The risk and protective factors, response to disclosure, and interventions for sibling sexual abuse: A systematic review

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Executive summary

The present review synthesised the existing literature on siblings' use of harmful sexual behaviour (HSB), also referred to as sibling sexual abuse (SSA). It provides an overview of the risk and protective factors (both for engaging in HSB towards siblings, and for experiencing sexual abuse from a sibling), disclosure patterns and responses to disclosure, and therapeutic responses or other interventions for victims and children and young people instigating SSA.

We identified a total of 38 studies from North America, Israel, Europe, and Australia, with a notable absence of studies from low- to middle-income countries. Most studies used a purposive or convenience sample from therapeutic, forensic, justice, and community-based settings.

Individual-level risk factors for SSA victimisation included being female and pre-adolescent, whereas young people who display HSB towards a sibling were often male, and older (had entered adolescence). Learning disabilities, a history of abuse victimisation, criminal history, and drug and alcohol use were also identified as individual-level risk factors for young people displaying HSB towards a sibling. Family-level risk factors included living in a dysfunctional family environment, parental/marital conflict, divorce, living in a blended family, parental absence, emotional neglect, and low socioeconomic status. The only contextual-level risk factors identified were the fundamentalist and traditional religious context in which families lived, and the effects of patriarchal norms in families.

Our review also found that rates of disclosure to parents were low, ranging from 8% to 69% of victims disclosing, with a higher likelihood of disclosure to a mother than a father. Many victims of SSA did not disclose until adulthood, often due to barriers related to family-level risk factors, such as parental unavailability and rejection or disbelief by parents that the abuse had occurred. Some sibling HSB was discovered because a young person was found to

have been involved in extrafamilial displays of HSB, and further investigation resulted in SSA being discovered. Parents often responded negatively or with disbelief when a young person disclosed as a victim of SSA, with multiple studies noting minimisation by parents and the sibling who instigated the HSB. Studies reporting young people who have been victims of SSA did not directly report on the therapeutic responses and interventions used to support them.

Overall, our review highlights the need for more research on SSA, particularly in low- and middle-income countries and within different cultural contexts. It is important for future studies to include diverse samples and use standardised measures to enable comparison across studies. The review also emphasises the importance of early detection and prevention of SSA, given the significant negative impact it can have on victims and their families and the low rates of disclosure. Professionals working in sectors such as social work, education, health, and mental health need to be aware of the risk and protective factors, disclosure patterns, and appropriate responses to SSA to provide effective support to those affected. Finally, our review highlights the need for more awareness-raising and education for parents to address the issue of SSA in families, reduce stigma and barriers to disclosure for victims, and facilitate access to treatment and intervention when HSB is displayed.

Introduction

There has been a growing public awareness of the prevalence and impact of child sexual abuse. Prevalence around the world has been estimated at 3 to 17% for boys and 8 to 31% for girls (Barth et al., 2013; Stoltenborgh et al., 2011). The highest rates for boys were found to be in Africa, whereas the highest rate for girls was found to be in Australia (Stoltenborgh et al., 2011). Australia's first nationally representative prevalence study found that 28.5% of Australians aged over 18 had experienced some form of child sexual abuse, including HSB from other children/young people (Mathews et al., 2023). Research over the past 20 years has highlighted the issue of sexually abusive situations involving peers (Hackett, 2004). Such situations are described as young people displaying harmful sexual behaviours (HSB). HSB has been broadly defined as sexual behaviours that are developmentally inappropriate and harmful or abusive to oneself or others (Hackett et al., 2016). Previously, age gaps were used to differentiate between abusive or exploitative sexual behaviours and normal sexual exploration between young people. More recently, Paton and Bromfield (2022) have extended our understanding by orienting categories in Hackett's framework towards trauma-informed responses that consider the persistency, frequency, and severity of HSB. HSBs can be displayed by young people the victim does not know, by someone the victim knows, or by siblings (brothers, sisters, cousins, and including step and half siblings). This if often referred to as sibling sexual abuse (SSA) and is the term we adopt in this review for sexually harmful or abusive behaviours from a child/adolescent to a sibling.

Finkelhor's (1980) early model defined SSA as the use of harmful or abusive sexual behaviours when there is an age gap of 5 years or more between siblings. This was supported by findings that most children who engage in HSB tend to be older than their victims (Krienert & Walsh, 2011; Monahan, 2010). However, solely relying on age gaps in conceptualising sibling-based HSB ignores instances of SSA between siblings of a similar age (Bertele & Talmon, 2021). Sibling-based HSB is the most common form of intra-familial

sexual abuse, estimated to be up to three times as common as sexual abuse by a parent (Caffaro & Con-Caffaro, 2005; Krienert & Walsh, 2011; Stroebel, O'Keefe, Beard, et al., 2013). However, it is largely understudied compared to other sexual abuse types and is likely an under-reported form of sexual abuse (Bertele & Talmon, 2021; Caffaro & Con-Caffaro, 2005; Hackett, 2004; Tener, Katz, et al., 2020). Short-term impacts on victims can include clinically significant trauma symptoms, emotional and behavioural problems, and feelings of guilt, shame, and humiliation (Kiselica & Morrill-Richards, 2007; Ullman, 2007). Victims may also experience long-term impacts such as depression, self-harm and suicide, substance abuse, eating disorders, revictimisation, relational difficulties, parenting issues, and low self-esteem (Carlson, 2011; Carlson et al., 2006; Crisma et al., 2004; Welfare, 2008).

Accurately identifying and responding to SSA continues to be a challenge. There are inconsistent definitions and understandings of what constitutes normal, problematic, harmful, or abusive sexual behaviour between children and young people (McCoy et al., 2022; Yates, 2017). This is particularly true in the context of sibling relationships where sexual behaviours are often minimised by victims, parents, and professionals (Adler & Schultz, 1995; Bertele & Talmon, 2021; McCoy et al., 2022; Rowntree, 2007).

It is important to note that as well as age, imbalances of power and vulnerability may come from factors such as size, disability, isolation, parental neglect, or other dynamics in the sibling relationship (Allardyce & Yates, 2013; Caffaro, 2014, 2020; Hershkowitz, 2011; Johnson, 2010). Coercion has been identified as an important consideration identifying HSB, most commonly the use of verbal coercion, threats, and bribery/trickery, however physical coercion and force may also be present (Caffaro & Con-Caffaro, 1998; Carlson et al., 2006; Krienert & Walsh, 2011).

There has been a historical cultural belief that sexual behaviours in young children are benign, unharmful, and even consensual, however the impacts of SSA are like those seen for

other forms of child abuse (McCoy et al., 2022; Rudd & Herzberger, 1999; Welfare, 2008; Yates, 2017). However, these cultural beliefs may continue to inform parents' and professionals' understanding and responses to sexual behaviour in children (Tener et al., 2018; Yates, 2017, 2020). With many barriers already present for disclosure for child sexual abuse (for example, fear of negative response or not being believed, confusion, guilt, fear of the abuser), disclosure rates for SSA seems to be even lower (Carlson et al., 2006; Caspi, 2011; Finkelhor et al., 2006; Hackett, 2004).

Victims have been found to minimise their own experiences of SSA, regarding them as mutually initiated, downplaying the abuse due to the relationship with their sibling, or blaming themselves (Rowntree, 2007). Parents have also been found to be inaccurate in their assessment of harmful sexual behaviour in children and young people. In cases of SSA, parents were significantly less able to accurately assess the level of concern and were less likely to respond appropriately (Marriage et al., 2017). Poor responses from parents such as disbelief, blaming, or minimisation, to disclosure or discovery can create further harm and prevent involvement of supports and services (Bertele & Talmon, 2021; Caffaro & Con-Caffaro, 2005; Marriage et al., 2017; McCoy et al., 2022; Morrill, 2014; Phillips-Green, 2002). Professionals including child protection, mental health professionals, and educators, have also been found to down-play impacts and under-respond in cases of SSA (Caffaro & Con-Caffaro, 2005; Kreinert & Walsh, 2011; McCoy et al., 2022).

In their systematic review, Bertele and Talmon (2021) investigated the characteristics and implications of SSA. They found that it is common and a unique form of child sexual abuse. Their review increased our understanding of the features of SSA such as its early onset, frequency, and extended duration, as well as revealing that SSA is linked to poor mental health and wellbeing including sexual functioning, anxiety, depression, and impaired self-esteem. To date, no systematic review of existing literature has been conducted that

explores the risk and protective factors of SSA, the characteristics of disclosure and responses to this by families and professionals, and the therapeutic responses and interventions being utilised to support victims and perpetrators. The aim of our review is to investigate these through a comprehensive systematic review of the literature. The research questions that informed our review were:

1. What are the risk and protective factors for SSA perpetration or victimisation that should be the focus of interventions?
2. What are the characteristics of disclosure of and responses to SSA?
3. What are the therapeutic responses or other interventions for victims and children and young people instigating SSA?

Method

Search Strategy

We conducted comprehensive searches across the following EBSCOHost databases; Medline Complete, APA PsycINFO, Education Resources Information Center (ERIC) and the Social Sciences Index (SocIndex). We also searched Web of Science Core Collection and the Cochrane Library from inception to September 2022. We applied (where applicable) the following limiters to our searches; English language, peer-reviewed and human. The detailed search strategy including the keywords, synonyms, and controlled vocabulary (such as MeSH) are in Table 1.

Table 1. Search terms used

	Population	Outcomes
Keywords* (Search terms title or abstract)	Sibling* OR brother OR sister OR cousin* OR intrafamilial OR intra-familial	"harmful sexual* behavio*" OR "problem* sexual* behavio*" OR "concern* sexual* behavio*" OR “reactive sexual* behavio*” OR “juvenile sex* offend*” OR "sex* harmful behavio*" OR “adolescent sex* offend*” OR “sibling* abuse” OR “sex* reactive behavio*” OR incest OR “sex* abuse”

*Keywords were combined with a controlled vocabulary search based on relevant subject headings from each database

We adapted Godin et al.'s (2015) grey literature search plan to incorporate Google search results and the following targeted organisational websites and repositories using keyword searches: Australian Institute of Family Studies, Australian Institute of Criminology, Australian Centre for Child Protection, and the Parenting Research Centre.

Inclusion and Exclusion Criteria

Our review aimed to find, assess, and synthesise all study designs featuring siblings aged 17 years and under, including biological, adoptive, step or foster siblings, as well as cousins. Studies were included if sibling based sexual abuse/HSB occurred when both the victim and user of sexual/harmful behaviours were under 18 years. Studies of adult survivors of childhood sibling sexual abuse, affected family members, and professionals (such as teachers, health, and social care workers) were considered. Studies were required to have a sample size of 5 or more people to be included. We excluded case studies, clinical case material, studies using hypothetical cases, and fictional material as well as studies of harm perpetrated by or towards adults.

Study screening and selection

We prepared this review in accordance with the Preferred Reporting Items of Systematic Review and Meta-Analyses (PRISMA; see Figure 1; Page et al., 2021). Following the systematic search, we exported all identified citations into EndNote (n = 3,008), with duplicates subsequently removed (n = 1,249). 1,759 titles and abstracts were then double blind screened independently for relevance by two of three authors (DR, JD & JS) using Covidence screening software.

Two authors (ST & GH) reviewed screened articles (n = 136) against the inclusion and exclusion criteria. We resolved any disagreement between authors through discussion. Based on reasons detailed in the PRISMA flowchart (Figure 1), we excluded 98 articles, leaving 38 for inclusion in the review.

Data extraction

Three of the authors (ST, GH & DR) extracted data from the included studies (*n* = 38) using Microsoft Excel. The data for study characteristics and outcomes extracted from each study included participants, region, study design, outcomes, prevalence, risk and protective factors, characteristics and responses to disclosure and interventions.

Critical appraisal of included studies

Four authors independently assessed half the studies each against the QualSyst tool (Kmet et al., 2004). Studies were assessed across 10 – 14 criteria dependent on methodology and design. Where the two authors assessing a paper differed in their score they met to discuss and agree upon a quality score across each individual criterion. A final score between 0 and 1 was created by dividing the number of points scored (2 for *Yes*, 1 for *Partial* and 0 for *No*) by the total number of criteria applicable to the study.

Findings

Assessment of quality of studies

The quality of the studies included in our review ranged in scores from 0.10 to 1.00 (see Tables 2 to 5) but overall were largely high quality (over 0.75). Recently published studies scored higher likely as a result of improved reporting guidelines. There were no discernible patterns or differences in the quality of studies based on study participants.

Overview of studies

In total, 38 studies met our inclusion criteria and had data extracted. Over half of the studies were from North America (*n* = 21). Israel had the next largest number of studies (*n* = 8), followed by Europe (*n* = 6) and Australia (*n* = 2; see Tables 2-5). There was also one study that was conducted across both the US and Israel. There were no studies included in our review from low- and middle-income countries. Most studies (*n* = 29) did not report whether funding was received in relation to their work. Of those that did, four reported no

funding was received, whereas five described funding. For two papers by the same author (Yates, 2017, 2020), funding was received from the Economic and Social Research Council (in the UK). One study received funds from an Australian state-based non-government organisation (Rowntree, 2007), and another from a Canadian state-based governmental organisation (Joyal et al., 2016). The fifth study (Tener, Tarshish, & Turgeman, 2020) reporting partial funding from a child abuse research and training institute in Jerusalem.

The SSA studies included in our review used a range of samples and participants. These included data from young (aged 17 and under) victims of SSA, young people who used HSBs (or were perpetrators of SSA), adult victim-survivors and childhood sibling abusers, family members, and professionals (see Tables 2-5). Around half the studies specifically mentioned abuse occurring between brothers and sisters. Many of the other studies described their work as focusing on distinct types of sibling relationships including biological, step and half siblings (also suggesting brothers and sisters). Some studies were not clear and simply described their work as focusing on siblings. All the studies utilised either a purposive or convenience sample from a range of settings including therapeutic (the most common), forensic, justice and community-based (i.e., universities, online etc.).

Our review included studies that discussed a range of risk factors at three levels: individual (for both victims and those displaying HSB), familial, and contextual.

Table 2. Studies of child survivors who were sexually abused by a sibling

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Gilbert, C.M. (1992)	USA Clinical	Characteristics of families in which a member was identified as a victim of sibling incest.	Cross-sectional Convenience	0.89	*N* = 14 family case records. *n* = 16 victims (13 girls, 3 boys; age range 2-10 years (M = 6.75, SD = 2.44). *n* = 15 HSB users (14 males and 1 female; age range 13-17 years (M = 15.06, SD = 1.16)	The SSA had major impacts on the children and their families. Many offenders and victims experienced legal, school, and emotional, problems and some were removed from their homes.
Husain, A., & Chapel, J.L. (1983)	USA Clinical	Findings from intake interviews of incestuously abused girls admitted to a psychiatric hospital	Cross-sectional Convenience	0.67	*N* = 61 (identified from review of 437 hospital intake interviews) Victim age at admission 16.6 +/- 1.4 (100% females)	Many young girls admitted to psychiatric hospitals (3%; 13 out of 61 reported intrafamilial abuse) are victims of SSA by a brother. The mean age at time of abuse by a brother was 11.17±4.57 years
Katz, C., & Hamama, L. (2017)	Israel Forensic	Forensic investigations with children interviewed following suspicions they were victims of sexual abuse by siblings.	Qualitative thematic analysis Convenience	0.85	*N* = 20 Victim children (17 females & 3 males) age range 6-12 years (M = 9.07, SD = 1.66) Reported suspects were sibling children age range 7-16 years (M = 12, SD = 2.51)	All children had experienced severe incidents of sexual abuse by their siblings, with most having delayed disclosure for years due to inaccessible parents, feelings of shame and fear, and grooming.

Table 3. Studies of children using abusive or harmful behaviours towards siblings

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Baglivio, T.M. & Wolff, T.K. (2021)	U.S.A Juvenile Justice	Investigated victim typologies, including exposure to adverse childhood and traumatic experiences.	Retrospective Convenience	1.00	*N* = 5,539 (94.8% male) Age not reported	The findings indicate that various types of traumatic experiences, including cumulative childhood trauma, are linked to different types of violent sexual offenses. Higher levels of traumatic exposure increased the likelihood of victimizing siblings, as did experiences such as sexual abuse, physical abuse, history of child welfare placements, emotional neglect, and parental separation/divorce.
Dunton, C.E. (2020)	U.S.A School	Analysed data from two-school based programs that treat sexually aggressive juveniles.	Cross-sectional Convenience	0.80	*N* = 125 (90.4% males) *n* = 24 siblings, *n* = 38 half/step siblings Age – M = 15.18, SD = 1.73	55.% had a known victimisation history, and 31.1% had a suspected victimisation history.
Hershkowitz, I. (2011)	Israel Forensic	Compared the personal and family characteristics in national data files	Cross-sectional Convenience	1.00	*N* = 1951 confirmed cases of HSBs (94.5% male, aged 4-14 years (M = 12.08, SD = 1.75)	Having a disability and having been abused themselves in the past were both found to be predictors of the use of sexually intrusive behaviours on siblings.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Joyal, C.C., Carpentier, J. & Martin, C. (2016)	Canada Forensic	Investigated the role of victim age and family relation in an effort to categorize and subgroup juvenile sex offenders (JVO)	Cross-sectional Convenience	0.95	*N* = 351(325) (100% males) Age range 11-18. (M = 15.8 years, SD = 1.8)	JVO who abused siblings were significantly more likely to have been victimised during their childhood (compared to JVO with extra familial victims). JVO with sibling victims were considered a distinct and "less extreme" group on measures such as aggression, social abilities, delinquency etc.
Latzman, N.E., Viljoen, J.L., Scalora, M.J. & Ullman, D. (2011)	U.S.A Clinical	Compared data on adolescent sibling and non-sibling offenders from a residential sex offender program in Midwestern United States.	Cross-sectional Convenience	1.00	*N* = 166 (100% males) Age range – 13-17 years (M at admission = 15.25, SD = 1.56. M at discharge 16.13, SD = 1.52)	Adolescents with sibling victims were significantly more likely to have histories of sexual abuse, been exposed to domestic violence, and had been exposed to pornography compared to non-sibling offenders. Penetration was more common in sibling offenders, but similar treatment needs and risks were present between groups.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Yates, P., Allardyce, S. & MacQueen, S. (2012)	Scotland Clinical	Investigated the chronology of 34 boys behaviour of displaying in home and in community harmful sexual behaviour	Cross-sectional Convenience	0.50	*N* = 34 (100% males) Age – not reported	Abusive sexual behaviour progressed from the family (against siblings) into the community. Boys who displayed HSB in the community and the family were more likely to have experienced more abuse themselves and a younger age of onset of abusive behaviour. Boys whose abuse of their siblings was motivated by jealous anger were less likely to go on to abuse outside their family.

Table 4. Studies of adult survivors of childhood sibling sexual abuse

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Beard, K. W., O'Keefe, S. L., Swindell, S., Stroebel, S. S., Griffee, K., Young, D. H. & Linz, T. D. (2013)	U.S.A. Community	A retrospective survey on adult's experiences of childhood sexual experiences.	Cross-sectional Convenience	0.77	*N* = 1178 (100% male) survivors Age range - 18-86 years (Mdn = 21, M = 26.5, SD = 12)	2.1% of the sample had experienced brother-brother incest (BBI). BBI was often the first sexual experience for the victim and had a negative impact on their adult sexual adjustment with adult partners.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Carlson, E.B., Macio, K., & Schneider, J. (2006)	U.S.A Community	A retrospective study investigating adult survivors' SSA experiences.	Retrospective Convenience	0.70	*N* = 41 (34 women, 7 men) survivors Age range – 22-55. (M = 38.5, SD = 8.9)	Survivors were often abused by other family members as well as siblings including emotional abuse. Parents were seldom aware of SSA. One of the siblings moving out of the home, rather than disclosure, was what ended abuse.
Doyle, C. (1996)	U.K. Community	Qualitative study of 12 women's experiences of brother sexual abuse.	Qualitative Convenience	0.10	*N* = 12 (100% female) survivors Age of adult participants not reported	The context in which the abuse occurred contributed to the impact the abuse had on the victim. Victims feared they would not be believed, would be blamed, or even punished for the abuse.
Kristensen, E. & Lau, M. (2007)	Denmark Clinical	Analysed data from 5 adult psychiatric departments that offered incest group therapy.	Cross-sectional Convenience	0.86	*N* = 385 (100% female) survivors Age range 18-62 years (M = 33, SD = +/- 9.8 years)	Brothers were the third most common intrafamilial perpetrators (after fathers and step-fathers). Victims were 2.7 times more likely to experience penetration when the perpetrator was a brother.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Monahan, K. (2010)	U.S.A. Clinical	Examines treatment issues faced by women abused by brothers in a small clinical practice	Qualitative, thematic Convenience	0.30	*N* = 8 (100% female) survivors Age range 56-69 years (Age when abuse occurred 9-16)	8 females experienced sexual abuse by their brothers in childhood. The impact was like other types of CSA and had similar implications for their relationships with parents into adulthood.
McDaniels-Wilson, C. & Belknap, J. (2008)	U.S.A. Clinical	Collected comprehensive information on the self-reported sexual violation and abuse histories of 391 incarcerated women.	Retrospective Convenience	0.94	*N* = 380 (100% female) survivors Age range 18–69 years (M = 35)	The age of victim survivors played a role in the prevalence of brothers being identified in the victim offender relationship. The rates were 1.3% before the age of 6, 6.6% from age 6 through 11 years old, and 5.1% for victim survivors aged 12 through 17 years old.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
McDonald, C. & Martinez, K. (2017)	U.S.A Community	Analysed thematic categories of narratives gathered from adult survivors in an online survey on sibling sexual violence	Qualitative Convenience	0.70	*N* = 63 of which 33 reported as being survivors (30 female including one transgender man who was abused when living as a female) Age range 18–60 years (M = 35–39)	Survivors believed that their siblings abused them due to their own victimisation, exposure to pornography, were abusive to establish dominance over them, or potentially had an undiagnosed mental illness.
O'Keefe, S. L., Beard, K. W., Swindell, S., Stroebel, S. S., Griffee, K. & Young, D. H. (2014)	U.S.A Community	Investigated retrospective instances of sister-brother abuse in 27 adult men and compared them to victims of abuse by adult females and non-abused controls.	Cross-sectional Convenience	0.86	*N* = 27 (100% male) survivors Age range 18–86 years (M = 26.5, SD = 12.0)	Sibling abuse by sisters on males increased the likelihood of engaging in same sex sexual relations and had negative effects on victims' sexual adjustment as adults.
Owen, N. (1998)	Australia Clinical and community	Investigated various aspects of sibling incest in female victim-survivors	Qualitative Purposeful	0.75	*N* = 10 (100% female) survivors Participant age range 30–50 years Age range abuse occurred 3-12	Ten women had experienced instances of sexual abuse by siblings. The impact was similar to other types of CSA and had similar implications for their relationships with family members.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Rowntree, M. (2007)	Australia Community	Analysis of women's experiences of disclosing sibling sexual abuse.	Qualitative Convenience	0.75	*N* = 19 (100% female) survivors Age range 24-66 years	Misconceptions from family, professionals, and the community about sibling sexual abuse were commonplace and impacted disclosure (e.g., that SSA is natural and normal, the victim's fault, not serious, a family matter, or a taboo subject).
Rudd, J. M. & Herzberger, S. D. (1999)	U.S.A. Clinical	Surveys of women attending support groups for incest survivors.	Mixed methods Convenience	0.91	*N* = 14 (100% female) survivors Age M = 31	The absence of fathers was a key component in the sexual abuse of women by their brothers in every case. Other family circumstances (such as substance abuse, mental illness, and violence) were also prevalent.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Stroebel, S. S., O'Keefe, S. L., Griffee, K., Harper-Dorton, K. V., Beard, K. W., Young, D. H., ... & Kuo, S. Y. (2019)	U.S.A. Community	Investigated the effect of the sex of a perpetrator on victim-survivors' sexual behavior and sexual orientation.	Quasi experimental Convenience	1.00	*N* = 4,384 (2,828 females and 1,556 males) of which 144 were survivors Age not reported	Victims of brother-brother incest started masturbating to adult male images. They would also go on to victimise underage females themselves. Female victims of brother-sister incest went on to victimise underage females
Tener, D. (2021)	Israel Therapeutic and community	Interviews with 15 adults about their experiences of SSA.	Qualitative Convenience	0.95	*N* = 15 (86.6% females) survivors Age range 21-24 years (M = 30.66, SD = 6.73)	A continuum of reciprocity and coercion was observed in cases of sibling sexual abuse. 20% described a progression from mutuality or routine to coercion.
Tener, D., Katz, C. & Kaufmann, Y. (2021)	Israel Therapeutic and community	Interviews with survivors identified in organisations that treat survivors of SSA.	Qualitative Convenience	1.00	*N* = 25 (24 female and 1 male) survivors Age range 19-45 years	Survivors emphasised the experience of disclosure as liberating, regardless of the consequences. Disclosure experiences were highly diverse. In some cases, other non-abusive siblings were able to initiate disclosure for the survivor and resist parental silence of the abuse.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Stroebel, S S; O'Keefe, S L; Griffee, K; Kuo, S-Y; Beard, K W; Kommor, M J (2013).	USA Community	Compared mental health and social outcomes between victims of sister-sister incest and controls.	Cross sectional Convenience	1.00	*N* = 31 (100% female) survivors Age M = 31 (SD = 13)	Victims of sister–sister incest were more depressed and more likely than controls to be distant from the perpetrator-sister and to have traded sex for money, experienced an unplanned pregnancy, engaged in four different types of masturbation, and engaged in 13 different same-sex behaviors.

Table 5. Studies including both adult survivors of childhood sibling sexual abuse and those who used harmful sexual behaviours towards siblings during childhood

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Griffee, K; Swindell, S; O'Keefe, S. L.; Stroebel, S. S.; Beard, K. W.; Kuo, Shih-Ya & Stroupe, W. (2016)	U.S.A. Community	Analysis of factors that increase the risk of sibling incest (SI).	Cross sectional Convenience	1.00	*N* = 137 (86 female, 51 males) Of which 38 participants were those who reported to have used HSBs and 99 reported as survivors Females age range– 18-78 years (Mdn = 21, M = 25.0, SD = 9.7) Males age range – 18-86 years (Mdn = 21.5, M = 26.6, SD = 11.8)	Risk factors included: having shared a bed with a brother, parental child abuse and neglect, parent-child incest, witnessing parental physical fighting, and family nudity.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Hardy M.S, (2001)	USA Community	Investigated recall of physical and sexual aggression by siblings.	Cross sectional Convenience	0.73	*N* = 203 (74.4% female, 25.6% male) of which 15 (14 female and 1 male) reported sexual behaviour between siblings. Of the 15 six reported the behaviours as abusive, however the number of survivors and users is not reported. Age M = 12.21 years (SD = 5.43)	Rates of sexual behavior were low (rates of physical aggression were high). Participants were more likely to believe that the behaviours were abusive in retrospect than when they occurred.
Marmor, A., & Tener, D. (2022)	Israel Community	Analysed data from interviews with 20 adults from the Jewish Orthodox and ultra-Orthodox communities.	Qualitative, constructivist grounded theory Convenience	0.95	*N* = 20 (13 female and 7 males) including both users of HSBs and survivors. Age range 20-68 years	A lack of understanding or ignorance about sexuality was a common factor. Approximately ½ of the participants had never shared their stories with anyone before the interview.
Morrill, M. & Bachman, C. (2013)	U.S.A. Community	Investigated gender differences in the experience of sibling abuse during childhood, either as a victim or perpetrator.	Exploratory Convenience	1.00	*N* = 335 (67.1% female, 32.6% male, 0.3% not male female or transgender) including both users of HSBs and survivors Age range 15–59 years (M = 23, Mdn = 20) 0.3% identified something other than female or male 0% as transgender	There were no significant gender differences in terms of surviving sibling abuse or perpetrating emotional and physical abuse. However, the study did find that women had a significantly higher rate of perpetrating sibling sexual abuse compared to men.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Relva, I., Fernandes, O. & Alarcão, M. (2017)	Portugal Community	Investigated the extent of the use of sexual coercion towards a sibling in males and females.	Cross-sectional Convenience	0.85	*N* = 590 (62.5% female) including both survivors and users of HSBs. Age range 17-52 years (M = 20.3, SD = 4.5)	Males reported both having been sexually coerced and having engaged in more sexually coercive behaviours with their siblings than female participants.

Table 6. Studies of family members' and professionals' views of sibling sexual abuse

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Tener, D., Lusky, E., Tarshish, N., & Turjeman, S. (2018)	Israel Clinical	Examined parental attitudes to SSA and their reconstruction, during and after their experience at the Child Advocacy Center (CAC).	Qualitative Purposive	0.75	*N* = 60 files of families Victims (70.9% female) Age M = 7.8 years HSB users (94.3% = male) Age M = 15.2 years	Interventions that do not consider the attitudes and needs of the family involved can make the crisis worse. Attending the CAC had a significant impact on the parents involved, causing many of them to reassess their initial attitudes

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Tener, D. & Silberstein, M. (2019)	Israel Clinical	Interviews with professionals who have treated SSA cases.	Qualitative Convenience	0.90	*N* = 20 professionals (16 clinical therapists, 4 child protection officers) Age range 35-63 years	Professionals acknowledged disclosure as placing a victim child in a vulnerable position. Professionals identified the importance of physical and emotional protection, with emotional protection being more challenging to apply and more complex.
Yates, P. (2019)	Scotland Clinical	Investigated the ways in which social workers frame, make decisions, and respond to SSA in families they work with.	Qualitative Constructivist grounded theory Convenience	0.90	*N* = 21 social workers	Social workers frame sibling relationships as non-abusive and of intrinsic value, and when faced with contradictory evidence engage in a number of mechanisms to maintain this frame.
Yates, P. (2018)	Scotland Clinical	Investigated social workers' decision-making when working with families where SSA occurs	Qualitative Constructivist grounded theory Convenience	0.75	*N* = 21 social workers	Social workers make decisions intuitively, influenced by a practice mindset of 'siblings as better together'- sibling relationships as non-abusive and of intrinsic value; children as vulnerable and intending no sexual harm to others; and parents as well-intentioned protective.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Tener, Dafna; Newman, Abbie; Yates, Peter; Tarshish, Noam (2020)	Israel and USA Clinical	This study aimed to compare staff perspectives and experiences of working with sibling sexual abuse cases across two Child Advocacy Centers (CACs) within different countries and different cultural and legal contexts.	Qualitative cross cultural comparative study Convenience	0.90	*N* = 14 professionals including social workers, child investigators, law enforcement officers, doctor, prosecutors, case coordinator, secretary.	Both CACs' participants described how, in many of the cases, parents tended to support the sibling with harmful sexual behaviours rather than the victim and, at times, were very uncooperative with the CAC legal interventions against the sibling with harmful sexual behaviours

Table 7. Studies of records regarding intrafamilial abuse

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Adler, N.A., & Schutz, J. (1995)	U.S.A Clinical	Retrospective chart reviews of clinical intake material in hospital-based, outpatient psychiatric clinic.	Cross-sectional Convenience	0. 78	*N* = 12 (100% male) individuals using HSBs Age range 13-19 years, M = 16	92.2% had a history of being physically abused by one or both parents. All denied using verbal threats, but 75% of the victim children reported that they had been verbally threatened to maintain silence.

Author and date	Country & setting	Focus of study	Method/Design	Quality appraisal score	Participants	Key Findings
Krienert, J.L., & Walsh, J. A. (2011)	U.S.A. Forensic	Aggregate national level sibling sexual abuse data was extracted from NIBRS jurisdictions from 2000-2007.	Cross sectional Convenience	0.95	*N* = 13,013 incidents Victim children (71.4% female) - 38.7% were 6 and under, 43.4% were 7-12 and 17.9% were 13-21 Instigating child (92.2% male) - 31.8% were 12 and under, 57% were 13-15, and 11.2% were 16+	71.4% of victims were female and were most often abused by males. Males were significantly more likely to be victimised by other males (87%).
Margolin, L., & Craft, J. L., (1989).	USA State government case files	Identified the characteristics of caretakers who commit child sexual abuse (included siblings)	Case series review Convenience	0.83	*N* = 2,732 cases (86.5% of perpetrators were male) *N* = 143 (5.3% of cases; HSB users were 94.4% male, 5.6% female)	Incidence of abuse by siblings was less frequent than other caretakers but more severe in nature.
Tener, D; Tarshish, N; Turgeman, S. (2020).	Israel Therapeutic and child protection	The study examines SSA characteristics, dynamics, and perceptions of deviancy in multi-sibling subsystems.	Qualitative document analysis Convenience	0.90	*N* = 100 families	Reveals two types of SSA dynamics: “identified perpetrator” and “routine relationship”. Sibling perceptions of deviancy vary along a continuum from deviant to completely normative. These perceptions are affected by the type of family dynamics as well as by factors associated with disclosure.

Risk factors for victimisation from siblings

Being female and pre-adolescent were individual-level factors relevant to being victimised by a sibling. These were the only two individual-level risk factors for victimisation of being abused by a sibling who is displaying HSB mentioned within the studies included in our review.

Individual risk factors for engaging in HSB toward a sibling

Young people displaying HSB towards a sibling were most often male (but not always) and were often older and had entered adolescence. Many studies made mention of learning disabilities and that the abusers had either been victims of abuse from parents themselves or it was assumed abuse had occurred. Although mentioned in fewer studies, having a criminal history and the use of drugs and alcohol, and exposure to pornography were also identified individual-level risk factors in young people who displayed HSB towards a sibling.

Familial risk factors for sibling sexual abuse

Several studies identified family-level risk factors. These included living within a dysfunctional family environment, often because of domestic/family violence or where parental/marital conflict was occurring. Divorce and living in a blended family were also relevant, playing a role in abusive situations involving step siblings. Parental absence, both physically but also emotionally and through neglect as well as low socio-economic status, legal stressors, and having shared a bed with the victim were identified in fewer studies as relevant family-level risk factors.

Contextual risk factors for sibling sexual abuse

Three studies from Israel (Marmor & Tener, 2022; Tener, Tarshish, & Turgeman, 2020; Tener et al., 2018) discussed how the fundamentalist and traditional religious context in which some of the families lived (Ultra-Orthodox) was seen to play a role in exacerbating

risk through preventing an understanding of sexuality and sexual acts and creating a belief that all sins are of equal severity. Owen (1998) mentioned the patriarchal nature of families and how males hold more power compared with females highlighting how this plays a role in the gendered nature of sibling-based displays of HSB: predominantly brothers abusing sisters.

Protective factors

Only three studies (Carlson et al., 2006; Griffee et al., 2016; Tener et al., 2021) within our review spoke about protective factors. All of these reported on data obtained from interviewing or surveying adult survivors or perpetrators of SSA. Maternal affection was reported as one protective factor as higher levels of maternal (but not paternal) affection were related with decreases in SSA (Griffee et al., 2016). One of the siblings moving away (more often, the sibling displaying HSB) was identified as a protective factor leading to the cessation of abuse (Carlson et al., 2006), but not preventing it from occurring in the first place. Although rare, in less than 10% of cases in one study of adult survivors (Carlson et al., 2006), discovery of the SSA by someone else was another identified protective factor. Disclosure was the only other concept discussed which was viewed as protective factor (Tener et al., 2021), again only in stopping further abuse from occurring rather than preventing it from occurring in the first place.

Characteristics of disclosure of sibling sexual abuse

Many people who experienced SSA did not disclose to parents. Rates of disclosure to parents ranged from 8% in a sample of 12 who had used HSB against a sibling (Adler & Schutz, 1995) to 69% of a sample of 14 victims (Gilbert, 1992). Of those who did disclose, this was more often to their mother, with some, but a lot less, disclosing to their father. Some studies report how parents became aware of the abuse as opposed to the abuse being disclosed, however, this was often a low percentage of parents such as 24% of mothers and 17% of fathers in one study (Carlson, 2006), to 17% observation by either parent in another

study (Adler & Schutz, 1995). Some studies mention victims disclosing to teachers, therapists, or people outside the immediate family including other relatives. One study reported how first disclosure was done by either the sibling perpetrating the abuse/displaying the HSB, or the victim, or another sibling, but the idea that a perpetrating sibling would disclose the abuse was otherwise undocumented.

Many victims of SSA do not disclose until adulthood. Often disclosure was part of therapy work that adult survivors were involved in, however non-disclosure rates of up to 50% illustrate how frequently participants had not disclosed their SSA victimisation prior to taking part in research on the topic. Barriers to disclosing SSA related back to the family-level risk factors for it occurring in the first place: that is the unavailability of parents, their rejection, and disbelief that the abuse had occurred.

Some young people were found to have been involved in displays of extrafamilial HSB and further investigation resulted in SSA also being discovered. Five studies included in our review interviewed professionals working in a relevant sector (social work, mental health, and child protection) but did not describe any of the characteristics of disclosure, focusing instead on the response from the relevant professionals they interviewed. In one of those studies, Tener, Tarshish, & Turgeman (2020) described that upon disclosure in families where parental supervision is scarce or in strongly autonomous subsystems, the sibling relationship collapses.

Characteristics of responses to disclosure of sibling sexual abuse

Many studies highlighted the fact that parents often responded negatively or with disbelief when their child disclosed as a victim of SSA (noting the challenge this poses for parents in acknowledging what this means about their other child's harmful behaviour). Minimisation by parents, as well as the perpetrator and professionals, was noted across multiple studies. Some parents' response would include yelling at children, lecturing them on

appropriate behaviour, or telling siblings to stay away from each other – but this was noted as not stopping abuse from continuing. Other minimisation behaviours included family members not taking sides or being more supportive of the perpetrator and included patriarchal, hegemonic masculinity reinforcing sayings like 'boys will be boys'. Some studies pointed out that young people who disclosed as children received therapy at the time (either individual counselling or group therapy). Just under a third of studies of adult survivors highlighted the fact that participants in their studies were receiving some kind of outside intervention or support, often for the first time, because of being victims of SSA (although this was often not the focus of the study, hence we can't present outcomes of such interventions).

In studies of professionals, there was evidence that professionals often did not believe victims when they disclosed SSA. The findings from these studies suggest that professionals often feel that sibling relationships are at their core an important relationship and that siblings are better off together, as opposed to being separated because of the abuse occurring (Yates, 2018, 2020). They do however understand the difficulty faced by parents in trying to provide for the needs of their children when SSA has occurred between them (Tener, Newman, Yates, et al., 2020; Tener & Silberstein, 2019), and as a result professionals would often work with the entire family as opposed to individuals (Tener, Newman, Yates, et al., 2020). The age of young people involved was also seen as a relevant factor in the way that social workers or other professionals would respond to SSA as young children were seen to have more allowance to explore sexuality than older children (Yates, 2020). These factors were seen to play a role in decision-making by professionals working with families where SSA is occurring.

SSA intervention and treatment responses

Just two studies of young people who had been victims of SSA made mention of the therapeutic responses and interventions used to support them but did not directly report on the outcomes. In one study (Gilbert, 1992), many children and young people received individual counselling or group therapy; however, it was a sample of young people's case files from child welfare authorities and psychiatric hospitals. Another study (Tener, Tarshish, & Turgeman, 2020) was set in a child advocacy centre that works with victim minors (under 18 years of age) and their families and provides initial treatment for perpetrators under the age of 12. It included interview data from professionals, including social workers, and siblings who were engaged as clients at the centre. Tener, Tarshish, & Turgeman (2020) reported how the professionals at the centre work with victims of SSA, with a key element of the intervention as recreating the survivor's abuse narrative. This enables the survivor to express painful memories of the abuse under the care of a professional who mediates the survivor's therapeutic emotional processing. The authors, through their interpretation of the social worker and sibling interviews, suggest that the treatment for survivors of SSA should be focused on the survivor's unique strengths, as drawn out of the retelling of their abuse narrative, and must move away from treatment that might worsen the issue within families.

Studies in which researchers interviewed or surveyed young people who perpetrated SSA were typically based in clinical and justice settings and described the treatment programs and responses to SSA provided to this cohort. These centred around residential treatment programs and alternative divisionary programs such as specialist therapeutic school-based programs treating sexual aggression.

Studies of adult survivors tended to be more focused on prevalence, incidence rates and the risk factors of SSA. Of the few studies that mentioned the interventions and responses to treatment for SSA that participants might be engaged in, these showed that survivors were often receiving therapeutic services described as either counselling, therapy, or survivor

support groups. Many of the studies focused instead on etiological risk factors and separated out different combinations of SSA (i.e., brother abusing sister, brother abusing brother, etc.) and did not focus on what support and interventions—if any—were utilised because of the abuse.

Studies including professionals, such as child protection workers and social workers that reported on SSA interventions or treatment, typically focused on the workers practice and approach to treatment for SSA survivors, including as children and as adult survivors, but also for siblings who display HSB and the parents. Most of these studies found that social workers would often consider and base their decisions on the physical safety of children and thus separating the victim from the perpetrator was an often-used intervention. However, this did not account for the emotional needs of the victim.

Finally, none of the studies in our review assessed or measured intervention or treatment outcomes and so no reporting can be made on the efficacy of the interventions and including what types of control and comparison groups are used to judge the usefulness of interventions for either victims or perpetrators of SSA.

Discussion

Our systematic review assessed the literature to inform our understanding of the risk and protective factors of SSA, the characteristics of disclosure and responses to SSA by families and professionals, and the therapeutic responses and interventions being utilised to support victims and perpetrators.

Risk factors for SSA

Firstly, we found, that at the individual level, being female and preadolescent is a risk factor associated with being a victim of SSA. Our findings showed that preadolescent females are typically abused by an older adolescent male. Those who display HSB towards siblings often had been the victim of parent-child abuse themselves. Our findings also showed that

siblings who display HSB could have been exposed to pornography, shared a bed with the victim, used drugs and/or alcohol, and could have had a criminal history, but that these factors were not observed across all studies. These findings of the greater risk of girls being subjected to SSA, and that boys are at greater risk of engaging in HSB to siblings illustrate how SSA is a gendered violence issue, similar to what has been found in the Australian Child Maltreatment Study (Mathews et al., 2023) and other studies of intra- and extra-familial abuse.

At the family level, we found that one risk factor for SSA is living within a dysfunctional family environment, which included domestic and family violence or parental/marital conflict, as well as divorce or living in a blended family, in which the setting the abuse occurred in involved step-siblings. Having physically or emotionally distant or absent parents, including through neglect, was also a risk factor for SSA identified at the family level. Being part of a family with a low socio-economic status and facing legal stressors were also risk factors for SSA as has been identified in other research (Higgins & Hunt, 2023). As with an identified dearth in literature on child sexual abuse interventions in developing countries (Russell et al., 2020), we did not find any studies investigating SSA in low- to -middle income countries.

We identified just four studies (Marmor & Tener, 2022; Owen, 1998; Tener, Tarshish, & Turgeman, 2020; Tener et al., 2018) that identified contextual factors. Three of the studies (Marmor & Tenor, 2022; Tener, Tarshish, & Turgeman, 2020; Tener et al., 2018) discussed risk factors for SSA through the lens of a traditionalist and fundamentalist approach to religion, specifically Ultra-Orthodox Judaism, and the fourth study (Owen, 1998) through a gendered lens highlighting the patriarchal nature of families. These two contextual factors have also been discussed in literature relating to sexual abuse in religious organisations (Higgins, 2002; Russell et al., 2023). A recent shift to contextual safeguarding (Firmin &

Lloyd, 2020; Rayment-McHugh et al., 2023), considering contextual factors and how these can be modified to prevent sexual abuse across different contexts and forms (i.e., intra- and extrafamilial and organisational), continues to grow and deserves attention of practitioners, policy makers and researchers. Other than these two contextual factors, there was a significant lack of consideration of contextual safeguarding in the SSA literature.

Protective factors for SSA

Our review identified only four protective factors for SSA across just three studies (Carlson et al., 2006; Griffee et al., 2016; Tener et al., 2021), suggesting another significant gap in the research literature. One protective factor we identified was maternal affection, which is not surprising given that most victims of SSA disclose more often to their mother (as identified in a recent study asking young people to whom they would disclose safety concerns (Russell & Higgins, 2023), and much less so than to their father. The second was a sibling moving away, most often the sibling displaying HSB, which is not surprising, considering they are usually older. A third, was the discovery of the SSA by someone else, usually parents, if this occurred, and less often by other adults in the victim-survivors life (e.g., teachers). As with 'moving away' this factor prevents further abuse from occurring after it has started as opposed to preventing it from occurring in the first place. The fourth factor was disclosure, again only in stopping further abuse rather than preventing it from occurring in the first place. For the most part, the identified factors serve to stop abuse from continuing and cannot be considered protective factors which prevent abuse from occurring in the first place. Research identifying what unique protective factors work within the context of SSA is needed and should aim to identify if the same protective factors for other intrafamilial and extrafamilial abuse are sufficient or if other additional strategies are required. This work should also consider the way in which grooming is similar of differs in the context of SSA.

Characteristics of disclosure and responses to SSA by families and professionals

Within the studies included in our review rates of SSA disclosure differed greatly depending on whether the participants were victims or those who displayed HSB towards a sibling. We found that many victims of SSA did not disclose to parents, other family members /relatives, or to professionals (e.g., social workers or teachers), either when the abuse started or while the abuse was occurring. This finding adds to the body of knowledge of barriers present for disclosure of child sexual abuse (Carlson et al., 2006; Caspi, 2011; Finkelhor et al., 2006; Hackett, 2004). In addition, of the six studies included in our review that reported on data from professionals working in a relevant sector, none reported on the characteristics of disclosure (i.e., how it came to light that SSA was occurring within the family) by children or young people. This finding is like those reported in prior studies in which professionals e.g., child protection, mental health professionals, and educators, have also been found to down-play impacts and under-respond in cases of SSA (Caffaro & Con-Caffaro, 2005; Kreinert & Walsh, 2011; McCoy et al., 2022). This suggests that children and young people do not disclose SSA to these professionals. However, this remains an under-researched area, particularly about how to support professionals across different sectors to support young people to disclose and discuss SSA.

Our findings suggest that for victims who did disclose, that disclosure tended to occur when the victim had reached adulthood, as with extrafamilial, organisational and other intrafamilial abuse (Collin-Vézina et al., 2015; Hérbet et al., 2009) commensurate with when the studies occurred. More recent research (McGill & McElvaney, 2023), however, suggests these trends may be changing as a result of improved safeguarding work across societies, with young people disclosing abuse within two to three years of the onset of abuse. Victim disclosure in adulthood included to family and to professionals, and often as part of the victim's therapeutic or counselling sessions. However, some studies reported that victims' initial disclosure of SSA was because of their involvement in the respective research study.

For victims under 18 years of age who disclosed SSA to their parents, the disclosure was mostly to their mother, and less typically to their father. Unfortunately, when young victims disclosed SSA to their parents they were mostly met with negative responses. Parents methods of attempting to stop or to minimise the recurrence of SSA included yelling and lecturing on appropriate behaviour, separating siblings by physical proximity, through to disbelief that the incident(s) had occurred. This finding is supported by prior research which showed that parents were less likely to respond appropriately to a disclosure of SSA (Marriage et al., 2017) and instead included disbelief, blaming, or minimisation to disclosure or discovery (Bertele & Talmon, 2021; Caffaro & Con-Caffaro, 2005; Marriage et al., 2017; McCoy et al., 2022; Morrill, 2014; Phillips-Green, 2002). This finding highlights a need for parent education and support, an area of growing research interest in the extrafamilial and organisational CSA space (Rudolph et al., 2023; Russell et al., 2023).

Given that finding out about SSA in the family can be a traumatic and overwhelming experience for parents, it is important for parents to seek education and support to navigate this tricky situation. Education about the nature of SSA and its effects can help parents understand the issue and take appropriate steps to protect one of their children, and to help another of their children take responsibility for their actions. Parents also need support to cope with their own emotional reactions and to create a safe and supportive environment for all their children. Seeking professional help from a therapist or counsellor who specialises in SSA can provide parents with individualised guidance and support. Support groups or online forums may also provide a space for parents to connect with others who have experienced similar situations and to find resources and information. It is important for parents to prioritise the safety and well-being of their children and to take appropriate steps to address the issue.

Therapeutic responses and interventions

None of the studies included in our review specifically assessed or measured intervention or treatment outcomes and so no conclusions can be made about the efficacy of the interventions and including what types of control and comparison groups are used to judge the usefulness of interventions for either victims or perpetrators or any other family member (e.g., parents of SSA). This suggests the need for more research on the reporting of SSA interventions and outcomes for both victims and perpetrators of SSA. This might be due to the nature of the research, some of it being qualitative and exploratory in design and from the views of adult survivors after disclosure. It might also be due to a research focus on statistical-demographic analyses (e.g., Tener, Tarshish, & Turgeman, 2020), or casefile and interview analysis or professional practice. Another consideration is that interventions in this space are tested as part of broader CSA interventions that support victims with parental and extra familial abusers. If this is the case, separating out subgroups of victims or those displaying HSB towards a sibling is required to better understand if the same interventions work for these groups.

Limited by the findings of studies included in our review, in that these did not directly report on any tested or validated outcomes of SSA therapeutic responses and interventions used to support victims, the findings on the risk factors and disclosure patterns of SSA demonstrates that there is an urgent need to reach those families most 'at risk' for SSA to occur in, and to reach the likely victims of SSA and those who might display HSB towards a sibling earlier, if prevention efforts are likely to be successful. In terms of therapeutic or intervention efforts with families, earlier means when the potential victim is at their youngest in age and intervention is as close as possible to the initial occurrence of SSA. The findings from our review suggest that SSA is a complex issue that requires sensitive and specialised support for victims and intervention provided must be tailored to the individual needs of each child and family.

Professionals working with families and children and young people impacted by SSA

Research in closely aligned topic areas suggests that professionals required for a multidisciplinary approach to working with families and individuals affected by SSA might broadly include psychologists, social workers, therapists, and counsellors. According to Viliardos et al. (2023), appropriate therapeutic interventions for sexual abuse victims can lead to positive outcomes such as a reduction in trauma symptoms, improved mental health, and an overall increase in well-being. In particular, cognitive behavioural therapy (CBT) has been found to be effective in treating trauma symptoms in children who have experienced sexual abuse (Deblinger et al., 2020). The support of a skilled therapist is crucial for victims of SSA, but it is also important for therapists to have a clear understanding of the unique dynamics of SSA within a family system (Tener & Silberstein, 2019). Moreover, involving non-offending parents in trauma-focused CBT therapy process can help mitigate the negative effects of the abuse on the child (Brown et al., 2020).

When it comes to working with victims of SSA, there are several professionals who may be best placed to provide support. Psychologists and counselors can provide specialised therapeutic interventions to help buffer a decline in victims mental health, process their experiences and to cope in life (Viliardos et al., 2023). The inclusion of studies in our review that focused on the role of social workers, and with consideration of the risk factors related to dysfunctional family situations. It is important to explore what is needed to support and train professionals, such as social workers, psychologists, educators and others working in child welfare, to understand the risk and protective factors of SSA, how to work with families with a focus on children and young people, and to support decision-making. Overall, the support and intervention provided to victims of SSA must be tailored to the individual needs of each child and family. With the help of skilled professionals and evidence-based interventions, victims of SSA can receive the support they need to heal and move forward in their lives.

Ideally, however, risk factors for SSA—both at an individual and familial level—are identified and prevention mechanisms are put in place to support and educate parents. Professionals working with families are well placed to detect parent absence or family dysfunction, which our review identified are risk factors for SSA. Working with families to prevent and to intervene to reduce these and other known risk factors for SSA, as identified at the individual level, victim and perpetrator- and parent-level in our current review, is a suggested approach to minimise the occurrence of SSA in the first instance.

Prevention and intervention in the family unit

A key target for prevention and intervention is the whole family. Previous research highlights the importance and protective role of both parent and sibling relationships, particularly in the context of abuse, such as reducing exposure to domestic violence (Katz, 2014). Although there has been a focus on parents in the literature, research on how sibling relationships might be targeted for prevention of harm is a gap (Buist et al., 2013; Katz & Tener, 2021). Having a whole-of-family approach allows for particular risk and protective factors to be addressed while also providing interventions that target impacts for the entire family (Keane et al., 2013; McCoy et al., 2022).

However, therapeutic interventions that prioritise whole of family approaches are still relatively new and under-researched, with previous research and treatment focussing on interventions for victim children and removing instigating children from the home (McCoy et al., 2022; O'Brien, 2010; Welfare, 2008). There is a lack of empirical evidence for current treatment programs for siblings affected by SSA (either perpetrators or victims) and a lack of research for family-based interventions (Caldwell, 2016; McCoy et al., 2022). Solely providing treatment to only victim or instigating children of sibling HSB may ignore socio-ecological and contextual factors that contributed to risk of harm and fail to incorporate

protective factors and supports from the broader family system (Letourneau & Borduin, 2008).

Conclusion

Our review emphasises the importance of early detection and prevention of SSA, given the significant negative impact it can have on victims and their families. Professionals working in relevant sectors, such as psychology, social work, and mental health, need to be aware of the risk and protective factors, disclosure patterns, and appropriate responses to SSA to provide effective support to those affected (including victims, abusers, and family members). Our review also highlights the need for more research on SSA. It is important for future studies to include diverse samples, separate out subgroups where SSA is part of broader CSA intervention evaluation, and use standardised measures to enable comparison across studies. Finally, our review highlights the need for more awareness-raising of SSA, education for parents to address the issue of SSA in families and to reduce stigma and barriers to disclosure for victims.

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