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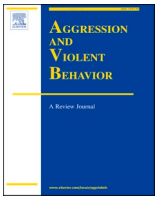

Primary prevention of harmful sexual behaviors by children and young people: A systematic review and narrative synthesis

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ABSTRACT

From a public health perspective, strategies for addressing children's harmful sexual behaviors often focus on secondary or tertiary prevention rather than primary prevention. Prevention efforts have also typically focused on preventing victimization by adults; yet a high proportion of child sexual abuse is perpetrated by other children and young people. We systematically reviewed the research on primary prevention strategies for harmful sexual behaviors in children and young people. We searched 6 databases, extracted data relating to program setting and focus, participant demographics, outcomes measured, and program success., We conducted a narrative synthesis in line with the SwiM guidelines (Popay et al., c2006), and conducted individual quality assessments of the included studies. 20 studies met our inclusion criteria. Primary prevention strategies were typically implemented in schools with primary/elementary, middle, and high school aged students. All programs included harmful sexual behavior within broader abuse prevention programs. Program effects were mixed. Primary-level prevention of harmful sexual behavior is typically addressed through broader sexual violence prevention programs. Around three-quarters of studies evaluating program efficacy found improvements in the outcomes measured, including some behavioral outcomes. Important to program success was who facilitated the program, as well as students' feeling of school connections. We found no evaluations of programs aimed at reducing harmful sexual behavior perpetrated online. Important new directions in program development will be to: (i) address the needs of younger children, as well as youth with disabilities, neurocognitive differences, and who are gender or sexually diverse; (ii) introduce and reinforce the concept that sexual behaviors exist on a continuum from healthy to harmful, providing clear examples; (iii) focus on both preventing perpetration *and* victimization; (iv) address strategies to support safe environments—in homes, organizations, communities, and online; and (e) identify essential elements for successful harmful sexual behavior prevention and align prevention programs with these features.

1. Introduction

1.1. Public health approaches to child sexual abuse prevention

Due to its well-established prevalence across societies globally, recommendations for preventing and responding to child sexual abuse (CSA) are often conceptualised using a public health approach (Letourneau et al., 2014; World Health Organization, 2006; Wurtele & Kenny, 2012). This involves a hierarchy of intervention levels distinguished by intervention aims and target populations (see Lonne et al., 2019). Primary (or universal) prevention initiatives aim to prevent child sexual abuse before it happens and targets whole populations. Secondary (or selective) prevention strategies focus on detecting child sexual abuse early and preventing it from getting worse, and/or targeting groups at particular risk. Tertiary (or indicated) prevention services aim to reduce the number, extent, and severity of adverse sequelae associated with CSA and targets individuals and situations where it is already occurring.

Prevention strategies across all three levels of a public health approach are needed for a comprehensive approach to abuse prevention. Some interventions are narrowly focused on only one prevention level (e.g., tertiary-level individual rehabilitative therapy for victims and

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survivors; Narang et al., 2019). Others span multiple prevention levels (e.g., primary-, secondary-, and tertiary-level situational prevention adaptations for physical spaces in youth-serving organizations, Kaufman et al., 2019). Some interventions have a singular focus on preventing future CSA, while others concurrently focus on redressing past CSA, responding to current CSA, and preventing future CSA. Across all prevention levels and approaches, the capabilities of children and young people, themselves, to be agents of change is a fundamental human right (Moore et al., 2015; Pinheiro, 2006).

In the broader field of child abuse and neglect prevention, the past decade has seen significant advances in primary prevention that focus not only on interventions aimed at individuals, but shift the focus towards ecological and structural changes (to economic factors, social norms, community attitudes) to increase parent skills, and ensure systems-level accountability to promote "safe, stable and nurturing relationships and environments for children and families" (e.g., see Fortson et al., 2016, p. 36). These prevention efforts should be grounded in a socio-ecological model for understanding the causes or contributors to interpersonal violence, including not just the child or young person, but their family, specific environments (like schools), broader community environment, and societal-level factors. As we outline next, this is reflected in CSA prevention efforts with shifts away from focusing solely on programs directed towards children to teach them skills to keep themselves safe. As noted by Falson et al., it is likely that implementing primary prevention programs aimed at one form of violence will have broader benefits in preventing other harms.

1.2. CSA prevention programs

One part of a comprehensive approach to CSA prevention since the 1980s has been the implementation of school-based programs to build children and young people's knowledge of safety strategies and self-protection skills to prevent victimization. Sometimes known as 'personal safety' or 'body safety' programs, these were originally developed in the US using victim empowerment and self-defence strategies borrowed from the early women's rape and sexual assault prevention movements (Berrick & Barth, 1992; Berrick & Gilbert, 1991). Since then, CSA prevention education programs have evolved substantially. They now incorporate more nuanced concepts around body ownership, autonomy and consent, grooming behaviors, types of touch (or the touch continuum), safe and unsafe situations, disclosure, and help seeking (Cohen & Katz, 2021; Fryda & Hulme, 2015; Gubbels et al., 2021; Trew et al., 2021; Wurtele & Kenny, 2012). One feature has remained relatively unchanged however: programs typically focus on preventing victimization of children and youth that is perpetrated by adults.

Another approach to prevention of CSA victimization and perpetration has been the use of adolescent 'healthy and respectful relationships' and 'dating violence' prevention programs conducted in schools and other youth-serving organizations. These programs, also implemented since the 1980s, have a slightly wider purpose to raise awareness about physical, psychological, and sexual violence that occurs within intimate relationships, challenge the drivers of gender-based violence, promote healthy and respectful relationships, and enable help seeking and peer support (Fellmeth et al., 2013; Reyes et al., 2021; Storer et al., 2016; Trew et al., 2021; Wong et al., 2021;). These programs focus on sexual violence perpetrated in the context of dating relationships but do not typically address sexually abusive or harmful behavior by other children and young people in schools, neighborhoods, and broader communities.

Both approaches to primary prevention of CSA—personal safety and dating violence programs—have been relatively well synthesized in systematic reviews. These reviews have been instrumental in understanding the effects of different programs across different countries—including the influence of a variety of program components (Cohen & Katz, 2021; Lu et al., 2022; Reyes et al., 2021; Russell et al., 2020; Storer et al., 2016; Trew et al., 2021). Rigorous reviews provide an opportunity to identify which programs work best, as well as to identify program contexts and mechanisms that influence program outcomes for diverse groups. Eventually, repeated reviews enable the identification of best practice principles. However, primary prevention programs aimed at the prevention of CSA perpetrated by other children or young people—often labelled 'harmful sexual behaviors' (HSB; Hackett et al., 2019)—are less well understood than programs specifically targeting violence from peers in the context of relationships and dating, or prevention of CSA from adults.

1.3. Harmful sexual behavior

Research suggests that one-third to more than half of CSA is HSB perpetrated by other children and young people, including intimate teen partners, siblings, relatives, friends, or other juvenile acquaintances (Finkelhor et al., 2014; Kloppen et al., 2016; McKibbin et al., 2017; Radford et al., 2013). Preliminary data from the Australian Child Maltreatment Study suggests that almost half of those participants who experienced child sexual abuse in a nationally representative retrospective study experienced it in the form of sexual harm from another child or adolescent (Mathews et al., 2023). It has been estimated that the onset of perpetration of HSB typically is around 14 years of age (Snyder, 2000). Available research suggests that victimization occurs mostly in children under 12 (in the USA; Finkelhor et al., 2009) or under 10 (in Australia; see Spangaro et al., 2021), with victims being on average two to five years younger than the person causing harm (Ferrante et al., 2017; Finkelhor et al., 2009; Spangaro et al., 2021).

Hackett et al. (2019) proposed the most widely used definition of HSB as an umbrella term for a range of youth-perpetrated actions that sit on a continuum from inappropriate through problematic to abusive and violent. Abusive sexual behavior and sexually violent behavior is characterized by intrusiveness, manipulation, use of psychological coercion and/or physical force to elicit compliance, absence of full, free, and voluntary consent, and in some instances cruelty and/or sadism (Hackett et al., 2019). Paton and Bromfield (2022) recently revised Hackett and colleagues' continuum, elaborating the descriptive categories and orienting these towards trauma-informed therapeutic response to reflect the nature of the harmful sexual behavior (such as its severity, frequency, and persistency), the nuances in relationships between the child/ren involved (such as consent, mutuality, reciprocity, and respect) and emotional dimensions (such as reactions to experiences with the behavior). This updated continuum extends from developmentally appropriate through inappropriate sexual behavior to that which may be considered harmful sexual behavior – including concerning, very concerning, and serious/extreme behavior. These dimensions of variance in behaviors and experiences proposed by Hackett et al. (2019) and Paton and Bromfield (2022) fit within the conceptual model for classifying HSB as child sexual abuse proposed by Mathews and Collin-Vézina (2019). This is considering the growing recognition that those children and youth who use HSB are likely to have been exposed to CSA or other adverse childhood experiences (Paton & Bromfield, 2022).

Researchers have called for the design and evaluation of innovative primary prevention approaches with different foci that may support improved prevention efforts for CSA (Rudolph & Zimmer-Gembeck, 2018). McKibbin et al. (2017) conducted research with young people who had engaged in HSB and learned about several things which would have helped them—or even stopped them —from engaging in the behavior. They identified three opportunities for prevention: improving sexuality education; therapeutically addressing personal victimization experiences; and intervening in pornography use. Yet little is known about the interventions with potential to address these needs.

To our knowledge, there are few reviews focused on HSB. We are only aware of one scoping review on preventing HSB with children in out-of-home residential care (McKibbin, 2017), a narrative review on UK policy and practice (Smith et al., 2014), and a practice guidance review of current literature on children and young people's online HSB

(Belton & Hollis, 2016). A synthesis of research on universal primary-prevention interventions for HSB (those available to the general population, rather than targeted at 'at-risk' groups like youth in out-of-home care) is missing.

1.4. Aim

The aim of our review was to synthesize the existing research on primary prevention of HSB in children and young people. Although we did not focus specifically on dating violence programs (see Reyes et al., 2021 for a recent review of these), we included dating violence programs where violence occurs in the context of a relationship, provided other HSB outcomes were also targeted within the intervention being evaluated. We wanted to know what primary prevention strategies, interventions, or structured programs might look like; the settings in which they had been implemented (e.g., early childhood education, schools, community settings or in families); and the evidence for their effectiveness. We also sought to understand whether, how, and why the effects of the interventions might differ according to context.

2. Method

We conducted a systematic review informed by the PRISMA guidelines (Page et al., 2021) with a specific, structured narrative synthesis informed by principles for mixed-methods synthesis (Campbell et al., 2018; Thompson Coon et al., 2020). A review protocol was registered with Prospero [CRD ANONYMISED FOR PEER REVIEW].

2.1. Search strategy

We searched six electronic databases (ERIC, Medline via EBSCO Host, PsycINFO, SocIndex, Cochrane Library, and Web of Science) from inception until December 2020 using combinations of keywords and MeSH terms shown in Table 1. We built the search strategy using a combined adaptation of the SPIDER and PICO search tools (Cooke et al., 2012; Methley et al., 2014). Where possible, we applied filters to limit keyword searches to titles and abstracts.

2.2. Inclusion and exclusion criteria

We included empirical studies published in English. Studies were included if they met our four criteria regarding population, intervention type, context, and outcome: (i) included participants up to and including the age of 19 years (for school-based interventions, final year high school students may be over 18 years of age); (ii) reported an evaluation of a primary prevention intervention focused on preventing HSB; (iii) were delivered to children/young people in schools, early childhood settings or youth-serving organizations; and (iv) assessed intervention outcomes including—but not limited to—knowledge, attitudes, behaviors, or skills.

We excluded studies where participants were sampled if they had already displayed HSB, as we would see these as secondary- or tertiary- rather than primary-level interventions. We used a broad conceptualization of 'intervention' encompassing curricula, syllabi, education strategies, teacher training, courses, and programs (Table 1). We included a broad range of study designs to capture the scope of empirical work conducted on the topic allowing for the inclusion of cross-sectional or correlational studies, cohort, or interrupted time-series designs, randomised controlled trials (RCTs), quasi-experimental or pre-post designs as well as descriptive studies. We excluded reviews, but hand-searched review reference lists for studies not already included and screened these as described below.

2.3. Study selection

Studies identified in the database searches were imported into EndNote 19.01 (Clarivate Analytics, 2013) where duplicates were removed. Records were then imported into Rayyan QCRI for screening (Ouzzani et al., 2016). Two reviewers independently screened each study to assess eligibility for inclusion. A third reviewer resolved any discrepancies in initial screening decisions.

Table 1
Keywords used in systematic search strategy.

	Population	Phenomenon	Intervention	Purpose
Keywords Title/ Abstract	child* OR student* OR boy* OR girl* OR pupil* OR "preschool* age*" OR "kinder* age*" OR "nursery age*" OR "pre k age*" OR "elementary age*" OR "primary school age*" OR "young child*" OR "early child*" OR "early year*" OR "daycare age*" OR "day care age*" OR "child care age*" OR "childcare age*" OR adolescen* OR youth OR "young people" OR "young person" OR teen* OR tween* OR toddler* OR "pre teen*" OR preschool*	groom* OR HSB OR "harmful sexual* behavio*" OR "problem* sexual* behavio*" OR "concern* sexual* behavio*" OR "sex* aggress*" OR "sex* harmful behavio*" OR "peer* sex* assault*"	program* OR curricul* OR education OR psychoeducat* OR approach* OR syllab* OR course* OR train* OR interven* OR method* OR strateg*	prevent* OR protect*

2.4. Data extraction and analysis plan

We extracted data from the studies into an Excel spreadsheet based on the Cochrane Public Health Group Data Extraction and Assessment Template (Cochrane Public Health Group, 2011). This included study methodology and design, participant characteristics, intervention details, and outcomes and findings. We employed a narrative synthesis as defined by and with guidance from Popay et al. (2006) to summarise the evidence provided in eligible studies.

2.5. Assessment of risk bias in included studies

Two reviewers independently assessed risk of bias for each included study using the *Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields* (Kmet et al., 2004). This tool was chosen due to its broad applicability to both quantitative and qualitative studies as well as the ability to easily combine these for mixed method studies. We rated each included study, across 14 potential methodological and reporting attributes scoring each item on a 3-point scale (0 = never; 1 = partial; 2 = yes). Attributes related to the description of the research question and methods used, reporting of random allocation and blinding (if appropriate to the study design), and the completeness of results and conclusions. To generate a total rating score, we added scores for individual items and divided by the total

score possible for that paper (which, depending on study design, may have included all 14 criteria). Final quality assessment scores ranged from 0 (low quality) to 1 (high quality).

3. Findings

3.1. Search results

The PRISMA flowchart is shown in Fig. 1.

3.2. Risk of bias in included studies

We used the Standard Quality Assessment Criteria developed by Kmet et al. (2004) to assess the quality and appropriateness of the methodology and reporting of studies included in our review. The first two authors independently rated all included studies across 14 potential methodological and reporting attributes covering the description of the research question and method used, reporting of any random allocation and blinding (if appropriate to the study design), and the description of results and conclusions. Each of the 14 attributes is rated on a scale of 0 (never), 1 (partial), and 2 (yes). To generate a final rating score, we added the total score obtained across relevant items and then divided by the total possible score for a total score between 0 and 1. Where there were discrepancies, the two reviewers discussed ratings across the attributes and agreed on a final quality score for each study. The mean score quality of studies ranged from 0.43 to 0.96.

3.3. Overview of studies

Table 2 presents an overview of the 20 studies included in this review. Low- and middle-income countries are under-represented in the literature. Twelve studies were from the USA, two each from Canada, the Netherlands, and South Africa, and one each from Thailand and Australia. Across the 20 studies reviewed we identified six cluster randomised controlled trials and two randomised controlled trials as well as several other study designs as specified in Table 2. Participant numbers ranged widely from 8 (McKibbin et al., 2020) to 3616 (Espelage et al., 2013) children and young people with 12 of the 20 studies reporting data on >500 participants).

Twelve studies reported study funding with sources including government and non-government research agencies with a focus on disease prevention, and one charitable trust.

3.4. Participants and settings

Participants in the studies were children and adolescents in elementary/primary, middle and high school grades ranging in age from 8 (Chamroonsawasdi et al., 2011) to 19 years (Miller et al., 2015). Most studies were with young people aged 12 and over. Most included both male and female participants ($n = 15$). Five studies included only male participants (de Graaf et al., 2016; Jaime et al., 2016; Lankster, 2016; Miller, Jones, Culyba, et al., 2020, Miller, Jones, Ripper, et al., 2020). None of the studies reported participants of non-binary or other diverse

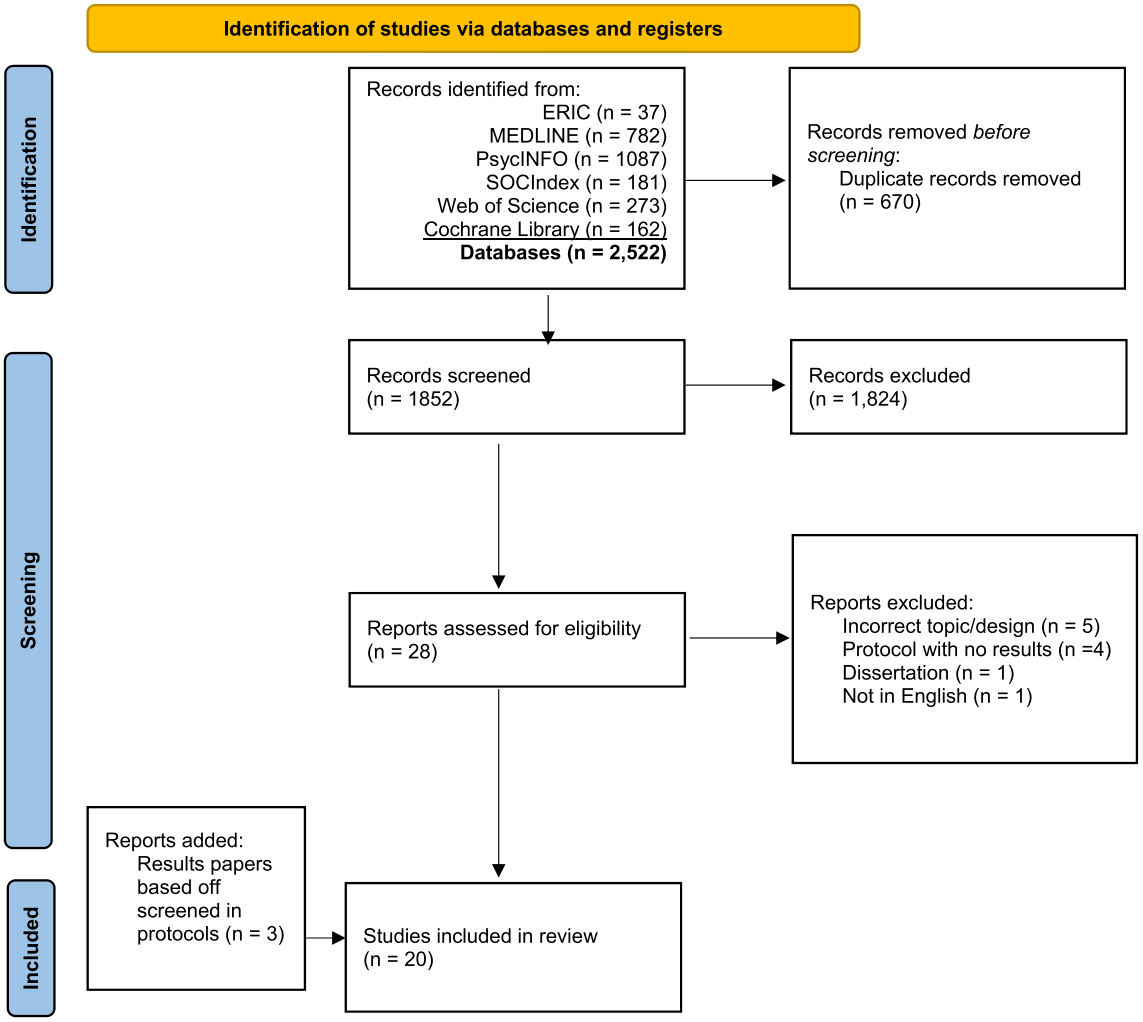

Fig. 1. PRISMA flowchart.

Table 2
Overview of included studies.

Author(s) and date	Country and setting	Method	Sample size and gender	Participant details	Intervention	Key findings
Ball et al. (2009)	USA Middle and high school	Qualitative posttest evaluation	59 (68 % girls)	Attending middle and high school	Expect Respect	Teen dating violence prevention intervention. Significant increases in knowledge about healthy relationships and warning signs of dating violence, as well as awareness of their own and others' abusive behaviors.
Chamroonsawasdi et al. (2011)	Thailand K-12 school	Quasi-experimental pretest and posttest evaluation	530 (47.4 % girls)	Aged 8–16 (m = 12)	Unnamed sexual violence prevention program	Intervention to prevent physical and sexual violence by enhancing positive attitudes and life skills on gender roles. Significant changes in attitudes towards gender roles. Whole school-based approach suitable and should be included in curriculum.
Clinton-Sherrod et al. (2009)	USA Middle and high school	Uncontrolled pretest and posttest evaluation	1182 (54.05 % girls))	Attending grade 9–12	1. Expect Respect 2. Men of Strength Clubs 3. Students Upholding Respect and Gender Equity 4. Teen Exchange	Four interventions focused on changing attitudes, knowledge and behaviors related to sexual assault. Significant changes towards sexual harassment, personal boundaries and positive dating norms, with steeper increases over time.
Daigneault et al. (2015)	Canada High school	Longitudinal cluster randomised controlled trial	794 (56 % girls)	Aged 15–17	Unnamed sexual violence prevention workshop	The workshop aimed to increase knowledge and reduce sexual victimization and perpetration. Participation was shown to enhance the ability to recognise sexual assault in a dating context and respond to disclosures.
de Graaf et al. (2016)	Netherlands Prevocational school	Pragmatic quasi-experimental	521 (100 % boys)	Aged 12–17	Rock and Water	Assertiveness program aimed to prevent sexual aggressive behavior and sexual aggression-supportive attitudes. Significant reduction in coercive strategies and improvement in self-regulation and general self-efficacy.
Edwards et al. (2019)	USA High school	Longitudinal cluster randomised controlled trial	2403 (50.9 % girls)	Aged 13–19	Bringing in the Bystander—High School Curriculum	Largely bystander intervention program that teaches students how to safely and effectively intervene before, during, and after situations of relationship abuse and sexual assault to both prevent these forms of abuse from happening, as well as support victims in the aftermath of these experiences.
Espelage et al. (2013)	USA Middle school	Longitudinal randomised controlled trial	3616 (48 % girls)	Mean age 11	Second Step: Student Success Through Prevention	Intervention to reduce aggression, victimization, and sexual violence. Significant changes in self-reported physical aggression. No significant effects for bully perpetration, peer victimization, homophobia, and sexual violence.
Hilton et al. (1998)	Canada High school	Uncontrolled pretest and posttest evaluation	1184 (50.4 % girls)	Attending grade 9–11	Unnamed sexual assault and dating violence prevention program	Knowledge-based intervention to address knowledge and attitudes about date rape and self-reported physical and sexual aggression. Participants learned practical information with no attitude backlash. Participants with least knowledge at pre-test were less likely to attend, and perpetrators knew less than victims.
Jaime et al. (2016)	USA High school	Mixed methods head-to-head pretest and posttest study	193 (100 % boys)	Attending grade 7–12	Coaching Boys Into Men	Violence prevention intervention directed towards male adolescent athletes. No significant differences between advocate and coach delivery. But advocate's delivery and non-judgmental role reported to influence uptake of messages.
Kernsmith and Hernandez-Jozefowicz (2011)	USA High school	Uncontrolled pretest and posttest evaluation	343 (56 % girls)	Attending grade 9–12	First Step Peer Education Program	Intervention focusing on male responsibility for decreasing rape. Significant changes in rape-tolerant attitudes among both male and female participants. Students with stronger connections to school showed the greatest improvement.
Lankster (2019)	South Africa Secondary (high) school	Mixed methods preliminary study	260 (100 % boys)	Aged 14–18	Chap Chat	Intervention focused on gender relations and perceptions of rape. Acceptance of gender inequality and rape

(*continued on next page*)

Table 2 (*continued*)

Author(s) and date	Country and setting	Method	Sample size and gender	Participant details	Intervention	Key findings
						found to be common. Significant changes in views towards women.
Mathews et al. (2016)	South Africa High school	Cluster randomised controlled trial	3451 (% girls NR)	Attending grade 8, mean age 13	Prepare Programme	HIV prevention intervention to delay sexual activity, increase safe sex practices and decrease intimate partner violence. No significant differences with sexual risk behaviors. But significant changes in intimate relationship violence disclosures.
McKibbin et al. (2020)	Australia Residential care	Mixed methods pretest-posttest evaluation	8 (% girls NR)*	Aged 10–17	Power to Kids: Respecting Sexual Safety	Intervention to address harmful sexual behavior, child sexual exploitation and dating violence in residential care. Significant changes in confidence and self-efficacy of carers to talk with children and young people about topics that were previously avoided.
Miller et al. (2015)	USA School Health Centres at high schools	Longitudinal cluster randomised controlled trial	1062 (66 % girls)	Aged 14–19	Unnamed school health centre interventions	Interventions to address adolescent relationship abuse in clinic settings. One-on-one discussion with school nurse regarding healthy and unhealthy relationships. No significant changes to primary outcomes. But found improved recognition of sexual coercion and increased knowledge of resources and self-efficacy in harm reduction and disclosure.
Miller, Jones, Culyba, et al. (2020)	USA Neighborhood	Unblinded cluster randomised controlled trial	635 (100 % boys)	Aged 13–19	Manhood 2.0	The intervention aimed to reduce perpetration of sexual violence or adolescent relationship abuse. Findings did not show a significant intervention effect.
Miller, Jones, Ripper, et al. (2020)	USA Middle school	Unblinded cluster randomised controlled trial	193 (100 % boys)	Aged 11–14	Coaching Boys Into Men	Program trains coaches to talk to their male athletes about violence against women. Significant effects in reducing relationship abuse among younger adolescents.
Raible et al. (2017)	USA Junior high and high school	Mixed methods pretest and posttest evaluation	556 (69.6 % girls)	Attending grade 6–12	Unnamed school-nurse delivered adolescent relationship abuse prevention	School nurse-delivered adolescent relationship abuse intervention. Challenges reported with initial uptake Positive feedback from nurses and students. Intervention implementation found to be feasible.
Smothers and Smothers (2011)	USA Middle and High school	Quasi-experimental pretest and posttest evaluation	66 (57 % girls)	Attending grade 7, mean age 12	Unnamed sexual assault and dating violence prevention program	Intervention to reduce tolerance of sexual violence and sexual harassment. Found to be effective at increasing knowledge of sexual abuse, awareness of resources, and recognition of healthy and unhealthy relationship components.
Visser et al. (2017)	Netherlands Not reported	Randomised controlled trial	189 (% girls NR)	Aged 12–18	Tackling Teenage Training	Protocol for intervention to address psychosexual development in adolescent with autism spectrum disorder. Several methodological strengths.
Weisz and Black (2001)	USA Middle school	Quasi-experimental pretest, posttest, follow up group study	202 (58 % girls)	Attending grade 5–12	Unnamed sexual assault and dating violence prevention program	Intervention to address sexual assault and dating violence. Significant changes in knowledge and attitude scores. Boys had more violence-supportive attitudes than girls.

* while this program fit our inclusion criteria as children and young people within the required age rnge were included, the evaluation report spoke mostly to findings pertaining to interviews and survey data provided by workers.

gender identities. Most ($n = 17$) were conducted in school settings. One study (Weisz & Black, 2001) specifically targeted African American inner-city youth to increase the diversity of studies evaluating sexual assault prevention programs. Of the three remaining, one was conducted in a residential care setting (McKibbin et al., 2020). One study recruited participants across from youth-serving organizations and community-based alternatives to residential placement for juvenile justice-–involved youth in racially segregated, high-poverty neighborhood clusters (Miller, Jones, Culyba, et al., 2020). One study (Visser et al., 2017) recruited participants from a mental health institution, schools offering special education for young people diagnosed with an autism spectrum disorder, and through an open application to participate. Although some may group targeted interventions for higher risk groups (like juvenile justice or mental health clients) into the category of 'secondary prevention' from a public health perspective, we have included them in our analysis of primary prevention strategies as they were delivered to all youth in the setting, not just to those with individual-level risk factors or early signs of HSB concerns emerging.

Across the 20 studies, interventions were implemented by trained facilitators (Daigneault et al.,2015; Edwards et al., 2019; Hilton et al., 1998; Lankster, 2019; Mathews et al., 2016; Miller, Jones, Culyba, et al., 2020; Smothers & Smothers, 2011; Weisz & Black, 2001), program coaches (Jaime et al., 2016; McKibbin et al., 2020; Miller, Jones, Ripper, et al., 2020), organizational staff members trained by the evaluation partners (Ball et al., 2009; de Graaf et al., 2016; Espelage et al., 2013; Kernsmith & Hernandez-Jozefowicz, 2011; Miller et al., 2015; Raible et al., 2017), and teachers/professionals acting as facilitators (Chamroonsawasdi et al., 2011; Visser et al., 2017). Clinton-Sherrod et al. (2009) did not report on who facilitated the program in their study.

3.5. Focus of interventions

All of the studies included in our review had a focus of reducing HSB among children and young people. The mechanism (or means) by which each program did this differed. For example, some programs focused on addressing respectful relationships, others focused on victimization prevention (i.e., 'protective behaviors' programs), while some may have focused on or included bystander interventions (see Table 3).

These interventions focused on teaching respectful and healthy relationships attitudes and behaviors, appropriate and inappropriate behaviors towards other young people, what to do if you see someone behaving inappropriately to another person, as well as self-protective skills to prevent victimization. Five studies (de Graaf et al., 2016; Jaime et al., 2016; Lankster, 2019; Miller, Jones, Culyba, et al., 2020; Miller, Jones, Ripper, et al., 2020) reported on interventions designed to be delivered only to boys with a much stronger aim of preventing the *use of* HSB as opposed to HBS *victimization*. These interventions all included aspects of teaching healthy relationships aimed at raising awareness of gender-based violence, addressing social norms about treatment of women and girls, and teaching skills for recognizing and responding to sexual abuse. Six studies, inclusive of four of the above that were aimed at male youth, also included bystander intervention techniques with a focus on intervening to keep others safe.

3.6. Characteristics of interventions

Delivery mode. All 20 studies included interventions that engaged children and young people through interactive in-person facilitated workshops or classroom lessons incorporating whole-class instruction, group work, or individual work. None of the studies reported an intervention delivered via online learning.

Content, methods, and resources. The 20 studies described interventions that aimed to improve participants' knowledge (e.g., of healthy relationships, sexual motivations, and abuse characteristics), skills (e.g., problem solving, emotion regulation, and social skills), attitudes (e.g., towards sexual harassment and personal boundaries), intentions (e.g., to intervene), and behavior (for example, perpetration of sexual violence, sexual aggression, resource use, and help seeking). Interventions were educational and instructional in approach and included lecture-style presentations, modelling, role-plays, discussions, practical activities, experiential exercises, and story-like hypothetical scenarios. Two studies evaluated programs which utilised individual-focused emotion and social communication-based learning in the context of group-focused classroom style learning. These enabled disadvantaged youth (Visser et al., 2017) and children on the autism spectrum (Ball et al., 2009) to practice new skills in an emotionally safe and supportive group environment. Just one study reported that a take-home workbook for young people was included in the program (Visser et al., 2017). Only one of the studies described specific content for prevention of technology-facilitated HSB (McKibbin et al., 2020).

Design principles. Depending on their focus, the interventions shared the following design principles: they aimed to educate participants on respectful and abusive relationships and behavior; to develop participants' conflict resolution skills; their knowledge of boundaries; and their

Table 3
Outcomes and focus of interventions.

Author, year	Focus of intervention	Outcomes measured (scale name/type) and result	Validity & reliability
Ball et al., 2009	HSB D&RV	Experiences in Expect Respect support groups *(not applicable, qualitative study)* ↑ Changes in personal relationships *(as above)* ↑	NR
Chamroonsawasdi et al., 2011	HSB D&RV SH&A	Attitude towards gender roles *(7 subscales based on WHO life skills development concepts)* ↑	α = 0.6 to 0.91
Clinton-Sherrod et al., 2009	HSB SH&A GBV BI	Recognition of sexual harassment and personal boundaries *(NR)* ↑ Understanding of positive dating relationship norms *(NR)* ↑ Resistance to sexual coercion *(NR)* *	α = 0.78 α = 0.65 α = 0.72
Daigneault et al., 2015	HSB R&SA GBV	Knowledge of sexual assault *(Sexual Assault Knowledge Questionnaire)* ↑ Awareness of resources *(yes/no)* ↑ Attitudes towards sexual assault *(Sexual Violence Attitude Scale)* ↑ Ability to identify sexual assault and respond to disclosures *(Sexual Assault Disclosure Scale)* ↑ Sexual victimization and perpetration *(yes/no)* (measured but not included in main analysis)	NR NR α = 0.82 α = 0.60 to 0.69 NR
de Graaf et al., 2016	HSB SH&A RSE	Primary: Sexual aggression *(Sexual Experience Survey, adapted version)* * Secondary: Cognitions and attitudes *(Sexual Interaction Competence Scale; Self-Regulation Scale, Attitudes Towards Sexual Pressure Used by Men; General self-Efficacy Scale; and Rosenberg Self-Esteem Scale)* *	NR α = 0.75 to 0.91
Edwards et al., 2019	HSB D&RV R&SA BI	Violence victimization and perpetration *(Bystander Behavior Scale)* ↑ Knowledge *(Knowledge Questionnaire, adapted version)* ↑ Rape myth acceptance *(Illinois Rape Myth Acceptance Scale)* ↑ Relationship media literacy *(Relationship Media Literacy Scale)* ↑ Bystander readiness *(Denial subscale of the Readiness To Help Scale)* ↑ Barriers and facilitators of bystander helping *(Pros and cons of bystander Action Scale)* ↑ Victim empathy *(Victim Empathy Scale)* ↑	NR α = 0.84 to 0.87 α = 0.72 to 0.88 α = 0.65 to 0.74 α = 0.69 to 0.80 α = 0.69 to 0.80 α = 0.80 to 0.86
Espelage et al., 2013	HSB SH&A	Verbal/relational bullying perpetration	α = 0.80 α = 0.86

(*continued on next page*)

Table 3 (*continued*)

Author, year	Focus of intervention	Outcomes measured (scale name/type) and result	Validity & reliability
		(nine-item University of Illinois Bully Scale) *	α = 0.80
		Peer victimization *(three-item University of Illinois Victimization Scale)* *	α = 0.80
		Physical aggression *(four-item University of Illinois Fighting Scale)* ↑	α = 0.80
		Homophobia perpetration and victimization *(10-item Homophobic Content Agent Target Scale)* *	
		Sexual harassment/ violence perpetration and victimization *(American Association of University Women Sexual Harassment Survey)* *	
Hilton et al., 1998	HSB D&RV R&SA SH&A	Knowledge about dating violence, violence against women in general, warning signs of abuse, community resources, conflict resolution strategies, and consequences of perpetrating violence *(multiple choice)* ↑	NR α = 0.84 NR
		Attitudes towards violence against women *(date rape attitudes items adapted from* (Goodchilds et al., 1988)*)*; ↑ (girls more than boys)	
		Perpetration and victimization of physical and sexual aggression (*10 items of a modified Conflict Tactics Scale; Physical Violence subscale; 1 item based on Straus, 1979, 1990; and 8 items based on Koss & Oros, 1982)* *	
Jaime et al., 2016	HSB D&RV GBV BI	Recognition of abusive behaviors *(5-point scale)* *	NR
		Gender-equitable attitudes *(5-point scale)* ↑	
		Intention to intervene *(5-point scale)* *	
		Bystander intervention *(yes/no)* *	
		Abuse perpetration *(yes/no)* ↑	
Kernsmith & Hernandez-Jozefowicz, 2011	HSB R&SA GBV BI	Attitudes about sexual assault *(Burt Rape Myth Acceptance Scale; and Rape Myth Belief Scale)* ↑	α = 0.75 α = 0.82
		School connection *(4-point scale)* *	
Lankster, 2019	HSB R&SA GBV BI	Perceptions of gender relations and rape *(negative/neutral/positive)* ↑	NR
Mathews et al., 2016	HSB D&RV	Sexual behavior *(yes/no; 5-point scales; 6-point scales)* *	NR α = 0.63 to 0.86
		Theorised motivational variables for sexual behavior *(percentage of correct answers; 3-point scales; and 5-point scales)* *	
McKibbin et al., 2020	HSB D&RV RSE	Knowledge of child sexual abuse *(Child Sexual Abuse Knowledge Questionnaire)* ↑	NR
		Knowledge of harmful sexual behavior, child sexual exploitation *(Knowledge of Harmful Sexual Behavior; and Child Sexual Exploitation Scale)* ↑	
		Knowledge of sexual health and safety *(Knowledge of Sexual and Reproductive Health Scale)* ↑	
		Comfort communicating about sex *(Sexual Communication Comfort Scale)* ↑	
		Self-reported self-efficacy to deliver interventions *(Sexual Intervention Self-Efficacy Questionnaire)* ↑	
Miller et al., 2015	HSB D&RV BI	Recognition of adolescent relationship abuse *(5-point scale)* ↑	α = 0.85 to 0.86 α = 0.89
		Intentions to intervene *(5-point scale)* *	NR
		Knowledge and recent use of resources *(yes/no)* ↑	α = 0.77 to 0.89
		Self-efficacy to use harm reduction behaviors *(5-point scale; and Generalised Self-Efficacy Scale)* *	
Miller, Jones, Culyba, et al., 2020	HSB D&RV GBV RSE BI	Primary: Perpetration of sexual violence or adolescent relationship abuse *(yes responses; and 4-point scales)* *	NR α = 0.64 α = 0.94 α = 0.94
		Secondary: Gender-equitable attitudes *(13-item scale)* ↑	α = 0.50 α = 0.47
		Recognition of adolescent relationship abuse *(12-item scale)* *	
		Intention to intervene with peers *(8-item scale)* ↑	
		Condom negotiation self-efficacy *(5-item scale)* *	
		Attitudes related to condom and contraceptive use *(10-item scale)* *	
Miller, Jones, Ripper, et al., 2020	HSB GBV SH&A BI	Primary: Positive bystander behavior *(9-item scale, positive and negative)* ↑	NR α = 0.96 α = 0.97 α = 0.69
		Secondary: Recognition of abusive behavior *(5-point scale)* ↑	NR
		Intention to intervene *(5-point scale)* *	
		Gender-equitable attitudes *(5-point scale)* ↑	
		Recent abuse perpetration *(yes responses)* ↑	
Raible et al., 2017	HSB D&RV	Feasibility of implementing intervention *(2-time-point frequencies)* ↑	NR
Smothers & Smothers, 2011	HSB R&SA SH&A	Knowledge of sexual abuse *(Sexual Assault and Attitudes Questionnaire)* ↑	α = 0.75 to 0.78
		Awareness of resources	

(*continued on next page*)

Table 3 (*continued*)

Author, year	Focus of intervention	Outcomes measured (scale name/type) and result	Validity & reliability
		(as above) ↑ Recognise healthy and unhealthy relationship components *(as above)* ↑	
Visser et al., 2017	HSB RSE	Psychosexual cognition (*Psychosexual knowledge test for adolescents from* Dekker et al., 2014) ↑ Psychosexual behavior *(Social Responsiveness Scale; and Sex Problems Scale of the Child Behavior Checklist)* ↑	α = 0.86 to 0.89 α = 0.54 to 0.78
Weisz & Black, 2001	HSB R&SA D&RV GBV SH&A	Knowledge *(Knowledge of Sexual Assault)* ↑ (girls more than boys) Attitudes *(Rape Attitude Scale; Youth Dating Violence Survey; and Teen Life Relationship Questionnaire)* ↑ (girls more than boys)	α = 0.75 α = 0.68

NR = not reported; ↑ = Positive effect; * no significant effect.
Foci of intervention coding: HSB = harmful sexual behavior; D&RV = dating and relationship violence; R&SA = rape and sexual assault; GBV = gender-based violence; SH&A = sexual harassment and aggression; RSE = relationships and sexuality education; BI = bystander intervention.

knowledge of ways to prevent sexual assault.

Duration and intensity. Programs ranged in length from 15 min per week for 12 weeks (*Coaching Boys into Men*, Miller, Jones, Ripper, et al., 2020) to one-hour per week over 24 weeks (Ball et al., 2009) to 2.5 hours per week for 11 weeks (Chamroonsawasdi et al., 2011).

3.7. Outcomes measured

Primary outcomes are those identified as the most meaningful for the intended users and decision makers, and of greatest importance to those affected (McKenzie et al., 2024). In the relatively new field of primary prevention of HSB in children and youth, primary outcomes include the long-term goals of preventing both victimization and perpetration throughout the lifecourse, and reducing the seriousness, frequency, and duration of victimization and perpetration in childhood. Primary outcomes also include those clinically important for reducing the extent of harm, for example disclosure of attempted or actual victimization and perpetration and bystander intercession because these actions can instigate provision of support services (providing these are also available, affordable, accessible, and effective). Secondary outcomes are of lesser importance but contribute supporting evidence for the intervention's effectiveness. These are sometimes known as proxy or indirect measures of program effectiveness and are part of an intervention's theory of change (Funnell & Rogers, 2011). In our included studies, secondary outcomes included variables such as knowledge, awareness, attitudes, intention to intervene, and self-efficacy. Table 3 lists the outcomes assessed in the included studies.

In only three of the 20 included studies did the authors use the term "primary outcome" to signal direct outcome assessment of categories of behavior relating to prevention of HSB: Edwards et al. (2019) measured interpersonal violence perpetration and victimization, de Graaf et al. (2016) measured sexual aggression, and Miller, Jones, Ripper, et al. (2020) measured bystander behaviors. On closer inspection, we identified six further studies as having assessed primary outcomes that could be classified as HSB but were not labelled as such by study authors for example: Mathews et al. (2016) and Visser et al. (2017) measured sexual behaviors; Clinton-Sherrod et al. (2009) measured intended behaviors relating to sexual violence; Espelage et al. (2013) measured sexual violence perpetration; and both Jaime et al. (2016) and Miller, Jones, Culyba, et al. (2020) measured abuse perpetration. All 20 studies assessed one or more secondary outcomes via participant self-report. No study assessed outcomes for prevention of HSB perpetrated online.

Of the 20 studies reviewed, three used psychometrically sound outcome measures. We used "psychometrically sound" to refer to measures for which validity and/or reliability data were available in the publications relating to the development of the measure (e.g., was developed with subject matter experts, had test-retest reliability reported, had internal consistency reported) Kernsmith and Hernandez-Jozefowicz (2011) used the Burt Rape Myth Acceptance Scale (Burt, 1980) and the Rape Myth Belief Scale (Warshaw, 1988), in which the authors state the scales are widely used and considered valid measures of attitudes towards sexual assault. McKibbin et al. (2020) used the Child Sexual Abuse Knowledge Questionnaire (Goodman-Delahunty et al., 2017), the Sexual Communication Comfort Scale and the Sexual Intervention Self-Efficacy Questionnaire (Miller & Byers, 2009). McKibbin et al. (2020) also used a custom-made *Knowledge of Harmful Sexual Behaviour and Child Sexual Exploitation Scale* which comprised 13 items assessed on true/false/don't know responses. Lastly, Edwards et al. (2019) used a shortened version of the Illinois Rape Myth Acceptance Scale (Coker et al., 2011; Cook-Craig, 2012) which consisted of six items and two subscales: Traditional Gender Expectations and Rape Denial, with response options ranging from disagree strongly to agree strongly.

The remaining 17 studies used custom-made study-specific measures developed to test program goals or aims. These included single items, surveys, or other not-yet validated measures. Only one study reported on reliability or validity of the measures (Mathews et al., 2016).

3.8. Effects of interventions

Twelve studies reported significant improvements across all measured outcomes (Ball et al., 2009; Chamroonsawasdi et al., 2011; Clinton-Sherrod et al., 2009; Daigneault et al., 2015; Edwards et al., 2019; Hilton et al., 1998; Lankster, 2019; McKibbin et al., 2020; Raible et al., 2017; Smothers & Smothers, 2011; Visser et al., 2017; Weisz & Black, 2001). However, one of these also acknowledged several challenges with implementing the intervention in a school setting including time, lack of support, high traffic levels in the nurse's office and lack of private space, extended periods between individual discussions, and resistance from school administration (Raible et al., 2017).

Four studies (Jaime et al., 2016; Kernsmith & Hernandez-Jozefowicz, 2011; Miller et al., 2015; Miller, Jones, Ripper, et al., 2020) reported a mix of positive and no change on the outcomes they measured. Jaime et al. (2016) found no significant differences between interventions delivered by advocates and coaches, but athletes reported an elevated acceptability of the advocate-led program. Kernsmith and Hernandez-Jozefowicz (2011) found that students with the lowest level of school connection reported the most rape-supportive attitudes and showed no significant improvements, compared to students who felt connected to the school and did show improved attitudes. Miller et al. (2015) reported no significant changes in intentions to intervene despite improvements in knowledge and use of resources. Similarly, Miller, Jones, Ripper, et al. (2020) reported no significant changes in intentions to intervene despite improvements in positive bystander behaviors and recognizing abusive behaviors, and reductions in relationship abuse perpetration.

Three studies found no significant positive effects of the interventions on behavorial outcomes encompassing sexual aggression (de Graaf et al., 2016), sexual behavior (Mathews et al., 2016), and perpetration of sexual violence or adolescent relationship abuse (Miller, Jones, Culyba, et al., 2020). Espelage et al. (2013) found effects only for physical aggression.

4. Discussion

Preventing harmful sexual behavior in children is an important policy priority – both for community violence prevention strategies, as well as for specific settings such as education and early childhood who are responsible for managing the safety and wellbeing of students in their care. The aim of this review was to provide a comprehensive overview and synthesis of key findings from research on primary-level interventions to prevent HSB.

4.1. Nature of prevention interventions

Typically, HSB primary prevention interventions were provided in schools (85 %) and delivered to middle- and high-school aged youth (100 %). The prevention of HSB in children and young people at the primary level of a public health approach from the available studies was always part of a program or intervention with a broader focus that could include preventing victimization, supporting the development of respectful relationships and/or teaching bystander intervention techniques. These broader foci included knowledge (e.g., of healthy relationships, sexual motivations, and abuse characteristics), skills (e.g., problem solving, emotion regulation, and social skills), attitudes (e.g., towards sexual harassment and personal boundaries), intentions (e.g., to intervene), and behavior (e.g., perpetration of sexual violence, sexual aggression, resource use, and help seeking). We did not find any programs aimed solely at preventing HSB in online environments, although one of the topics in the intervention evaluated by McKibbin (2017) covered sexual safety online.

Importantly, our review suggests that existing primary prevention strategies that aim to target the use of HSB typically do not differentiate prevention of *victimization* from prevention of *perpetration* (in the way that family violence prevention and intervention strategies differentially focus on risks for women experiencing violence, and men who use violence). This may be because HSB primary prevention strategies are all included within programs focusing on preventing a broader range of violence types. There are also opportunities to differentiate strategies targeting behaviors across the full continuum identified by Hackett et al. (2019) and expanded by Paton and Bromfield (2022), from developmentally appropriate and inappropriate sexual behavior to that which may be considered harmful sexual behavior, inclusive of concerning, very concerning and serious/extreme.

4.2. Alignment with other social objectives

One of the key findings of this review is that primary prevention interventions addressing HSB in children and youth were not clearly distinguishable from other prevention programs designed to address closely related aspects of interpersonal violence, such as adult-perpetrated child sexual abuse, and gender-based physical and sexual violence in the context of adolescent dating and intimate partner relationships. Many of the themes—such as consent and respect in relationships—are relevant to multiple prevention domains.

4.3. Mechanisms of change

Kok et al. (2016) provided a generic, but very helpful taxonomy of behavior-change methods. In the supplemental materials to their paper, they differentiated between strategies targeting an individual, organization, community, environment, or policy. They also differentiated between strategies that focus on knowledge, awareness, habits, attitudes, social influence, self-efficacy, stigma, social norms, or social supports. One of the greatest challenges in violence prevention is how to avoid putting all the focus on teaching would-be victims to avoid victimization (and to interrupt it as early as possible before it escalates). There is now a growing concern about the need for primary prevention initiatives that focus on 'would-be perpetrators' (Quadara et al., 2015). However, much of the work thus far has been at the boundary of secondary prevention strategies for at-risk populations (e.g., McKibbin et al., 2020). As with dating violence prevention programs that are focused (mostly) on boys and men learning to not act in coercive, controlling, or violent ways, we might expect there to be HSB primary prevention programs that are explicit about their separate (or shared) prevention goal(s) of reducing risk of perpetration (i.e., learning not to act in harmful ways towards other children/youth), as well as reducing risk of being a victim of HSB. However, we were unable to locate any interventions aimed solely at HSB (either preventing HSB victimization or perpetration – or both).

Finally, there is also a growing school of thought that environments play a significant role in shaping behavior, and therefore sexual abuse prevention programs must look at the situational, contextual, and environmental ecology to promote conditions of safety (Rayment-McHugh et al., 2024). The emerging work on applying situational crime prevention to child safeguarding practice (e.g., Higgins & Morley, 2018) and contextual safeguarding principles (Firmin & Lloyd, 2020) focuses attention on the environmental conditions that enable (or disrupt) sexual violence, including both sexual abuse from adults and sexually harmful behavior from children or young people. Although some programs discussed wanting to change attitudes or knowledge at the school or community level (i.e., Smothers & Smothers, 2011), we did not find evidence of primary prevention strategies being focused on institutions (and their staff and volunteers), families, or community settings to change the context of activities (such as supervision), or the nature of activities from a situational crime prevention perspective (Kaufman et al., 2019) – including online environments.

In the future, we recommend that developers of primary prevention strategies clearly articulate the key audience they are targeting (i.e., potential victims, potential perpetrators, protective family members), and the key change strategies they are using to match the intended outcomes (e.g., change in knowledge, awareness, intention, or capability). Such taxonomies need to then be differentiated as to which level of the public health approach they are targeting, and for primary prevention strategies to draw on mechanisms that can easily be deployed at scale across the entire population. As noted by Kok et al. (2016), to be effective, behavior-change programs must target determinants that predict behavior. Others would apply the idea of a 'program logic' or 'theory of change' to explain how it is that targeting behavior 'A' or attitude 'B' leads to the intended outcome 'C' – either acting in a harmful way to another child/young person (i.e., HSB perpetration), or experiencing HSB from a child or young person (i.e., HSB victimization).

As Letourneau et al. (2017) suggested, prevention programs that focus on HSB towards children should target mixed gender groups of children aged 11–13. Material should be presented in multiple formats across multiple sessions. Programs should provide clear and relevant messaging about acceptable sexual behavior and provide opportunity for the rehearsal of new skills by children, while also engaging parents. There is scope for a new generation of HSB primary prevention programs and strategies to emerge that address the implications of our review. In addition to these characteristics outlined by Letourneau et al. (2017), our review would suggest HSB primary prevention programs also need to address online safety and acknowledge and contextualise the pervasive nature of pornography in the digital environment (and its effects in non-digital environments). Additional research and program development is needed to be appropriate for roll-out widely across the population, consistent with the core components of public health strategies for maltreatment prevention (Higgins et al., 2022; Lonne et al., 2019). Programs should be provided to a broader audience including younger children, prior to adolescence, and explore what works for young people with diverse needs, (dis)abilities, neurocognitive differences, and identities (including the needs and experiences of children and young people who are gender or sexually diverse). Programs should clearly articulate how sexual behaviors exist on a continuum from healthy to harmful. Programs should continue to focus on both preventing perpetration (i.e.,

how to act in sexually health, appropriate, respectful, and consensual ways with peers) as well as preventing victimization – whether within a single or complementary programs, as the evidence from broad programs that include victimization, perpetration and other foci suggests these can be effective. Programs should also support the creation of safe environments—in the home, in organizations, in the community, and online—for children and young people to engage in (i.e., considering the supervision practices of parents, carers in the home, or adult employees or volunteers in youth-serving organizations).

Another important finding from our review in respect of future work is the lack of psychometrically validated measures used to assess outcomes of HSB prevention interventions. Ensuring strong reliability and validity of tools used to measure HSB prevention should be a focus of those developing new tools, which hour review finds is a priority as we continue researching HSB prevention. As well as ensuring the findings of individual studies using psychometrically validated tools are robust and provide confidence in the findings presented, the ability to synthesize literature over time will be easier with a shared set of culturally appropriate and translated tools validated in different countries and contexts.

Finally, it may be valuable to consider the common elements that align with other prevention paradigms – like primary prevention strategies for adult sexual assault, domestic violence, and workplace gender-based violence, as well as prevention of other youth issues such substance misuse, car theft, or graffiti – so that the resources and policy settings to support widescale implementation are not diluted but are seen as complementary and able to achieve multiple aims.

4.4. Limitations

The limited number of databases we searched may have precluded detecting some studies. Restricting our inclusion criteria to reports published in English on platforms indexed in peer-review journal bases also limited the range of potential studies.

Program descriptions reported in the included studies used a broad array of terminology to describe program contents, and we did not seek to find program manuals for programs included in the studies, therefore we may have missed documenting some program characteristics.

4.5. Conclusion

The evidence base for primary prevention programs specifically designed to address children's harmful behavior is limited. All the programs included in our review were within a broader prevention program addressing such behaviors as gender-based violence, dating or relationship violence, rape, or sexual assault. Existing primary prevention programs for harmful sexual behavior do not differentiate prevention of *victimization* from prevention of *perpetration.* Taxonomies are needed to assist prevention strategies articulate the key audiences they are targeting (potential victim? Potential perpetrator? Protective family members?), and the change strategies they are using to match the intended type of change (e.g., in knowledge, awareness, or capability) – differentiated by the public health level of intervention (primary, secondary, tertiary).

Although development and evaluation of primary-level prevention strategies for HSB is in its infancy, the available evidence shows promise for effectively preventing perpetration and victimization of HSB. More research is needed to understand how to acknowledge and differentiate between developmentally appropriate and inappropriate behaviors across the continuum and address these within HBS prevention strategies. Attention is also required to identify best-practice for focusing on HSB when implemented as part of a broader program of CSA or harm prevention, across the population.

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CRediT authorship contribution statement

Douglas Hugh Russell: Writing – review & editing, Writing – original draft, Validation, Supervision, Resources, Project administration, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Sebastian Trew:** Writing – review & editing, Writing – original draft, Validation, Methodology, Data curation. **Rhiannon Smith:** Writing – original draft, Visualization. **Daryl John Higgins:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Funding acquisition. **Kerryann Walsh:** Writing – original draft, Validation, Investigation, Conceptualization.

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Declaration of competing interest

The authors have no competing interests to declare.

Data availability

No data was used for the research described in the article.

References

**denotes a study that met the criteria for and was included in our systematic review*

Ball, B., Kerig, P. K., & Rosenbluth, B. (2009). Like a family but better because you can actually trust each other. *Health Promotion Practice, 10*(1_suppl), 45S–58S. https://doi.org/10.1177/1524839908322115

Belton, E., & Hollis, V. (2016). A review of the research on children and young people who display harmful sexual behaviour online. NSPCC Evaluation Department: Impact and Evidence series. https://learning.nspcc.org.uk/research-resources/2016/review-children-young-people-harmful-sexual-behaviour-online.

Berrick, J. D., & Barth, R. P. (1992). Child sexual abuse prevention: Research review and recommendations. *Social Work Research and Abstracts, 28*(4), 6–15. https://doi.org/10.1093/swra/28.4.6

Berrick, J. D., & Gilbert, N. (1991). *With the best of intentions: The child sexual abuse prevention movement.* Guilford Press.

Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology, 38*, 217–230. https://doi.org/10.1037//0022-3514.38.2.217

Campbell, M., Katikireddi, S. V., Sowden, A., McKenzie, J. E., & Thomson, H. (2018). Improving conduct and reporting of narrative synthesis of quantitative data (ICONS-quant): Protocol for a mixed methods study to develop a reporting guideline. *BMJ Open, 8*(2), Article e020064. https://doi.org/10.1136/bmjopen-2017-020064

Chamroonsawasdi, K., Suparp, J., Kittipichai, W., & Khajornchaikul, P. (2011). Gender roles, physical and sexual violence prevention in primary extend to secondary school in samutsakorn province, Thailand. *Journal of the Medical Association of Thailand, 93*(3), 358.

Clarivate Analytics. (2013). *Endnote. In (version Endnote X9) [64 bit]. Clarivate*.

Clinton-Sherrod, A. M., Morgan-Lopez, A. A., Gibbs, D., Hawkins, S. R., Hart, L., Ball, B., … Littler, N. (2009). Factors contributing to the effectiveness of four school-based sexual violence interventions. *Health Promotion Practice, 10*(1), 19S–28S. https://doi.org/10.1177/1524839908319593

Cochrane Public Health Group. (2011). *Cochrane public health group data extraction and assessment template*.

Cohen, N., & Katz, C. (2021). What messages are communicated to children in maltreatment prevention programs? Conclusions of a scoping review. *Trauma, Violence, & Abuse, 24*(1), 15–28. https://doi.org/10.1177/15248380211016012

Coker, A. L., Cook-Craig, P. G., Williams, C. M., Fisher, B. S., Clear, E. R., Garcia, L. S., & Hegge, L. M. (2011). Evaluation of green dot: An active bystander intervention to reduce sexual violence on college campuses. *Violence Against Women, 17*, 777–796. https://doi.org/10.1177/1077801211410264

Cook-Craig, P. G. (2012). *Evaluation of the green dot bystanding intervention program in Kentucky high schools. Paper presented at the 6th biennial National Conference on health and domestic violence*.

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research, 22*(10), 1435–1443. https://doi.org/10.1177/10497323124529

Daigneault, I., Hébert, M., McDuff, P., Michaud, F., Vezina-Gagnon, P., Henry, A., & Porter-Vignola, E. (2015). Effectiveness of a sexual assault awareness and prevention workshop for youth: A 3-month follow-up pragmatic cluster randomization study. *The Canadian Journal of Human Sexuality, 24*(1), 19–30. https://doi.org/10.3138/cjhs.2626

Dekker, L. P., Van der Vegt, E. J. M., Visser, K., Tick, N. T., Boudesteijn, F., Verhulst, F. C., … Greaves-Lord, K. (2014). Improving psychosexual knowledge in adolescents with autism spectrum disorder: Pilot of the tackling teenage training program. *Journal of Autism and Developmental Disorders, 45*, 1532–1540.

Edwards, K. M., Banyard, V. L., Sessarego, N. S., Waterman, E. A., Mitchell, K. J., & Chang, H. (2019). Evaluation of a bystander-focused interpersonal violence prevention program with high school students. *Prevention Science, 20*(4), 488–498. https://doi.org/10.1007/s11121-019-01000-w

Espelage, D. L., Low, S., Polanin, J. R., & Brown, E. C. (2013). The impact of a middle school program to reduce aggression, victimization, and sexual violence. *Journal of Adolescent Health, 53*(2), 180–186. https://doi.org/10.1016/j.jadohealth.2013.02.021

Fellmeth, G. L., Heffernan, C., Nurse, J., Habibula, S., & Sethi, D. (2013). Educational and skills-based interventions for preventing relationship and dating violence in adolescents and young adults: A systematic review. *Campbell Systematic Reviews, 9*(1), i–124. https://doi.org/10.4073/csr.2013.14

Ferrante, A., Clare, J., Randall, S., & Boyd, J. (2017). Police responses to child sexual abuse 2010–2014, an analysis of administrative data for the Royal Commission into institutional responses to child sexual abuse. *Royal Commission into Institutional Responses to Child Sexual Abuse*. https://www.childabuseroyalcommission.gov.au/sites/default/files/file-list/research_report_-_police_responses_to_child_sexual_abuse_2010-14_-_government_responses.pdf.

Finkelhor, D., Ormrod, R., & Chaffin, M. (2009). Juveniles who commit sex offenses against minors. *OJJDP Juvenile Justice Bulletin*, 1–12. http://www.ojp.usdoj.gov/ojjdp.

Finkelhor, D., Shattuck, A., Turner, H. A., & Hamby, S. L. (2014). The lifetime prevalence of child sexual abuse and sexual assault assessed in late adolescence. *Journal of Adolescent Health, 55*(3), 329–333. https://doi.org/10.1016/j.jadohealth.2013.12.026

Firmin, C., & Lloyd, J. (2020). *Contextual safeguarding: A 2020 update on the operational, strategic and conceptual framework*. Contextual Safeguarding Network.

Fortson, B. L., Klevens, J., Merrick, M. T., Gilbert, L. K., & Alexander, S. P. (2016). Child abuse and neglect prevention resources for action: A compilation of the best available evidence. In *National Center for Injury Prevention and Control, Centers for Disease Control and Prevention*. https://www.cdc.gov/violence-prevention/media/pdf/resources-for-action/CAN-Prevention-Resource_508.pdf.

Fryda, C. M., & Hulme, P. A. (2015). School-based childhood sexual abuse prevention programs: An integrative review. *Journal of School Nursing, 31*(3), 167–182. https://doi.org/10.1177/1059840514544125

Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models*. Jossey-Bass Publishers.

Goodchilds, J. D., Zellman, G. L., Johnson, P. B., & Giarrusso, R. (1988). Adolescents and their perceptions of sexual interactions. *Rape and Sexual Assault, 2*, 245–270.

Goodman-Delahunty, J., Martschuk, N., & Cossins, A. (2017). Validation of the child sexual abuse knowledge questionnaire. *Psychology, Crime & Law, 23*(4), 391–412. https://doi.org/10.1080/1068316X.2016.1258469

de Graaf, I., de Haas, S., Zaagsma, M., & Wijsen, C. (2016). Effects of rock and water: An intervention to prevent sexual aggression. *Journal of Sexual Aggression, 22*(1), 4–19. https://doi.org/10.1080/13552600.2015.1023375

Gubbels, J., Assink, M., Prinzie, P., & van der Put, C. E. (2021). What works in school-based programs for child abuse prevention? The perspectives of young child abuse survivors. *Social Sciences, 10*(10), 404. https://doi.org/10.3390/socsci10100404

Hackett, S., Holmes, D., & Branigan, P. (2019). *Harmful sexual behaviour framework: An evidence-informed operational framework for children and young people displaying harmful sexual behaviours* (2nd ed.). NSPCC.

Higgins, D., Lonne, B., Scott, D., Herrenkohl, T., & Klika, B. (2022). Core components of public health approaches to preventing child abuse and neglect. In R. Krugman, & J. Korbin (Eds.), *Handbook of child maltreatment* (2nd ed., pp. 445–458). Springer. https://doi.org/10.1007/978-3-030-82479-2_22.

Higgins, D., & Morley, S. (2018). Understanding situational crime prevention for child sexual abuse: What services need to know. In *ACU (Australian Catholic University) Safeguarding Children and Young People Portal*. https://safeguardingchildren.acu.edu.au/practice-tools/situational-crime-prevention.

Hilton, N. Z., Harris, G. T., Rice, M. E., Krans, T. S., & Lavigne, S. E. (1998). Antiviolence education in high schools: Implementation and evaluation. *Journal of Interpersonal Violence, 13*(6), 726–742. https://doi.org/10.1177/088626098013006004

Jaime, M. C. D., Stocking, M., Freire, K., Perkinson, L., Ciaravino, S., & Miller, E. (2016). Using a domestic and sexual violence prevention advocate to implement a dating violence prevention program with athletes. *Health Education Research, 31*(6), 679–696. https://doi.org/10.1093/her/cyw045

Kaufman, K., Erooga, M., Higgins, D., & Zatkin, J. (2019). Youth serving organization safety risks and the situational prevention approach. In B. Lonne, D. Scott, D. Higgins, & T. Herrenkohl (Eds.), *Re-visioning public health approaches for protecting children* (pp. 165–180). Springer. https://doi.org/10.1007/978-3-030-05858-6_11.

Kernsmith, P. D., & Hernandez-Jozefowicz, D. M. (2011). A gender-sensitive peer education program for sexual assault prevention in the schools. *Children & Schools, 33*(3), 146–157. https://doi.org/10.1093/cs/33.3.146

Kloppen, K., Haugland, S., Svedin, C. G., Mæhle, M., & Breivik, K. (2016). Prevalence of child sexual abuse in the Nordic countries: A literature review. *Journal of Child Sexual Abuse, 25*(1), 37–55. https://doi.org/10.1080/10538712.2015.1108944

Kmet, L. M., Cook, L. S., & Lee, R. C. (2004). Standard quality assessment criteria for evaluating primary research papers from a variety of fields (1706-7855). In *Alberta Heritage Foundation for Medical Research*. http://www.ahfmr.ab.ca/frames3.html.

Kok, G., Gottlieb, N. H., Peters, G. Y., Dolan Mullen, P., Parcel, G. S., Ruiter, R. A. C., … Bartholomew, L. K. (2016). A taxonomy of behaviour change methods: An intervention mapping approach. *Health Psychology Review, 10*(3), 297–312. https://doi.org/10.1080/17437199.2015.1077155

Lankster, N. M. (2019). Chap chat: Gender relations and perceptions of rape amongst adolescent males in South Africa. *Journal of Feminist Family Therapy: An International Forum, 31*(2–3), 129–143. https://doi.org/10.1080/08952833.2019.1574491

Letourneau, E. J., Eaton, W. W., Bass, J., Berlin, F. S., & Moore, S. G. (2014). The need for a comprehensive public health approach to preventing child sexual abuse. *Public Health Reports, 129*(3), 222–228. https://doi.org/10.1177/003335491412900303

Letourneau, E. J., Schaeffer, C. M., Bradshaw, C. P., & Feder, K. A. (2017). Preventing the onset of child sexual abuse by targeting young adolescents with universal prevention programming. *Child Maltreatment, 22*(2), 100–111. https://doi.org/10.1177/1077559517692439

Re-visioning public health approaches for protecting children. In Lonne, B., Scott, D., Higgins, D., & Herrenkohl, T. (Eds.), *Child maltreatment 9: Contemporary issues in research and policy series*, (2019). Springer. https://doi.org/10.1007/978-3-030-05858-6.

Lu, M., Barlow, J., Meinck, F., Walsh, K., & Wu, Y. (2022). School-based child sexual abuse interventions: A systematic review and meta-analysis. *Research on Social Work Practice*. https://doi.org/10.1177/1049731522111139

Mathews, B., & Collin-Vézina, D. (2019). Child sexual abuse: Toward a conceptual model and definition. *Trauma, Violence, & Abuse, 20*(2), 131–148. https://doi.org/10.1177/1524838017738726

Mathews, B., Pacella, R., Scott, J. G., Finkelhor, D., Meinck, F., Higgins, D. J., … Dunne, M. P. (2023). The prevalence of child maltreatment in Australia: findings from a national survey. *Medical Journal of Australia, 218*, S13–S18.

Mathews, C., Eggers, S. M., Townsend, L., Aarø, L. E., de Vries, P. J., Mason-Jones, A. J., … De Vries, H. (2016). Effects of PREPARE, a multi-component, school-based HIV and intimate partner violence (IPV) prevention Programme on adolescent sexual risk behaviour and IPV: Cluster randomised controlled trial. *AIDS and Behavior, 20*(9), 1821–1840. https://doi.org/10.1007/s10461-016-1410-1

McKenzie, J. E., Brennan, S. E., Ryan, R. E., Thomson, H. J., Johnston, R. V., & Thomas, J. (2024). Chapter 3: Defining the criteria for including studies and how they will be grouped for the synthesis. In J. P. T. Higgins, J. Thomas, J. Chandler, M. Cumpston, T. Li, M. J. Page, & V. A. Welch (Eds.), *Cochrane Handbook for Systematic Reviews of Interventions*. Cochrane (Version 6.5) https://training.cochrane.org/handbook/current/chapter-03.

McKibbin, G. (2017). Preventing harmful sexual behaviour and child sexual exploitation for children & young people living in residential care: A scoping review in the Australian context. *Children and Youth Services Review, 82*, 373–382. https://doi.org/10.1016/j.childyouth.2017.10.008

McKibbin, G., Bornemisza, A., & Humphreys, C. (2020). Power to Kids: Respecting Sexual Safety Evaluation report (Research report). www.mackillop.org.au/power-to-kids.

McKibbin, G., Humphreys, C., & Hamilton, B. (2017). "talking about child sexual abuse would have helped me": Young people who sexually abused reflect on preventing harmful sexual behavior. *Child Abuse & Neglect, 70*, 210–221. https://doi.org/10.1016/j.chiabu.2017.06.017

Methley, A. M., Campbell, S., Chew-Graham, C., McNally, R., & Cheraghi-Sohi, S. (2014). PICO, PICOS and SPIDER: A comparison study of specificity and sensitivity in three search tools for qualitative systematic reviews. *BMC Health Services Research, 14*(1), 1–10. https://doi.org/10.1186/s12913-014-0579-0

Miller, E., Goldstein, S., McCauley, H. L., Jones, K. A., Dick, R. N., Jetton, J., … Tancredi, D. J. (2015). A school health center intervention for abusive adolescent relationships: A cluster RCT. *Pediatrics, 135*(1), 76–85. https://doi.org/10.1542/peds.2014-2471

Miller, E., Jones, K. A., Culyba, A. J., Paglisotti, T., Dwarakanath, N., Massof, M., … Pulerwitz, J. (2020). Effect of a community-based gender norms program on sexual violence perpetration by adolescent boys and young men: A cluster randomized clinical trial. *JAMA Network Open, 3*(12), Article e2028499. https://doi.org/10.1001/jamanetworkopen.2020.28499

Miller, E., Jones, K. A., Ripper, L., Paglisotti, T., Mulbah, P., & Abebe, K. Z. (2020). An athletic coach-delivered middle school gender violence prevention program: A cluster randomized clinical trial. *JAMA Pediatrics, 174*(3), 241–249. https://doi.org/10.1001/jamapediatrics.2019.5217

Miller, S. A., & Byers, E. S. (2009). Psychologist's continuing education and training in sexuality. *Journal of Sex & Marital Therapy, 35*(3), 206–219. https://doi.org/10.1080/00926230802716336

Moore, T., McArthur, M., Noble-Carr, D., & Harcourt, D. (2015). *Taking us seriously: Children and young people talk about safety and institutional responses to their safety concerns, a report for the Royal Commission into institutional responses to child sexual abuse*. Institute of Child Protection Studies, Australian Catholic University. https://www.childabuseroyalcommission.gov.au/sites/default/files/file-list/research_report_-_taking_us_seriously_children_and_young_people_talk_about_safety_and_institutional_responses_to_their_safety_concerns_-_causes.pdf.

Narang, J., Schwannauer, M., Quayle, E., & Chouliara, Z. (2019). Therapeutic interventions with child and adolescent survivors of sexual abuse: A critical narrative

review. *Children and Youth Services Review, 107*, Article 104559. https://doi.org/10.1016/j.childyouth.2019.104559

Ouzzani, M., Hammady, H., Fedorowicz, Z., et al. (2016). Rayyan—A web and mobile app for systematic reviews. *Systematic Reviews, 5*, 210. https://doi.org/10.1186/s13643-016-0384-4

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., … Brennan, S. E. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Systematic Reviews, 10*(1), 1–11. https://doi.org/10.1136/bmj.n71

Paton, A., & Bromfield, L. (2022). Continuum for understanding harmful sexual Behaviours. Australian Centre for Child Protection, University of South Australia. https://www.unisa.edu.au/siteassets/research/accp/paton-bromfield-may-2022-hsb-continuum_.pdf.

Pinheiro, P. S. (2006). World report on violence against children. In *United Nations Secretary-General's Study on Violence against Children*. https://violenceagainstchildren.un.org/sites/violenceagainstchildren.un.org/files/document_files/world_report_on_violence_against_children.pdf.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., … Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC methods Programme*. Institute of Health Research.

Quadara, A., Nagy, V., Higgins, D., & Siegel, N. (2015). Conceptualising the prevention of child sexual abuse. In *Final Report (Research Report No. 33)*. Australian Institute of Family Studies. www.aifs.gov.au/publications/conceptualising-prevention-child-sexual-abuse.

Radford, L., Corral, S., Bradley, C., & Fisher, H. L. (2013). The prevalence and impact of child maltreatment and other types of victimization in the UK: Findings from a population survey of caregivers, children and young people and young adults. *Child Abuse & Neglect, 37*(10), 801–813. https://doi.org/10.1016/j.chiabu.2013.02.004

Raible, C. A., Dick, R., Gilkerson, F., Mattern, C. S., James, L., & Miller, E. (2017). School Nurse-delivered adolescent relationship abuse prevention. *Journal of School Health, 87*(7), 524–530. https://doi.org/10.1111/josh.12520

Rayment-McHugh, S., McKillop, N., Adams, D., Higgins, D. J., & Russell, D. H. (2024). Context matters: Conceptualising and operationalising the contextual prevention of child sexual abuse. *Child Abuse Review, 33*(1), Article e2859.

Reyes, H. L. M., Graham, L. M., Chen, M. S., Baron, D., Gibbs, A., Groves, A. K., … Maman, S. (2021). Adolescent dating violence prevention programmes: A global systematic review of evaluation studies. *The Lancet Child & Adolescent Health, 5*(3), 223–232. https://doi.org/10.1016/S2352-4642(20)30276-5

Rudolph, J., & Zimmer-Gembeck, M. J. (2018). Reviewing the focus: A summary and critique of child-focused sexual abuse prevention. *Trauma Violence Abuse, 19*(5), 543–554. https://doi.org/10.1177/1524838016675478

Russell, D. H., Higgins, D. J., & Posso, A. (2020). Preventing child sexual abuse: A systematic review of interventions and their efficacy in developing countries. *Child Abuse & Neglect, 102*, Article 104395. https://doi.org/10.1016/j.chiabu.2020.104395

Smith, C., Allardyce, S., Hackett, S., Bradbury-Jones, C., Lazenbatt, A., & Taylor, J. (2014). Practice and policy in the UK with children and young people who display harmful sexual behaviours: An analysis and critical review. *Journal of Sexual Aggression, 20*(3), 267–280. https://doi.org/10.1080/13552600.2014.927010

Smothers, M. K., & Smothers, D. B. (2011). A sexual assault primary prevention model with diverse urban youth. *Journal of Child Sexual Abuse, 20*(6), 708–727. https://doi.org/10.1080/10538712.2011.622355

Snyder, H. N. (2000). *Sexual assault of young children as reported to law enforcement: Victim, incident and offender characteristics. A NIBRS statistical report*. Washington, DC: Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Retrieved July 19, 2016, from http://www.bjs.gov/content/pub/pdf/saycrle.pdf.

Spangaro, J., Kor, K., Payne, J., Hanley, N., Allan, J., Finlay, S., … Fabrianesi, B. (2021). *Access and engagement with services for sexual safety for children and young people with problematic and harmful sexual behaviour (AccESS study)*. University of Wollongong: School of Health and Society. https://www.health.nsw.gov.au/parvan/hsb/Documents/access-study-infographics.pdf.

Storer, H. L., Casey, E., & Herrenkohl, T. (2016). Efficacy of bystander programs to prevent dating abuse among youth and young adults: A review of the literature. *Trauma, Violence, & Abuse, 17*(3), 256–269. https://doi.org/10.1177/1524838015584361

Thompson Coon, J., Gwernan-Jones, R., Garside, R., Nunns, M., Shaw, L., Melendez-Torres, G. J., & Moore, D. (2020). Developing methods for the overarching synthesis of quantitative and qualitative evidence: The interweave synthesis approach. *Research Synthesis Methods, 11*(4), 507–521. https://doi.org/10.1002/jrsm.1383

Trew, S., Russell, D. H., Higgins, D. J., & Walsh, K. (2021). Effective delivery methods and teaching strategies for child sexual abuse prevention: A rapid evidence check. In *Institute of Child Protection Studies, Australian Catholic University*. https://doi.org/10.26199/rdbq-xm46

Visser, K., Greaves-Lord, K., Tick, N. T., Verhulst, F. C., Maras, A., & van der Vegt, E. J. M. (2017). A randomized controlled trial to examine the effects of the tackling teenage psychosexual training program for adolescents with autism spectrum disorder. *Journal of Child Psychology and Psychiatry, 58*(7), 840–850. https://doi.org/10.1111/jcpp.12709

Warshaw, R. (1988). *I never called it rape: The Ms. report on recognizing, fighting, and surviving date and acquaintance rape*. Harper & Row.

Weisz, A. N., & Black, B. M. (2001). Evaluating a sexual assault and dating violence prevention program for urban youths. *Social Work Research, 25*(2), 89–100. https://doi.org/10.1093/swr/25.2.89

Wong, J. S., Bouchard, J., & Lee, C. (2021). The effectiveness of college dating violence prevention programs: A meta-analysis. *Trauma, Violence, & Abuse*. https://doi.org/10.1177/15248380211036058

World Health Organization. (2006). Preventing child maltreatment: A guide to taking action and generating evidence. In *World Health Organization.*. https://apps.who.int/iris/handle/10665/43499.

Wurtele, S. K., & Kenny, M. C. (2012). Preventing childhood sexual abuse: An ecological approach. In P. Goodyear-Brown (Ed.), *Handbook of child sexual abuse: Identification, assessment and treatment* (pp. 531–565). Wiley Press.