as a strong likelihood that someone would engage in life-threatening self-injurious behaviour within 48 hours of the interview (Lloyd-Richardson et al., 2015), child or vulnerable adult protection concerns, or when disclosure was required by law (e.g. terrorism). A risk management protocol was developed to manage such disclosures but was not required.

### ***Data Management & Analysis***

Interviews were conducted using Microsoft Teams and audio-recorded with a separate encrypted recorder. The researcher transcribed interviews verbatim with non-verbal

communications (e.g. laughs or pauses) retained in parentheses. Any potentially identifying information was removed to maintain confidentiality. Transcripts were uploaded to Dedoose software (version 8.3.45). Initial coding consisted of applying gerunds on a line-by-line basis (multiple codes were applied if relevant) and was followed by focused coding (see Appendix R for an example). Focused codes from the initial six transcripts were reviewed by, and discussed, with both supervisors. Memos were also written throughout the process to capture similarities and differences between data, codes, and categories. The emerging theory developed based on constant comparisons of focused codes, memos, and a review of relevant literature that informed theoretical coding. Simultaneous data collection and analysis allowed the researcher to follow leads in the data and refine preliminary codes through theoretical sampling (Charmaz, 2014). The emerging theory was shared with participants who agreed to a follow-up interview to improve its credibility and co-construction. Two participants provided feedback on an initial analysis based on the first six interviews (Appendix S). This contributed to theoretical sampling in subsequent interviews. Once all interviews had been completed, another participant commented on the emerging theory and found this captured the overall experience, saying *“yeah I think it all like.. It’s super hard to generalise like people’s experiences and stuff but lots of that rang true.”*

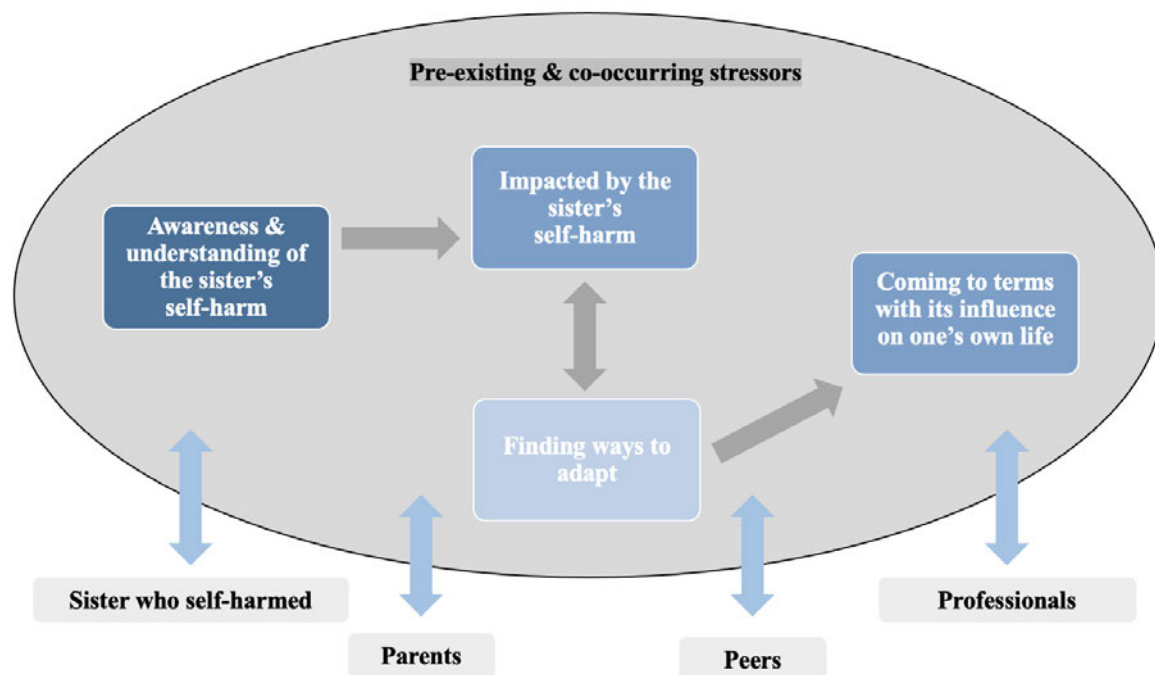
Considering the relatively small sample size, it is not possible to be certain that theoretical saturation was reached. However, contemporary researchers acknowledge problems with the concept of theoretical saturation itself (Nelson, 2016; Saunders et al., 2018). Nelson argues that it is more appropriate to establish if a study reached ‘a sufficient depth of the understanding that can allow the researcher to build a theory’ (p. 6) in grounded theory studies. This level of depth was achieved with regards to a theory of having an adolescent sister who self-harms, as major categories demonstrated depth and variation and their organisation was confirmed in later interviews.

## Findings

A theoretical understanding of the sibling experience of having an adolescent sister who self-harmed was developed. An illustration of this conceptual model is shown in Figure 1.

**Figure 1**

*Grounded Theory Model*



Siblings varied in what they knew and understood about their sister's self-harm, but all were impacted on an intrapersonal and interpersonal level. They were largely overlooked by health services, and many started to view these negatively. Siblings found ways to adapt through self-sacrifice, self-coping, and seeking social support outside of their sister and parents. Over time, siblings found ways that helped coming to terms with the influence their experience had on their life. Throughout the analysis it was clear that the processes associated with the sibling experience were influenced and constantly changing in response to interactions with others. Thus, ecological systems theory (Bronfenbrenner & Ceci, 1994; Bronfenbrenner &

Evans, 2000) was a helpful framework in making sense of the findings. Siblings also recommended how to improve support for those with a sibling who self-harms.

### ***Pre-Existing and Co-Occurring Stressors & Family Dynamics***

Participants came from family environments with “*a lot of stuff going on*” and experienced at least one additional stressor prior to, and/or while they were aware of, their sister’s self-harm. Identified stressors within the family included the sister also having “*behaviour problems*”, a relative’s mental or physical illness, parental divorce, conflict, abuse, and poverty.

Participants also referred to pre-existing family dynamics. Seven participants said topics such as emotions or mental health were not commonly discussed within their family. All older siblings described feeling a sense of responsibility towards their younger sisters, while three of the younger siblings talked about looking up to their sister. Male participants viewed their relationships with their sister growing up as largely positive. Among female participants, one said she had “*never really felt like that close*” to her sister, while someone else had been “*really really close*” to her sister. The remaining sisters said their relationship was “*mixed*”, describing both closeness and conflict. They also mentioned perceived differential treatment and two sisters shared that their sister had always been jealous of them.

### ***Awareness & Understanding of the Sister’s Self-Harm***

Siblings varied in how aware they were of their sister’s self-harm and how they understood this. Seven participants described first learning about their sister’s self-harm when they happened to find out about her cutting. One participant said she “*kind of just caught her red-handed*” and the other six described overhearing conversations about their sister’s self-harm or noticing cuts or scratches that could not otherwise be explained. The remaining participant first found out when told by a parent after an overdose. Five participants later learned about

earlier self-harm that happened when they had not known about their sister's self-harm. The majority reflected that having been "*oblivious*" about this was hard to think about.

Most participants acknowledged they likely were not aware of the full extent of their sister's self-harm afterwards either. Only two participants said they ever directly saw their sister self-harm. Sisters of seven participants mostly tried to hide their self-harm from them. Self-harm was "*kept quite quiet in a lot of families*" and in general sisters or parents did not initiate conversations about NSSI with siblings. However, all siblings continued to be aware of it by noticing scars or overhearing conversations. One participant described his sister's self-harm as "*something that was in the background, sort of constantly*". Family members were more likely to let siblings know about suicidal thoughts or acts.

Their age influenced how siblings understood their sister's self-harm. Three participants who were younger at the time had not yet known self-harm existed and found it "*confusing*" and hard to comprehend what their sister was doing. One participant recalled:

*"It is not something I could wrap my head around. It was something I saw physical evidence of, like I would see like her arms for example, um but my brain couldn't process it I think especially because of my age."*

Despite their age and lack of understanding, these younger siblings did come to appreciate that it was "*serious*" or "*very wrong*". Four different female participants already had some prior knowledge of self-harm. Two sisters still had not expected their sister to engage in this. Two other sisters felt that self-harm fit with how their sister acted throughout their childhood, and one said that therefore it "*wasn't as kind of like traumatic, earth-shattering a thing*".

Siblings who were closer to their sister tended to view her self-harm more compassionately. One participant said:

*“I could completely understand, you know, how it had ended up there, because you know in essence, in the years before that, I’d been doing a form of self-harm to myself [referring to personal substance abuse]. You know, it’s completely understandable, when you feel like you can’t talk to your parents or family members, that you need to have an outlet.”*

Reasons identified for self-harm included managing emotions (n=6), communicating distress (n=4), and having learned about it from others in their life (n=4). Six siblings also linked their sister’s self-harm to her mental health problems (mostly depression).

### ***Being Impacted by the Sister’s Self-Harm***

There were a number of ways in which siblings were impacted by their sister’s self-harm. Participants described how they were personally affected. Their sister’s self-harm also changed relationships with both family members and peers as well as roles participants took on within their family. Views of health services were influenced by their experience as well.

#### **Intrapersonal Impact.**

***Distress.*** Participants described a range of distressing emotions in response to their sister’s self-harm. One participant was unable to recall much detail from when she initially discovered this. Five participants experienced shock or numbing when first finding out or confronted with evidence of an especially serious instance of self-harm. For two others awareness of their sister’s “*behaviour problems*” seemed to have minimised their sense of shock. Almost all participants described some fear or anxiety, including initial concern, an

ongoing sense of worry about future self-harm, and/or hypervigilance (e.g. monitoring their sister's well-being). Five participants expressed sadness when thinking about their sister's self-harm and her pain. Three sisters who described complex relationships with their sister also felt angry about the negative impact their sister's self-harm had on their own life.

**Relief.** In addition to distress, three participants also described experiencing relief at times. One participant explained relief as an initial response:

*“It’s gonna kind of sound quite strange obviously but a bit of a relief because there had been kind of months of closed doors and sort of quiet conversations that I had a very clear sense that there was something not quite right, but it was kind of a relief to hear that there was something that wasn’t just me being.. you know.”*

Another participant said she felt “*glad in a sense*” when she finally made sure adults and services were informed about her sister's self-harm, although this was also mixed with guilt because her sister felt “*really betrayed*” and “*got worse*”. Three participants also experienced relief and pride about thinking that their sister no longer engaged in self-harm.

**Responsibility.** Six participants described a sense of responsibility to help their sister, which was especially strong among the four siblings who felt no one else would or could help. However, these same participants also felt lost or that they did not know what to do or say. Three participants experienced guilt about upsetting their sister or not providing enough support, as illustrated by one participant saying:

*“I just felt like um, sort of every time that she’d done it, that I’d let her down. That I should have stopped it.”*

***Growing Up Faster.*** There were different ways in which their sister’s self-harm contributed to siblings needing to “*grow up a lot quicker*”, as it “*kind of takes the innocence out of growing up a little bit*”. This included finding out about the existence of self-harm at an earlier age (n=3) and finding it difficult to have to face self-harm or its consequences (n=4). Six participants described their parents and/or professionals as not knowing what to do or how to appropriately support their sister. This confronted them with the reality that adults may not be as in control as they used to think. One participant explained:

*“It’s just seeing.. made me see that like, that I think you grow up thinking your parents know everything and that they’re the right person to rely on for everything and that they’re like perfect, but they’re not.”*

Five participants also said self-harm contributed to them having a different childhood compared to their peers, for reasons such as not feeling as contained by adults and experiencing a sense of responsibility for others’ well-being at an early age. One participant in particular seemed to mourn having lost a “*normal adolescence*” due to the amount of responsibility taken on in response to her sister’s self-harm.

***Impact on Own Mental Health.*** All participants described ways in which their sister’s self-harm negatively impacted their own well-being, including worry, adopting similar coping strategies, and finding the sense of responsibility stressful. Five participants

saw their sister's self-harm as contributing to their own mental health problems, including anxiety, problems with their mood, and disordered eating.

### **Interpersonal Impact.**

*Closeness or Distance from the Sister.* Self-harm contributed to increased closeness or distance within relationships with their sister. Four siblings who were already close to their sister saw her self-harm as signalling a need for support and connectedness and became closer. An older sister described she and her sister had been “*at that sort of age where naturally you'd drift apart*” but they became closer instead since she “*made more of an effort with her*” because her self-harm “*had created the.. the element of concern for me*”.

One of these participants said she found it difficult to balance wanting to stay close and be supportive to her sister with also needing space from her. The remaining four participants described an increased need for distance from their sister. Usually this was due to the emotional demands associated with supporting her. One participant explained “*I do try and limit our contact, because it can be emotionally quite taxing*”. Other reasons for distancing were not wanting to upset their sister or for her problems to impact one's own life.

*Distance from Parents.* Preoccupation with their sister seemed to create distance in the relationship with their parents, as most participants felt their parents would not be able to be there for them. One participant explained her parents “*didn't have the emotional (pauses) space to like quite deal with my problems*”. All participants said they rarely (if ever) talked to their parents about what their sister's self-harm was like for them at the time. Seven participants also described a general reluctance to share their own problems with their parents. However, two brothers had at least one parent they discussed their sister's self-harm with. They described relationships with these parents as staying the same or becoming closer.

Further “*separation*” from their parents was created for three participants who were close and loyal to their sister and saw their parents’ responses as unhelpful. Increased parental stress was also mentioned by a different participant as a reason for distancing from this parent.

***Undemanding Child Role.*** Seven participants described changes in their role within the family that indicated to the researcher that they assumed a role as the undemanding child. Three sisters without any other siblings described pressure to be “*the good one*” (e.g. quiet, compliant) or the “*golden child*”. Four other participants describing wanting to spare their parents from additional stress, explained by one participant as:

*“There is a lot of focus on the other sibling, quite rightly too as well, um to make sure that they’re safe and they can get the support they need. At the same time, it takes a lot of resources and time I think for parents to do that, so I think there is definitely a sense of not wanting to cause more problems, more time or work for parents, cause it’s obviously quite tough for them.”*

***Role Reversal.*** Siblings saw their parents as preoccupied and concerned with their sister and/or not in control of her self-harm. In addition to trying to be undemanding, all participants also took on parental roles to some extent. Participants provided practical or emotional support to their parents (n=6) and/or became their sister’s emotional support instead of them (n=4), despite one participant noting that “*I kind of needed a parent rather than needing to be a parent*”. Three participants were directly involved in tasks related to the self-injury (e.g., administering first aid, hiding any objects their sister may use to hurt herself, reporting it to adults). Two participants also spent time learning about available supports, so they could signpost their sister appropriately. Four participants shared they needed to become

“*self-sufficient*” at a young age as well. This seemed to reflect that they stopped expecting their parents to meet their own needs, even though this could incur personal cost.

Both female younger siblings described a role reversal in their dynamic with their sister such that they became the older sister, and one said her sister “*calls me older sister too (laughs)*”. They saw their sister as less mature in her behaviour or ability to regulate her emotions. This led to feelings of needing to be the responsible and supportive one and regrets over their sister not fulfilling a more traditional older sibling role. This kind of role reversal was not reported by male participants.

***Relating to Other Siblings.*** Among the four participants with other siblings, only one said she spoke with the other siblings about her sister’s self-harm. She said arguments between their parents and the sister who self-harmed led to them spending more time together, supporting each other, and becoming closer. This participant also became more protective of a younger sister to “*try and prevent it from having too much of an impact on her as well.*”

***Relating to Peers.*** Five participants found themselves noticing self-harm or mental health problems more in others than their peers. All three male participants described a positive impact of feeling better able to help and support their friends with these kinds of problems because of it. Four female participants described ways their sister negatively impacted their own social life. Two sisters shared times they needed to stop socialising with friends to help their sister. Two others described finding it harder to fit in at school, because they felt seen differently due to their sister’s self-harm. One of them felt she did not have any friends because she was made “*a freak by proxy*”.

**Impact on View of Health Services.** All participants identified their sister as having accessed professional support, five of whom mentioned CAMHS involvement. Siblings appeared to be largely overlooked by services. Only one participant had been involved through family therapy where her sister's self-harm was discussed. She found this a "traumatic" experience, as she felt things were not explained in an age-appropriate manner and arguments between family members created further distress. Others were only involved in the practicalities of their sister's treatment (e.g. making the referral, getting their sister to appointments) or had not been involved at all. One participant said that "*there was certainly no GP who I came to with my sister who ever thought about what it was like for me*".

Five participants started to see mental health services more negatively for reasons such as barriers to access (e.g. waiting time, not meeting criteria) and/or dissatisfaction about the support that was provided. This seemed to have reduced their confidence in these services and for some made it harder to seek help for themselves. However, one participant did not exclusively describe negative experiences with services, finding that the response to his sister's self-harm has "*taken away faith in CAMHS and mental health services, but it's kind of restored my faith in social services and social care on the whole*".

### ***Finding Ways to Adapt***

How siblings experienced their sister's self-harm influenced how they adapted to this. This relationship appeared to be bidirectional, as some of their coping contributed to further changes in, or an intensification of, the impact their sister's self-harm had on their lives.

Siblings found different ways to adapt to their experience, including self-sacrificing behaviour, individual coping strategies, and social support outside of the family. Most siblings also disclosed personal self-harm that started after they had become aware of their sister's self-harm.

**Self-Sacrificing.** Participants took on new roles in their family in response to their sister's self-harm through role reversal and trying to be the undemanding child. These dynamics seem to have both been introduced and maintained by self-sacrificing. All participants changed their behaviour to help their sister and parents, despite this coming at a personal cost, which one participant referred to as the "*sacrifices*" made. Another participant said she "*tried to just be there for everyone. And I was just never there for myself I guess.*"

All participants described ways they changed their behaviour to try and support their sister, especially when they still lived together. Six participants became careful with what they said around their sister, such as finding it hard to disagree with her and becoming "*obedient*". One participant explained feeling "*kind of held hostage to the fact that she might cut herself*". Five participants described spending more time with their sister to keep her busy or talk to her about her problems. Several participants mentioned how this resulted in less time to pursue their own wants or needs (e.g. socialising with friends, academic assignments, sleep) and at times negatively impacted their own well-being. Other previously described behaviours linked with role reversal (e.g. first aid) also illustrated elements of self-sacrifice.

All participants described having taken on some typically parental responsibilities in response to self-harm as well. Five participants said they took on more daily household chores (e.g. preparing meals) and another participant started counselling her father in expressing his emotions. Four participants who did not approve of their parents' reaction to their sister's self-harm took on some parental caregiving responsibilities for their sister (e.g. comforting, managing her behaviour). Another participant took it upon herself to ask school to look out for her other younger sibling (who did not self-harm). Two female participants also became mediators between their parents and sister, as one said:

*“So I’d do things like if they were shouting or having an argument, I’d be like ‘I’m not getting involved, I’m gonna go and do my work, do my own thing’ uh but I’d always end up like going and doing it. Um going and stepping in, because the argument would go on too long, like her crying would go on too long, my mom would be upset because she couldn’t stop her self-harming, so I’d just be like ‘well I’m going to go and do it’.”*

While looking out for their sister and parents, seven participants did not seem to expect any support from them in return. Four participants would not ask their family for help when they developed their own mental health problems, or only once things “*got really really bad*”. They also shared that their need to be the undemanding child within the family put pressure on them at school to not draw any attention to themselves or do well. One participant explained the commitment this asked of her:

*“It was like I had to be perfect and I would study for 12 hours every single day because it was just like I have to be good, I have to be this good child, because I just couldn’t be bad at all.”*

For some participants, self-sacrificing tendencies also extended to other interactions. One participant tended to not want to ask for help from any adults growing up. Two others described themselves as generally trying to please or be very caring towards others. However, all participants volunteered their time for this study without any compensation. This may have contributed to an overrepresentation of siblings with self-sacrificing tendencies.

**Self-Coping.** Siblings seemed to deny or minimise their own distress in response to their sister’s self-harm, especially when still living with their sister. Three participants saw

themselves as not needing to cope as much describing themselves as “*mostly fine*” or “*pretty much okay*”, while others described “*pathologically trying to avoid how I felt*”, that they “*repressed*” their distress or did nothing to look after themselves. One participant shared:

*“It’s like you take on the role of the caregiver, so like you don’t have any.. like you don’t have any feelings yourself, cause you’re just feeling their feelings.”*

The researcher noticed that throughout the interviews participants seemed to at times laugh to manage painful emotions and reflections or deflect from what was being discussed. Laughter was also experienced as participants communicating that what they were describing was normal and did not warrant a sympathetic response. This felt like another way of siblings minimising their own distress and was seen as dismissive coping. This interpretation was shared with some participants who recognised this. One of them commented “*I think your brain does put barriers up so you don’t like open your mouth and then start crying or something (laughs).*” The two youngest participants (both male) did not use laughter as often in this way, but both seemed to minimise their distress by mostly wanting to talk about the support they received and any positive ways in which they felt their experience shaped them.

Seven participants referred to self-coping strategies that reflected disengagement from their sister’s self-harm. One participant said she “*was always out of the house as often as I could be*”. The remaining six participants described wanting to maintain a sense of normality in their life. Most participants referred to keeping themselves busy with enjoyable activities, and some labelled this as “*escapism*”. Two participants described problem-focused coping. One participant described that being “*proactive*” and focussing her efforts on “*sorting it*” was how she mainly coped when still living together with her sister. Another participant explained how he coped when he felt he had not supported his sister enough:

*“I guess I would just kind of think about it in my own head, it would make me feel quite sad about it, but kind of trying to think of how I could be better from there and kind of being able to think about what I can do now to help her.”*

**Self-Harming Too?** Three participants said they had never self-harmed themselves, of whom two felt put off from ever trying it due to their sister’s self-harm (e.g. looked “*painful*”, lasting effects, “*never really solved anything for my sister*”). The other five participants (n=4 female; n=3 younger sibling) disclosed personal self-harm that started after finding out about their sister’s self-harm. Four participants described using self-harm as a coping mechanism, although one participant described his initial motivation as curiosity. The other sister tried it once hoping this would help her understand her sister better, but it did not. Three younger siblings wondered if they would have self-harmed if they had not been exposed to this, although they did not recall consciously thinking this at the time. One participant shared:

*“But I think just seeing it maybe just made my mind go ‘oh well that is an option’ and like ‘oh no one really has to know about it, cause no one knows about her doing it’ I guess”.*

Four participants described trying to hide their self-harm even more from others than their sister had. One of them explained she had not disclosed her own self-harm to her counsellor. Another participant told her older sister when she started having her own suicidal thoughts in her early teens. Because her older sister said their parents did not respond well in response to her disclosure of a suicide attempt, this participant felt “*sorta unable to reach out for help*”.

**Support Outside the Family.** Most participants relied upon social support from trusted adults or friends. One participant commented his sister’s self-harm “*kind of taught me*

*as well that there were other people that could help, like teachers and friends*”, as previously he mostly relied upon his parents. Four participants described ways in which teachers were helpful (e.g. being interested in their well-being, offering advice, supporting academic success). Two participants who were speaking with a professional at the time for their own problems said they did not discuss their sister’s self-harm much, but it helped that the professional knew about their family circumstances. Three female participants felt supported by their friends by being able to talk or “*rant*” about it or seek advice at the time. Two younger siblings only discussed self-harm with their friends once they were older. A brother said he felt supported by his friends through being able to “*have a laugh and just joke around*”, but he did not tell his friends due to the “*secrecy*” around this topic in his family and he also “*wouldn’t want to kind of burden them with stuff like that*”.

### ***Coming to Terms with It***

All participants knew about their sister’s self-harm for several years at the time of the interview (range 2-15 years,  $M=7.63$ ,  $SD=4.03$ ). Looking back on what it was like to live with a sister who self-harmed, participants shared it was hard, using descriptions like “*a horrible thing to go through*” and noticing it led to “*a lot of sort of emotional baggage sort of to carry around (laughs)*”. Despite its challenges, over time all participants found ways that helped them in coming to terms with the influence their sister’s self-harm had on their life. This appeared to be an ongoing process and siblings varied in how far along they felt in this, but everyone mentioned at least one way of how they moved towards this. Four participants talked about having accepted their sister’s self-harm and/or the way this affected their own life. One of them said that “*trying to let go of the idea that it could have been different*” helped her “*healing*”. Another way that seemed to allow six participants to (start to) come to terms with their experience was reflecting on how it had shaped them. One participant said:

*“Looking back it’s like.. It has felt empowering in the sense that um I feel like I can cope, that there’s a lot that I can cope with and um. Yeah I’ve got my coping mechanisms now and it’s definitely made me very emotionally astute.”*

Participants recognised their sister’s self-harm as contributing to increased interpersonal skills like empathy (n=5), becoming a better parent to their own (future) children (n=3), increased resilience (n=2), and increased emotion regulation skills (n=1). Two participants were inspired to pursue a career in health care. Despite some of their negative views of services, five participants utilised professional mental health support later in life. Discussing the impact of their experience and/or trying to change some of their related coping strategies within personal counselling/therapy seemed to also help participants come to terms with it.

### ***Suggested Support***

All participants shared ideas on support they would have found helpful or that they believe might help other young people living with an adolescent sibling who self-harms. All identified support that could be offered within the wider community. Six participants highlighted benefits of having a trusted adult to talk to. One of them explained:

*“Just to, you know, to offer, that person someone to talk to, that’s there to talk to them (emphasises the word them), you know, and it doesn’t have to be about you know, the sibling, it could be about anything that you want to talk about.”*

It seemed important for this to be someone outside of one’s immediate family, so the sibling would not have to “worry about feeling guilty about making your feelings known or

worry about putting an extra burden on your parents”. This did not necessarily need to be a mental health professional. Most participants stressed the importance of adults checking in with how siblings are doing, even if they seemed fine. Seven participants felt adults should proactively be offering support, as siblings might not know what is available or find it difficult to ask for this, since it can be hard to “*reach out and ask for help if there is someone who needs a lot more help around you.*” Several participants stressed the importance of “*making it very clear that there is that offer there but they don’t have to take it if they don’t want to*”. Five participants wanted schools to be made aware if a student has a sibling who self-harms, so staff can be supportive and potentially provide accommodations if one’s academic performance is affected. Almost all participants felt peer support might be useful.

All participants recognised ways that more knowledge about self-harm could benefit siblings. Five participants said there should be more general education about self-harm, alternative coping strategies, and available supports (e.g. at schools). Six participants also highlighted the importance of specific information for siblings of adolescents who self-harm, including about “*what to do if a sibling is doing it or how to deal with that and how to kind of just look after yourself*”. Information seemed to serve multiple functions, including reducing confusion about what is going on, offering some reassurance, and for siblings to feel less alone. Informing siblings about professional supports in place to help their brother or sister could give siblings further “*peace of mind*”. Six participants described how siblings would also benefit from improved parental psychoeducation, such as parents being informed of ways to manage their own emotions, how to appropriately respond to self-harm, and how to support siblings (e.g. quality time, encouraging support outside of the family). Three participants wanted parents to communicate more openly, but age-appropriately, with siblings to reduce secrecy and confusion.

Mental health professionals could develop and provide relevant information, facilitate opportunities for peer support, monitor sibling well-being, or offer individual therapeutic support. Four participants also thought that having siblings involved in the care of the adolescent who self-harms could be beneficial by improving the adolescent's treatment (e.g. understanding, engagement) or communication among family members. However, three others felt family therapy may be unhelpful for reasons including concern about painful conversations, confusion or distress if topics were not discussed in an age-appropriate manner, and this being another way in which self-harm would impact the sibling's life.

## **Discussion**

Interviewed siblings described complex processes involved in their experience of having an adolescent sister who self-harmed. Dynamic interactions with others shaped their experience (e.g. others' reactions to self-harm, availability of support to the sibling). Pre-existing and co-occurring stressors and family dynamics were acknowledged as part of the context of the sibling experience and fit with family environments previously associated with adolescent self-harm (Aggarwal et al., 2017; Ati et al., 2021; Bean et al., 2021; Diamond et al., 2021).

### ***Consideration of Findings within Existing Literature***

**Awareness & Understanding of Self-Harm.** All siblings felt limited in their awareness of their sister's self-harm and the vast majority had first noticed her self-harm on their own. This corresponds with previous findings that siblings, and families, would rarely openly talk about self-harm despite knowing siblings were aware (Ball, 2010; Rogers & Schmidt, 2016; Scaife, 2018; Tschan et al., 2019). Most siblings struggled to comprehend why their sister self-harmed. In other studies of sibling self-harm or mental illness a lack of understanding about their sibling's problems was also commonly reported (Areemit et al.,

2010; Ball, 2010; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015; Tschan et al., 2019). Most siblings viewed self-harm as part of their sister's mental health problems. Accordingly, it is unsurprising that many aspects of their experiences were similar to those growing up with a brother or sister who has mental illness.

### **Impacted by Sister's Self-Harm.**

*Intrapersonal Impact.* All siblings were impacted by their sister's self-harm. Siblings experienced a range of distressing emotions in line with previous literature (Ball, 2010; Byrne et al., 2008; Ferrey et al., 2016b; Scaife, 2018; Tschan et al., 2019). Anxiety and concerns associated with future self-harm were particularly prevalent. Others found experiences of shame and stigma associated with sibling self-harm (Ball, 2010; Ferrey et al., 2016b), which were not as pronounced in these sibling narratives. Changes in societal attitudes towards self-harm may have contributed to this, which would be especially relevant for participants who found out about their sister's self-harm in recent years. Most siblings felt both responsible and helpless. This resonates with other sibling experiences of self-harm and mental illness (Areemit et al., 2010; Ball, 2010; Ferrey et al., 2016b; Ma et al., 2015; Varnell, 2014). Among siblings of adolescents with an eating disorder this increased sense of responsibility led to siblings needing to mature more quickly (Areemit et al., 2010; Varnell, 2014). Additional reasons for growing up faster identified in this study included being faced with self-harm and witnessing adults as not being in control or appropriately helping their sister. Other siblings of adolescent girls who engaged in NSSI also did not feel that others helped or could handle their sister's self-harm (Tschan et al., 2019). A few participants referred to times they experienced a sense of relief associated with their sister's self-harm. Relief was also commented upon in the study from Tschan and colleagues (2019) as a reaction to hospitalisation, but had not been considered in other studies of sibling experiences

of self-harm. Sibling self-harm as a contributor to personal mental health problems was also found by Ball (2010).

***Interpersonal Impact.*** Family relationships changed. Siblings reported increased closeness and/or distance in relationships with their sister depending on how they experienced supporting their sister. This fits with experiences in response to a sibling's suicide attempt or mental illness (Areemit et al., 2010; Ball, 2010; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015; Withers et al., 2014), but differs from the increased distance all siblings who engaged in NSSI noticed in their adolescent relationships (Scaife, 2018). Parental preoccupation with their sister and participants' reluctance to share their problems with their parents created distance in most relationships with parents. Others also found that those with a sibling who self-harms often feel overlooked by their parents and try suppressing their own emotions (Ball, 2010; Tschan et al., 2019). A novel finding was the additional distance created when siblings viewed their parents' responses to self-harm as unhelpful. Most participants with multiple siblings did not discuss if the way they related to other siblings changed. However, one participant shared that mutual support made them closer and increased her sense of protecting the younger sibling. A similar dynamic was found in response to adolescent eating disorders (Fjermestad et al., 2020).

Siblings also took on new roles in their family. Parentification is described as a child sacrificing their own needs to accommodate for the emotional and/or practical needs of the parent(s) and/or sibling(s) (Hooper, 2007). This process occurs in families with a need for stabilisation in the family system (Boszormenyi-Nagy & Sparks, 1973). Except for the one participant who described parental containment in response to sibling self-harm, all siblings described parentification. This is an understandable response to the distress and lack of control siblings observed from their sister and parent(s). Parentification has previously been

highlighted in response to sibling suicidality or mental illness (Areemit et al., 2010; Ball, 2010; Havard, 2019; Ma et al., 2015; Spillane et al., 2019; Varnell, 2014), but not in response to NSSI. Another unique finding was the shift in birth order dynamic among sisters with an older sister who self-harmed, although a quote from a sibling with an older sister with an eating disorder suggested a similar role reversal (Fjermestad et al., 2020). Associated with parentification is the role of the undemanding child. Children who see their parents as vulnerable try to protect their parents from their own negative emotions by appearing as healthy and achieving (Boszormenyi-Nagy & Sparks, 1973). This role was identified in response to sibling mental illness (Areemit et al., 2010; Ma et al., 2015; Sanders et al., 2014; Varnell, 2014), but had not been reported in the sibling experience of self-harm before.

Peer relationships were also impacted. Most siblings became quicker to notice self-harm or mental health problems in peers. This fits with some siblings of adolescents with an eating disorder becoming more attuned to peer eating behaviours (Fjermestad et al., 2020). Most female siblings experienced a negative impact of self-harm on their social relationships. This was also found by siblings of adolescents with an eating disorder (Areemit et al., 2010; Fjermestad et al., 2020; Varnell, 2014). However, the increased ability to help peers with similar problems noted by male siblings, was a novel finding.

***Impact on View of Health Services.*** Similar to what others found (Ball, 2010; Tschan et al., 2019), those with a sister who self-harmed were rarely included in their sister's care. Most siblings formed an increasingly negative view of mental health services and felt that the needs of siblings were overlooked.

**Finding Ways to Adapt.** Self-sacrifice is an instinctive response associated with the parentification that occurred in response to the sister's self-harm. All siblings prioritised

supporting their sister and/or parents above their own wants and needs. Siblings reported increased caution around their sister, spending more time together, and providing supports specifically related to her self-harm – even though this was difficult or time-consuming for them. Other studies also reported ways siblings supported adolescents who self-harmed (Ball, 2010; Scaife, 2018; Tschan et al., 2019), although self-harm specific supports (e.g. administering first aid, referring to services) had not previously been highlighted. All siblings took on parental responsibilities. This was in line with prior research about suicide attempts or mental illness (Areemit et al., 2010; Ball, 2010; Ma et al., 2015; Varnell, 2014), but had not yet been documented in response to NSSI. Siblings’ reluctance to ask for help for themselves and half of them making additional academic efforts illustrated aspects of the undemanding child roles that have also been recognised in those growing up with a sibling with mental illness (Sanders et al., 2014).

Siblings minimised their own distress. This strategy is also often used by siblings of those with mental health problems and seems to both reduce blame on the sibling (and thereby lessening the associated negative impact blame can have on their own well-being) and externalise the parental lack of attention to their needs (Ma et al., 2015). Avoidance of the sister’s self-harm through distraction and maintaining a sense of normalcy in their life are other self-coping strategies that are widely recognised among siblings (Ball, 2010; Callio & Gustafsson, 2016; Fjermestad et al., 2020; Havard, 2019; Ma et al., 2015; Varnell, 2014; Withers et al., 2014). Unlike Tschan et al. (2019), most siblings in this study started to self-harm after they were already aware of their sister’s self-harm, as a way to cope with their distress. Reasons siblings gave for not engaging in self-harm in this study mainly focussed on noticing the effects this had on their sister’s life. This differs from the reasons siblings provided for not self-harming themselves in the study from Tschan and colleagues (e.g. better

personal stress management, less difficulties with their family situation). This may be due to the answer options siblings were restricted to in the latter study.

Most siblings also relied on social support from trusted adults and peers, despite recognised barriers of personal difficulties asking for help and familial secrecy around self-harm or mental health problems (Ball, 2010; Callio & Gustafsson, 2016; Fjermestad et al., 2020; Ma et al., 2015; Varnell, 2014; Withers et al., 2014).

**Coming to Terms with It.** Siblings found their experience of their sister's self-harm difficult, but over time found ways that helped coming to terms with this. Strategies included acceptance, reflecting on ways it shaped them (e.g. increased empathy or resilience), and accessing professional counselling. The acceptance described after a sibling's suicide attempt mostly related to accepting the sibling's behaviour (Ball, 2010), while acceptance in this study also included accepting the impact of sibling self-harm on one's own life. Siblings of adolescents who attempted suicide or had an eating disorder highlighted positive personal changes as well (Ball, 2010; Fjermestad et al., 2020; Varnell, 2014).

**Suggested Support.** Siblings wanted support for others with adolescent siblings who self-harm to be improved. They stressed the importance of adults checking in with siblings to at least offer support. Siblings shared how helpful speaking with a trusted adult outside of their immediate family can be and highlighted the value of opportunities for peer support. Other studies also recognised these supports as valuable for siblings (Ball, 2010; Griffiths & Sin, 2013; Varnell, 2014). Several siblings felt schools should be informed about their sister's self-harm, which was also suggested by siblings of adolescents with an eating disorder (Varnell, 2014). Siblings wanted more awareness and information about self-harm in general, but also specifically for siblings and parents. This desire for more information and

reassurance has also been reported in response to sibling suicide attempts and eating disorders (Areemit et al., 2010; Ball, 2010; Varnell, 2014). However, in the context of adolescent eating disorders, some siblings noted that receiving more information at the onset may have increased their worries (Fjermestad et al., 2020). Several siblings wanted parents and/or professionals to become increasingly open with them about self-harm. Half of the siblings felt increased professional involvement of siblings treating adolescents who self-harm would be beneficial, although some siblings shared concerns about this. Siblings had similarly mixed perspectives in response to sibling suicidality or eating disorders: some found or expected family therapy to be helpful, while others had found their involvement in their sibling's treatment upsetting or unnecessary (Ball, 2010; Havard, 2019; Varnell, 2014).

### ***Study Appraisal***

**Strengths.** Findings provided increased insights into the sibling experience of adolescent self-harm, an area that is clearly important to consider but had been neglected. Its community recruitment approach enabled a more genuine understanding of the sibling experience, as only a minority of adolescents who self-harm seek professional support (Gillies et al., 2018). By interviewing young adults retrospectively when they were no longer living together with their sibling, they were able to take a more reflective stance on their experience. Increased cognitive and emotional maturity, while at the same time not being too far removed from the experience, likely also added to participants' ability to reflect. This study was informed by a review of the literature and makes an original contribution. Its rigorous approach was evident through reflexivity, iterative analysis, and transparency (Charmaz & Thornberg, 2020). Credibility was increased through involvement from supervisors throughout the analysis and participant feedback on the emergent theory.

Findings have demonstrated resonance with participant experiences through member checking, fit within the context of related research, and have clinical usefulness.

**Limitations.** As adolescent girls are more likely to engage in non-fatal self-harm (Patalay & Fitzsimons, 2021), it was unsurprising that it was more difficult to recruit participants with a brother who self-harmed. These difficulties in recruitment within the pragmatic time constraints associated with this dissertation, resulted in a more limited focus than originally had been intended. Therefore, the current theory only provides insights into the sibling experience of female adolescent self-harm.

The sample size and characteristics may have hindered this study in reaching theoretical saturation. For instance, no older brothers with a sister who self-harmed were included. Two male participants acknowledged they came from backgrounds that are considered ethnic minorities within the United Kingdom (Government of the United Kingdom, n.d.). However, personal information about ethnicity was not routinely collected during this study and could therefore not be considered in reference to the whole sample. Considering these factors and the individuality of sibling experiences, additional interviews possibly could have introduced new categories and/or added nuances to existing ones. Findings only reflect experiences of participants who volunteered to take part. These may differ from siblings who were unaware of the study, not interested in participation, or unable to take part as they were currently still living with their sibling or met other exclusion criteria.

As interviews were retrospective, at times siblings had difficulties remembering aspects of their experiences. Some of their recall may have been susceptible to inaccuracies. It must also be acknowledged that self-harm did not occur in isolation within families. Therefore, it was not always possible to separate experiences of adolescent self-harm from those of other family-related factors. The complexity of various family backgrounds was

recognised instead. As experiences were synthesised to develop a theoretical understanding, the nuances associated with individual experiences could not all be captured.

### ***Study Implications***

**Research.** Although the prevalence of self-harm is less among adolescent boys, a key avenue for future research is to explore sibling experiences of male adolescent self-harm to see if these experiences are similar or have distinct features. Since this study mostly included perspectives from siblings who grew up in families in which self-harm was not discussed, it is also important to study sibling experiences in families where self-harm is openly talked about. Other areas for future research include sibling experiences of adolescents who only self-harmed once and a further understanding of the ways in which sibling self-harm affects relationships with the remaining siblings and peers. In general, sibling experiences of adolescent self-harm should be studied on a larger scale and with siblings from a variety of family and ethnic backgrounds, as sibling experiences are embedded in a wider ecological context (McGuire & Shanahan, 2010).

Given the apparent influence of family relationships in how adolescent self-harm was experienced by siblings, further insights into which relational factors are associated with increased distress and difficulties or may have buffering effects are needed. Future research should include validated measures to assess related concepts such as expressed emotion and attachments to siblings and parents. It is recommended that studies ask participants to report on their sibling's psychiatric diagnoses, as these are a likely influence on their experience of self-harm and aspects of sibling experiences differ across disorders (Ma et al., 2015).

Several directions for future research have particular clinical relevance. The majority of siblings in this study reported subsequent personal engagement in self-harm, which contrasts previous findings of only a minority of siblings self-harming themselves (Tschan et

al., 2019). Why some siblings may also start to self-harm and how common this is warrants investigation. It would also be interesting to consider if both siblings are likely to be aware of each other's self-harm and what this is like for the first sibling who started self-harming. Participants provided a number of suggestions for ways to improve support for other siblings. If implemented, their effects on sibling experiences should be studied.

**Clinical.** Siblings' needs should be addressed in the context of adolescent self-harm. This should be done in a collaborative and individualised manner considering the sibling's age, their awareness and understanding of their sibling's self-harm, additional stressors, family dynamics, and availability of other supports.

Age-appropriate but open communication with the sibling is key. This study showed that parental communication about a sister's self-harm with siblings may prevent some of the distancing that was otherwise experienced in parent-child relationships. Communication must be tailored to the sibling's level of understanding, because otherwise increased confusion could create further distress. Parents should check in with siblings how they are coping and promote helpful strategies. As families often did not talk about self-harm, parents may not know a sibling is aware. However, as highlighted by one participant, they may still have sensed something is "*not quite right*". Therefore, if families are aware of one child's self-harm, even if they decide not to discuss this with the other siblings, parents are still encouraged to provide siblings with support managing their emotions (O'Connor, 2021). This study also found that siblings of sisters who self-harm are likely to try self-harming themselves, and some adopted this as a regular coping strategy. Families and professionals should be aware that most siblings who subsequently self-harmed themselves were even more secretive about this. This could result in increasingly risky behaviour. Parents should

therefore be encouraged to ask siblings if they have engaged in self-harm themselves or at least keep an eye on signs of personal self-harm in siblings.

Siblings often linked their sister's self-harm with mental health problems and all participants said their sisters accessed some form of professional support. Based on the current National Institute for Health and Care Excellence ([NICE], 2011) guidelines for self-harm, professionals working with a person who self-harms should offer family members supporting a person who self-harms written and verbal information about self-harm, crisis management, and support available for themselves. None of the siblings in this study seemed to have been provided any of this, even though they would have appreciated more information and offers of support. Unfortunately, this appears representative of the larger lack of inclusion of siblings in mental health services, with 50% of health care professionals saying they never or rarely involve siblings (Griffiths & Sin, 2013). There is a clear need for professionals to be made aware of, and act in accordance with, NICE guidance. Services are recommended to audit sibling involvement within their services. Quality improvement projects could address an evidenced lack of sibling involvement. Positive interactions with a sibling's clinician are likely to improve one's willingness to access their own professional support if they would benefit from doing so. When working with adolescents who self-harm, clinicians should consider as part of their formulation if working on improved family communication and relationships through systemic therapy is likely to be valuable (Rogers & Schmidt, 2016). If so, siblings should be included if they are willing and able to cope with this. Given the systemic nature of the sibling experience, improved care for adolescents who self-harm and their parents will likely also benefit siblings. By letting siblings know about the support that is in place for the young person who self-harms, parents and/or professionals may be able to reduce some of the responsibility that siblings feel. This could improve sibling's own well-being and may prevent some self-sacrificing behaviours.

As siblings of adolescents who self-harm are less likely to discuss their own problems with their family members, it is important that siblings have someone that prioritises them and their needs outside of their family. Since siblings spend a substantial amount of time at school, letting staff know what is going on at home can allow them to look out for sibling's well-being. Siblings may find it hard to ask for help, so staff at schools and within health services should actively offer siblings their own support or at least check in with siblings that they feel they have adequate supports in place. Professionals should therefore be encouraged to routinely inquire about siblings in initial meetings with families of adolescents who self-harm. Opportunities for peer support should also be made available, as many siblings would likely value this (Griffiths & Sin, 2013). This can include support groups, trained peer listeners and organised activities to meet others. These types of peer support resources tend to be more commonly available for those with a sibling with a learning disability, neurodevelopmental disorders, or physical illnesses. Siblings of young people with mental health problems can access peer support through young carer organisations. However, these peers may be identified as young carers because of parental mental health problems or relatives with physical illnesses, while siblings are likely to find it especially useful to meet peers who also have a brother or sister who self-harms. It is also not always clear if a sibling's self-harm in the absence of mental health problems would qualify a young person for this kind of support. An online forum where siblings can share experiences and advice could also be of benefit, especially if this is moderated by professionals who can also be asked questions. In general, there is a need for professionals to increase the accessibility of information about self-harm for siblings (e.g. self-care, how to respond to sibling self-harm) and parents (e.g. importance of managing own emotions and reactions, quality time with siblings, and how to prevent parentification). Being better informed will likely benefit a family member's own well-being and could facilitate disclosure and help-seeking among

adolescents who self-harm (Scaife, 2018). Services could provide psychoeducational workshops for groups of siblings or in an individual session. It would also be helpful if organisations that could be helpful for siblings (e.g. Childline, young carer organisations) promote what support is available and make it clear that siblings of adolescents who self-harm can access their support. Siblings also noted the importance of improved public awareness and understanding of self-harm. It is encouraging that this is part of suicide prevention policies across the United Kingdom (House of Commons Library, 2021).

## **Conclusion**

A framework was developed describing the processes involved in the sibling experience of female adolescent self-harm. This occurred in a context of co-occurring mental health problems, additional pre-existing and/or co-occurring stressors, and various relational dynamics within the family system. How female adolescent self-harm was experienced by siblings was influenced by interactions with others (e.g. their reactions, available supports). Siblings varied in how much they knew and understood about their sister's self-harm, but all were impacted by it. Siblings experienced distress, a strong sense of responsibility, and a negative impact on their own mental health. It was seen as a difficult experience that made siblings need to grow up faster. Changing dynamics were evident in family relationships and roles (e.g. distancing; parentification; becoming the undemanding child). Peer interactions were also impacted. Health services largely overlooked siblings and most siblings formed negative views of their support. Siblings adapted through self-sacrifice, self-coping and seeking social support outside the family. Most siblings also tried self-harm themselves. Over time siblings found ways that helped coming to terms with how their sister's self-harm influenced their life. Participants also provide suggestions on support for other siblings. It is

important that families and clinicians do not overlook siblings and address any needs they may have in response to sibling self-harm or comorbid mental health problems.

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### *Declarations of Conflicting Interests*

The authors declare that there is no conflict of interest.

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## Appendix A - Submission Guidelines for *Child Psychiatry & Human Development*

Available from <https://www.springer.com/journal/10578/submission-guidelines>

### CHILD PSYCHIATRY & HUMAN DEVELOPMENT

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**Title Page:** A title page is to be provided and should include the title of the article, author's name(s), and suggested running head. Academic affiliations of all authors should be included. The affiliation should

comprise the department, institution (usually university or company), city, and state (or nation) and should be typed as a footnote to the author's name. The suggested running head should be less than 80 characters (including spaces) and should comprise the article title or abbreviated version thereof. For office purposes, the title page should include the complete mailing address including email address, telephone number, and fax number of the corresponding author designated to review feedback and proofs.

**Abstract:** An Abstract, no longer than 150 words, must be provided. No headings of any type can be used within the Abstract proper. The Abstract is to be the second page. A list of 4-5 Keywords is to be provided directly below the Abstract. Keywords should express the precise content of the manuscript, as they are used for indexing purposes.

**Illustrations, Artwork, and Tables:** Illustrations (photographs, drawings, diagrams, and charts) are to be numbered in one consecutive series of Arabic numerals. Artwork for each figure should be provided in a separate file. Each figure should have an accompanying caption. Artwork should be submitted as TIFF or EPS format (1200 dpi for line and 300 dpi for half-tones and gray-scale art). Color art should be in the CMYK color space. Tables should be numbered and referred to by number in the text. Each table should be typed on a separate sheet of paper and should have a descriptive title. Center the title above the table, and type explanatory footnotes (indicated by superscript lowercase letters) below the table.

#### References

The accuracy of references is the responsibility of the contributing authors. The journal uses numeric referencing for references in text. The journal uses numeric listing of references in the order they were used in text (1,2,3, etc.) in the reference list. Use initials and surnames for all authors and list all authors for each publication up to six authors. Use et al. after the sixth author. The journal uses a specific style for reference in the reference list. Please see examples below and note that the appropriate journal title abbreviations can be found at the National Library of Medicine's List of Journals Indexed in Index Medicus. Please do consult a recent issue of the journal for sample references.

#### Examples:

1. Pffiffer LJ, McBurnett K (2006) Family correlates of comorbid anxiety disorders in children with attention-deficit/hyperactivity disorder. *J Abnorm Child Psychol* 34: 725-735
2. Negoro H, Sawada M, Iida T, Tanaka S, Kishimoto T (2010). Prefrontal dysfunction in attention-deficit/hyperactivity disorder as measured by near infrared spectroscopy. *Child Psychiatry Hum Dev* 41: 133-155
3. Muris P (2007) Normal and abnormal fear and anxiety in children and adolescents. Elsevier, Oxford, UK

#### Summary

The format for database articles in *Child Psychiatry & Human Development* is identical to that of other peer-reviewed science outlets (Abstract, Introduction, Methods, Discussion, References) with the exception that each article in the journal concludes with a section labeled *Summary*. The Summary follows the discussion section and is basically an elaborated Abstract. Please consult back issues including those online at the journal portal at <http://www.springer.com/10578> for additional guidance and examples.

### **English Language Editing**

For editors and reviewers to accurately assess the work presented in your manuscript you need to ensure the English language is of sufficient quality to be understood. If you need help with writing in English you should consider:

- Asking a colleague who is a native English speaker to review your manuscript for clarity.
- Visiting the English language tutorial which covers the common mistakes when writing in English.
- Using a professional language editing service where editors will improve the English to ensure that your meaning is clear and identify problems that require your review. Two such services are provided by our affiliates Nature Research Editing Service and American Journal Experts. Springer authors are entitled to a 10% discount on their first submission to either of these services, simply follow the links below.

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If your manuscript is accepted it will be checked by our copyeditors for spelling and formal style before publication.

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This journal is committed to upholding the integrity of the scientific record. As a member of the Committee on Publication Ethics (COPE) the journal will follow the COPE guidelines on how to deal with potential acts of misconduct.

Authors should refrain from misrepresenting research results which could damage the trust in the journal, the professionalism of scientific authorship, and ultimately the entire scientific endeavor. Maintaining integrity of the research and its presentation can be achieved by following the rules of good scientific practice, which include:

- The manuscript has not been submitted to more than one journal for simultaneous consideration.
- The manuscript has not been published previously (partly or in full), unless the new work concerns an expansion of previous work (please provide transparency on the re-use of material to avoid the hint of text-recycling (“self-plagiarism”).
- A single study is not split up into several parts to increase the quantity of submissions and submitted to various journals or to one journal over time (e.g. “salami-publishing”).
- No data have been fabricated or manipulated (including images) to support your conclusions
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material that is closely copied (near verbatim), summarized and/or paraphrased), quotation marks are used for verbatim copying of material, and permissions are secured for material that is copyrighted.

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- Consent to submit has been received explicitly from all co-authors, as well as from the responsible authorities - tacitly or explicitly - at the institute/organization where the work has been carried out, **before** the work is submitted.
- Authors whose names appear on the submission have contributed sufficiently to the scientific work and therefore share collective responsibility and accountability for the results.

In addition:

- Changes of authorship or in the order of authors are not accepted **after** acceptance of a manuscript.
- Requesting to add or delete authors at revision stage, proof stage, or after publication is a serious matter and may be considered when justifiably warranted. Justification for changes in authorship must be compelling and may be considered only after receipt of written approval from all authors and a convincing, detailed explanation about the role/deletion of the new/deleted author. In case of changes at revision stage, a letter must accompany the revised manuscript. In case of changes after acceptance or publication, the request and documentation must be sent via the Publisher to the Editor-in-Chief. In all cases, further documentation may be required to support your request. The decision on accepting the change rests with the Editor-in-Chief of the journal and may be turned down. Therefore authors are strongly advised to ensure the correct author group, corresponding author, and order of authors at submission.
- Upon request authors should be prepared to send relevant documentation or data in order to verify the validity of the results. This could be in the form of raw data, samples, records, etc.

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- If the article is still under consideration, it may be rejected and returned to the author.
- If the article has already been published online, depending on the nature and severity of the infraction, either an erratum will be placed with the article or in severe cases complete retraction of the article will occur. The reason must be given in the published erratum or retraction note.
- The author's institution may be informed.

#### **Compliance with Ethical Standards**

To ensure objectivity and transparency in research and to ensure that accepted principles of ethical and professional conduct have been followed, authors should include information regarding sources of funding, potential conflicts of interest (financial or non-financial), informed consent if the research

involved human participants, and a statement on welfare of animals if the research involved animals.

Authors should include the following statements (if applicable) in a separate section entitled “Compliance with Ethical Standards” before the References when submitting a paper:

- Disclosure of potential conflicts of interest
- Research involving Human Participants and/or Animals
- Informed consent

Please note that standards could vary slightly per journal dependent on their peer review policies (i.e. double blind peer review) as well as per journal subject discipline. Before submitting your article check the Instructions for Authors carefully.

The corresponding author should be prepared to collect documentation of compliance with ethical standards and send if requested during peer review or after publication.

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#### **Disclosure of potential conflicts of interest**

Authors must disclose all relationships or interests that could influence or bias the work. Although an author may not feel there are conflicts, disclosure of relationships and interests affords a more transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interests is a perspective to which the readers are entitled and is not meant to imply that a financial relationship with an organization that sponsored the research or compensation for consultancy work is inappropriate. Examples of potential conflicts of interests **that are directly or indirectly related to the research** may include but are not limited to the following:

- Research grants from funding agencies (please give the research funder and the grant number)
- Honoraria for speaking at symposia
- Financial support for attending symposia
- Financial support for educational programs
- Employment or consultation
- Support from a project sponsor
- Position on advisory board or board of directors or other type of management relationships
- Multiple affiliations
- Financial relationships, for example equity ownership or investment interest
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In addition, interests that go beyond financial interests and compensation (non-financial interests) that may be important to readers should be disclosed. These may include but are not limited to personal relationships or competing interests directly or indirectly tied to this research, or professional interests or personal beliefs that may influence your research.

The corresponding author collects the conflict of interest disclosure forms from all authors. In author collaborations where formal agreements for representation allow it, it is sufficient for the

corresponding author to sign the disclosure form on behalf of all authors. Examples of forms can be found

- [here:](#)

The corresponding author will include a summary statement, **on the title page that is separate from their manuscript**, that reflects what is recorded in the potential conflict of interest disclosure form(s).

See below examples of disclosures:

**Funding:** This study was funded by X (grant number X).

**Conflict of Interest:** Author A has received research grants from Company A. Author B has received a speaker honorarium from Company X and owns stock in Company Y. Author C is a member of committee Z.

If no conflict exists, the authors should state:

Conflict of Interest: The authors declare that they have no conflict of interest.

### **Research involving human participants and/or animals**

#### **1) Statement of human rights**

When reporting studies that involve human participants, authors should include a statement that the studies have been approved by the appropriate institutional and/or national research ethics committee and have been performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

If doubt exists whether the research was conducted in accordance with the 1964 Helsinki Declaration or comparable standards, the authors must explain the reasons for their approach, and demonstrate that the independent ethics committee or institutional review board explicitly approved the doubtful aspects of the study.

The following statements should be included in the text before the References section:

**Ethical approval:** "All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards."

For retrospective studies, please add the following sentence:

"For this type of study formal consent is not required."

#### **2) Statement on the welfare of animals**

The welfare of animals used for research must be respected. When reporting experiments on animals, authors should indicate whether the international, national, and/or institutional guidelines for the care and use of animals have been followed, and that the studies have been approved by a research ethics committee at the institution or practice at which the studies were conducted (where such a

committee exists).

For studies with animals, the following statement should be included in the text before the References section:

**Ethical approval:** "All applicable international, national, and/or institutional guidelines for the care and use of animals were followed."

If applicable (where such a committee exists): "All procedures performed in studies involving animals were in accordance with the ethical standards of the institution or practice at which the studies were conducted."

If articles do not contain studies with human participants or animals by any of the authors, please select one of the following statements:

- "This article does not contain any studies with human participants performed by any of the authors."
- "This article does not contain any studies with animals performed by any of the authors."
- "This article does not contain any studies with human participants or animals performed by any of the authors."

#### **Informed Consent**

All individuals have individual rights that are not to be infringed. Individual participants in studies have, for example, the right to decide what happens to the (identifiable) personal data gathered, to what they have said during a study or an interview, as well as to any photograph that was taken. Hence it is important that all participants gave their informed consent in writing prior to inclusion in the study.

Identifying details (names, dates of birth, identity numbers and other information) of the participants that were studied should not be published in written descriptions, photographs, and genetic profiles unless the information is essential for scientific purposes and the participant (or parent or guardian if the participant is incapable) gave written informed consent for publication. Complete anonymity is difficult to achieve in some cases, and informed consent should be obtained if there is any doubt. For example, masking the eye region in photographs of participants is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic profiles, authors should provide assurance that alterations do not distort scientific meaning.

The following statement should be included:

**Informed consent:** "Informed consent was obtained from all individual participants included in the study."

If identifying information about participants is available in the article, the following statement should be included:

"Additional informed consent was obtained from all individual participants for whom identifying information is included in this article."

**Editorial Procedure**

**Single-blind peer review**

This journal follows a single-blind reviewing procedure.

## Appendix B - Prospero Protocol (CRD42020199513)

This protocol is available online at

[https://www.crd.york.ac.uk/prospero/display\\_record.php?RecordID=199513](https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=199513)

**NIHR** | National Institute  
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**PROSPERO**  
International prospective register of systematic reviews

A systematic review of associations between sibling relationship quality and self-injurious thoughts and behaviours in adolescence

*Nienke van Alphen, Jamie Kennedy-Turner, Helen Griffiths*

### Citation

Nienke van Alphen, Jamie Kennedy-Turner, Helen Griffiths. A systematic review of associations between sibling relationship quality and self-injurious thoughts and behaviours in adolescence. PROSPERO 2020 CRD42020199513 Available from:

[https://www.crd.york.ac.uk/prospero/display\\_record.php?ID=CRD42020199513](https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020199513)

### Review question

In what ways are sibling relationship qualities (warmth; conflict; differential parental treatment) associated with adolescent self-injurious thoughts and behaviours?

### Searches

An initial search of MEDLINE, PsycINFO, and EMBASE will be conducted. Next, the following databases will be searched to see if any additional studies come up: Scopus, ProQuest Dissertations and Theses Global, ASSIA, and Sociological Abstracts.

Searches are anticipated to take place in Sept - Dec 2020 (pending when the review's registration has been approved). Publications need to be written in English or a full translation needs to be available. All studies that meet inclusion criteria and were published before the date that the searches are done will be included.

### Search strategy

[https://www.crd.york.ac.uk/PROSPEROFILES/199513\\_STRATEGY\\_20200717.pdf](https://www.crd.york.ac.uk/PROSPEROFILES/199513_STRATEGY_20200717.pdf)

### Types of study to be included

Studies need to have a quantitative design; assess at least one aspect of sibling relationship quality (sibling warmth, sibling conflict, sibling-perceived differential treatment by parents) and at least one type of self-injurious thoughts and/or behaviours is assessed in the study; an adolescent sample (further details in protocol); written in English or fully translated; and have ethical approval.

Studies published up to the date of study extraction will be included. To avoid publication bias and as this is an under-researched area, dissertations and conference proceedings not otherwise reported will be included as well as articles in peer-reviewed journals.

### Condition or domain being studied

The health-related outcome of interest is self-injurious thoughts and behaviours (SITBs) conceptualized by Dhingra, Boduszek, & Klonsky (2016) to include suicidal ideation, suicidal plans, suicidal gestures, suicide attempts, non-suicidal self-injurious (NSSI) thoughts and/or NSSI behaviours.

### Participants/population

In line with Sawyer, Azzopardi, Wickremarathne, & Patton (2018)'s definition of adolescence, the population studied will be young people aged 10-24 years. Studies will not be excluded on the basis of country of origin.

Inclusion: Adolescents (ages 10-24) with at least one sibling and for whom at least one type of SITB has been assessed.

Exclusion: Adolescents who do not have siblings. Children (under 9 years of age) and adults (aged 25+).

### Intervention(s), exposure(s)

Exposure to different sibling relationship qualities.

Sibling relationship quality is defined in line with Buist, Deković, & Prinzie (2013) who considered three key dimensions of sibling relationships: warmth, conflict, and differential treatment:

- 1) Sibling warmth reflects positive aspects of the relationship, such as intimacy, affection, support, companionship, and closeness
- 2) Sibling conflict consists of negative aspects such as arguing, bickering, fighting, aggression, hostility, negativity and coercion
- 3) Differential treatment indicates whether children perceive that their parents behave differently towards them than towards their sibling (i.e., sibling rivalry)

### Comparator(s)/control

Comparison group will be adolescents who do not have or engage in self-injurious thoughts and/or behaviours.

### Main outcome(s)

Definition: Self-injurious thoughts and behaviours (SITBs) are conceptualised in line with Dhingra, Boduszek, & Klonsky (2016) and include suicidal ideation, suicidal plans, suicidal gestures, suicide attempts, non-suicidal self-injurious (NSSI) thoughts and/or NSSI behaviours.

- Suicide ideation is having thoughts of killing oneself:
- A suicide plan is having made a plan to kill oneself.
- A suicidal gesture is having ever done something to lead others to believe one wanted to kill oneself when really there was no intent to do so.
- A suicide attempt is an actual attempt to kill oneself in which one had at least some intent to die.
- NSSI thoughts is having thoughts of hurting oneself on purpose but without intending to die (e.g. cutting, burning)
- NSSI behaviour is having done something to purposely hurt oneself without intending to die.

Outcomes can include lifetime, recent (e.g. past year) and current measures of SITBs. There are different ways a type of SITB may be measured, including:

- \* Self-report interview. This could be using (subsections of) validated interview schedules such as the WHO's Composite International Diagnostic Interview (CIDI) or answers to relevant interview questions created by study authors (such as "Have you ever hurt yourself on purpose in any way (e.g., by taking an overdose of pills, or by cutting yourself)?").
- \* Self-report questionnaire. This could include validated questionnaires like the Scale for Suicide Ideation or self-developed scales created by study authors.
- \* Informant report. For example, clinicians may have recorded an A&E presentation as a suicide attempt or diagnose an adolescent using DSM-5 criteria with NSSI disorder.

### \* Measures of effect

Ultimately, findings will be narratively synthesised. Statistical measures of effect in included studies are likely to vary, but will include odds ratios.

### Additional outcome(s)

None

\* Measures of effect

Not applicable

Data extraction (selection and coding)

Covidence software will be used to streamline the study selection and data extraction process.

Selection:

Study selection criteria include:

\* Assessed at least one dimension of sibling relationship quality

\* Assessed at least one type of SITB

\* Adolescent (ages 10-24) sample. If there is a sample mixed with adolescents and younger children or adults, the study will only be included if the adolescent data is reported separately, the authors are able to provide this information, or more

than 50% of the sample fall within the specified age range.

\* Quantitative study design.

For further details on the selection criteria see field 22 or the Selection Criteria section in the Methods section of the study protocol.

1. Using study title and abstract, the first author will use selection criteria to decide whether to include or exclude a study for full-text screening. When it is unclear if selection criteria are met, the paper in question will be included to prevent the incorrect removal of relevant papers.

2. Before the first author will screen the full text of studies about whether they met study criteria, a pilot phase will take place. A randomly selected subset of a minimum of 20% of the articles will be subjected to independent full text screening for eligibility by both first and second author. If studies are excluded, it will be recorded why they did not meet selection criteria. Discrepancies will be resolved through discussion and consensus on how the inclusion criteria should be applied. In case there is continued disagreement, the perspective from the third author will be sought. The rest of the studies will be assessed by the first author. The second author will be shown the included studies to make sure there is agreement about all inclusion decisions made.

3. Some studies may include measures that could qualify for inclusion in the review if authors are able to provide data related to the specific items of interest in this review. In these instances, authors will be contacted by email asking if the relevant data is available for analysis. If this is not available, then these studies will not be included.

4. Once a 'final' set of included papers is ready, a few experts in the field will be emailed to check no relevant studies have been missed.

Extraction:

A data extraction form will be created using Covidence to collect relevant information. As recommended by Fleeman & Dunder (2017), the data extraction form will be piloted using at least two included studies. If a study describes data related to multiple dimensions of sibling relationship quality or multiple outcomes, these will be reported separately. Data will be extracted by the first author. A random sample of at least 20% of extracted data will be checked by the second author.

Key data to be extracted:

- Study authors

- Year of publication
- Type of publication (e.g. journal article, dissertation)
- Study design
- Where and when the study was conducted
- Sample strategy & size (including information about dropouts or attrition if applicable)
- Participants: Age, gender & setting (e.g. clinical/school, what country)
- Study's inclusion and exclusion criteria
- Comparison group
- Sibling relationship quality dimension (e.g. warmth, conflict) + how assessed
- Type of outcome (e.g. suicidal ideation, self-harm) + how assessed
- Blinding to participant status
- Number of time points and when each time point was collected
- Analyses done
- Results (stratified by time point if multiple time points)
- Limitations

### Risk of bias (quality) assessment

Studies included in the final analysis will be assessed for quality by the first author against the pre-determined set of criteria as outlined in the shortened RTI item bank. Per guidance by its developers (Viswanathan et al., 2013), only questions with criteria that are relevant to all studies will be used. The first author will determine which questions will be included. Next, the criteria will be piloted on a sample of at least 20% of the studies that are rated by both the first and second author to ensure criteria are applied consistently. Similar to other researchers (Ruhe, Fejer, & Walker, 2013; Sadhra, Kurmi, Sadhra, Lam, & Ayres, 2017), answers will be recategorized such that responses indicating a low risk of bias will be assigned a '+', high risk a '-', and unclear risk a '?'. Discrepancies will be resolved through discussion and consensus. In case there is continued disagreement, the perspective from the third author will be sought. The rest of the quality assessment ratings will be conducted by the first author.

### Strategy for data synthesis

Preliminary searches showed heterogeneity across study design and methods (e.g. risk of bias, characteristics of study populations, ways that variables of interest are measured). For this reason, it is unlikely that there will be significant information appropriate for statistical comparative analysis. Therefore, the planned approach to is a narrative synthesis in which aggregate participant data is described. The narrative synthesis will mostly consist of written descriptions, but information may also be presented visually (e.g. table or figure). Guidance on conducting a narrative synthesis in systematic reviews (Popay et al., 2006) was consulted when this approach was planned.

First, as part of preliminary synthesis, a descriptive paragraph per dimension of sibling relationship quality of all included studies will be written. Studies will then be grouped in terms of these dimensions as each relationship quality dimension will be later become synthesised in a separate narrative section (i.e. sibling

warmth; sibling conflict; differential treatment). A minimum number of three studies with the same dimension of relationship quality is needed to be able to synthesise findings. If one study has measured multiple relationship qualities, then its findings will be described in the relevant distinct narrative section. Within each narrative section, results will then be grouped and organised by type of SITB, so patterns for each outcome can be described as well as relevant statistical findings.

Next, the relationships between each dimension of sibling relationship quality and the different possible SITB outcomes will be explored further. Considering the patterns that emerged in the preliminary analysis, a more rigorous examination will be used to look at the relationships between study findings and key characteristics of the included studies and explore potential influences of heterogeneity. Studies will be compared and contrasted across different possible sources of variability, including variation in clinical outcomes (e.g. lifetime versus recent suicidal ideation), variation in study designs (e.g. cross-sectional vs case-control) and variation in study population and setting. Conceptual models will be used to group conceptually or empirically similar findings (e.g. by study design) and explore relationships between the groupings (e.g. suicidal ideation and suicidal plans). Qualitative case descriptions may be developed at this stage to explain potential differences in statistical findings.

Lastly, the quality of the included studies and the trustworthiness of the synthesis will be evaluated to indicate the overall strength of the evidence available for conclusions drawn in the narrative synthesis. Results from the quality assessment (see field 27) will be incorporated in the narrative synthesis alongside the study findings. A discussion section will be included in the review to report critical reflections on the synthesis process.

Software packages expected to be used during the data synthesis process include Microsoft Word and Dedoose.

Data will be synthesised by the first author but shown to at least one other member of the research team as well. Discrepancies will be resolved through discussion and consensus. In case there is continued disagreement, the perspective from the third member of the research team will be sought.

#### Analysis of subgroups or subsets

Analyses will be stratified by dimension of sibling relationship quality (i.e. warmth; conflict; differential treatment) and/or type of self-injurious thoughts and behaviours (e.g. self-injurious behaviours; suicidal ideation).

#### Contact details for further information

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#### Organisational affiliation of the review

University of Edinburgh  
<https://www.ed.ac.uk/>

#### Review team members and their organisational affiliations

Ms Nienke van Alphen. The University of Edinburgh  
Mr Jamie Kennedy-Turner. The University of Edinburgh  
Dr Helen Griffiths. The University of Edinburgh

#### Type and method of review

Narrative synthesis, Systematic review

#### Anticipated or actual start date

30 August 2020

#### Anticipated completion date

30 September 2021

#### Funding sources/sponsors

None

**Conflicts of interest**

**Language**

English

**Country**

Scotland

**Published protocol**

[https://www.crd.york.ac.uk/PROSPEROFILES/199513\\_PROTOCOL\\_20200717.pdf](https://www.crd.york.ac.uk/PROSPEROFILES/199513_PROTOCOL_20200717.pdf)

**Stage of review**

Review Ongoing

**Subject index terms status**

Subject indexing assigned by CRD

**Subject index terms**

Adolescent; Humans; Self-Injurious Behavior; Sibling Relations; Siblings

**Date of registration in PROSPERO**

04 September 2020

**Date of first submission**

17 July 2020

**Stage of review at time of this submission**

<b>Stage</b>	<b>Started</b>	<b>Completed</b>
Preliminary searches	Yes	Yes
Piloting of the study selection process	No	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

*The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be construed as scientific misconduct.*

*The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.*

**Versions**

04 September 2020

PROSPERO

This information has been provided by the named contact for this review. CRD has accepted this information in good faith and registered the review in PROSPERO. The registrant confirms that the information supplied for this submission is accurate and complete. CRD bears no responsibility or liability for the content of this registration record, any associated files or external websites.

### Appendix C - The Shortened RTI Item Bank

This tool developed by Viswanathan and colleagues (2013). It is available online at [https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/rti-item-bank\\_research.pdf](https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/rti-item-bank_research.pdf)

Item	Type of Bias Assessed	Included?	Responses & Recategorisation
Q1: Do the inclusion/exclusion criteria vary across the comparison groups of the study?	Selection bias	Yes	<ul style="list-style-type: none"> <li>• Yes, varies (partial/high risk)</li> <li>• Some, but not all criteria, applied to all groups or not clearly stated if some criteria are applied to all groups (partial/high risk)</li> <li>• No does not vary (low risk)</li> <li>• Cannot determine: Article does not specify (unclear)</li> <li>• Study has only one group and so does not include comparison groups (not applicable)</li> </ul>
Q2: Does the strategy for recruiting participants into the study differ across groups?	Selection bias, Confounding	Yes	<ul style="list-style-type: none"> <li>• Yes, differs (partial/high risk)</li> <li>• No, does not differ (low risk)</li> <li>• Cannot determine (unclear)</li> <li>• One study group (not applicable)</li> </ul>
Q3: Is the selection of the comparison group inappropriate, after taking into account feasibility and ethical considerations?	Selection bias, Confounding	Yes	<ul style="list-style-type: none"> <li>• Yes, inappropriate (partial/high risk)</li> <li>• No, not inappropriate (low risk)</li> <li>• Cannot determine or no description of the derivation of the comparison group (unclear)</li> <li>• Study does not include a comparison group (not applicable)</li> </ul>

Q4: Does the study fail to account for important variations in the execution of the study from the proposed protocol?	Performance bias	No	<ul style="list-style-type: none"> <li>• Yes, fails to account (partial/high risk)</li> <li>• Partially, fails to account (partial/high risk)</li> <li>• No, does not fail to account (low risk)</li> <li>• Cannot determine (unclear)</li> <li>• Not an intervention study or no variations (not applicable)</li> </ul>
Q5: Was the outcome assessor not blinded to the intervention or exposure status of participants?	Detection bias	No	<ul style="list-style-type: none"> <li>• Yes, not blinded (partial/high risk)</li> <li>• No, blinded (low risk)</li> <li>• Assessor cannot be blinded (not applicable)</li> </ul>
Q6: Were valid and reliable measures, implemented consistently across all study participants used to assess inclusion/exclusion criteria, intervention/exposure outcomes, participant health benefits and harms, and confounding?	Detection bias, Confounding	Yes	<ul style="list-style-type: none"> <li>• Yes, valid and reliable measure used (low risk)</li> <li>• No, valid and reliable measure not used (partial/high risk)</li> <li>• Cannot determine or measurement approach not reported (unclear)</li> </ul>
Q7: Was the length of follow-up different across study groups?	Attrition bias	No	<ul style="list-style-type: none"> <li>• Yes, different or cannot determine (partial/high risk)</li> <li>• No, not different or remedied through analysis (low risk)</li> <li>• Cross-sectional or only one group followed over time (not applicable)</li> </ul>
Q8: In cases of high loss to follow-up (or differential loss to follow-up), was the impact assessed (e.g., through sensitivity analysis or other adjustment method)?	Attrition bias, Detection bias	Yes	<ul style="list-style-type: none"> <li>• Yes, impact assessed (low risk)</li> <li>• No, impact not assessed (partial/high risk)</li> <li>• Cannot determine (unclear)</li> <li>• No loss to follow-up or loss to follow-up was not considered to be high, cross-sectional study, or case-control study selected on outcome (not applicable)</li> </ul>

Q9: Are any important primary outcomes missing from the results?	Selective outcome reporting	Yes	<ul style="list-style-type: none"> <li>• Yes, important outcome(s) missing (partial/high risk)</li> <li>• No important outcome(s) missing (low risk)</li> <li>• Cannot determine (unclear)</li> </ul>
Q10: Are any important harms or adverse events that may be a consequence of the intervention/exposure missing from the results?	Selective outcome reporting	No	<ul style="list-style-type: none"> <li>• Yes, important outcomes missing (partial/high risk)</li> <li>• No important outcomes missing (low risk)</li> <li>• Assessment of harms not applicable to this study (applicable)</li> </ul>
Q11: Are results believable taking study limitations into consideration?	Overall assessment	Yes	<ul style="list-style-type: none"> <li>• Yes, believable (low risk)</li> <li>• No, not believable (partial/high risk)</li> </ul>
Q12: Any attempt to balance the allocation between the groups or match groups (e.g., through stratification, matching, propensity scores).	Confounding	Yes	<ul style="list-style-type: none"> <li>• Yes or study accounts for imbalance between groups through a post hoc approach such as multivariate analysis (low risk)</li> <li>• No (partial/high risk)</li> <li>• Cannot determine (unclear)</li> <li>• Study does not include a comparison group (not applicable)</li> </ul>
Q13: Were important confounding variables not taken into account in the design and/or analysis (e.g., through matching, stratification, interaction terms, multivariate analysis, or other statistical adjustment such as instrumental variables)?	Confounding	Yes	<ul style="list-style-type: none"> <li>• Yes, not accounted for or not identified (partial/high risk)</li> <li>• Some variables taken into account or adjustment achieved to some extent (partial/high risk)</li> <li>• No: taken into account (low risk)</li> <li>• Cannot determine (unclear)</li> </ul>

## **Appendix D - Supplementary Study Information Provided by Authors by Email**

*De Man et al. (2003) - Information was provided by Dr. A. de Man*

The article was based on data collected by Ms. Wong as part of a dissertation and the project was cleared by the university Human Research Ethics Committee.

*Levy (1998) - Information was provided by Dr. S. Levy*

Confirmed IRB approval. Data was collected around 1994-1996 in Atlanta. Dr Levy said control groups were approached by researchers or medical staff (some forms and coupons were left with them in the researcher's absence). She did not think that control participants were assessed for a history of suicide attempts.

*Tschan et al. (2019) Information was provided by Dr. T. In-Albon (Corresponding author)*

Data was collected in 2013-2017. Controls did not endorse NSSI, all other inclusion and exclusion criteria were the same across groups (age, German). Not all participants had siblings that wanted to participate. Unequal sample sizes across groups were unplanned, but to adjust for this, MANOVA and post hoc tests were used (unclear which post hoc tests).

*Wagner & Cohen (1994) - Information was provided by Dr. B. Wagner*

IRB approval was obtained and was kept up to date. The paper used a cross-sectional design. The sibling assessments were conducted on average 15 months after the study-child assessments due to researcher resources. The study from which these participants were drawn was a long-term prospective longitudinal design, and the study-child assessment in this paper represented the second wave of that study (12 years after the first wave). Data from the first wave was not used in this paper and siblings were only assessed this one time.

## Appendix E - Supplementary Study Findings Provided by Email

*Buist et al. (2019) - Information provided by Dr. K.L. Buist*

Performed the same analysis on the subsample of 412 dyads reported in the article (first wave). One dyad had missing data, so data available for 411 dyads.

The correlations for YOUNGER sibling between this RADS item (“I feel like hurting myself”) and the NRI Support ( $r=-.156$ ,  $p=.002$ ,  $n=411$ ) and Negative interaction ( $r=.186$ ,  $p<.001$ ,  $n=411$ ) scales are both significant. The correlations for OLDER sibling between this RADS item (“I feel like hurting myself”) and the NRI Support ( $r=-.045$ ,  $p=.368$ ,  $n=411$ ) is not significant but for Negative interaction ( $r=.104$ ,  $p=.040$ ,  $n=411$ ) scales is significant.

*Suárez-Soto et al. (2019) - Information provided by Dr. E. C. Suárez-Soto*

		<b>No Suicidality</b>	<b>Suicidality</b>
		( $n=137$ )	( $n=90$ )
<b><i>Do you have siblings?</i></b>	<b><i>Victimisation?</i></b>	<i>n</i>	<i>n</i>
None ( $n=11$ )			
	<i>By other aggressors</i> ( $n=11$ )	7	4
	1 or more siblings ( $n = 216$ )		
	<i>By other aggressors</i> ( $n=193$ )	118	75
	<i>By siblings</i> ( $n=23$ )	12	11

*Note.* Suicidality referred as presence of any suicidal phenomena (either suicide ideation or self-harm behaviour) as measured by the items 18 and 91 of the YSR.

Among participants with siblings (n=216), n=23 reported sibling victimisation, the rest (n=193) did not report sibling victimisation but did experience at least one other form of victimisation (all interviewees in the study reported at least one type of victimisation).

A chi-square analysis showed no significant difference in suicidality among those who experienced sibling bullying and those who did not ( $\chi^2=0.689$ ,  $p=.406$ ).

*Tschan et al. (2019) - Information provided by Dr. T. In-Albon (Corresponding author)*

Correlation tables between the two self-injurious YSR items with the BSQ and ASRQ were provided for the sibling sample (n=73) with p values for two-tailed significance.

YSR item 'I deliberately try to hurt or kill myself' (n=4 endorsed sometimes)

- ASRQ warmth ( $r=-0.009$ ,  $p=.937$ )
- ASRQ conflict ( $r=0.008$ ,  $p=.942$ )
- ASRQ rivalry ( $r=-0.031$ ,  $p=.786$ )
- BSQ empathy ( $r=-0.069$ ,  $p=.546$ )
- BSQ coercion ( $r=0.270$ ,  $p=.016$ )

YSR item 91 'I think about killing myself' (n=2 endorsed sometimes, n=1 endorsed often)

- ASRQ warmth ( $r=-0.048$ ,  $p=.679$ )
- ASRQ conflict ( $r=0.073$ ,  $p=.525$ )
- ASRQ rivalry ( $r=-0.050$ ,  $p=.665$ )
- BSQ empathy ( $r=-0.136$ ,  $p=.237$ )
- BSQ coercion ( $r=0.208$ ,  $p=.070$ )

## Appendix F - Submission Guidelines for *Qualitative Health Research*

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Vanessa Shannon, Managing Editor

Email:

## Appendix G - Participant Information Sheet



Participant Information Sheet

### PARTICIPANT INFORMATION SHEET

#### Sibling Experiences of Adolescent Self-Harm

##### INFORMATION FOR PARTICIPANTS

This is a study looking for **participants (ages 16-24)** based in the UK who grew up living with at least one **brother or sister who first started to self-harm during adolescence (ages 10-24)**. We would like to find out what it has been like for siblings to have (had) a brother or sister who self-harms. In this study, self-harm is seen as someone hurting themselves on purpose and includes things like cutting but also suicide attempts.

Before you decide if you want to join in, it's important to know why the research is being done and what it will involve for you. So please consider this information carefully. We will be happy to answer any questions you may have. Feel free to ask if there is anything that is not clear, or if you would like more information. Talk to your family, friends, or any others if you want to.

##### **1. Why are we doing this research?**

We know that many young people harm themselves, but there is very little research to tell us what it is like for siblings to have a brother or sister who self-harms while growing up together. We would like to find out more about the experience of having a sibling who self-harms (or used to). To do this, the researcher would like to speak with you and ask you some questions.

##### **2. Can I take part?**

We are looking for participants who:

- Are **ages 16 to 24**,
- Know of at least one **sibling** that he or she **self-harmed two or more times** when he or she was **between the ages of 10 and 24**,
- Lived together most of the time when their sibling first started to self-harm,
- Grew up and are currently living in the United Kingdom,
- Are **not currently** living together with the sibling who self-harms (or used to),
- Do not have an immediate family member, like a parent or sibling, who has died by suicide.

If your brother or sister who self-harms (or used to) has a diagnosis of severe intellectual disability or developmental disorder or the only ways your brother or sister self-harmed was by misusing substances or by engaging in eating disorder related behaviours such as like food restriction or purging, you will **not** be eligible for this specific study.

We would welcome any participants who fulfil these criteria and would like to share their experiences to take part in this study and are looking for about 8 – 12 participants.

### **3. Do I have to take part?**

**No. It is up to you to decide. You should not feel any pressure to take part.**

If after reading this information you let us know that you are interested in being interviewed for the study by providing your contact information on the survey, the researcher will contact you to speak with you to make sure you understand what the study is about and answer any questions you may have. The researcher will also ask you a few questions to make sure you would be able to take part in the study and then check if you would like to take part. You will then be asked to complete an electronic consent form. On the day of the interview, before we start, the researcher will make sure you are still okay taking part in the study.

You are free to change your mind and stop taking part in the study at any time without needing to give a reason. You can ask for your information to be removed at any time, until it has been typed up and included in the study findings.

### **4. What will happen to me if I take part?**

If after reading this participant information sheet and speaking with the researcher you agree to take part, a time to talk will be set up, so the researcher can ask you some questions and listen to what you have to say. We would agree on a time and day that works for you and whether the interview will be a video call or take place in person (if you are based in Edinburgh and lockdown restrictions allow for this). If the interview is a video call, it is important that you make sure you have stable internet, access to technology with a microphone and camera, and a quiet space where you will not be interrupted, distracted, or overheard. When we schedule the interview, we will also speak about ways we make sure to look after your wellbeing during the interview, as talking about your sibling's self-harm might bring up some difficult feelings. The researcher will ask you to provide contact information of an adult you trust as an emergency contact in case of safety concerns. We will also talk about what happens during the interview, for example if we get disconnected, and what happens afterward. You will receive written information about this before the interview as well.

Before the interview, you will be asked to complete the electronic consent form and provide some necessary personal information: your name, age, gender, what country you live in, interview location and contact information for a trusted adult. This will be survey link send to you by email after you have read the information about the study and had any questions answered by the researcher. Please make sure to complete this before the interview. You can download a PDF copy of this form once you have completed it.

At the arranged time for the interview we will first spend some time talking about the study and the researcher will answer any questions you may still have. The researcher will ask if you are still okay with your emergency contact being contacted if that becomes necessary as described in the steps that will be taken to look after your wellbeing during the study. The interview itself is expected to take about 30-60 minutes. The researcher will ask how you are feeling at the moment. We will talk about who is in your family and what it has been like for you to have a brother or sister who self-harms (or used to). The researcher will also ask if there is anything you have done to support your brother or sister and if there is any support you have received or wanted for yourself. You do not have to answer any questions you do not want to and are free to end our conversation at any time without any reason. At the end, you will be asked how you are feeling again and we will talk about ways to improve your mood and access support if you feel the need to do so.

If at any point during our conversation you become too unwell to be able to think clearly about whether or not to take part in this research (lose the capacity to consent), we would stop and the researcher would not ask any more questions. What you would have told the researcher up to that point would still be included in the study, unless you ask for this not to be done.

With your permission, the meeting will be recorded with a voice recorder to help the researcher type up the conversation afterwards. We only have to meet once for the study. Within the week after we spoke, the researcher will send you an email to check-in with how you have been since the interview. This email will also include some links to information you may be interested in about ways to support loved ones and yourself. If you are experiencing some distress because of having participated in the study, the researcher will remind you of helpful places you could reach out to for support by email.

If after our first meeting, you would like to give the researcher some feedback on what has been found in the study so far, you can let us know. We can then set up a time and way to talk several weeks later for one follow-up research interview.

#### **5. Who will know I am taking part in the study?**

You are asked to tell at least one adult who you trust that you are taking part in the study. This is so that you have someone to talk to about the study if you wish and this person will also serve as your emergency contact. The only others who will know that you are taking part in the study are staff members involved in the research, unless any other professional needs to be told to look after your or someone else's safety as explained in question 7.

#### **6. What will happen to the information I give?**

All information collected about you will be kept strictly confidential. In the study, you will be referred to by a pseudonym (not your real name). After we speak, the recording from our conversation will be moved to a safe, password-protected folder on the university computer network, only accessible by the research team. The original copy will then be deleted from the recorder. Interviews will be typed up and all personal information that might identify you or your brother or sister will be removed from the transcript of the conversation. This interview transcript will be analysed for the research. The recording from our conversation will be destroyed from the university server as soon as the interview is typed up. If after the interview, you would like to ask for (some of) what you shared not to be included in the research, then you can ask for this to be removed from the transcript, but this would need to be done before what you shared has been typed up and included in the study findings.

Personal information you provided (like your phone number, email address, consent form) will be kept while the study is ongoing. This information will be deleted when the study has been written up and is finished, which is expected to be by September 2021. Interview transcripts and written analyses in which it is no longer possible to recognise you will be kept for 10 years after the study has ended, so that de-identified data may be made available for other ethically approved related research projects.

The University of Edinburgh is the sponsor for this study based in the United Kingdom. The researchers will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly.

Your data will be processed in accordance with Data Protection Law.

For general information about how we use your data go to:  
[www.ed.ac.uk/records-management/privacy-notice-research](http://www.ed.ac.uk/records-management/privacy-notice-research)

#### **7. Will my information be kept private and confidential?**

Any personal information you share with the researcher during the study will be kept private and only discussed with members of the research team. The only reason the researcher would not be able to keep your information private is if you say that you or someone else is in serious danger or risk of harm (for example, imminent risk of suicide, experiences of abuse, terrorism). Your safety and that of others is very important to us, so we would need to share this information with others, like your

chosen emergency contact or a professional. If the researcher has to do this, the researcher will try to tell you before doing this, if this is possible.

**8. What will happen to the results of the research?**

After the interviews are done, the researcher will analyse the results and write these up as part of a thesis at the University of Edinburgh. In the results, the researcher will not use your name or any information that might let people know it was you. The researcher will only use parts of what you said (quotes), not the whole conversation, in the findings.

The findings may also be published in a journal, online, or be used in presentations at conferences. Research findings will be shared with clinicians as well, so this can be used in their work with young people. If you would like a summary of the findings once the study is finished, please let us know.

**9. Is there anything to worry about if I take part?**

Some people might get upset when talking about their experience. The researcher will try to help you if this happens to you and we can stop if you get too upset. You might find it helpful to talk to your family or friends afterwards. The researcher will also give you information about other kinds of support.

**10. What could be good about taking part? What are the possible benefits?**

Some people find it nice to talk about their experiences and be listened to. We also hope the study will help others understand what it is like for teenagers or young adults to have a brother or sister who self-harms. This might help professionals know how to support siblings too.

**OTHER IMPORTANT INFORMATION**

**Who is organising the research?**

The main investigator is Nienke van Alphen (trainee clinical psychologist) supervised by Dr Helen Griffiths, Senior Lecturer at the School of Health in Social Science at the University of Edinburgh.

**What if there is a problem?**

If you have any questions, please contact Nienke at [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk) or 075 80 406 461.

If you have a concern about any aspect of this research, please contact Helen at \_\_\_\_\_ or 0131 650 3482.

*If you would like to make a complaint about the study, please contact:*

Head of School of Health in Social Science

Dr Matthias Schwannauer

Email: [hos.health@ed.ac.uk](mailto:hos.health@ed.ac.uk)

**If you want to discuss this study any further with a member of the research team, please contact one of the people below:**

**Chief Investigator:**

Nienke van Alphen

Trainee Clinical Psychologist

T: 075 80 406 461

Email: [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk)

**Academic Supervisor:**

Dr Helen Griffiths

Senior Lecturer at the School of Health in Social Science at the University of Edinburgh

T: 0131 650 3482

Email:

**Clinical Supervisor:**

Dr Catherine Varnell  
Clinical Psychologist (NHS Lothian CAMHS)  
T: 01968 671 330

*If you would like to discuss this study with someone not involved in the research, please contact:*  
Dr Helen Sharpe  
Lecturer at the Department of Clinical Psychology at the University of Edinburgh  
T: 0131 651 3949

**Thank you for reading this information.**

Are you interested in potentially being interviewed and happy to be contacted by the researcher?

- Yes  
 No

**Thank you for your interest in the study.**

**Please close the survey if you are not interested in taking part.**

**Because it is a research study, there are certain criteria that people joining in the research have to meet.**

**Please answer the following questions to find out if you can take part.**

How old are you?

Did you grow up in the United Kingdom?

- Yes  
 No

Are you currently living in the United Kingdom?

- Yes  
 No

Do you have a sibling who you know has self-harmed at least twice?

- Yes

No

How old was your sibling when he or she first started to self-harm?

Did you used to live together with this sibling for most of the week when he/she first started to self-harm?

Yes

No

Are you currently living with your sibling with a history of self-harm?

Yes

No

**Thank you for answering these questions. You did not meet all our criteria for this particular project, so you will not be able to take part. Thanks a lot for your time and interest in the research.**

**Thank you for your interest in the study. You meet all our criteria. If you would like to take part, please provide your contact information.**

Your name

Email address

Phone number


What would be the best days/times to contact you by phone?

**Thank you for reviewing this information and your interest in the study.**

In the next screen you can save a copy of this information and the details you provided in a PDF format. The researcher will contact you shortly. If you have any questions about the study in the meantime, please feel free to contact Nienke at [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk)

## Appendix H - Recruitment Information

### Social Media Content

 **Sibling Experiences of Self-Harm Study**  
10 January · 🌐

TW: Self-harm


We are looking for young adults (ages 16-24) based in the UK to hear about personal experiences of growing up with at least one brother or sister who started to self-harm as a teenager.

For anyone interested, please go to:  
[https://edinburgh.eu.qualtrics.com/.../SV\\_bHKPUKPO1KMxANf](https://edinburgh.eu.qualtrics.com/.../SV_bHKPUKPO1KMxANf)

You can also contact us at [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk) with any questions about the project.

Please share, thanks a lot!  
[#mentalhealth](#) [#sibling](#) [#research](#)

---


 **Sibling Experiences of Self-Harm Study**  
Looking for Research Participants

We are looking for people willing to speak to a researcher about personal experiences growing up with a sibling who self-harmed in an (online) interview


**You may be able to help us if you...**

- Are 16-24 years old?
- Lived with a brother or sister (ages 10-24) who self-harmed two or more times?
- Do not currently live with this sibling?

If you have any questions or want to find out if and how you can take part, go to:  
[https://edinburgh.eu.qualtrics.com/jfe/form/SV\\_bHKPUKPO1KMxANf](https://edinburgh.eu.qualtrics.com/jfe/form/SV_bHKPUKPO1KMxANf)




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 **Sibling Experiences of Self-Harm Study**  
Sponsored · 🌐

TW: Self-harm

We are looking for people willing to speak to a researcher about personal experiences growing up with a sibling who self-harmed in an (online) interview.

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 **Sibling Experiences of Self-Harm Study**  
Looking for Research Participants

We are looking for people willing to speak to a researcher about personal experiences growing up with a sibling who self-harmed in an (online) interview

**You may be able to help us if you...**

- Are 16-24 years old?
- Lived with a brother or sister (ages 10-24) who self-harmed two or more times?
- Do not currently live with this sibling?

If you have any questions or want to find out if and how you can take part, go to:  
[https://edinburgh.eu.qualtrics.com/jfe/form/SV\\_bHKPUKPO1KMxANf](https://edinburgh.eu.qualtrics.com/jfe/form/SV_bHKPUKPO1KMxANf)



EDINBURGH.EU.QUALTRICS.C...  
**SEASH Participant Information Sheet**

[LEARN MORE](#)

📌 Pinned Tweet

 **Sibling Experiences of Self-Harm Study @SEAS...** · Nov 13, 2020 · ...

TW: Self-harm

We are looking for people willing to speak to a researcher about personal experiences growing up with a sibling who self-harmed in an (online) interview.

If you have any questions or want to find out if and how you can take part, go to:  
[edinburgh.eu.qualtrics.com/jfe/form/SV\\_bH...](https://edinburgh.eu.qualtrics.com/jfe/form/SV_bH...)

 **Sibling Experiences of Self-Harm Study**  
Looking for Research Participants

We are looking for people willing to speak to a researcher about personal experiences growing up with a sibling who self-harmed in an (online) interview

**You may be able to help us if you...**

- Are 16-24 years old?
- Lived with a brother or sister (ages 10-24) who self-harmed two or more times?
- Do not currently live with this sibling?

If you have any questions or want to find out if and how you can take part, go to:  
[https://edinburgh.eu.qualtrics.com/jfe/form/SV\\_bHKPUKPO1KMxANf](https://edinburgh.eu.qualtrics.com/jfe/form/SV_bHKPUKPO1KMxANf)



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## Community Board Posts

### The Student Room

**Thread starter** Report 5 months ago #1

TW: Self-harm

Hi everyone,

For my doctoral research project, I am looking for young adults based in the UK to hear about personal experiences of growing up with at least one brother or sister who started to self-harm as a teenager in an (online) interview.

You may be able to help us if you...

- Are 16-24 years old?
- Lived with a brother or sister (ages 10-24) who self-harmed two or more times?
- Do not currently live with this sibling?

For anyone interested, please go to: <https://edinburgh.eu.qualtrics.com/j...HKPUKPO1KMxANF>

You can also contact me with any questions about the project.

Thank you! Nienke

1

Edit quote reply

### National Self Harm Network Forum UK

Posted by: SEASH  
on: November 20, 2020, 04:33:56 PM

TW: Self-harm

Hi everyone,

For my doctoral research project, I am looking for young adults based in the UK to hear about personal experiences of growing up with at least one brother or sister who started to self-harm as a teenager in an (online) interview.

You may be able to help us if you...

- Are 16-24 years old?
- Lived with a brother or sister (ages 10-24) who self-harmed two or more times?
- Do not currently live with this sibling?

For anyone interested, please go to: [https://edinburgh.eu.qualtrics.com/jfe/form/SV\\_bHKPUKPO1KMxANF](https://edinburgh.eu.qualtrics.com/jfe/form/SV_bHKPUKPO1KMxANF)

You can also contact me at [siblingsstudy@ed.ac.uk](mailto:siblingsstudy@ed.ac.uk) with any questions about the project.

Thank you! Nienke

### ClinPsy Forum

**Looking for interview participants: Sibling Experiences of Self-Harm Study**

by earhart17 » Wed Nov 25, 2020 12:52 pm

TW: Self-harm

Hi everyone,

For my doctoral research project at the University of Edinburgh, I am looking for young adults (ages 16–24) based in the UK to hear about personal experiences of growing up with at least one brother or sister who started to self-harm as a teenager in an (online) interview. The study has received ethical approval from the School of Health in Social Science (including permission for online recruitment).

You may be able to help us if you...

- Are 16–24 years old?
- Lived with a brother or sister (ages 10–24) who self-harmed two or more times?
- Do not currently live with this sibling?

For anyone interested, please go to: [https://edinburgh.eu.qualtrics.com/jfe/ ... KPO1KMxANF](https://edinburgh.eu.qualtrics.com/jfe/...KPO1KMxANF)

You can also contact me at [siblingsstudy@ed.ac.uk](mailto:siblingsstudy@ed.ac.uk) with any questions about the project.

Thank you!

Nienke van Alphen (Trainee Clinical Psychologist)  
Supervised by Dr Helen Griffiths

earhart17  
Posts: 4  
Joined: Tue May 22, 2018 7:44 pm

## *Organisations*

The following organisations were approached and kindly agreed to assist with recruitment through sharing the ad and/or link with information about the study:

- 6VT Edinburgh Youth Café
- Association for Child & Adolescent Mental Health
- Association for Young People's Health
- Fife Youth 1st
- netECR (International Network of Early Career Researchers in Suicide and Self-harm)
- Rethink Derbyshire Borderline Personality Disorder Support Group
- Rethink South London Siblings Group
- Rethink South West Carers 4 BPD
- University of Edinburgh Centre for Psychological Therapies
- University of Edinburgh Psychology Society
- Youth Highlands

# Appendix I - Screening Script

Sibling Experiences of Adolescent Self-Harm  
Screening Call template, Version 2 (9 Nov 2020)



## Screening Call

This is an *example* script of the participant screening process.

- Hi my name is Nienke trainee clinical psychologist at University of Edinburgh
- I am calling because you read about the sibling study I am conducting and expressed an interest in participating. There are some questions I would like to ask of you and some things I will explain about the study, I expect it to take around 15 minutes. Is now a good time to speak? If not, when is better?
- Before I get started, is there anything in particular that you want to talk about or have questions about?
  - o Record if, and if so which, questions are asked:
- Screening questions. Because it is a research study, there are certain criteria that people joining in the research have to meet. Some of these questions I asked on the form already, but there are a few more bits I wanted to check when we speak.
  - o Have you read the information in the participant information sheet? Any questions about any of it?
  - o Is your sibling diagnosed with severe intellectual disability or developmental disorder (e.g. ASD – if so, **exclude**)?
    - If **exclude**: Thank you for letting me know about this. For this particular project, it does mean you would not be able to take part. Thanks a lot for your time and interest.
  - o Was the only self-harm behaviour your sibling engaged in related to an eating disorder or substance misuse (if so, **exclude**)?
    - If **exclude**: Thank you for sharing this. For this particular project, it does mean you would not be able to take part. Thanks a lot for your time and interest.
  - o Did any of your close family members, like parents or siblings, die by suicide (if so, **exclude**)?



- If **exclude**: I am sorry to hear that, thank you for letting me know about this.  
For this particular project, it does mean you would not be able to take part.  
Thanks a lot for your time and interest.
  - *Consent*: Can you tell me in your own words what you think this study is about?  
What would you be asked to do?
  - *If it is a video interview*: do you have technology that includes a microphone/camera for video calling and a good internet connection? Do you have a private space where you could be when we do the interview?
- 
- That's great, you meet the criteria to take part in our study. Because the interview is about a very personal topic, as part of the research there are several steps that I'll take to make sure you are okay before, during, and after the interview. I'll provide this information by email as well but would like to go over it now, in case you have questions.
  - It's important to help me look after you that you give me the contact information of an adult in your life who you trust. I would like you to tell this person that you are taking part in the study, so you have someone you can talk to the study about if you want to do so. This person would also be your emergency contact in case during the interview I become really worried about serious risks to someone's wellbeing.
  - At the start of the interview I will check your contact info. We will talk about your rights as a study participant and confidentiality and I'll check if you are still okay with doing the interview. I will ask you to rate your mood.
  - During the interview, we will talk about your personal experiences of growing up with a brother or sister who self-harmed. If you become very upset, we will stop and talk about what might make you feel better. If you are so upset that I feel very worried for your safety or the safety of others, I will speak with your emergency contact.
  - *If video call*: If we get disconnected, I'll try contact you again online or by phone. If I cannot get in touch with you, and something about our talk made me feel seriously worried for your safety or that of others - I will contact your emergency contact. If I cannot get in touch with them and am still very worried, I may need to contact emergency services.



- After the interview you can ask any questions you may have. If you feel okay ending the chat, we will talk about places you could go to for support if you would find this helpful. I'll also email you within a week after the interview to check how you've been.
- Any questions about this?
  - o If so, record what question:
  
- Are you happy to set up a time for the interview? The interview itself I expect to be 30-60 minutes, but with the before- and after check-ins I'd like to find a time when you have one and a half hours available, just in case. When would be good for you?
  - o Time/date:
- The call will be over Microsoft Teams. Do you know how this works? I'll send you an email Microsoft Teams link for the time we agreed to speak.
- I'll also attach a copy of the wellbeing measures we just talked about.
- Did you download a copy of the participant info sheet when you completed it? If not, would you like me to send you a copy?
- I will also email you an electronic form to complete before the interview. This is the consent form (which is a permission form). On this form you will also be asked a few questions about your age/gender/place of residence, and to provide emergency contact information as well. You can download a copy of the information you provided when you finish completing the form. If you have any questions or concerns about any statements on the consent (permission form) please do contact me. If you disagree with any of the statements that is absolutely your choice but does mean we cannot go ahead with the interview.
  
- Any questions for me still?
  
- I look forward to speaking with you, thank you so much for your time and agreeing to help out with this study!

## Appendix J - Distress Protocol

Sibling Experiences of Adolescent Self-Harm  
Distress Protocol, Version 1 (8 Nov 2020)



***It is very important for us to make sure we look after your wellbeing during the interview as talking about your sibling's self-harm might bring up hard feelings. Here are the steps we will take.***

### **Before the Interview**

- I will check your information and emergency contact and make sure you are okay with me speaking with your emergency contact in case of safety concerns.
- I will ask if you feel emotionally able and safe to do the interview today.
- I will remind you of your rights as a participant in the study and we will talk about confidentiality.
- If you would like, we can agree a safe word you could use at any time if you feel that others might overhear what we are talking about.
- I will check if you still want to go ahead with the interview.

### **During the Interview**

- If you tell me or I can see that you are becoming very upset, we will stop the interview and talk about how you are feeling and what could help you right now.
- If you are so distressed or emotional that I felt seriously worried for your safety or the safety of others, your emergency contact will be contacted.



## **In Case of Getting Disconnected When Speaking in an Online Interview**

1. If we get disconnected during the interview (especially if this happens when you are upset or after you have said something that makes me worried about your or someone else's safety), I will first try to re-connect with you online.
2. I will try you by phone if I cannot get back in touch with you online.
3. If I cannot reach you by phone, and if we got disconnected after you said something indicating that your safety or the safety of others might be compromised – or if you were so severely distressed or emotional that I felt seriously worried for your safety or the safety of others - I will contact your emergency contact.
4. If I cannot get in touch with your emergency contact and I am still very worried, I may need to contact emergency services.

## **After the Interview**

- At the end of the interview I will give you a chance to ask any questions.
- If you feel ready to end the conversation, we will talk about ways you could get support if you want to talk about your experience participating in the study and I will give you a list of places and ways you could access support.
- Within a week after your interview, I will email you to check in how you are doing. If you are experiencing some distress because of having participated in the study, I will remind you of helpful places you could reach out to for support by email (as I will not be able to provide clinical follow-up myself as part of this research).

## **Appendix K - Pre-Participation Email Template**

Hi NAME,

Thank you for agreeing to take part in this study. I look forward to speaking to you on DATE/TIME. As agreed, our conversation will take place IN PERSON AT ../AS A VIDEO CALL USING ...

Before the interview, please complete the consent form and answer the questions asked on:

INSERT LINK

I have also attached information about ways I aim to look after your wellbeing before, during, and after the interview.

If you have any questions before the interview, please feel free to contact me.

Kind regards, Nienke

## Appendix L - Consent & Demographic Information Form



THE UNIVERSITY *of* EDINBURGH

### Sibling Experiences of Adolescent Self-Harm

#### Default Question Block

### PARTICIPANT CONSENT FORM

Please read each statement carefully and indicate next to each box if you agree.

I have read and understood the Participant Information Sheet for this study dated 9 Nov 2020, Version 3. I have been able to think about the information and ask questions. The researcher has answered all my questions.

- I Agree
- I Do Not Agree

I understand that it is up to me to choose whether to take part in the study. I do not have to take part. I am free to change my mind at any time, without giving any reason.

- I Agree
- I Do Not Agree

I understand that if the researcher is worried about a significant risk of harm to myself or someone else during the study, the researcher will have to speak to my emergency contact and/or professionals as needed.

- I Agree
- I Do Not Agree

I agree that data collected from me during the study may be looked at by individuals from the Sponsor (University of Edinburgh) where it is relevant to my taking part in this research. I give permission for these individuals to have access to my research records.

- I Agree
- I Do Not Agree

I agree to the interview being audio-recorded and have been told this recording will be destroyed by the end of the study.

- I Agree
- I Do Not Agree

I understand that my anonymised data will be stored for up to ten years and may be used in future ethically approved research.

- I Agree
- I Do Not Agree

If you agree to taking part in this study please type your name in this box as a form of electronic signature.

As we talked about, it is completely up to you whether you agree to participate in this study. However, as you did not agree with one or more of the statements on the consent form, you will not be able to take part in the study. Please exit out of the survey and let the researcher know that you no longer wish to take part. Thanks for your time and interest!

## DEMOGRAPHIC INFORMATION

Thank you for completing the below information, please answer all questions.

Name

Age

Gender

- Male
- Female
- Other (please specify)

Country of residence

- England
- Northern Ireland
- Scotland
- Wales

## INTERVIEW INFORMATION

Please let me know where you are going to be during the interview. If this is a remote interview, it is important that you make sure you have stable internet, access to technology with a microphone and camera, and a quiet space where you will not be interrupted, distracted, or overheard.

Address of interview location

## TRUSTED ADULT CONTACT INFORMATION

Please provide contact information of an adult you trust and have informed about your participation in this study. This is so that you have someone to talk to the study about if you wish to do so. This will be the person the researcher will contact in case there are safety concerns. Please make sure the information provided here is accurate and up to date.

Name trusted adult

How do you know this person?

- Partner
- Family member (please specify)
- Housemate
- Friend
- Other (please specify)

Their phone number

Their email address

Sibling Experiences of Adolescent Self-Harm  
Participant Consent and Demographics Form, Version 3, 23 Nov 2020

Powered by Qualtrics

## Appendix M - Interview Guide

Sibling Experiences of Adolescent Self-Harm  
Interview Schedule, Version 1 (30 July 2020)



### Interview Schedule

#### Interview

N.B. The questions below are suggested and are subject to change based on what the individual brings to the interview and the themes emerging in the research.

- Ease in the participant with general conversation to try and build rapport.
- Ask participants to rate their mood on a scale from 0 (worst possible emotional state) to 10 (best possible emotional state)
- Ask *“Can you tell me a bit about your family, like how many siblings you have?” “Do you have the same parents, or are you half-, step-, foster-, or adoptive siblings?” “How many siblings did you have who self-harmed?” “Are you older or younger than the sibling(s) who self-harmed?” “How was your relationship?”*
- Ask *“Who lived with you at home when you and your brother/sister (who self-harmed) still lived together?” “When did you move out?” “How much are you currently in touch?”*
- Ask *“Can you tell me what it was like having and living with a brother/sister who self-harmed/s?”*  
If required, explore questions such as:
  - *“Can you tell me about what it was like when you first find out? What did you feel or think about it?”*
  - *“Did you usually know when your sibling had self-harmed, or not?”*
  - *“Has there been a recent time it happened? What do you feel or think about it?”*
  - If the sibling no longer self-harms: *“What was it like for you when this changed?”*
- Ask *“What impact has had his/her self-harm had on you/your life, if any?”*  
If required, explore questions such as:
  - *“Did your sibling’s self-harm change things between you and your sibling, or in the family? In what way? How did that make you feel? What did you think about it?” “And do you still feel or think the same way about this?”*
  - *“Did your sibling’s self-harm change anything for you in your life? In what way? How did that make you feel? What did you think about it?” “And do you still feel or think the same way about this?”*  
→ Can explore friendships, school, or hobbies. Include any positives.
- Ask *“Has anything changed about how you think or feel about his/her self-harm, since you no longer live together?”*



- Ask *“Is there anything you do, or have done, to support your brother/sister?”*  
If required, explore questions such as:
  - *“Is there anything practically you have done for him/her to help? Or emotionally?”*
  - If the participant describes some form of support: *“What has <insert what support the participant described providing> been like for you? When did you start that? How did/does it make you feel? What did/do you think about it?”*
  
- Ask *“Is there any support you experienced since you found out about his/her self-harm?”*  
*“How have you coped?”* *“Is there anything that would have been helpful when you first found out about his/her self-harm? What about anything that would have been helpful since?”*  
If required, explore questions such as:
  - *“For example, practical support, like leaflets with information or any skills you would like to have learned? Any emotional support?”*
  
- As closure to the interview, ask *“Knowing that services aren’t perfect, what do you think an ideal service would be able to do to support siblings of teenagers and young adults who self-harm?”*

General prompts will be used during the interview, such as: *“Can you tell me more about ...?”*, *“can you give some examples of ...?”*, *“what do you mean by...?”*, and *“what was that like?”*.

#### After the interview

- *“Now I will summarise some of the key things we spoke about today to check if I understood you. If you notice I’ve got something wrong, missed something, or you would like to add something, please go ahead and tell me”*
  
- Ask participants to rate their mood on a scale from 0 (worst possible emotional state) to 10 (best possible emotional state)
  
- Ask participants to consider things they can do to improve their own mood (e.g. looking at pictures of cute animals, colouring pages), provide contact information for helplines and apps, and encouraged to seek out social support by talking to people in their life.

## Appendix N - Research Governance Sponsorship Letter



University of Edinburgh  
College of Arts, Humanities and Social Sciences  
Research Governance Office  
55 George Square  
Edinburgh  
EH8 9JU

4<sup>th</sup> August 2020

Nienke Van Alphen  
c/o School of Health in Social Science  
University of Edinburgh

Dear Nienke,

**Study Title:** Sibling Experiences of Adolescent Self-Harm

**Sponsor number:** CAHSS2007/07

Under the requirements of the UK policy framework for health and social care research, the University of Edinburgh agrees in principle to act as Sponsor for this project. Sponsorship is subject to you obtaining institutional ethics for the project.

As Chief Investigator, you must ensure that the study does not commence until all applicable approvals have been obtained. Following receipt of all relevant approvals, you should ensure that any amendments to the project are notified to the Sponsor.

Yours sincerely

Charlotte Smith

Research Governance Manager

## Appendix O - University Ethical Application Form and Approval



### University of Edinburgh, School of Health in Social Science Research Ethics, Integrity and Governance

The forms required when seeking ethical approval in the School of Health and Social Sciences have now been merged into this single electronic document. The sections you are required to complete will depend on the nature of your application. Please start to complete the form from the beginning and proceed as guided. On completion the *entire* document should be submitted electronically to your section's ethics administrator using the email addresses detailed on the final page.

Applications submitted without appropriate documentation will be returned.

Please work your way through this form, reading the questions and accompanying information carefully. Sections highlighted in yellow are mandatory, so you must answer all the questions in these sections.

Aside from the mandatory questions you won't always need to answer all of the questions in the form. Section 1 "your project details" includes a set of filter questions that determine the rest of the questions you need to answer. Please read the notes carefully to make sure you answer the right questions. The notes contain hyperlinks so you can jump directly to the relevant section.

Sections highlighted in yellow are **mandatory**. These must be completed for every application.

- [Section 1](#): Introduction
- [Section 2](#): Your project details
- [Section 3](#): Description of the research
- [Section 4](#): Potential risks to participants and researchers
- [Section 5](#): Participants and data subjects
- [Section 6](#): Participants or data subject information and consent
- [Section 7](#): Confidentiality and handling of data
- [Section 8](#): Security sensitive material
- [Section 9](#): Copyright
- [Section 10](#): Good conduct in collaborative research
- [Section 11](#): Good conduct in publication research

**SECTION 1: Introduction**

This is a:

- New application for ethical approval – first submission
- A resubmission following reviewer comments
- A resubmission with requested amendments

Please select your School:

- School of Health in Social Science

Please select your subject area

- CPASS
- Clinical Psychology
- Nursing Studies

It is each researcher's responsibility to check whether their project requires Sponsorship, Caldicott Approval, R&D approval, and/or IRAS. <https://www.ed.ac.uk/health/research/ethics/sponsorship-and-governance>

**If the project requires any of these, these need to be secured prior to submitting this application.**

Please tick the relevant box before proceeding:

I have checked and this project does not require Sponsorship, Caldicott, R&D and/or IRAS approval

My project requires Sponsorship  Sponsorship letter attached

My project requires Caldicott approval  Caldicott approval letter/e-mail attached

My project requires R&D approval  R&D approval letter/e-mail attached

My project requires IRAS approval  IRAS approval letter/e-mail attached

**External Research Ethics Approval**

**Does your research project require the approval of any other institution and/or ethics committee, nationally or internationally?**

*Please state the name of the review body and the current status of your application (for example, submitted, approved, deferred, or rejected)? Please include any known submission / approval timelines.*

N/a

## SECTION 2: Your project details

### 2.1 Project details

Your name: Nienke van Alphen

Please enter your project title: Sibling Experiences of Adolescent Self-Harm

Proposed Project Start Date: August 2020

Proposed Project End Date: September 2021

#### Q1. Are you a member of staff or a student?

Staff member

Supplementary questions for staff members only:

List the names and institutions of any Co-Investigators working with you on the project.

Student

Supplementary questions for students only:

What type of student are you?

PGT/doctoral

Please provide your course title or programme name

Doctorate in Clinical Psychology

Who is your supervisor?

Dr Helen Griffiths

**Q2. Please indicate any external ethical guidance your project has to adhere to. For example, the British Psychological Society (BPS), the British Academy, the British Association of Sport and Exercise Sciences (BASES)**

British Psychological Society (BPS)

### 2.2 Participants

**Q3. Will you be collecting or generating any new data (including autoethnographic writings)?**

Yes

No

**Q4. Will you be extracting, re-coding or using existing data that contains sensitive information (i.e., identifiable information)?**

- Yes  
 No

If the answers to both Q3 and Q4 are 'no' you are not required to complete:

[Section 4:](#) Potential risks to participants and researchers

[Section 5:](#) Participants and data subjects

[Section 6:](#) Participant or data subject information and consent

### 2.3 Security-Sensitive Material

**Q5. Does your research project fit into any of the following security-sensitive categories?**

- Your research project is commissioned by the military.
- Your research project is commissioned under an EU security cell.
- Your research project involves the acquisition of security clearances.
- Your research project concerns groups which may be construed as terrorist or extremist

If you answer 'yes' to any of the questions above you must complete [Section 8 Security Sensitive Material](#). You must answer all questions in the section.

### 2.4 Good Conduct in Collaborative Research

**Q6. Will your research project involve collaborative work?**

- Yes
- No

Selecting "Yes" to this question means you must complete [Section 10 "Good conduct in collaborative research"](#) later in the form. You must answer all questions in the section.

### 2.5 Project Funding

**Q7. Is funding required for your research project? (To be completed by staff only)**

*Please indicate how the project will be financially supported.*

### 2.6 Knowledge Exchange and Impact

**Q8. Will there be any knowledge exchange and impact activities associated with this project? (To be completed by staff only)**

### 2.7 Consultancy Potential

**Q9. Could your research project lead to potential consultancy activities in the future? (To be completed by staff only)**

### **SECTION 3: Description of the research**

**Q10: Please use the box below to describe your research; including a background summary, rationale, research questions and hypotheses, methodology, procedures. If you have identified ethical considerations that are not addressed in other parts of the form, please outline and discuss them here.**

#### Background & Rationale

Non-fatal self-harm (hereafter called self-harm) is defined as “self-poisoning or self-injury irrespective of motivation or extent of suicide intent, excluding accidents, substance misuses, and eating disorders” (Teuton et al., 2014, p. 6). People typically start engaging in self-harm as adolescents. Girls are more likely to self-harm and tend to start at a younger age (O’Connor et al., 2009; O’Connor et al., 2018). In Scotland, 13.8% of adolescents (ages 15-16) self-harmed at least once (O’Connor et al., 2009). Older adolescents (ages 18-23) reported a lifetime prevalence of 18.6% for non-suicidal self-injury and started on average at 15-16 years old (Rory C. O’Connor et al., 2018). They also found a lifetime prevalence of 9% for attempted suicide among older adolescents and that first suicide attempts occur on average at age 17. Adolescent self-harm is associated with numerous negative outcomes, including the incidence of psychiatric illness, emergency hospital admissions and increased risk of dying by suicide (Castellví et al., 2017; Herbert, González-Izquierdo, McGhee, Li, & Gilbert, 2016; Wilkinson, Qiu, Neufeld, Jones, & Goodyer, 2018).

Family relationships can be protective but also be potential contributing factors to the onset and/or maintenance of adolescent self-harm (e.g. Aggarwal, Patton, Reavley, Sreenivasan, & Berk, 2017; Arbuthnott & Lewis, 2015; Fortune, Cottrell, & Fife, 2016). Supporting an adolescent who self-harms can negatively impact the emotional wellbeing of parents and friends (e.g. Arbuthnott & Lewis, 2015; Fisher et al., 2017; Morgan et al., 2013). However, little is known about the experience of siblings. As siblings have an important influence on each other’s wellbeing in childhood and adolescence (Dirks et al., 2015), it is important not to neglect their experience. Research has found associations between sibling relationships and adolescent self-harm (e.g. Bar-Zomer & Klomek, 2018; Bowes, Wolke, Joinson, Lereya, & Lewis, 2014). Parental viewpoints about the impact of adolescent self-harm on their other children have been explored. Some parents expressed paying less attention to siblings, communication difficulties, or ‘compensating’ with gifts or money (Byrne et al., 2008; Ferrey et al., 2016a). Others mentioned closer monitoring of siblings due to concerns about ‘copying’ behaviour, which occasionally may be justified, as in some families multiple children self-harm (Ferrey et al., 2016a). Sibling reactions to self-harm, as described by parents, varied and included devastation, anger, resentment, desire to help, anxiety, or mixed emotions (Byrne et al., 2008; Ferrey et al., 2016b). Perceived sibling concerns included stigma and feeling responsible (Ferrey et al., 2016b). Interview-based studies of adult perspectives of the sibling experiences of self-harm suggest that having a brother or sister who has self-harmed has a big impact on someone’s daily life and well-being (Ball, 2010; Byrne et al., 2008; Ferrey et al., 2016b; Scaife, 2018). As our current understanding relies on adult interpretations, this study aims to give older adolescent siblings a voice by developing a theoretical understanding of their experience to learn about their needs and explore if siblings can also be a resource in reducing adolescent self-harm.

#### Research Questions

How is adolescent self-harm experienced by siblings?

- What do siblings think might help prevent or reduce adolescent self-harm?
- What knowledge or support, if any, do siblings think might be helpful for themselves?

#### **Design**

This study has a qualitative design, such that the sibling experience of adolescent self-harm can be explored in detail, in light of minimal prior research. The selected methodological approach is grounded theory. This project aligns with a constructivist approach (Charmaz, 2006).

#### **Sample**

The sample will be recruited through an online ad (Appendix A) send via emails, posts on social media, websites and/or community boards. If lockdown restrictions are lifted and public spaces (e.g. universities) are more widely in use again, posters (Appendix B) may also aid with recruitment. Purposeful sampling will continue until

theoretical saturation or the stopping criterion is reached. Participants are expected to be aged 16-24 and have lived with a sibling with a self-harm history, further criteria are outlined in Q23. I aim to recruit a **minimum of eight and up to twelve participants**, which seems reasonable considering the prevalence of self-harm.

#### **Procedure**

Potential participants are provided a link to a Qualtrics survey containing the Participant Information Sheet (PIS; Appendix 1). Interested participants are asked after reviewing this information on the survey to answer some screening questions and provide their name, email and phone number so they can be contacted by the researcher. Participants are able to save the PIS and contact information they submitted as a PDF. After a minimum of 24 hours, participants will be contacted to see if they would potentially be interested in the study. Interested participants will speak with the researcher by phone to inquire if the PIS has been read and understood, check study criteria, and answer any questions about study participation (Appendix 10). A date and time for the interview will be agreed once verbal consent has been provided. If the interview is conducted remotely, participants are asked to make sure they have stable internet, access to technology with a microphone and camera, and a quiet space where they will not be interrupted, distracted, or overheard. The distress protocol will also be discussed (including what happens if we get disconnected especially if a participant is distressed and considerations like providing an emergency contact; Appendix 2). If COVID19 restrictions are lifted and face-to-face interviews are possible and this is the participant's preference, then a time, date and location (e.g. room at university) would be agreed. Before the interview, participants will be sent a pre-participation email (Appendix 3) with the distress protocol attached. In this email they will be asked to complete an invitation-only Qualtrics survey which contains the consent form and asks for necessary personally identifiable information (Appendix 4). Upon completion of this Qualtrics survey participants can download a PDF copy of the information they submitted.

On the day, prior to starting the interview, study information and the distress protocol will be reviewed, informed consent will verbally be re-confirmed (including permission to communicate with emergency contact if needed per distress protocol). The interview is semi-structured and estimated to last 30-60 minutes (see Appendix 5 for the interview schedule). Before the start of the interview, participants will be asked to rate their current mood. The experience of having a brother or sister who (used to) hurt(s) him/herself will be explored. Consideration will be given to any support that has been provided to/by the participant or what would be considered helpful. Interviews will be conducted over a university-approved online meeting service (e.g. Microsoft Teams or Skype for Business) or in-person if appropriate and COVID19 restrictions have been sufficiently lifted. Interviews will be audio-recorded using an encrypted device. After the interview, the participant will be asked to rate their mood again, be debriefed and allowed an opportunity for questions. When the participant feels ready to end the conversation, he/she will be encouraged to consider using mood mitigation strategies and provided with contact information about available helplines (Appendix 6) and encouraged to seek out social support if they want to talk about their experience of study participation.

A follow-up email (Appendix 7) will be sent to participants within the week after their interview to thank participants for their time, confirm they had not been overly distressed, and give them the opportunity to withdraw their consent for the interview information to be used. They will also be reminded them of relevant staff contact information (Appendix 8) and provided links to suggested links with information to read. They will also be offered the opportunity of a further (video) call to reflect on research themes identified up to then if this is of interest. Participants will also be informed they can request to receive a summary of the research findings by email upon study completion in this email. If participants indicate that they have experienced distress related to the interview, they will be reminded by email of signposted services available for support (Appendix 6).

#### **Analysis**

Guidelines by Charmaz and Henwood (2017) for grounded theory analysis will be followed and consist of initial line-by-line coding, focused coding, writing memos, theoretical sampling, saturating concepts, and integrating theories. In a constructivist approach, the effect the researcher is having on the data and findings is explicitly acknowledged (Charmaz, 2008; Mills, Birks, & Hoare, 2017). Personal reflections will therefore be recorded. Codes and themes will be considered during the data collection process as a phased approach to interviewing and coding will be used.

#### **Further Ethical Considerations**

As essential in self-harm research, limits to confidentiality will be clearly explained to participants in study forms and at the start of the interview (Hom et al., 2017; Lloyd-Richardson et al., 2015). Confidentiality will be waived if participants disclose imminent risk to self or named others, in line with other research (e.g. Ball, 2010; Chandler, 2018; Fisher et al., 2017; Scaife, 2018). Imminent risk will be defined as a strong likelihood that someone will engage in life-threatening self-injurious behaviour within 48 hours of the research interview (Lloyd-Richardson et al., 2015), child/adult protection concerns, or when disclosure is required by law (e.g. terrorism). If a disclosure is made, immediate risk will be assessed using my clinical experience as a second- or third year trainee psychologist. Supervisors and/or colleagues will be consulted and I will act in accordance with national guidance. My supervisors will be informed as soon as possible. Ethical recommendations around conducting self-harm and suicide research during the COVID-19 pandemic (Townsend, Nielsen, Allister, & Cassidy, 2020) has been considered and incorporated (including mood ratings and ensuring signposted services are operational).

**SECTION 4: Potential risks to participants and researchers**

**Q11. Is your research project likely or possible to induce any psychological stress or discomfort in the participants or others, indirectly associated with the research?**

- Yes
- No

*If “yes” state the types of risk and what measures will be taken to deal with such problems*

Research in which questions about self-harm and suicidality are asked has not been found to have iatrogenic effects and is not associated with significant increases in psychological distress or risk of self-harm (Hom et al., 2017; Lloyd-Richardson et al., 2015). Most participants in qualitative suicide prevention research described talking about their experiences as cathartic and beneficial (Biddle et al., 2013). Nevertheless, steps will be taken to make sure participants are able to manage the potential emotional demands of study participation as it is possible that some stress or discomfort will be experienced by participants. Participants will be informed about topics that will be discussed in advance to allow them to emotionally prepare. When agreeing the time and date of the interview, participants will be encouraged to think about a trusted adult in their life who they would feel comfortable letting know that they are participating in research and who they could check in with for support after the interview. We will also agree a distress protocol at this stage. During the interview, open questions are asked and participants are encouraged to only share what they feel comfortable disclosing. If a participant becomes distressed during the interview, I will use my clinical experience as a second- or third year trainee psychologist to manage this and signpost appropriately. There will be a debrief and contact information of helplines to help manage any potential emotional responses will be provided. A follow-up email (Appendix 7) will also be send within a week after the interview.

**Q12. Does your research project require any physically-invasive or potentially physically harmful procedures?**

- Yes
- No

*If “yes” give details and outline procedures to be put in place to deal with potential problems.*

**Q13. Does your research project require the use of privacy-invasive technology, such as CCTV, biometrics, facial recognition, vehicle tracking software?**

- Yes
- No

*If “yes” - Give details and outline procedures to be put in place to deal with potential problems.*

**Q14. Does your research project involve the investigation of any illegal behaviour or activities?**

- Yes
- No

*If “yes” - Give details of any illegal behavior or activities you may investigate*

**Q15. Is it possible that your research project will lead to awareness or the disclosure of information about child abuse or neglect?**

- Yes  
 No

*If “yes” - Indicate the likelihood of disclosure and the procedures to be followed if you become aware that a child has been or may be at risk of harm*

As child abuse or neglect are not the main topic of the investigation, it is not likely that there will be relevant disclosures, but it is possible. Limits to confidentiality will be clearly explained to participants in study forms and before the interview. As previously described, confidentiality will be waived if participants disclose imminent risk to self or named others, in line with other research (e.g. Ball, 2010; Chandler, 2018; Fisher et al., 2017; Scaife, 2018). Imminent risk will include significant child protection concerns. If such disclosure is made, immediate risk will be assessed using my clinical experience as a second- or third year trainee psychologist. Supervisors and/or colleagues will be consulted and I will act in line with national guidance. My supervisors will be informed as soon as possible.

**Q16. Is it likely that dissemination of research findings or data could adversely affect participants or others indirectly associated with the research?**

- Yes  
 No

*If “yes” - Describe the potential risk for participants/data subjects of this use of the data. Outline any steps that will be taken to protect participants.*

**Q17. Could participation in this research adversely affect participants and others associated with the research in any other way?**

- Yes  
 No

*If “yes” - Describe the possible adverse effects and the procedures to be put in place to protect against them.*

**Q18. Is this research expected to benefit the participants, directly or indirectly?**

- Yes  
 No

*If “yes” - Give details of how this research is expected to benefit the participants.*

There are no anticipated benefits to the participants, as the ethical appropriateness of providing incentives for participants in studies on self-harm has been questioned (Townsend et al., 2020). There may be indirect benefits facilitated by an increased understanding of adolescent sibling experiences of self-harm, such as:

1. Encouraging clinicians to take a systemic approach in their work. Treatment with a strong family component is associated with significant reductions in self-harm compared to those with weaker family involvement (Ougrin et al., 2015).

- 2. Identifying possible resources that can be put in place to support siblings. Exposure to self-harm of a loved one increases risks of engaging in self-harm (Doyle, Treacy, & Sheridan, 2015). A lack of support for siblings may result in deteriorating mental health, which we should aim to prevent.
- 3. The study may inform the development of psychoeducational resources that may improve siblings' ability to support their brother or sister appropriately.

**Q19. Will the true purpose of the research be concealed from the participants/data subjects?**

- Yes
- No

*If "yes" - Explain what information will be concealed and why.*

**Q20. Will participants/data subjects be debriefed at the conclusion of the study?**

- Yes
- No

*If "no" - Why will participants / data subjects not be debriefed?*

**Q21. At any stage in this research could researchers' safety be compromised, or could the research induce emotional distress in the researchers?**

- Yes
- No

*If "yes" - Give details and outline procedures to be put in place to deal with potential problems.*

In case COVID19 restrictions are lifted as such that some face-to-face interviews will be possible, then interviews will be conducted in a room alone with the participant and, risks associated with lone working are considered. This includes conducting interviews during working hours, ensuring that a member of the research team is informed when and where I have interviews scheduled and carrying a mobile phone.

It is possible that the content of the interviews may have an emotional impact on the researcher. However, as a researcher and trainee clinical psychologist I do have experience in managing this. During my master's degree, I was trained in the structured Self-Injurious Thoughts and Behaviours Interview and administered this successfully more than 100 times with adolescents with an elevated suicide risk, both in person and over the phone. I will also be able to access peer support from colleagues and will have access to supervision.

**Please tick to confirm you agree with the following:**

I will adhere to School guidance on risk assessment and health and safety and will seek advice on project and travel insurance prior to project commencement.

- I agree
- I do not agree
- Not applicable

---

**SECTION 5: Participants and data subjects. For autoethnographic research also include those who may feature in your writings.**

**Q22. How many participants or data subjects are expected to be included in your research project?**

Minimum of 8 and up to 12 participants

**Q23. What criteria will be used in deciding on the inclusion and exclusion of participants/data subjects in your research project?**

Inclusion criteria:

- √ Ages 16-24,
- √ Having grown up and currently living in the UK,
- √ Having had at least one sibling of whom the participant knows there have been at least two instances on non-fatal self-harm when they were adolescents (ages 10-24),
- √ Having lived with the sibling with a self-harm history for most of an average week while he/she first engaged in self-harm,
- √ Capable to consent to study participation and willing to provide written informed consent.

Exclusion criteria:

- √ Not speaking sufficient English to participate in interviews,
- √ Sibling having a diagnosis of severe intellectual disability or developmental disorder,
- √ If the sibling has/had an eating disorder or substance misuse in the absence of self-harm,
- √ Having an immediate family member (e.g. parent or sibling) who has died by suicide,
- √ No access to technology and/or a private confidential space needed to facilitate remote interviews,
- √ Currently living with the sibling with the self-harm history.

**Q24. Are any of the participants or data subjects likely to be under 16 years of age?**

- Yes  
 No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q25. Are any of the participants or data subjects likely to be children in the care of a Local Authority?**

- Yes  
 No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q26. Are any of the participants or data subjects likely to be known to have additional support needs?**

- Yes
- No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q27. In the case of participants with additional support needs, will arrangements be made to ensure informed consent?**

- Yes
- No

**If "yes" – What arrangements will be made?**

**If "no" – Please explain why not**

**Q28. Are any of the participants or data subjects likely to be physically or mentally ill?**

- Yes
- No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q29. Are any of the participants or data subjects likely to be vulnerable or likely exposed to harm in other ways?**

- Yes
- No

*If "yes" - Explain and describe the nature of the vulnerability and the measures that will be used to protect and/or inform participants/data subjects.*

**Q30. Are any of the participants or data subjects likely to be unable to communicate in the language in which the research is conducted**

- Yes
- No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q31. Are any of the participants or data subjects likely to be in a relationship (i.e., professional, student-teacher, other dependent relationship) with the researchers?**

- Yes
- No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q32. Are any of the participants or data subjects likely to have difficulty in reading and/or comprehending any printed material distributed as part of the study?**

- Yes
- No

*If "yes" - Explain and describe the measures that will be used to protect and/or inform participants/data subjects.*

**Q33. Describe how the sample will be recruited.**

The sample will be recruited online through emails, posts on social media, websites and/or community boards. Relevant organisations (e.g. SiblingLink, ReThink sibling support groups) will be approached if they would be able to share recruitment information with their members. If lockdown restrictions are lifted and public spaces (e.g. universities) are more widely in use again, posters may also aid with recruitment.

**Q34. Will participants receive any financial or other material benefits as a result of participation?**

- Yes
- No

*If "yes" - What benefits will be offered to participants and why?*

**Section 6: Participant or data subject information and consent**

**Q35. Will written consent be obtained from all participants or data subjects?**

- Yes  
 No

*If “yes” – attach participant information sheet and consent form  
If “no” – explain why not and how consent is obtained (e.g. orally), and/or if consent cannot or should not be sought for some reason, please provide a clear case and rationale for this*

Written informed consent will be obtained via an electronic consent form (Appendix 4).

**Q36. Have you made arrangements to tell participants what information you will hold about them and for how long?**

- Yes  
 No

*If “yes” - what arrangements have been made?*

This has been outlined in the Participant Information Sheet (Appendix 1).

**Q37. Have you made arrangements to tell participants whether you will disclose the information to other organisations?**

- Yes  
 No

*If “yes” - What arrangements have been made?*

This has been outlined in the Participant Information Sheet (Appendix 1) and distress protocol (Appendix 2).

**Q38. Have you made arrangements to tell participants whether you will combine that information with other data?**

- Yes  
 No

*If “yes” - What arrangements have been made?*

On the Participant Information Sheet (Appendix 1) it is explained that de-identified research data may be made available for other related research projects, but for this specific project the intent is not to combine their information with other data.

**Q39. In the case of children participating in the research, will the consent or assent of parents be obtained?**

- Yes  
 No

*If “yes” - Explain how this consent or assent will be obtained*

*If "no" – Please explain why you won't be obtaining consent*

**Q40. Will the consent or assent of children participating in the research be obtained?**

- Yes  
 No

*If "yes" – Explain how this consent or assent will be obtained*

*If "no" – Please explain why not*

**Q41. In the case of participants who are not proficient in the language in which the research is conducted, will arrangements be made to ensure informed consent?**

- Yes  
 No

*If "yes" – What arrangements will be made?*

*If "no" – Please explain why not*

**Q42. Does the activity involve using cookies or tracking individual's activity on a website or the Internet in general?**

- Yes  
 No

*If "yes" – Describe the arrangements, you have put in place to obtain informed consent for the use of these tools?*

**SECTION 7: Confidentiality and handling of data**

**Q43. What information about participants/data subjects will you collect and/or use?**

Interviews about personal experiences of having a sibling with a self-harm history.

- Participant name, age, gender, email, phone number, country of residence
- Emergency contact information
- Location during interview (if conducted remotely)
- Consent form

**Q44. Will you collect or use NHS data?**

- Yes  
 No

*If “yes” – what NHS data will you collect or use?*

**Q45. What training will staff who have access to the data receive on their responsibilities for its safe handling? Have all staff who have access completed the mandatory data protection training on the self-enrolment page of Learn?**

Both academic and clinical supervisor have a Doctorate in Clinical Psychology. The student researcher is a current doctoral student who has completed eLearning in Introduction to Good Clinical Practice from the NHS NIHR. The student researcher and academic supervisor have completed the mandatory data protection training on Learn. The student researcher also completed MANTRA research training.

**Q46. Will the information include special categories of personal data (health data, data relating to race or ethnicity, to political opinions or religious beliefs, trade union membership, criminal convictions, sexual orientations, genetic data and biometric data)**

- Yes  
 No

*If “yes” – Explain what safeguards e.g. technical or organisational you have in place; including any detailed protocols if this requires special and/or external processing, storage, and analysis.*

If you answered “no” to this question, please skip Q56 and continue answering the rest of the questions

**Q47. Please indicate how your research is in the public interest:**

- Your research is proportionate  
 Your research is subject to a governance framework  
 Research Ethics Committee (REC) review (does not have to be a European REC)  
 Peer review from a funder  
 Confidentiality Advisory Group (CAG) recommendation for support in England and Wales or support by the Public Benefit and Privacy Panel (PBPP) for Health and Social Care in Scotland  
 Other

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**Q48. It is essential that you identify, and list all risks to the privacy of research participants. You will then need to consider the likelihood of the risks actually manifesting and the severity of harm if the risks actually manifest.**

Risk	Likelihood of risk manifesting			Severity of harm		
	Remote	Possible	Probable	Minimal	Significant	Severe
Identifiable due to data linkage	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Identifiable due to low participant numbers	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Identifiable due to geographical location	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Identifiable due to transfer of data	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Identifiable due to access of data	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

*Please use this text box to record any other risks and the likelihood of them occurring, along with the severity of harm.*

*Please identify measures you could take to reduce or eliminate risks identified as possible/significant or probable/severe.*

To make sure participants' privacy is protected, several steps are taken. Data will only be accessed by members of the research team and the Sponsor (unless there is imminent risk and confidentiality will need to be breached).

Interviews will be recording using an encrypted device and will be transferred to storage in an encrypted container as soon as possible, such that they can be deleted from the device). Recordings will be deleted as soon as the interview has been transcribed and de-identified.

Each participant will be assigned a pseudonym by which they will be referred to throughout the research. A document linking participant first name and initial last name with their assigned pseudonym will also be created. This document will be deleted as soon as the study has ended. As recommended by Holloway and Galvin (2017), I will transcribe and de-identify all interviews to become immersed in the data and protect participant anonymity. Transcripts will be saved under pseudonyms and de-identified by redacting any direct identifiers (e.g. names, address) and other demographic or contextual information that creates a risk of revealing one's identity will be aggregated or removed. De-identified interview transcripts, memos, and recorded reflections about interviews and analysis will be securely stored. Although excerpts and quotes from the transcripts will be included in the research findings, full transcripts will not be submitted for publication.

Personally identifiable data (i.e. participant name, age, gender, country of residence, location during interview, emergency contact information, consent form) will be obtained via an invitation-only Qualtrics survey, while participant email and phone number will be obtained after the open-access Qualtrics survey with the PIS has been reviewed. Potential participations will also be able to email the researcher at a study-specific university email account. This email account will be deleted once the study has been written up and is finished.

In terms of data storage, the university Research Data Management Service Coordinator was consulted and advised that all data collected in this study could securely be stored in separate encrypted containers on the OneDrive for Business associated with a university of Edinburgh email account. Separate encrypted containers will be created for: interview audio recordings, research data (including de-identified transcripts and memos),

consent forms, pseudonyms linked to participant initials, and participant demographic/contact details.

Research data (i.e. de-identified transcripts and memos) and a blank copy of the consent form will be stored in line with the archiving standards of University of Edinburgh. The data will be accessible for the research team and anyone who is named in the policy as required and may be made available to other researchers if this is deemed in the public interest. Research data will be destroyed by a member of the research team 10 years after the study has ended.

**Q49. Will information containing personal, identifiable data be transferred to, shared with, supported by, or otherwise available to third parties outside the University?**

- Yes  
 No

*If "yes" - Please explain why this necessary and how the transfer of the information will be made secure. If the third party is based outside the European Economic Area please obtain guidance from the Data Protection Officer.*

In case of imminent risk, personal identifiable data may be shared with relevant professional staff (including my clinical supervisor). Any third party would be expected to be based within the UK.

**Q50. Other than the use by third parties, will the data be used, accessed or stored away from University premises?**

- Yes  
 No

*If "yes" - Describe the arrangements you have put in place to safeguard the data from accidental or deliberate access, amendment or deletion when it is not on University premises, including when it is in transit, and (where applicable) it is transferred outside the EEA.*

Interviews will be recorded using an encrypted recording device. When the device is not on university premises, particular care will be taken looking after the device, such as not leaving it unattended in a public area and locking it away for storage whenever possible.

Recordings will be transferred from the recording device to an encrypted container on OneDrive as soon as possible and then be deleted from the recording device. Recordings will be deleted from as soon as the interview has been transcribed and de-identified.

**Q51. Will feedback of findings be given to your research project participants or data subjects?**

- Yes  
 No

*If "yes" - How and when will this feedback be provided?*

Participants will be informed they can request to receive a summary of the research findings by email upon study completion. They will be told about this at the end of the interview and in a follow-up email send afterward.

*If "no" - Please provide rationale for this.*

**Q52. How do you intend to use/disseminate the results of your research project?**

The thesis format required by the University of Edinburgh is a systematic review and a piece of original research. Both chapters will be written up as articles in formats required by relevant journals, such as *Clinical Child Psychology and Psychiatry* or the *Journal of Adolescent Research*, aiming for publication to disseminate findings within the academic community. I am hoping to present the research at conferences, such as the Suicide and Self-harm Early & Mid-Career Researchers' Forum in Glasgow. Results may also be presented to local CAMHS teams and communicated to relevant third sector organisations (e.g. SiblingLink).

**SECTION 8: Security-sensitive material**

The Terrorism Act (2006) outlaws the dissemination of records, statements and other documents that can be interpreted as promoting or endorsing terrorist acts.

**Q53. Does your research involve the storage on a computer of any such records, statements or other documents?**

- Yes
- No

*If “yes” - Please tick 'Yes' to indicate that you agree to store all documents on that file store*

**Q54. Might your research involve the electronic transmission (for example, as an email attachment) of such records or statements?**

- Yes
- No

*If “yes” - Please tick 'Yes' to indicate that you agree not to transmit electronically to any third party documents stored in the file store*

**Q55. Will your research involve visits to websites that might be associated with extreme, or terrorist, organisations?**

- Yes
- No

*If “yes” - You are advised that such sites may be subject to surveillance by the police. Accessing those sites from University IP addresses might lead to police enquiries. Please acknowledge that you understand this risk by ticking 'Yes'*

- Yes
- No

By submitting to the ethics process, you accept that your School Research Ethics Officer and the convenor of the University’s Compliance Group will have access to a list of titles of documents (but not the contents of documents) in your document store. Please acknowledge that you accept this by ticking 'Yes'

Please confirm that you have contacted your School Research Ethics Officer to discuss security-sensitive material by ticking ‘Yes’

- Yes, I have contacted my School’s Research Ethics Officer
- No, I have not contacted my School’s Research Ethics Officer

**Section 9: Copyright**

**Q56. Does your project require use of copyrighted material?**

- Yes
- No

*If "yes" please give further details*

**Section 10: Good conduct in collaborative research**

**Q57. Does your project involve working collaboratively with other academic partners?**

- Yes
- No

*If "yes" - Is there a formal agreement in place regarding a collaborative relationship with the academic partner(s)?*

Yes there is a formal research agreement in place.

*If "no" - Please explain why there is no formal agreement in place?*

**Q58. Does your project involve working collaboratively with other non-academic partners?**

- Yes
- No

*If "yes" - Is there a formal agreement in place regarding a collaborative relationship with the non-academic partner(s)?*

Yes, my NHS clinical supervisor is also part of the formal research agreement.

*If "no" - Please explain why there is no formal agreement in place.*

**Q59. Does your project involve employing local field assistants (including guides/translators)?**

- Yes
- No

*If "yes" - Is there a formal agreement in place regarding the employment of local field assistants (including guides and translators)?*

*If "no" - Please explain why there is no formal agreement in place*

**Q60. Will care be taken to ensure that all individuals involved in implementing the research adhere to the ethical and research integrity standards set by the University of Edinburgh?**

- Yes  
 No

*If "no" - Please explain why care will not be taken*

**Q61. Have you reached agreement relating to intellectual property?**

- Yes  
 No

*If "no" - Please explain why you have not reached agreement*

### **Section 11: Good conduct in publication practice**

In publication and authorship, as in all other aspects of research, researchers are expected to follow the University's guidance on integrity.

By ticking yes, you confirm that full consideration of the items described in this section will be addressed as applicable

- Yes  
 No

Subsequent to submission of this form, **both the applicant and their supervisor should review any alterations in the proposed methodology of the project.** If the change to methodology results in a change to any answer on the form, then a resubmission to the Ethics subgroup is **required.**

The principal investigator is responsible for ensuring compliance with any additional ethical requirements that might apply, and/or for compliance with any additional requirements for review by external bodies.

ALL forms should be submitted in electronic format. Digital signatures or scanned in originals are acceptable. The applicant should keep a copy of all forms for inclusion in their thesis.

Nienke van Alphen  
**Applicant's Name**

Applicant's Signature

30 July 2020  
Date signed

\*Supervisor Signature<sup>1</sup>

Helen Griffiths  
Supervisor Name

16<sup>th</sup> July 2020  
Date

\*NOTE to Supervisor: Ethical review will be based only on the information contained in this form. If countersigning this check-list as truly warranting all 'No' answers, you are taking responsibility, on behalf of the HSS and UoE, that the research proposed truly poses no ethical risks.

#### ISSUES ARISING FROM THE PROPOSAL

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<sup>1</sup> Not required for staff applications

**Reviewer Comments 10.09.20**

Overall this seems a well-considered proposal for an ethically complex project. Some feedback is outlined below.

The proposal currently misses out sections relating to consent / assent, but indicates that it will recruit across the UK. My understanding is that this would bring issues in relation to consent/ assent for those aged 16/17 in England and Wales (possibly NI)?

The other (to be interviewed) sibling is presumably themselves at higher risk of self-harm due to shared circumstances. Indeed they may have self-harmed without that being identified or had the desire to self-harm. How will such risks be mitigated?

It is even more of a challenge in the current Covid circumstances, but the project should reflect on how recruitment methods may bias the sample towards families of relatively higher socio-economic level, greater educational level, fewer familial / social difficulties etc and seek to ensure that such voices are suitably represented.

Would the individual who self-harmed be potentially identifiable via information recorded? If so, are there issues here in relation to information that may be provided about them. Would they (the adolescents who have self-harmed) be asked to provide any form of consent?

If not already completed, the applicant is recommended to complete the MANTRA training in addition to the data management training they have already completed.

Q) 48 – You say ‘Personally identifiable data (i.e. participant name, email, phone number, region of residence, location during interview, emergency contact information, consent form) will be kept in a study-specific university email account and will be deleted once the study has been written up and is finished.’ Would it not be more risk averse to save these details on a spreadsheet on the university online server that is both encrypted and password protected?

Q51 you say that if participants want they can receive a summary of the research in an email that will be sent to them. Who will they contact for this summary? The supervisor? When will these emails be sent if you intend to delete emails as soon as the study is complete and written up?

PIS

Need the name of an independent academic who the participants can seek objective advice and answers from regarding the project.

Consent

Not clear how you will get this from participants? What happens if they don't have electronic signature? Can you not set up a link so that they can read the participant info screen and provide consent online? They can click on a button to say that they confirm to participate, in the next window provide their demographic details and then in the next window insert their emails to confirm they are happy for you to contact them and set up the interview.

Signposting

Whilst one hopes they would not turn away distressed young people, note that Breathing Space (e.g. mentioned in signposting doc) is a Scotland only service which should be indicated since this project seeks to recruit across the UK.

Missing a debrief. I can see you have a nice follow up email and signposting but would also like one of these to include a summary of your study, some additional recommended reading if they are interested and also a reminder of you the researchers' contact details, your supervisor, independent academic and the complaints contact again.

The applicant should respond to these comments in section below.

*Signature:*

*Position: Ethics and Integrity Lead*

*Date: 10.09.20*

#### APPLICANT'S RESPONSE (If required)

Thank you for your thoughtful comments and feedback. Please find my responses below.

##### Consent/assent for those aged 16/17 outside of Scotland

Having consulted guidance from the HRA (<https://www.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/research-involving-children/>), young people aged 16 and over in England, Wales, and Northern Ireland are presumed to be capable of giving consent on their own behalf to participate, as long as they have the capacity to understand the research proposed.

##### Mitigating risks of self-harm from participants

Research in which questions about self-harm and suicidality are asked has not been found to have iatrogenic effects and is not associated with significant increases in psychological distress or risk of self-harm (Hom et al., 2017; Lloyd-Richardson et al., 2015). Specific ethical recommendations around conducting self-harm and suicide research during the COVID-19 pandemic (Townsend, Nielsen, Allister, & Cassidy, 2020) have been considered and incorporated (including mood ratings and ensuring signposted services are operational) to help mitigate potential risk.

The study will only recruit participants who have capacity to consent and they will be very clear in advance about what topics will be discussed in the interview, so they are able to emotionally prepare. They are asked to tell at least one trusted adult about study participation, so that someone in their life is aware they are going to be talking about this topic and would be available for the participant to check in with before/after and for the researcher in case of serious concerns.

Before the interview, participants are asked if they feel emotionally able and safe to do the interview today and to rate their mood. If during the interview someone becomes very upset, the interview will be stopped and if there are serious concerns about their safety the emergency contact will be contacted (and if needed further steps of the distress protocol will be followed). If the participant discloses imminent risk to self (e.g. talking about engaging in life-threatening self-injurious behaviour within 48 hours of the research interview (Lloyd-Richardson et al., 2015), confidentiality will be waived and supervisors and/or NHS colleagues will be consulted and I will act in accordance with national guidance to help promote participant safety. All participants will be provided with information of ways to access support (Appendix 6).

##### Bias in recruitment

Recruitment will be conducted online. As you raised, a disadvantage of this method is that the sample recruited is likely skewed towards participants with relatively higher income and education levels. At the same time internet accessibility is continuing to increase. In 2019 the UK government reported that 93% of households had access to the internet and 99% of adults (ages 16-44) use the internet daily or almost every day (<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediusage/bulletins/internetaccesshouseholdsandindividuals/2019>). This is encouraging of the recruitment method as the sample aimed to be recruited consists of young adults (ages 16-24). As Hamilton and Bowers (2006) note, online recruitment is also a way of actually being able to increase the outreach to a wider range of participants. In the case of my study, it allows me to consider the UK-wide experience of siblings as opposed to needing to limit the sample to siblings based in Edinburgh. During the phone calls to participants who are potentially interested, the researcher will check with those who express an interest in the study if they have access to the technology with a microphone and camera needed to conduct remote interviews. If they do not have this, the researcher will encourage the participant to think about possible ways of still getting access to this (e.g. borrowing a phone from someone).

Another exclusion criterion that may introduce bias into the sample is that the young adult cannot be currently living with the sibling with the self-harm history. This is done to ensure that participants would have the emotional space to engage with this interview, as interviews could potentially be more distressing when before and afterwards having to see the brother or sister with the self-harm history. This felt especially relevant during the current pandemic when there are limitations on people you are allowed to see outside of your own household. Lastly, young adults who have an immediate family member (e.g. parent or sibling) who has died by suicide will also be excluded, as their family experiences with fatal self-harm may influence their perspective on the topic of interest which is sibling experiences of non-fatal self-harm. Other than this, the recruitment posts will be distributed widely and it is hoped that a diverse range of voices will be represented in the research.

#### Identifiability of adolescents with the self-harm history

Participants are asked to talk about their own life and experiences. They are asked to describe characteristics of their family and the sibling who self-harmed. Participants are also asked for their personal perspective on their relationship with this sibling and how much they are currently in touch. However, they are not explicitly asked to name their brother or sister or provide detailed identifiable information about him/her. Therefore, in line with other research projects asking people about their experiences of others' self-harm or mental illness (Ball, 2010; Fisher, Fitzgerald, & Tuffin, 2017; Lukens, Thorning, & Lohrer, 2004; Preminger, 2018; Scaife, 2018), only participants will be asked to provide consent, not their sibling.

In the interview recording it is possible that the participant describes potentially identifiable information about their sibling. However, interviews will be transcribed and de-identified as soon as possible after which the recording with potentially identifiable information about the brother/sister who self-harmed will be deleted from the server. If participants do choose to name their sibling in the interview and imminent risk is disclosed, immediate risk will be assessed and I will act in accordance with national guidance.

#### MANTRA training

MANTRA training was completed during Year 1 of the Doctorate in Clinical Psychology.

#### Collection and storage of personally identifiable information

I have adapted the approach and now propose using a Qualtrics survey to obtain this information, as Digital Research Services advised this is a secure method. Two further encrypted containers on OneDrive will be created to store this information: 1. For consent forms 2. For demographic information and contact details.

#### Research summary

Participants will be asked whether they would like a summary of the research findings at the end of the interview and in the follow-up email send. Participants who indicated they would like this, will be emailed a summary from the study-specific email by the researcher, as the study would only be considered complete once participants who have indicated interest in a summary of the research findings have received this.

#### Independent academic

This information was already included on the Participant Information Sheet, namely Dr Helen Sharpe.

#### Consent

Initially I had planned to ask potential participants to email me at the email address provided on recruitment posters requesting a participant information sheet (PIS) and once I had a chance to speak with them, answer any questions, and check study criteria I was planning to ask for verbal consent to schedule an interview – and then go over the written consent form.

The approach has now been adapted such that potential participants will be able to obtain the PIS using a Qualtrics survey link (Appendix 1) found in recruitment posts. After reviewing this information, participants will be asked to indicate if they are interested in potentially taking part in the study, and if so, to provide their name, email, phone number and when would be the best time/day to contact them. Participants are able to download a PDF copy of the PIS and information they have provided on this form. Potential participants will then be contacted by the researcher to set up a call to go over the PIS, answer any questions, check study criteria and obtain verbal consent. Once an interview time and date has been agreed, participants will receive an invitation-only Qualtrics survey (Appendix 4) which obtains both an electronic consent form and windows to provide the necessary identifiable information (name, age, gender, country of residence, location of interview, name/relationship/contact information of trusted adult). Once they completed this survey, participants are able to download a PDF copy of the information they provided. The researcher would not co-sign this consent form (as in the original Appendix E) due to its online format.

If this approach with two Qualtrics surveys is deemed appropriate, I will subsequently alter the initial Appendix A (Online Ad) and B (Study Poster). As I am not sure if any more adaptations to the content in these surveys are needed I do not want to publish it yet, hence I cannot create the accompanying link to insert on the recruitment materials yet but I suspect the only change to Appendix A and B to be that they will be provided a link to the Qualtrics PIS (Appendix 1) instead of being asked to contact me at the study-specific email account.

Signposting

The signposting document (Appendix 6) has been adapted to reflect Breathing Space only being for Scotland.

Debrief

I have added a brief description of the study and some suggested links to read to the follow-up email (Appendix 7). I have also created an additional document with only contact information (Appendix 8) to attach to the follow-up email. At the end of the study, participants will be offered a summary of the study findings if they indicate they are interested in this, as previously outlined in Q51.

Thank you for your time and consideration.

*Signature:*

*Date:* 19 October 2020

**CONCLUSION TO ETHICAL REVIEW (if required)**

The applicant's response to our request for further clarification or amendments has now satisfied the requirements for ethical practice and the application has therefore been approved.

*Signature:*

*Position:* Lecturer in Applied Psychology; Ethics and Integrity Lead

*Date:* 22.10.20



- Appendix 2 Distress Protocol: Changed the word 'answer' to 'ask'
- This is fine.  
Thank you
- NEW Appendix 9 Recruitment Messages:  
Please review the suggested texts for recruitment messages accompanying the Online Ad/Poster. I would be interested to hear about the university stances about needing to include "TW/trigger warning" with messages, as there seems to be mixed messaging about whether it is best practice to do so or not (e.g. <https://journals.sagepub.com/doi/10.1177/2167702620921341>, <https://www.themix.org.uk/mental-health/looking-after-yourself/a-guide-to-content-and-trigger-warnings-37946.html>, <https://www.sciencedirect.com/science/article/pii/S0005791618301137>). If considered appropriate, I will add TW: self-harm at the start of each recruitment message.
- Yes I think TW at the beginning would be good. I think when we first saw your ad the title clearly states what your study was about so myself and the other ethics lead thought this was good enough warning about the content of your questions. However, I think adding TW will additionally mitigate any risk of further traumatising those with trauma so would be good to include.  
Thank you, have included this in the various messages in Appendix 9.
- NEW Appendix 10 Screening Call:  
An example of the participant screening call has been added for review.
- It seems like a bit of a waste of time (both the researchers and participants) by excluding potential participants during a telephone call. Can there be a way to record or get potential participants to confirm they meet the inclusion criteria before you contact them? Perhaps getting them to confirm some statements before providing their email address?  
Please see the new versions of Appendix 1 (I extended the Qualtrics Survey - highlighted changes in green) and Appendix 10 attached. I have included some of the screening questions in the PIS survey. However, after discussing with my supervisor, there are a few more sensitive ones that I have left to ask on the phone, to be able to appropriately respond to the emotions some of these questions may evoke and/or to clarify things as needed. This also means that it will take less time for participants to review the PIS.
- Text of automatic reply study-specific email [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk) :  
*Thank you for contacting us about the Sibling Experiences of Adolescent Self-Harm research study. This mailbox is not monitored 24/7, but Nienke will get in touch with you shortly.*  
*If you or someone you care about needs support in case of a crisis or emergency, please speak with the GP. If someone is seriously hurt and a life is at risk, please call 999 NHS Medical Emergency.*
- This is fine. I thought you were going to send me a copy of the standardised email to be sent to charities etc? I don't see this attached.  
These messages have been outlined in Appendix 9, thanks for reviewing them.

Thank you for reviewing these additional matters. Please let me know if you have any questions or concerns.

Signature: 

Date: 8 November 2020

Comments in green: 9 November 2020

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Signature:

#### CONCLUSION TO ETHICAL REVIEW OF AMENDMENT

The applicant's response to our request for further clarification or amendments has now satisfied the requirements for ethical practice and the application has therefore been approved.

*Signature:*

*Position:*     *Lecturer in Applied Psychology; Ethics and Integrity Lead*

**Date:** 12.11.20

#### Acronyms / Terms Used

NHS: National Health Service

SHSS: School of Health in Social Science

IRAS: Integrated Research Applications System

Section: The SHSS is divided into Sections or subject areas, these are; Nursing Studies, Clinical Psychology, C-PASS.

#### Ethics Administrators

Nursing Studies: [nursing@ed.ac.uk](mailto:nursing@ed.ac.uk)

Counselling, Psychotherapy and Applied Social Science: [CPASS.ethics@ed.ac.uk](mailto:CPASS.ethics@ed.ac.uk)

Clinical Psychology: [submitting.ethics@ed.ac.uk](mailto:submitting.ethics@ed.ac.uk)

MA in Health, Science and Society: [mahssug@ed.ac.uk](mailto:mahssug@ed.ac.uk)



SCHOOL of HEALTH IN SOCIAL SCIENCE

The University of Edinburgh  
Medical School  
Doorway 6, Teviot Place  
Edinburgh EH8 9AG

Email [ethics.hiss@ed.ac.uk](mailto:ethics.hiss@ed.ac.uk)

18 May 2021

Dear Nienke Van Alphen,

**Reference: CLIN818**

**Project Title: Sibling Experiences of Adolescent Self-Harm**

Thank you for submitting the above research project for review by the School of Health in Social Science Research Ethics Committee (REC). I can confirm that the submission has been independently reviewed and has received a favourable opinion on 22<sup>nd</sup> October 2020.

The standard conditions of this are:

- I. Conduct the project strictly in accordance with the proposal that you have submitted and that has been granted ethics favourable opinion, including any amendments made to the proposal required by the REC.
- II. Advise the REC (by email to [ethics.hiss@ed.ac.uk](mailto:ethics.hiss@ed.ac.uk)) of any complaints or other issues in relation to the project, which may warrant review of the favourable opinion granted to the project.
- III. Make submission for approval of amendments to the project before implementing such changes.
- IV. Advise in writing if the project has been discontinued.

The School's Research Ethics Policy and further information and resources are available on the School's website.

Best of luck with your project.

Yours sincerely,

Sanni Ahonen  
Administrative Secretary  
School of Health in Social Science

## Appendix P - Signposting Information

Sibling Experiences of Adolescent Self-Harm  
Signposting Information, Version 2 (11 Sep 2020)



### Support

If you, or a family member, needs support in case of a crisis or emergency:

- **Speak with the GP** 📞
- **NHS24**  
Urgent health advice out of hours, when your GP practice is closed.  
📞 Call **111**
- **NHS Medical Emergency**  
When someone is seriously ill or hurt, and a life is at risk.  
📞 Call **999**

Here are places you can call or message if you would like to talk to someone:

- **The Mix**  
Free 24/7 text service to use if you are experiencing any painful emotion or crisis.  
Texting a trained volunteer is anonymous – but if he/she believes you are at immediate risk of harm, they may share your details with people who can provide support.  
💬 Text *THEMIX* to **85258**  
If you need help but don't know where to turn, The Mix can help you.  
📞 Call **0808 808 4994** (every day from 16.00-23.00)  
✉️ Email/chat support: [www.themix.org.uk/get-support/speak-to-our-team](http://www.themix.org.uk/get-support/speak-to-our-team)  
The Mix also has a short-term telephone counselling service:  
📄 [www.themix.org.uk/get-support/speak-to-our-team/the-mix-counselling-service](http://www.themix.org.uk/get-support/speak-to-our-team/the-mix-counselling-service)



- **Samaritans**

You can call the Samaritans for a listening ear or someone to talk to.

📞 Call **116 123** (24/7)

- **Breathing Space\***

Breathing Space advisors can provide a safe and supportive space by listening, offering advice and providing info. *\*This service is for people in Scotland.*

📞 Call **0800 83 85 87** (24 hours during weekends, weekdays 18.00-02.00).

- **Sane**

Emotional support, guidance and information to anyone affected by mental illness, including families, friends and carers.

💬 Textcare: Receive personalised text messages when you need them most by asking for these 72 hours in advance via [www.sane.org.uk/what\\_we\\_do/support/textcare](http://www.sane.org.uk/what_we_do/support/textcare)

💬 Peer support forum: [www.sane.org.uk/supportforum](http://www.sane.org.uk/supportforum)

- **Papyrus HOPELINEUK**

If you are having thoughts of suicide or are worried about a young person who might be you can contact HOPELINEUK for confidential support and practical advice (weekdays 9.00-22.00, weekends/bank holidays 14.00-22.00).

📞 Call **0800 068 4141**

💬 Text **078 60 039 967**

✉️ Email [pat@papyrus-uk.org](mailto:pat@papyrus-uk.org)

For information and support:

- **Mind**

Info for those living with a mental health problem or supporting someone who is.

🌐 Website [www.mind.org.uk/information-support](http://www.mind.org.uk/information-support)



Free smartphone apps 

- **Feeling Good** Use audio tracks to help relax your body and mind.



- **CalmHarm** Help reduce urges to self-harm and manage emotions.



- **DistrACT** Easy access to info and advice about self-harm and suicidal thoughts.



## Appendix Q - Follow-Up Email

Hi NAME,

Thank you very much for your time and agreeing to be interviewed on DATE as part of the study about adolescent perspectives on having a brother or sister with a history of engaging in self-harm. I appreciate having gotten a chance to speak with you and hear about your experiences.

You spoke about something very personal and I hope you have not been too upset about this since. Please message me if you are distressed since having participated in the study. I also wanted to let you know that you can still ask for your information to be removed, until it has been typed up and included in the study findings. Please find attached a document with the contact information of members of the research team, an independent academic, and the Head of School of Health in Social Science in case you would like to make a complaint.

As previously mentioned, if you would like to, we can set up another time in a few weeks to talk to reflect on the themes I have found in the research so far. This would be completely up to you.

If you are interested in reading about ways to support a loved one who engages in self-harm or feels suicidal as well as looking after yourself, you may want to check out [www.mind.org.uk/information-support/types-of-mental-health-problems/self-harm/for-friends-and-family/](http://www.mind.org.uk/information-support/types-of-mental-health-problems/self-harm/for-friends-and-family/) and [www.mind.org.uk/information-support/helping-someone-else/supporting-someone-who-feels-suicidal/about-suicidal-feelings/](http://www.mind.org.uk/information-support/helping-someone-else/supporting-someone-who-feels-suicidal/about-suicidal-feelings/).

I am also happy to send a summary of the research findings when the study is done, if you would like. This would be sent to your current email address, unless you let me know that you have changed your email since.

Best of luck for the future and thanks again so much for your help with this important study.

Kind regards, Nienke



## Contact Information

*If you want to discuss this study any further with a member of the research team, please contact one of the people below:*

### Chief Investigator:

Nienke van Alphen  
Trainee Clinical Psychologist  
T: 075 80 406 461  
Email: [siblingstudy@ed.ac.uk](mailto:siblingstudy@ed.ac.uk)

### Academic Supervisor:

Dr Helen Griffiths  
Senior Lecturer at the School of Health in Social Science at the University of Edinburgh  
T: 0131 650 3482  
Email: [helen.griffiths@ed.ac.uk](mailto:helen.griffiths@ed.ac.uk)

### Clinical Supervisor:

Dr Catherine Varnell  
Clinical Psychologist (NHS Lothian CAMHS)  
T: 01968 671 330

*If you would like to discuss this study with someone not involved, please contact:*

### Independent Academic:

Dr Helen Sharpe  
Lecturer at the Department of Clinical Psychology at the University of Edinburgh  
T: 0131 651 3949

*If you would like to make a complaint about the study, please contact:*

### Complaints:

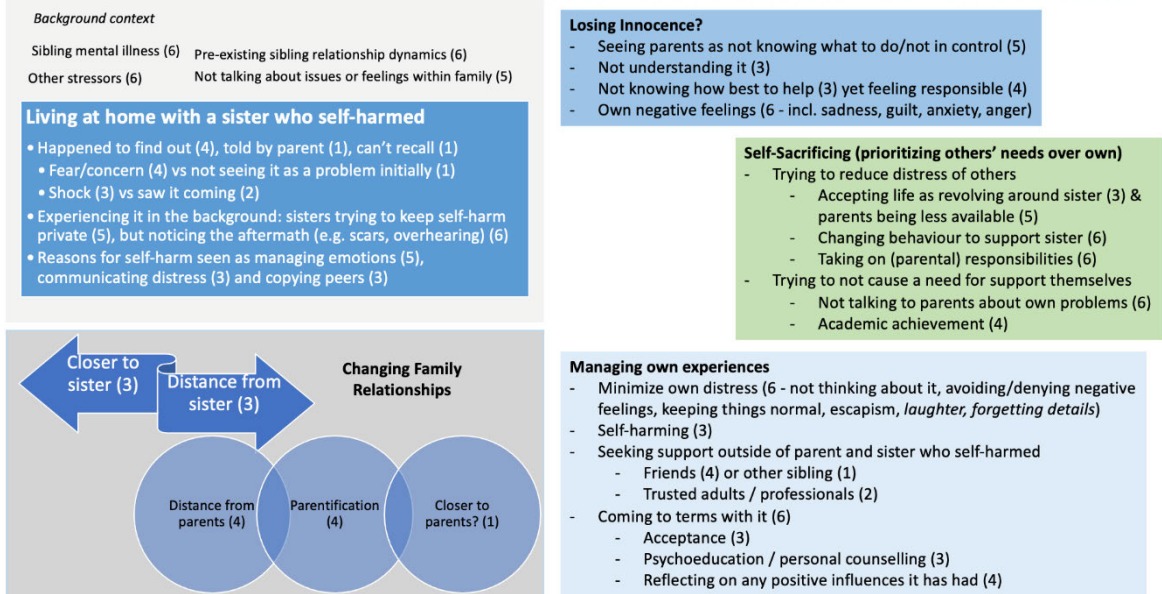
Dr Matthias Schwannauer  
Head of School of Health in Social Science  
Email: [hos.health@ed.ac.uk](mailto:hos.health@ed.ac.uk)

## Appendix R - Example of Analysis

Excerpt from transcript	Line-by-line coding	Focussed coding & memo notes
<p><b>So was that memory when you saw her so cold, was that the first time you noticed her self-harm, or..?</b></p> <p>No I had seen the cuts but I hadn't really like registered it as a problem (laughs) until I saw her shivering. I never actually saw her cut herself at any point in time, but I'd always seen the symptoms of it happening.</p> <p><b>And when you kind of saw that and had that idea of 'oh this is maybe more serious', do you remember how you felt at the time?</b></p> <p>Kind of just (pauses) lost at what to do. I don't want to say hopeless, because I wasn't really despairing as such, but I realised that it was out of my control.</p> <p><b>Do you remember what kind of things were going through your mind as well, besides 'what do I do' or 'it's out of my control'?</b></p> <p>Um I was I think a little bit scared, like a little bit freaked out, because it wasn't something I knew how to deal with. Um it made me a lot more sensitive to her, I'm guessing that's part of the reason why we became so close, because I felt a certain (pauses) need to be around um. But aside from that I don't really remember what I would have been feeling no.</p>	<p>Seeing cuts, Not seeing self-harm as a problem initially, Laughing, Never directly seeing sibling self-harming, Witnessing the aftermath.</p> <p>Not knowing what to do about sibling self-harm, Seeing sibling self-harm as out of own control.</p> <p>Feeling scared in response to sibling self-harm, Not knowing what to do about sibling self-harm, Explaining how self-harm affected relationship with the sibling who self-harmed, Pausing, Changing own behaviour in response to self-harm, Not being able to remember details.</p>	<p>Becoming aware of sibling self-harm (note: <i>was it not seen as a problem due to young age at the time?</i>).</p> <p>Note: <i>is this kind of laughter an example minimising own distress or joking about one's previous innocence, or something else?</i></p> <p>Experiencing sibling self-harm 'in the background'.</p> <p>Reactions to sibling self-harm (note: <i>explore if this realisation of it being out of control related to the participant still being a child or if this realisation that it is not something in their control is also experienced among those who were adolescents</i>)</p> <p>Minimising own distress (note: <i>emphasis on 'little bit' when describing fear</i>).</p> <p>Reactions to sibling self-harm. Becoming closer to sibling who self-harmed. Note: <i>what could the function of this pause be?</i></p> <p>Trying to support the sibling who self-harmed. Note: <i>were feelings forgotten as it had been a long time, because they were not that salient for the participant, or because they had purposefully been repressed?</i></p>

## Appendix S - Example of Themes Shared with Participants for Feedback

# How is adolescent self-harm experienced by siblings?



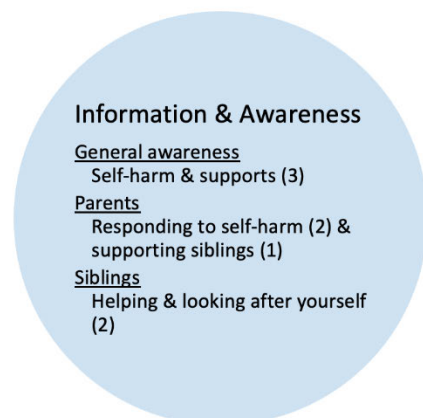
## Support for Siblings

**Within one's community**

- Trusted adult outside of family to talk (4)
  - Does not have to be a mental health professional (but could be)
- Adults offering support, not waiting for siblings to reach out (4)
- Quality time without sibling with parents (2)
- School acknowledging home stress may affect academics (2)

**Professional support**

- Check in with siblings even if they seem fine (5)
- Provide ways to connecting with peers in similar situations (3)
- Useful to involve siblings when assessing or treating young person who self-harms to get a better understanding (3)
  - but be mindful of sibling not over-extending self beyond own needs (1)
- If offering family therapy make sure age-appropriate language is used (1)
- Let siblings know what is being done to help their brother/sister (1)



## Appendix T - Approved University Funding

**From:** VAN ALPHEN Nienke < >  
**Sent:** 22 October 2020 16:01  
**To:** ABBOT Tim < >  
**Subject:** Funding application

Hi Tim,

Hope you're having a nice week. I wanted to ask you about thesis funding applications. Previously, and on the current D-R6 form, it says these go to Kirsty Gardner, but I thought she is no longer in post with us? Would these applications go to you or her?

I was originally granted a maximum of 180 pounds to cover participant tokens of appreciation and participation in the Suicide and Self-Harm Early and Mid-Career Researchers' Forum (2020). Since COVID and having to re-design my project, I would like to change my funding, as specified on the non-R1 I submitted to Gus.

I'd still like to keep potential funding for the research forum in case this does happen, but instead of participant tokens I'd like to use the funding instead to cover a monthly student membership of Dedoose during the data analysis period of my research. I'd imagine this would be at most Nov 20-July 21 and at first 30 days free then approximately 9 pounds a month this would come to 72 pounds max.

Would you be able to confirm whether this change in use of funding is okay? And am I correct assuming I'd submit the expense form only once it's clear that I'm done using Dedoose/have gone to the conference?

I look forward to hearing from you, thank you in advance.

Kind regards, Nienke

**From:** ABBOT Tim < >  
**Sent:** 08 December 2020 12:53  
**To:** VAN ALPHEN Nienke < >  
**Subject:** RE: Funding application

Hi Nienke,

Apologies for the delay getting back to you. Your funding has been approved.

Attached is the expenses form to claim back. If you send this through to me once completed, I will pass on to the Head of Department for sign off and then the finance team for payment.

Best wishes, Tim

Tim Abbot

Programme Administrator

Doctorate in Clinical Psychology

School of Health in Social Science

Doorway 6

General Office

Medical School

Teviot Place

Edinburgh, EH8 9AG

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