Strategies to Prevent Online Sexual Abuse of Children: A Systematic Review of the Literature Protocol

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ABSTRACT

Online sexual abuse of children has severe and lasting implications. In addition to there being many avenues to commit sexual offences via technology, there are many ways to intervene. Industry-related prevention and intervention strategies are often targeted at blocking or catching a potential offender. Justice initiatives through punitive measures are targeted towards the perpetrator. Education and awareness campaigns are a means to prevent abuse before it happens or help a victim come forward to seek support and retribution. A systematic review of the literature will endeavour to find research that emphasizes intervention through education and awareness strategies for children and adolescents, including an analysis of the effectiveness of such programs. This protocol follows PRISMA guidelines for systematic reviews and provides details of the literature review and research parameters.

Keywords: online, child sexual abuse, interventions, preventions.

1. Background

The World Health Organization defines child sexual abuse as "the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent…resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power" (WHO, 1999, p.15).

Child sexual abuse has significant and lasting impacts. Adults, who were victims of sexual abuse as children, are more likely to experience mental health disorders including substance abuse (Simpson & Miller, 2002), eating disorders (Carter, Bewell, Blackmore, & Woodside, 2006), stress-related sexual dysfunction (Colangelo & Keefe-Cooperman, 2012), anxiety, depression, and suicidal tendencies (Abdulrehman & De Luca, 2001). This adverse childhood experience can also correlate to poor physical health outcomes such as heart disease, liver disease, and chronic obstructive pulmonary disease (Hanson & Adams, 2016).

In recent years, the use of the Internet by children and adolescents has increased, and with it, the risk of a new type of sexual abuse: online sexual abuse. One study reported that by age 11, 53% of US children had smartphones. 28% of children had social media accounts before the age of 13, and on average, children were accessing social media for over one hour each day. Screen use overall (including video streaming and television) was estimated at just under 5 hours total each day for children ages 8-12, and nearly 7.5 hours for teens ages 13-18 (Rideout & Robb, 2019). This can dramatically increase the risk of online sexual abuse, also

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referred to as technology-assisted child sexual abuse (TA-CSA) (Hamilton-Giachritsis, Hanson, Whittle & Beech, 2017). TA-CSA is a broader term that includes many different types of sexual abuse and offences that can come from the use of the internet and its devices. For this research, however, we will continue with the standard and familiar term *online* - recognizing that this form of abuse can happen both online and in-person. Mitchell, Finkelhor, Jones and Wolak (2010) found that social networking sites played a role in 2322 cases of internet sex crimes against minors suggesting how vulnerable children are when using such websites while being online in general.

Quayle, Loof, Soo and Ainsaar (2011), suggests there are four main types of online sexual abuse. The first is *sexual harassment*, which includes degrading remarks, which can then lead to unwanted sexual advances and sexual assault. This unwanted sexual attention can refer to where the perpetrator is sending messages to the victim asking, for example, about their sex life sexual organs or sexual activities. From this unwanted sexual attention, the perpetrator may intend to solicit some type of sexual cooperation, whether it is online or offline. The second type of online sexual abuse is *a sexual solicitation*. This is where adult perpetrators are engaging with children to talk sexually about sexual activities and to give personal sexual information without the child necessarily wanting to. The third type of abuse is *child grooming*. While there are similarities between grooming and solicitation, the main difference is that the groomer gains the child's trust and confidence before the abuse begins. An online groomer is someone who has initiated contact with a child online with the full intention of creating a sexual relationship, whether fully online or meeting up offline to engage in physical, sexual contact. Lastly, the fourth form of abuse is *sexual exploitation*. This form of abuse is where the communication from the start is unequal and exploitive due to the child's vulnerability. This allows the perpetrator to persuade and coerce the child easily. Commercial sexual exploitation introduces the factor of money, where it can include child prostitution, child sex trafficking, the production and consumption of child pornography, and child sex tourism.

In addition, variations of online child sexual abuse can also be found within the child's peer groups, for example, through "sexting." Sexting is defined as creating, sharing, and forwarding sexual pictures and videos by minor teens (Lenhart, 2009). While this activity can be considered consensual amongst peers, it can quickly become a means to cyber-bully or violate the privacy of another through the non-consensual distribution of pictures, videos, or texts.

1.1 Outcomes of online child sexual abuse

As previously mentioned, online child sexual abuse can lead to offline (in-person) sexual abuse; therefore, it is vital to look at both outcomes. Say et al. (2015) looked at sexual abuse with a 'digital' component, for example, a smartphone or a computer, and they found that the victim was 4.21 times more likely to develop any psychopathology, 3.77 times more likely to develop depression and 2.14 times more likely to have post-traumatic stress disorder compared to situations of abuse where digital technology was not used. This suggests that the use of these online technologies may aid in more severe outcomes compared to when no digital technology is used. Furthermore, Hamilton-Giachritsis et al. (2017) report that victims of online child sexual abuse experience depression, self-blame, self-harming behaviour, problems at school, anxiety, and sleeping difficulties.

For these reasons, it is necessary to put focus on the prevention of online child sexual abuse. As there is a considerable amount of research focusing on the prevalence and consequences of online sexual abuse, it is highly relevant to concentrate the research on preventions and their effectiveness. While there is little research focusing specifically on

online child sexual abuse prevention, there is some in regards to the prevention of child sexual abuse in general. Knack, Winder, Murphy and Fedoroff (2019) suggests that there are three types of preventions, primary preventions, secondary preventions, and tertiary preventions. Primary preventions involve world-wide initiatives aimed at the general public to stop the initial incident happening, for example, campaigns, education, and safeguarding technology. Secondary preventions involve the offender and ways to stop them in engaging in child sexual abuse, and tertiary preventions involve helping after an offence has already happened in order to stop another one happening. Most of the research focuses on secondary and tertiary preventions, putting the perpetrator at the forefront. For example, "Stop it now", a US-based help service which has expanded to the UK, Ireland and the Netherlands (Brown et al. 2014) and "the Prevention Network", a Berlin-based treatment provider, where since opening have expanded to 12 treatment providers located across Germany. Both provide confidential support to those who are concerned about their sexual interests and behaviours (Beier et al. 2009). Both have shown to be effective forms of treatment due to their expansions.

Undoubtedly it is desirable to prevent the offences before occurring. With the little literature that is out there, is it clear that there should be a focus on primary prevention for this research, with the added acknowledgment that this can be split into three categories: justice initiatives focusing on the policy and legislation around offenders, industry initiatives focusing on safeguarding within the technology, and education and awareness campaigns focusing on the public, children, and parents.

An example of the former theme is how international law enforcement can work together like that of "Operation Tantalio", where agencies across 15 countries worked together in the investigation of child sexual abuse material distributed through WhatsApp (INTERPOL, 2017, as cited in UNODC, 2019). In addition, an example of a safeguarding technology would be a blocking software administered to the internet service provider like "Domain Name Server" blocking and "Deep Package Inspection" (Netclean, n.d.). However, for both to work, there needs to be an awareness around the subject, which leads to the latter theme of creating awareness and educating the general public with a focus on the children and their parents. One example of this type of prevention program is "Need Help Now" – a Canadian program online dedicated to helping youth navigate the non-consensual distribution of intimate images on the internet. Another example is a program called "Cool and Safe" (Muller, Roder & Fingerie, 2014) - a German website aiming to raise awareness of safe internet usage for children.

The quality and depth of the program should also be considered, according to Finklehor et al. (2014), whose research considered the effectiveness of prevention programs finding "serious gaps in the prevention education landscape" (p. 683). Key criteria for effective interventions included opportunities for participants to practice, multi-day curricula, and having parent involvement. In addition to the aforementioned criteria, Bouvier (2003) proposes the importance of building competencies and resilience in children "with the objective of helping children to recognise abusive situations and disclose victimisation" (p. 446). These findings suggest there are not only discrepancies in the effectiveness of preventions and interventions, but the approach and intention.

1.2 The present research

While justice and industry initiatives are useful in combating online child sexual abuse, the focus of this research will be on education and awareness campaigns related to prevention and intervention and their effectiveness as it would seem the research is most limited in this area. Considering the importance of this specific area of research, the questions this

systematic review will be looking at are: What is the available research on intervention and prevention strategies from an educational or awareness perspective of online child sexual abuse, and what is the effectiveness of these strategies?

This information would be useful for practitioners as they would be able to focus on whether they should prioritise this specific prevention method compared to other methods. If it is seen as effective, it may also help increase the funding put towards educating the public, children, and their parents. Also this systematic review of the literature will show gaps both, in the type of interventions and also in the evidence of its effectiveness. Researchers will also be able to benefit as they would be able to create future lines of research from this.

2. Methods/Design

2.1 Study design and participants

The review will follow the guidelines laid out by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and employ the PRISMA flowchart (Moher et al., 2009). The focus will be the studies exploring primary educational and awareness preventions and interventions used for online child sexual abuse. This systematic review will look at these studies and will describe the effectiveness of the interventions based on the outcomes of the research (done by qualitative or quantitative analysis).

The expected start date of this research is 01-03-2020, and the anticipated completion date is 15-05-2020.

Only articles that include participants or potential participants classed as children or adolescents (anyone under the age of 18 years old) will be considered.

2.2 Search strategy

The review will consider appropriate inclusion and exclusion criteria as listed below, in addition to a variety of information sources, and keyword search strategy.

Inclusion criteria: Peer-reviewed empirical studies including qualitative, quantitative and mixed, literature reviews and case studies (or small sample designs) published in peer-reviewed journals, and Ph.D. Dissertations. Studies using the languages English and Spanish, published between 2000 to 2020, will be considered.

Exclusion criteria: Gray literature without peer revision, professional opinions, letters, notes, essays, editorial publications, books, and their chapters.

The following databases were selected as information sources to cover the broad range of research on online child sexual abuse across the inter-disciplinary subject areas of psychology, sociology, health, media studies, and education: Scopus, Web of Science, MEDLINE, EMBASE, psycINFO, CAB Abstracts, ProQuest Dissertations & Theses Global, ProQuest Social Service Abstracts, and ProQuest Sociological Abstracts.

The following keywords will be used for searches in the aforementioned information sources (in title, abstract and key words) are as follows: (Prevent* OR Interven* OR Program* OR Educ* Or Aware*) AND ("online sexual abuse" OR "technology-assisted sexual abuse" OR "online child sexual abuse" OR "online adolescent sexual abuse" OR "online sexual exploitation" OR "technology-assisted sexual exploitation" OR "online sexual violence" OR "technology-assisted sexual violence" OR "grooming" OR "online sexual solicitation" OR "technology-assisted sexual solicitation" OR "child* pornography" OR "sexting").

3. Study Records

3.1. Data management

Studies yielded in the search will be imported into EndNote, where duplicates will be identified and removed. Two of the researchers will review the titles and remove any irrelevant studies. When unsure of the relevance of a study, the researchers will screen the abstract.

Inter-observer reliability will be evaluated using Cohen's Kappa index. The differences will be resolved by agreement. The third researcher will be consulted in case of any unresolved issues. Then, the full texts of the remaining studies will be assessed independently by two reviewers, considering the inclusion and exclusion criteria. The discrepancies will be resolved as in the previous step. Finally, the selected papers will be reviewed for the extraction of the data.

3.2 Risk of bias in individual studies

Two of the researchers will be responsible for making determinations on study quality based on information that has been extracted from these studies. As it is anticipated that the empirical research about online sexual abuse prevention is not overburdening, and following Mikton and Butchart (2009) we used a broad criterion to evaluate the quality of the papers, based on it internal validity based on the research design:

- If the study does not offer results: 0 points
- If the study offers descriptive results without a comparison group: 1 point
- If the study offers comparative results (control group vs. prevention/intervention, non-randomized): 2 points
- If the study is a randomised controlled trial: 3 points

As with study selections, if discrepancies in quality ratings still occur, these will be discussed until a consensus can be reached. The third researcher will be brought in for assistance in assessing the quality if a consensus cannot be reached.

3.3 Presentation of Data

We will prepare a descriptive table with the selected articles that will include information on: authors, title, the country in which the research was done, fundamentals of the intervention, target participants/population, type of intervention, type of comparison/control, outputs, and follow up results.

4. Discussion

Online child sexual abuse is a significant global problem. With most children having full access to the internet from their smartphones and with most connected to some type of social networking site, perpetrators have easy access to their victims (Mitchell, Finkelhor, Jones & Wolak, 2010). Online sexual abuse includes online grooming to commercial sexual exploitation carrying lasting and serious implications, including depression, self-blame, self-harming behaviour, problems at school, anxiety, and sleeping difficulties (Hamilton-Giachritsis et al., 2017). Prevention of online sexual abuse should be a primary focus to prevent these serious and lasting impacts. The objectives of this project are to discover the available research specific to intervention and prevention strategies from an educational or awareness perspective of online sexual abuse, and to see how effective these strategies are.

Conducting this systematic review and bringing together all of the prevention strategies to do with education and awareness of online sexual abuse will allow a more accurate view of what research is already out there and its effectiveness. This will provide a clear understanding of how well these education and awareness campaigns work and if there should be more preventions within this specific area. Our findings will allow us to compare the different preventions in order to provide recommendations for consideration. With this new information, it may secure funding, for example, to deliver these particular types of interventions and preventions that will not only help the children from being negatively affected but there will be less strain on mental health services. Prevention and awareness programs are important for children, parents, families, and society as a whole, as the more information that is out there around this topic, the more people are willing and wanting to help, and the safer it is for children to learn and explore on the Internet.

References

Abdulrehman, R. Y., & De Luca, R. V. (2001). The implications of childhood sexual abuse on adult social behavior. *Journal of Family Violence*, *16*(2), 193-203. https://doi.org/10.1023/A:1011163020212

Beier, K. M., Ahlers, C. J., Goecker, D., Neutze, J., Mundt, I. A., Hupp, E., & Schaefer, G. A. (2009). Can pedophiles be reached for primary prevention of child sexual abuse? First results of the Berlin Prevention Project Dunkelfeld (PPD). *The Journal of Forensic Psychiatry & Psychology*, *20*(6), 851-867. https://doi.org/10.1080/14789940903174188

Brown, A., Jago, N., Kerr, J., McNaughton Nicholls, C., Paskell, C., & Webster, S. (2014, June). *Call to keep children safe from sexual abuse: A study of the use and effects of the Stop it Now! UK and Ireland Helpline.* NatCen Social Research, Crime and Justice Team. Retrieved from https://www.stopitnow.org.uk/files/stop_it_now_evaluation_uk_findings.pdf.

Bouvier, P. (2003). Child sexual abuse: Vicious circles of fate or paths to resilience? *The Lancet, 361*(9356), 446-447.

Carter, J. C., Bewell, C., Blackmore, E., & Woodside, D. B. (2006). The impact of childhood sexual abuse in anorexia nervosa. *Child Abuse & Neglect*, *30*(3), 257-269. https://doi.org/10.1016/j.chiabu.2005.09.004

Colangelo, J., & Keefe-Cooperman, K. (2012). Understanding the impact of childhood sexual abuse on women's sexuality. *Journal of Mental Health Counseling*, *34*(1), 14-37. https://doi.org/10.17744/mehc.34.1.e045658226542730

Finkelhor, D., Vanderminden, J., Turner, H., Shattuck, A., & Hamby, S. (2014). Youth exposure to violence prevention programs in a national sample. *Child Abuse and Neglect, 38*(4), 677-686. https://doi.org/10.1016/j.chiabu.2014.01.010

Hamilton-Giachritsis, C., Hanson, E., Whittle, H., & Beech, A. (2017). *"Everyone deserves to be happy and safe". A mixed methods study exploring how online and offline child sexual abuse impacts young people and how professionals respond to it.* NSPCC. Retrieved from https://learning.nspcc.org.uk/media/1123/impact-online-offline-child-sexual-abuse.pdf

Hanson, R. F., & Adams, C. S. (2016). Childhood sexual abuse: Identification, screening, and treatment recommendations in primary care settings. *Primary Care: Clinics in Office Practice*, *43*(2), 313-326. https://doi.org/10.1016/j.pop.2016.01.005

Knack, N., Winder, B., Murphy, L., & Fedoroff, J. P. (2019) Recently looked at preventions at child sexual abuse in general Primary and secondary prevention of child sexual abuse. *International Review of Psychiatry*, *31*(2), 181-194. https://doi.org/10.1080/09540261.2018.1541872

Lenhart, A. (2009, December 15). *Teens and sexting.* Pew Research Centre. Retrieved from https://www.pewresearch.org/internet/2009/12/15/teens-and-sexting/

Mikton, C., & Butchart, A. (2009). Child maltreatment prevention: a systematic review of reviews. *Bulletin of the World Health Organization*, *87*, 353-361.

Mitchell, K. J., Finkelhor, D., Jones, L. M., & Wolak, J. (2010). Use of social networking sites in online sex crimes against minors: An examination of national incidence and means of utilization. *Journal of Adolescent Health*, *47*(2), 183-190. https://doi.org/10.1016/j.jadohealth.2010.01.007

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, *151*(4), 264-269. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

Müller, A. R., Röder, M., & Fingerle, M. (2014). Child sexual abuse prevention goes online: Introducing "Cool and Safe" and its effects. *Computers & Education, 78*, 60-65. https://doi.org/10.1016/j.compedu.2014.04.023

NetClean (n.d.). *Blocking as a way of stopping child sexual abuse material.* Retrieved from https://www.netclean.com/2018/06/27/blocking-as-a-way-of-stopping-child-sexual-abuse-material/

Quayle, E., Lööf, L., Soo, K., & Ainsaar, M. (2011). Methodological issues. In M. Ainsaar & L. Lööf (Eds.), *Online behaviour related to child sexual abuse: Literature report* (pp. 9-16). ROBERT. Retrieved from http://childrenatrisk.eu/robert/public/Interviews_with_affected_young_people.pdf

Rideout, V., & Robb, M. B. (2019). *The Common sense census: Media use by tweens and teens.* San Francisco, CA: Common Sense Media.

Say, G. N., Babadağı, Z., Karabekiroğlu, K., Yüce, M., & Akbaş, S. (2015). Abuse characteristics and psychiatric consequences associated with online sexual abuse. *Cyberpsychology, Behavior, and Social Networking, 18*(6), 333-336. https://doi.org/10.1089/cyber.2014.0494

Simpson, T. L., & Miller, W. R. (2002). Concomitance between childhood sexual and physical abuse and substance use problems: A review. *Clinical Psychology Review*, *22*(1), 27-77. https://doi.org/10.1016/S0272-7358(00)00088-X

United Nations Office on Drugs and Crime (2019, December*). Online child sexual exploitation and abuse.*E4J University Module Series: Cybercrime. Retrieved from https://www.unodc.org/e4j/en/cybercrime/module-12/key-issues/online-child-sexual-exploitation-and-abuse.html

World Health Organization (1999, March 29-31). *Consultation on child abuse prevention.* [Paper presentation]. Geneva, Switzerland. Retrieved from https://apps.who.int/iris/handle/10665/65900