
What works to prevent online violence against children?

Executive Summary



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Preface

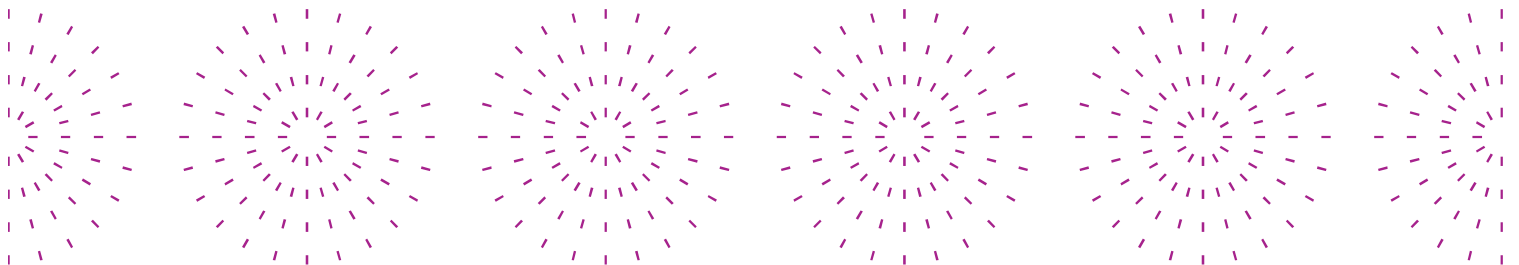
Violence is a major driver of poor health worldwide – both directly through the physical and psychological injuries it causes, and indirectly through its impact on families, communities, and society. Violence against children is particularly toxic form of violence because of its capacity to disrupt normal development and lead to a lifetime of poor physical and mental health.

Public health resources can be used effectively to prevent violence against children by providing direct assistance in four key areas: support for data collection on violence against children; research into the factors that can increase or decrease violence; the design, implementation and evaluation of interventions; and scaling up successful interventions and proving programme cost-effectiveness.

In recent years, as a result of technological change, violence against children has taken new forms and evolved in ways that need to be closely monitored and rapidly addressed. These forms include new environments for sexual exploitation, and vehicles for aggression and interpersonal abuse. WHO is committed to contributing to existing efforts to understand these forms of violence and helping to guide the international response.

One key to an effective international response is drawing lessons from the larger science of prevention. In this document, violence prevention researchers look broadly at the science of prevention and child health to draw implications for best practices for preventing online violence against children. They have identified a great deal of relevant research, as well as major gaps in the literature. They have also looked critically at the content of existing prevention programmes targeted directly at online violence. They articulate some strong conclusions about the merits of prevention education, but also some important needs for revisions to current practices. They also point the way to prevention strategies that require additional evaluation and support.

This document illustrates well how drawing on evidence from areas of public health can help make in-roads into some of the world's most pressing and challenging public health problems.



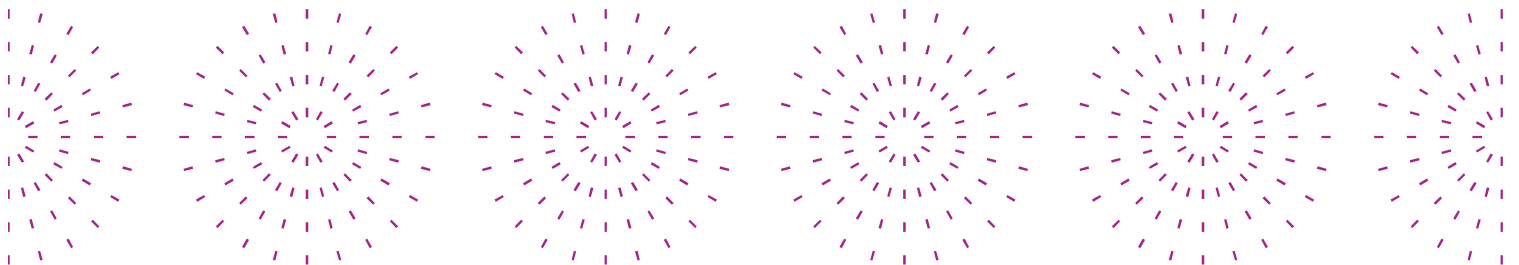
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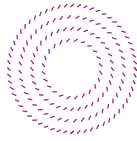
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Abbreviations

CSAM	child sexual abuse materials
OCSEA	online child sexual exploitation and abuse
UNESCO	United Nations Educational, Scientific and Cultural Organization
VAC	violence against children
WHO	World Health Organization

1. Introduction



The rapid explosion of digital communications technologies and their use by young people has driven a re-orientation in the field of child protection and a fleet of new initiatives. Police, educators, physicians and mental health professionals have all found themselves responding to a variety of threats to children involving technology, some resembling versions of earlier, familiar threats, and some with unique new dynamics. Many professionals have drawn on their experiences to design new strategies to protect children in the evolving technology realm. The result has been a wave of new child protection programmes with a digital focus.

Researchers, too, have been mobilized to assist in these efforts. There has been a dramatic growth in the research literature about the digital dangers and their dynamics. Researchers have also teamed with programme designers to scientifically evaluate programme designers' work.

This report is an effort to better integrate these efforts, and to review the research literature and see how it can be used to improve prevention. We focus specifically on the harms to children from digitally mediated, malicious interpersonal relationships – what is termed “violence against children online”, or online VAC (see Box 1 for more on terminology). The report does not address some of the other, non-interpersonal harms that may trace to digital environments, such as overuse, social isolation, sleep deprivation, misinformation, or self-image problems.

It adopts a public health approach to the prevention of online VAC, consistent with the public health approach (1) to violence in general, with its emphasis on epidemiology informing primary prevention, refined by scientific evaluation.

What works – a caution

This review looks at programmes and practices that have support in the research literature. However, the literature has paid much more attention to some practices than others. If programmes or practices do not have support or are not discussed in this review, it does not necessarily mean they are ineffective. In most cases, it means that they have not been well researched and evaluated.



Box 1. Online VAC terminology

Terminology in the field of online VAC is evolving. In addition to the term “online violence against children (online VAC)”, which is used in this report, there are a variety of other terms used such as:

- Internet crimes against children;
- cybercrime against children;
- technology-facilitated abuse of children;
- technology-facilitated violence against children;
- online abuse of children.

It has been pointed out that “online” or “Internet” may be technically incorrect since much of the referenced violence occurs via texting or outside-the-Internet communications services. “Technology” for its part is an overly broad term because landline telephones and automobiles are also technologies.

The online sexual offence portion of the problem is also referred to with multiple terms such as:

- online child sexual abuse;
- online child sexual exploitation and abuse;
- image-based sexual abuse.

When it comes to prevention, most programmes that have online VAC prevention goals do not typically refer to themselves as “online violence against children programmes”. They use a variety of other terms such as:

- Internet safety;
- online safety;
- digital citizenship;
- cybersecurity;
- esafety.

Unfortunately, this creates challenges when reviewing online VAC prevention strategies. Terms may confuse stakeholders about where to look or what goals and topics are being addressed by various programmes. In addition, many of the programmes have goals and components that go beyond online VAC concerns and touch upon topics such as how to set up accounts or turn off advertising. Other programmes restrict their coverage to a limited set of online VAC topics, such as cyberbullying. The lack of clarity and consistency around terminology is likely to persist for a while and is a clear impediment to progress, the accumulation of knowledge, and programme development, adoption, and dissemination.

Note: this report uses the terms “children” or “children, youth, or young people” interchangeably to refer to persons under the age of 18 years.

2. Online violence against children

2.1 Subcategories, types and dynamics

Although definitions are sometimes cited, online VAC has primarily been defined in the literature by the list of issues considered to fall within this domain. The list has different versions (2).

A great deal of attention has been paid to online child sexual exploitation and abuse (OCSEA) – particularly in the fields of international law enforcement and advocacy. Comparable attention, particularly in the educational and child development domain, has been paid to cyber-aggression and cyber-harassment. This report covers both these domains and their several somewhat distinct subcategories (see Table 1).



Table 1. Online VAC – a summary of different types

Online VAC type and examples	Scope ¹	Co-occurrences
Online child sexual exploitation and abuse (OCSEA)		
Online solicitation and grooming <ul style="list-style-type: none"> • Unwanted requests for sexual favours or images • Requests for sexual conversations • Offenders manipulating children into sexual relationships 	<p>According to a meta-analysis of international studies, 11.5% of survey participants had received unwanted online sexual solicitation (3)</p> <p>In a survey from the United States of America (USA), 5% of respondents had experienced online grooming before the age of 18 (4)</p>	<p>Production of sexual images, nonconsensual misuse of sexual images, sexual extortion, livestreaming sexual performances</p>
Child sexual abuse material (CSAM) <ul style="list-style-type: none"> • The production of sexual images or videos of victims by face-to-face abusers • Trading or selling of CSAM • Downloading CSAM for sexual gratification 	<p>In 2021, 29 million child sexual exploitation images were identified by electronic service providers (5)</p>	<p>Grooming, self-made sexual material, nonconsensual distribution of sexual material</p>
Livestreaming of child sexual abuse <ul style="list-style-type: none"> • Using online video applications to view or share live video of children being sexually abused • May be facilitated by an offender either remotely or in-person 	<p>Little prevalence information</p>	<p>Grooming, CSAM</p>
Nonconsensual sexting and sexual extortion <ul style="list-style-type: none"> • Sexual images taken or obtained without consent or under coercion • Images consensually obtained, but then shared with others or posted without consent • Images consensually obtained and then used to humiliate, denigrate, threaten, or extort money, favours or additional sexual images 	<p>According to a meta-analysis of international studies, 8% of adolescents had a self-made sexual image forwarded without consent (6)</p> <p>In a survey from the USA, 5% of respondents reported that they had been the victim of sexual extortion (7)</p>	<p>Cyberbullying, sexual solicitation, livestreaming, CSAM</p>
Cyber-aggression and Cyber-harassment		
Cyberbullying <ul style="list-style-type: none"> • Threats and hurtful messages • Sexual harassment • Spreading rumours or lies 	<p>In a meta-analysis of international studies, 15% of children reported cyberbullying victimization (8)</p>	<p>Dating violence, nonconsensual sexting, cyberstalking, hacking online presence</p>
Cyberstalking <ul style="list-style-type: none"> • Frequent unwanted requests for communication or favours • Persistent contact with victims through new platforms or identities after being blocked 	<p>In a survey from the USA, 24% of females and 19% of males experienced stalking when they were 17 or younger (9)</p>	<p>Cyberbullying, unwanted sexual solicitation, nonconsensual sexting</p>
Hacking and identity theft <ul style="list-style-type: none"> • Attempts to steal personal or financial information through online means • Vandalizing or misusing someone's social media account or website 	<p>In a 19-country European survey, 11% of 9–16-year-olds, including 17% of 16–17-year-olds, had experienced misuse of their personal information or password, or theft of their digital identity (10)</p>	<p>Cyberbullying, production of nonconsensual sexual images, cyberstalking</p>

¹ Prevalence studies are scarce and data is particularly lacking from some regions, but more studies from diverse regions are becoming available (<https://www.end-violence.org/disrupting-harm>).



2.2 Three implications for prevention

Literature on the dynamics of these various types of online VAC leads to conclusions that have important implications for the design of successful prevention strategies.

Acquaintances and peers are common perpetrators

Multiple studies from surveys and police records show that acquaintances outnumber strangers as perpetrators for most forms of online VAC. In a national census of grooming cases gathered by Canadian police, 61% of perpetrators were acquaintances, friends, family or intimate partners (11). Surveys of youth from various countries, part of the Disrupting Harm in Online Exploitation initiative (12–16), confirm the primacy of acquaintance perpetrators even in sexual abuse offences, including unwanted solicitation, image requests, commercial sex offers and sextortion. Many of these are other youth.

Prevention strategies that emphasize avoiding contact with strangers or unknown adults will have limited effect and perhaps give misleading guidance. Prevention strategies would do better to focus more broadly on inappropriate behaviours by both acquaintances and strangers, and both adults and youth. Programme developers should also keep in mind that prevention education targeted at youth, especially in schools, will potentially be reaching youth perpetrators in the audience as well as potential victims. Prevention education and messages directed at children may have positive outcomes through both deterring potential offenders as well as empowering potential victims.

Prevention strategies that emphasize avoiding contact with strangers or unknown adults will have limited effect and perhaps give misleading guidance.

There is significant overlap among types of online VAC

Different online VAC types overlap considerably one with another. For example, livestreaming is also a form of production and sharing of child sexual abuse material. Producing child sexual abuse material takes place through online grooming. Grooming can lead to sextortion. The overlap even involves sexual and non-sexual forms of online VAC. Cyberbullying takes sexual forms when bullies engage in nonconsensual sexting. Cyberstalking takes the form of unwanted sexual solicitations.

The literature is also clear that there is considerable overlap (17) between online and offline forms of violence against children (18). Studies find that two-thirds to three-quarters of cyberbullying episodes are connected with face-to-face bullying by the same harassers. Grooming victims often go to meet their groomers offline for sexual activities (19). Nonconsensual sexting is frequently connected to abusive face-to-face dating relationships. Cyberstalkers stalk victims in offline as well as online venues.

Prevention programmes should address the online VAC forms in an integrated way, both across online VAC types and along with offline forms of violence, as well. The extent of the overlap argues against a siloed approach to prevention (treating sexting, grooming, cyberbullying separately) in favour of a more holistic approach.

Bullying is a developmental precursor to online VAC

The literature shows that many forms of online VAC peak during adolescence. Victim vulnerability increases around puberty with the onset of interest in romance, dating, and sexual attraction. Groomers take advantage of adolescent interest in sex and relationships to engage victims. Cyberstalking, sextortion, and nonconsensual sexting all occur in contexts of troubled romantic relationships. By contrast, bullying perpetration and victimization, especially in the face-to-face environment, both have earlier onsets in elementary school (20). Studies have shown the connection between earlier, pre-adolescent bullying perpetration and victimization with later dating abuse and sexual abuse in adolescence and even adulthood (21, 22).

To address online VAC successfully, bullying prevention and its related respect-building skills should be a developmental cornerstone for the prevention of the later forms of offline and online violence. This approach suggests an integrated prevention strategy that starts in pre-adolescence with offline respectful relationships and builds progressively into online VAC prevention in anticipation of adolescence (21, 23, 24).

Bullying prevention and its related respect-building skills should be a developmental cornerstone for the prevention of the later forms of offline and online violence.



3. Strategies to prevent online violence against children

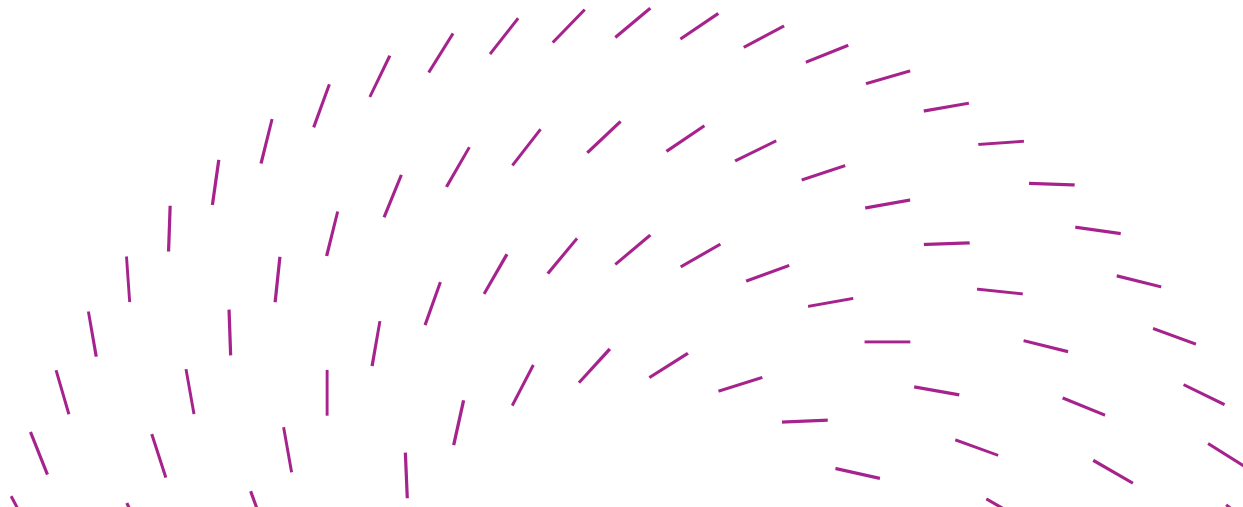
Various prevention strategies have been proposed and deployed to address the domains of online VAC. Many are similar to strategies discussed in the INSPIRE framework (25), which addresses the broader problem of violence against children, and in the WeProtect Global Strategic Response Themes to eliminate child sexual exploitation and abuse online (26). Unfortunately, there is little evaluation on the impact of many of these strategies.

Legislation. New laws have developed that seek to prevent and reduce online VAC by criminalizing grooming behaviours, extending crimes to the online domain, or requiring technology companies to report online offences and take down illegal content (27). However, we could find no evaluations of the impact of legislation on online VAC.

There is some evidence for an enforcement strategy ...called “focused deterrence” ...in reducing offending in a number of areas such as drug markets and gang activities.

Law enforcement and regulation. In response to online VAC there has also been a considerable mobilization of law enforcement and regulation, particularly in the category of online sex crimes (28). Many countries have trained police on how to better detect and investigate online crimes against children. Special reporting centers and investigatory bodies have been created, and arrests and prosecutions have increased (11). The prevention logic of these strategies is that the visibility of police activity deters offenders, who increasingly will recognize the potential for getting caught. Enforcement also reinforces norms and reminds the public of what is illegal, for example the downloading of child sexual images, when their criminality may have been unclear to some audiences. There is some evidence for an enforcement strategy like this called “focused deterrence”. This has been successful, for example, in reducing offending in a number of areas such as drug markets and gang activities (29, 30).

Public awareness. Some efforts have been made to prevent online VAC through direct communication with the community at large. These have included public awareness campaigns about children’s online safety, targeted at potential offenders in various media environments. Other social marketing campaigns are designed as appeals to parents and users signing up for various technology privileges and applications to educate them about online dangers. Broadly targeted public awareness programmes are hard to evaluate. They also typically do not have the intensity and multi-modal features associated with successful prevention education. Their usefulness in the online VAC domain is being explored.



Safer environments, technology-engineered solutions. A growing concept in online VAC prevention is “safety by design”. This term refers to efforts to construct user platforms and technology environments that are inherently safer for children, cordoning off the dangers. The concept is still in development but draws inspiration from other engineered environments like automobiles or workplaces and their safety elements. Possible online VAC safety elements are efforts to automatically exclude certain kinds of content, certain categories of users (adults, strangers), or certain behaviour from youth-serving environments. There are examples of multi-faceted efforts by technology companies to create safer platforms (31) including limiting users’ ability to search for child sexual abuse materials; posting warnings to searchers about illegal content and efforts to access it; facilitating and informing users about how to make reports; proactive artificial intelligence systems that try to disrupt grooming (32) and dissemination of dangerous new content; and flagging, reporting and removing known illegal images. There are also encouraging experiments showing the effects of warnings that deter perpetrators from hacking into the systems of potential victims (33–35). These are encouraging but key challenges remain. For example, users can get used to and then ignore routine warning messages. Users can also become frustrated with barriers and interruptions to easy access, prompting many to turn off or opt out of control options. The goal is to identify problem situations and interpose accurately targeted deterrents and blocks. At the moment, the evidence (36) for these strategies is still developing.

Helplines and hotlines. Considerable efforts have been put into developing helplines to address cybersafety and online VAC. These helplines, accessed by phone or online, provide help to child victims, concerned family members and friends, as well as to potential and actual offenders (see Child Helpline (37) and INHOPE (38)). Evaluations typically show reduced distress among, and positive reactions from, users. Helplines drive some offenders into counselling, but unfortunately, there is little research demonstrating that helplines prevent or reduce the types of ultimate outcomes of concern, such as suicide or sexual victimization (39–41). However, this should not be seen to judge helplines as unsuccessful, but rather to demonstrate the difficulty of evaluating programmes for which anonymity of the help-seeker is central. It is also important to note that helplines are not designed as a primary prevention strategy but are better viewed as a form of intervention or harm reduction.

Prevention education [for Online VAC] stands on the shoulders of other educational programmes with demonstrated success in a wide variety of prevention challenges related to youth, such as substance abuse and delinquency.

Prevention education. Most online VAC prevention efforts have focuses on providing education and information aimed at children and their parents. Internet safety programmes for these audiences have been developed all over the world, for online access, for home instruction and for use by schools. This strategy stands on the shoulders of other educational programmes with demonstrated success in a wide variety of prevention challenges related to youth, such as substance abuse and delinquency. This report focuses on this strategy the most, as it has a relatively large existing literature, and it has generated substantial insight about effective components and messages.

Other strategies. A variety of other strategies are being developed that are not forms of wide-scope primary prevention as such, but nonetheless may have some prevention effects. These include therapeutic support programmes for undetected or potential offenders (42) and interventions for children who display sexually problematic behaviour (43). Both of these have demonstrated reductions in offending behaviour.

Table 2 summarizes the prevention approaches of these different strategies and available evidence, mapped against the widely used [INSPIRE: seven strategies for ending violence against children](#) (44). It is important to note that research explicitly into what works to prevent online VAC is in its infancy. We currently know very little by way of findings from scientifically evaluated prevention programmes. This does not mean that these interventions do not work, only that our knowledge about what types of initiatives work for what problems is currently very limited.

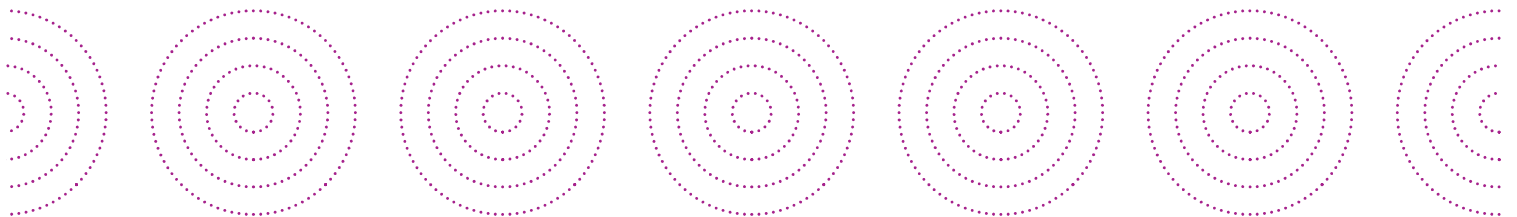
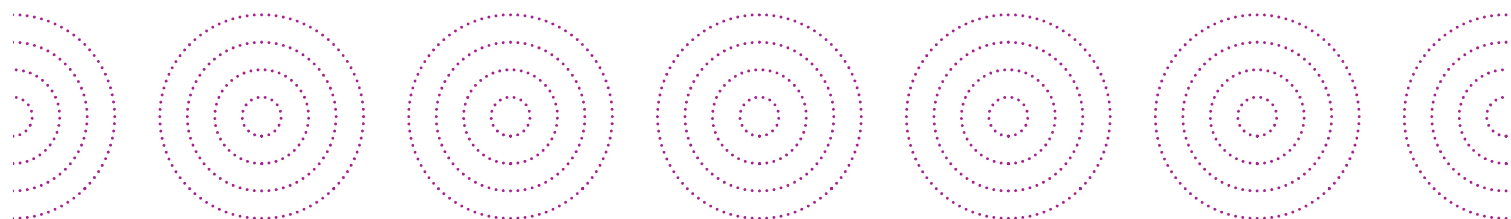


Table 2. INSPIRE strategies

INSPIRE strategies	Intervention	Intended outcome(s)	Level of evidence
Implementation and enforcement of laws	Legislation	Prevent and reduce online VAC by criminalizing grooming behaviours, extending crimes to the online domain, or requiring technology companies to report online offences and take down illegal content	No evidence of effectiveness yet for online VAC prevention Related research suggests enforcement is key
	Law enforcement mobilization	Visibility of police activity will deter offenders and reinforce norms by reminding the public of what is illegal	No evidence of effectiveness for online VAC prevention, but “focused deterrence” has been found to work for other crimes
Norms and values	Public awareness	Prevent online VAC through direct communication messaging for parents, youth, potential offenders, and the community at large	No evidence of effectiveness yet for online VAC prevention
Safe environments	Technology engineered solutions	Prevent online VAC by excluding certain kinds of content, certain categories of users (adults, strangers), or certain behaviour from youth-serving environments	Emerging evidence that warnings about searches for CSAM may work. No evidence yet for online VAC prevention for other strategies
Response and support services	Helplines	Provide help to child victims, concerned family members and friends, as well as to potential and actual offenders	No evidence of effectiveness yet for online VAC prevention
Education and life skills	Prevention education programmes	Prevent online VAC via educational programmes about risks, and protection skills and strategies	Positive evidence for reducing cyberaggression but not yet for OCSEA; strong evidence for reducing related violence and risks
Parent and caregiver support			In actual practice, most child-focused prevention programmes have integrated parent components, and many parent education programmes engage children as well. These cross-over components are associated with better outcomes in both literatures



4. A guide to the evidence

Our evidence review focused on prevention education initiatives given that the bulk of research knowledge so far has addressed these kinds of programmes. Our evidence review had three components (see Table 3).

Table 3. Evidence review components

Component	Methods	Purpose
1. Best practice review of youth-focused prevention literature	Review of systematic reviews and meta-analyses	To identify principles of successful prevention interventions for children and youth
2. Rapid review of evaluations of online safety programmes for children and adolescents	Overview of reviews and systematic review of interventions studies	To identify programme components related to programme success
3. Desk review of online VAC programmes for children and adolescents	Internet search for programmes in as many countries as possible	To identify how programme features address/fail to address the nature and dynamics of online VAC To identify how programme features align with general principles for successful prevention

In this report, when we refer to programmes or approaches that “work”, “are successful”, or “are effective”, this means that:

- the programme or programme component has been experimentally tested and the results compared between a group of children who received it and a similar group who did not;
- multiple evaluation studies have been aggregated together for this programme or programme component;
- the conclusion of positive effect is the result of a formal synthesis of all these studies, usually in a meta-analysis;
- the outcome being measured was a change in behaviour such as a reduction in victimization or perpetration, or an increase in bystander interventions;
- the change being measured was not limited to a change in knowledge, skills, attitudes, or self-efficacy (even though these can also be important).

However, there are serious limitations to almost all conclusions drawn from this evidence that must be kept in mind.



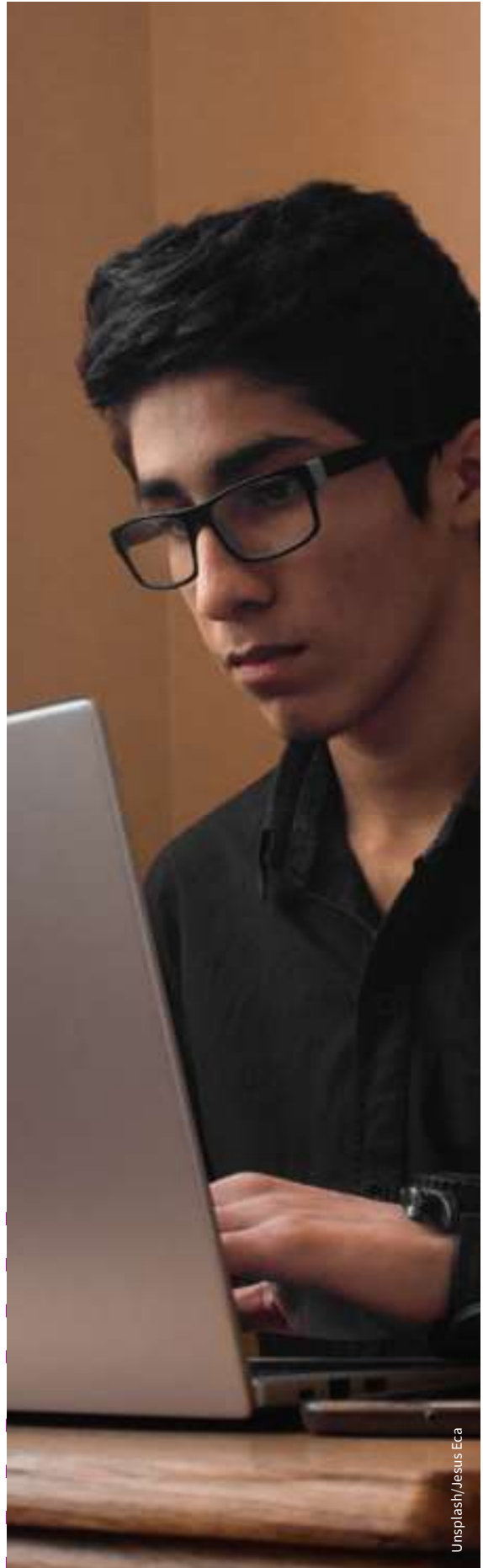
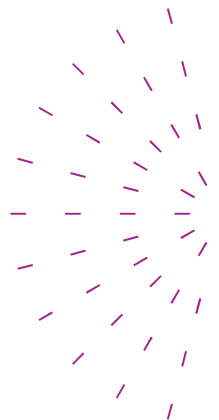
Unsplash/Brooke Cagle



- Most of the studies have been conducted on populations in high-income countries, in regions such as north America and western Europe, so the conclusions may not apply to other country types or regions.
- Even when studies find positive effects, those effects may not necessarily apply to all subgroups of children in the studies. For example, the effects may not apply to children from groups unrepresented in the studies.
- The review summarizes findings published over a fairly long period – in some cases 20 or 30 years. Societal changes may render some of these conclusions obsolete.
- In most reviews with positive evidence of effects, there are some studies that do not show positive results. This means that some programmes or some programme components of this type do not always work, or may work only in some designs or under particular conditions.
- There is a well-understood bias for publishing studies that show positive results, which reduces the ability to accurately summarize programme effects.

As a result, the conclusion that a programme or approach works must be regarded as conditional, contextual, and tentative. Nonetheless, given the infancy of online VAC programme evaluation, an approach that has been shown to work under some conditions has reasonable claims over programmes that have not yet been tested or shown positive outcomes at all.

Assertiveness... is a very widespread component in youth safety training, used in nearly 80% of evidence-based programmes.



Unsplash/Jesus Eca

5. Evidence from effective prevention education programmes

There is an enormous scientific literature behind prevention education for youth and families. This literature encompasses topics related to youth safety, physical health, mental health, and school performance. A recent review of youth prevention education programmes summarized findings from over 1100 controlled empirical trials catalogued in 74 meta-analyses involving nearly half a million participants (45, 46).

The most widely evaluated prevention education programmes were about substance abuse, externalizing problems (delinquency, bullying), and sexual behaviour, but many were multi-problem programmes. Virtually all the domains showed positive outcomes with practically no negative outcomes, although some impacts were small and varied by type of programme. This is an impressively consistent record of success.



5.1 Prevention education for violence against children

The supportive evidence for online VAC prevention from this broad literature can be broken down conceptually into three concentric circles (see Figure 1).

- The broadest universe is educational prevention for youth problems in general. The evidence cited above falls into that circle. It establishes that providing information and skills really does change behaviour and health outcomes across many serious problems – not always in every programme, but consistently.
- The middle circle designates the subset of programmes that address violence against children, though not necessarily online. Here there are meta-analyses that confirm success for educational problems that reduce bullying (47, 48), delinquency (45), dating violence (49), and sexual assault (50). For example, there are very consistent positive outcomes for bullying prevention in two large meta-analyses – one of (77 studies) and one of (51) (100 studies) (47, 48). Since many of the drivers of online VAC are similar to the drivers of violence against youth in general – and these drivers can be changed by violence-prevention programmes – this appears very encouraging for similar successes with online VAC.
- Finally, there is a subset of educational programmes that addresses specific online VAC outcomes. They are primarily confined to showing that educational programmes are effective to prevent cyberbullying, but they also confirm that borrowing approaches drawn from the practices in circles one and two have the potential to prevent offences in circle three, violence specifically online.

Virtually all the domains showed positive outcomes from prevention education programmes with practically no negative outcomes.

Figure 1. Layers of evidence for online VAC prevention education

For the purposes of preventing online VAC there are a number of other strong reasons, besides the sizeable evidence base, for making child and youth education a central component.

- These programmes are designed to be universally accessible to all children. This means that even small effect sizes can have large population-level effects because so much of the relevant population can be accessed.
- The cost is relatively modest – for example, a school-based educational programme in the USA to combat child sexual abuse was assessed at US\$ 43 per student (52).
- These programmes address both potential victims and offenders, meaning that they have multiple avenues of influence. Reaching potential offenders early has generally been seen as a more effective strategy than waiting until they are on the brink of offending.
- These programmes are widely adapted to and disseminated in school environments, which has its own benefits. School environments are immersive and reach children and youth who might be out of reach to other modalities.
- Educational programmes are modalities that are familiar to children and build on conventional educational routines and practices that reflect enormous histories of use and refinement.
- In school environments, the programmes are often linked with professional, pedagogically trained staff, who are capable of providing assistance and referral should the programmes reveal victims or offenders who need more tailored attention.

A school-based educational programme in the USA to combat child sexual abuse was assessed at US\$ 43 per student.



5.2 Core components of prevention education

One benefit of the large body of research on prevention education is that effective programmes can be compared with ineffective or less-effective programmes to identify the components that seem to be most helpful. The components associated with success in systematic reviews include the following.

Structural components

Multiple and varied learning strategies and tools.

Reviews find that programmes are more successful when they use multiple and varied modalities for engaging youth and promoting learning (53). These may include, for example, videos, games, readings, posters and infographics, guided discussions, as well as leader instruction.

Repeated exposure, greater intensity.

A widespread finding (54) from the reviews is that prevention programmes are more successful when they involve more lessons, more message exposures, more reminders, and follow-ups. The literature is less clear on exactly what amount of exposure is optimal (55). However, a single exposure – such as an assembly hall presentation, a film, play or puppet show – is generally seen as ineffective (56). Typical successful cyberbullying programmes were delivered over an average of 22 weeks (57).

Peer engagement, role-plays, interaction.

The systematic reviews consistently find more success with programmes that actively engage young people with each other (47). When youth actively engage with each other, it is likely that it increases attention from participants and may also activate and reveal peer norms against bullying and abusive behaviour.

Whole-school environment involvement. The literature (47, 58) consistently finds that programmes are more successful when they get active engagement from the larger school or community, including support from school leadership, school-wide policies, and full staff training (58, 59, 60).

Parent/caretaker involvement. The importance of parental involvement has been emphasized in many reviews specific to violence, bullying and cyberbullying prevention (54, 59–62). The most common modes of parental involvement are homework materials and activity suggestions provided to parents, like playing an educational game with the child. Informational gatherings for parents are sometimes included, but gatherings tend to be sparsely attended and have not been found to be effective (63).

Well-trained facilitators. A common sense finding in the literature is that trained facilitators, either specialists or teachers who have had more preparation, tend to do a better job (47, 64).

Programmes are more successful when they use multiple and varied modalities ...for example, videos, games, readings, posters and infographics, guided discussions, as well as leader instruction.

Quality-control mechanisms. All behaviour-change programmes suffer when adopters modify or adapt the content in ways that can impair successful components. Programmes that have detailed manuals outlining the curriculum, and mechanisms for ongoing supervision, reminders, facilitator booster trainings and evaluations tend to have more success (57, 65).

Attention to special and high-risk populations.

Some universal programmes also have components that address specific subpopulations – such as youth with disabilities, sexual minority youth, refugees and homeless youth. An analysis of 70 studies found this to be a best practice (58).

Skill components

Problem-solving skills. Reviews of successful programmes that prevent youth problems often identify problem-solving components as one of the most frequently included elements (66). These components engage children in thinking through situations of uncertainty, conflict and crisis to choose modes of effective response using stories, role-plays or other methods. Some emphasize taking time to reflect and recognize body signals and other signs of ambivalence.

Assertiveness, self-efficacy, resistance to peer pressure. This is a very widespread component in youth safety training, used in nearly 80% of evidence-based programmes (67). It teaches the skills to resist peer pressure and problematic propositions, amplify internal hesitations, and to say no or to escape from problematic situations. It also teaches assertive body language and distinguishes assertive from aggressive responses.

Empathy, perspective-taking, difference appreciation. This widespread component helps children and youth to understand and accurately recognize the feelings and needs of other people especially in situations of conflict (68).

Self-regulation, emotion management, impulse control. There are a variety of components to youth problem prevention programmes that teach self-regulation. These range from calming exercises, relaxation, deep breathing, meditation, self-distraction, to monitoring emotional arousal.

Conflict resolution, de-escalation. These skill-promotion components teach children to identify escalating conflicts, and provide them with management tools like withdrawal, acknowledgement of conflicting needs and the other person's point of view, avoidance of insults, compromise, and seeking a third-party's assistance.

Help-seeking. Help-seeking as a skill implies more than simply urging young people to seek help with problems (6). It also generally includes training in identifying who their trusted helpers are, overcoming some of the barriers to help-seeking (like embarrassment), and practicing the identification of problems that warrant help-seeking.

Bystander or defender mobilization. This component tries to teach youth who observe conflict to intervene to discourage aggressors or to support and protect victims. It has been implemented in bullying prevention, dating violence and sexual assault programmes and is grounded in research findings that peers frequently witness bullying or know about friends' abusive and inappropriate relationships but are reluctant to comment or intervene (70).

There is evidence that comprehensive forms of sex education can reduce physical and sexual aggression, in particular homophobic bullying, dating and partner violence. The effectiveness of sex education has been confirmed in low-, middle- and high-income countries.

Knowledge components

Social norm instruction. Many programmes provide children and youth with information about what is considered appropriate or inappropriate, legal or illegal (called injunctive norms), and also information about what the rates of behaviours are in their community (called descriptive norms).

Sex education. There is evidence that comprehensive forms of sex education can reduce physical and sexual aggression, in particular homophobic bullying, dating and partner violence (71, 72). The effectiveness of sex education has been confirmed (73) in low-, middle- and high-income countries (74).

Substance abuse education. Substance abuse is associated delinquent behaviour, violence perpetration and victimization, as intoxication goes along with reduced inhibitions and expectations of norm violation. A review of 158 studies found substance abuse education one of the most reliable components of successful programmes (75).

5.3 Effective messaging

This section discusses several possible problems with messages currently conveyed in many online VAC programmes. They involve disconnects between the messages and the realities of online VAC dynamics and youth social behaviour in general.

Neglecting the prevalence of acquaintance perpetrators

Strangers are not the sole or even the predominant offenders in online VAC. Yet, consider the many stranger-oriented messages that are widespread in Internet safety programmes:

“Do not communicate with strangers you meet online”

“People aren’t who they pretend to be”

“Never meet in person with someone you only know online”

There is considerable and reasonable debate about how useful and effective such messages are. The key problems with such messages emerge from two main findings from the research. One is how often abusers are actually already acquaintances. Another is how frequently youth have justifiable reasons for (and positive experience of) meeting face-to-face with people they first contact online.

Grooming-prevention messages for youth might be better to include information about:

- age of consent laws and why they exist (76);
- why sexual relationships with adults do not work, and the problems that they can create, including criminal prosecution of the adult;
- why adults might seek inappropriate relationships with youth;
- the kinds of strategies groomers use to befriend, isolate and seduce, including gifts, exaggerated flattery, guilt induction, insisting on secrecy, and denigrating friends and family;
- red flags for grooming such as someone rushing to ask a lot about your body and sexual experiences, and requesting sexual pictures, and putting you under pressure;
- the key deceptions, which are not about identity, but about the declarations of love, admiration, loyalty, and exclusivity;
- skills in how to refuse demands and extricate yourself from such relationships;
- skills for helping friends extricate themselves from such relationships (77).

These kinds of messages align better with the diversity and reality of much online grooming and may provide a better knowledge base and skill set for preventing bad outcomes.

Cyberstalking dynamics

Messaging around cyberstalking, like grooming, also often has a stranger focus to it, with prevention emphasis on not giving out personal information or talking to strangers (78). This may be useful for some portion of the cyberstalking threat. But stalking and cyberstalking are also offences that more frequently occur at the hands of friends and former intimate partners – the most persistent and dangerous of offenders (79, 80).

More comprehensive and accurate stalking-prevention education (81) has a somewhat different emphasis. Its messages include:

- information about the wide variety of forms that stalking can take;
- establishing and reinforcing social norms so that potential victim and offenders will recognize when stalking is occurring and be deterred;
- empathy promotion so that offenders and bystanders can understand why some stalking behaviours are intimidating and upsetting;
- bystander mobilization, so that friends react sympathetically and supportively to other youth who are encountering stalking;
- help-seeking, dispelling self-blame, and explaining options for blocking, reporting to police and Internet providers.

Making and exchanging sexual images

A common message intended to prevent sextortion and nonconsensual image sharing is the advice to simply avoid making or sharing images that are sexual, or images that you wouldn’t want everyone (including your grandmother) to see (82). This message is likely persuasive to some youth, but increasing numbers of youth are nonetheless making and sending sexual images. A recent review suggested the sexting rates were about 20% for teens (83). The practice is described by researchers and sex educators in some parts of the world as a sometimes risky but increasingly accepted part of sexual exploration, which in so many of its facets tends to involve risks (84).

Strangers are not the sole or even the predominant offenders in online VAC. Yet, stranger-oriented messages are widespread in Internet safety programmes.

Some sexting harm-reduction practices have been proposed (85–89), including:

- only share images with someone you trust fully and make sure you know what the indicators of trustworthiness are;
- do not send images under pressure or when intoxicated;
- only share your own images with someone who has fully consented to receiving your images, by being asked beforehand – consent is crucial;
- teach safe sexting with strategies such as:
 - Consider sharing images that may be revealing but stop short of showing your private parts.
 - Do not include your face or other details in the images that may reveal your identity.
 - Turn off location services and automatic tagging.
 - Use apps that automatically and securely delete content after a period of time, and via sharing services with end-to-end encryption.
 - Delete or be very careful about storing the images on your own devices where they may be seen or found by someone for whom they were not intended (90).
- If you receive images or videos from someone else, do not send them or show them to others, and consider whether they need to be reported.

Sexting as criminal behaviour

A message about criminal statutes may be new information to some youth with potential to dissuade them from making or sharing sexts (91) but it may have problematic effects as well. The most serious would be if it frightens victims of grooming and sextortion enough to deter them from reporting their victimization to authorities. Some victims, having heard the message, fear that they may also be charged with an offence because they originally created or shared their image (92). Even bystanders who viewed the images might be deterred from reporting. An additional problem is if the message promoting fear of prosecution sounds to some youth like an alarmist scare tactic that diminishes the credibility of the educator. This reaction may be especially true when teens know many peers who have made and exchanged sexts without being prosecuted in any way.

The utility of criminal warnings is an issue that begs for evaluation and clarification. Perhaps the message needs to be qualified by the reassurance that prosecution is rare and never mounted against a victim or a good-faith reporter. Perhaps its utility varies by age and local context. More discussion and research are badly needed because of the widespread use of this message and its potential for negative effects.

Some victims, having heard the message [about criminal statutes], fear that they may also be charged with an offence because they originally created or shared their image.



Unsplash/Nikolay Likomanov

6. Conclusion

The key messages that can be drawn from the evidence gathered as part of this review may be summarized as follows.

- Resources should be confidently and generously committed to child and youth safety education programmes that have content that addresses online VAC and related topics.
- Priority should be given to building content about online VAC into existing evidence-based educational programmes, particularly about bullying, because of their well-developed content and design.
- Programmes need to have multiple sessions and multiple modalities and should emphasize acquiring and practicing skills, particularly in the areas of problem solving, assertiveness, empathy, emotion management, self-efficacy, conflict resolution, help-seeking and bystander mobilization.
- More programme content and messaging is needed to prevent abuse by acquaintances, peers and romantic partners, including content about healthy romantic relationships and how to avoid and terminate unhealthy ones.

This report is a snapshot from 2022 in the midst of a rapidly changing digital environment. It provides guidance about some promising and successful strategies in which to invest efforts, but it is still early in a growing field. It is premature to rule out other especially novel ideas that may be worth developing and testing. Given the rapid developments, this review should be updated in a few years as evidence emerges.

Priority should be given to building content about online VAC into existing evidence-based educational programmes, particularly about bullying, because of their well-developed content and design.



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