Ernesto Caffo *Editor*

Online Child Sexual Exploitation

Treatment and Prevention of Abuse in a Digital World

Springer

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ISBN 978-3-030-66653-8 ISBN 978-3-030-66654-5 (eBook)
https://doi.org/10.1007/978-3-030-66654-5

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Preface

Today, the world in which human beings grow up, work, and relate to each other is characterized deeply and pervasively by the presence and enormous influence of communications technologies on the lives of most of the world's inhabitants. No generation has ever had so many types of media available that serve informational, entertainment, and relational purposes. Handheld devices, especially, have become an integral part of day-to-day life from a very early age – as have social media platforms. That's why we speak of a "digital world." Young – and otherwise vulnerable – people are exposed to new risks of being abused in various ways, and the creation of a culture that values and implements measures which safeguard the vulnerable has never been more important than now, given this added digital level of vulnerability.

Human action is the basis of communication, and communication is always the result of human intentions, motives, and decisions, which are more or less voluntary and rational. Action is taken in relative freedom to choose between action alternatives. To the extent, however, that communicative action requires human freedom, this freedom also creates responsibility. We have decided to act communicatively and have chosen a certain statement, a certain partner, a certain situation, or a certain medium – but could have chosen differently. Freedom and responsibility are two sides of the same coin. For our decisions we need criteria and evaluations; it is also true for communication that we do not act solely on the basis of purpose-rational calculations and heuristics (efficiency and effectiveness), but rather on the basis of moral norms, that is, considerations about what is good or bad, right or wrong in a certain situation.

With regard to media behavior, the question arises whether we are dominated by and dependent on the media and what "good and bad, right and wrong" really means, especially when it concerns children and young people. Because children grow up in this digital world, they don't know any better. Therefore, fundamental considerations are necessary, which are not new, but which are all the more urgent in the context of the availability of unmanageably large and complex amounts of data as well as of manifold interwoven strands of communication: What images of self and of others are pervasive in our cultures, directly affecting how youth see themselves and how they relate to others through media? What images of humanity are implicitly portrayed in media and what are the consequences?

With the media development of the last decades, a creeping but revolutionary reversal of socialization instances has taken place. Only 50 years ago, the family was clearly the dominant instance of socialization, followed by school; friends were the neighborhood kids, and media were the radio in the living room and movies. With all new kinds of media – television, cell phones, DVDs, computers, internet, and social networks – the total time of use increased; working hours and time available for cooking and tending to the household decreased. Over time, the most important socialization instances for youth have become the media and the peer group – friends. Many adults are overwhelmed by this development. Parents and other caregivers often have little knowledge of the emotional, cognitive relational, and personality-building significance and impact of this social media world on young people.

For children, adolescents, and teens, this is the natural and unquestioned basis of their actions; it is the world into which they were born. In it, they develop a new quality that allows them to follow their individual path, to fulfill their social task of identity development, integration, and self-determination: media use is no longer used only to understand everyday life. Rather, everyday life and the world are related to the media services and the knowledge derived from them. Handheld devices are becoming such a part of the ego that today, in modification of Winnicott’s famous dictum “there is no such thing as a baby” (i.e., what exists is always a “nursing couple”), one would have to say: “there is no such thing as a child,” that is, the new couple is a child and its smartphone.

The smartphone is used for self-expression and identity construction, as well as a photo and video apparatus for recording and sharing experiences, events, and encounters, thereby becoming the most important instrument of communication. The social web strengthens and “rewards” the willingness to reveal oneself. Despite negative experiences and corresponding indications from parents, teachers, and others, risk assessment decreases and the disclosure of private information increases over time.

In today’s context, the ability of families and schools to influence the formation of young generations is proportionately far less than in the past and is often disrupted and overtaken by the continual wave of messages and images that even the youngest children receive through countless open avenues social media provides. Hundreds of millions of youth are growing up in a digital world within a context that is still largely undeveloped. For this reason, too, responsibility that young generations take on must be shared fully by all the sectors of society and must become a priority for lawmakers and other influential individuals and institutions – which still today is not the case.

A specific media competence for dealing with the Internet and the use of social media has not been developed – at least not globally – even after decades, nor is it anchored in school or other learning contexts. This calls for public discourse, targeted education, and responsible behavior on the part of the operators of social media platforms, especially aimed at protecting young users.

Central concerns of those who work in the field of media education are to initiate reflection processes among young people, to develop their awareness of their responsibility, to sensitize them to the causes of discrimination, abuse, and violence, and to encourage positive and creative use of media.

The horrendous reality of sexual and other kinds of abuse is widespread onsite and online, much more than most people allow themselves to perceive and to believe. It is a common aspect and consequence of multifaceted and widespread violence that ignores all respect, not only for the body, but more so for the soul, for the profound vulnerability and dignity of children, adolescents, and vulnerable people in every country in this world. Consequences of the Covid-19 pandemic, including physical isolation in closed spaces and increased – and largely unrestricted – accessibility online, have dramatically increased the threat to the safety and dignity of the most vulnerable members of society.

These realities – dangerous for the mental, emotional, and spiritual development of our youth – and the possibilities of preventing these damages were the theme of an international congress, entitled "Child Dignity in the Digital World," which was held October 3–6, 2017, at the Pontifical Gregorian University in Rome. The congress was organized by the Gregorian's *Centre for Child Protection* (CCP) in collaboration with *Telefono Azzurro* and the *WeProtect Global Alliance*.

It was the first congress of its kind, bringing together world-renowned experts from various disciplines and sectors (e.g., psychology, psychotherapy, sociology, communication sciences, law, theology) who are involved in research concerning these phenomena and in preventive efforts from political, legal, diplomatic, and religious points of view.

Speakers and attendees from the medical schools of Harvard, Yale, and Johns Hopkins, from Interpol, UNICEF, ECPAT, and the Italian, German, British, and United Arab Emirates governments, representatives of various Christian denominations and of the Islamic, Jewish, and Taoist world: all these participants offered their authoritative contribution within their respective expertise to define the *status quaestionis*, discuss the problems that emerged, and elaborate concrete feasible proposals.

In order to ensure that this effort did not remain simply theoretical, it was important that representatives of the main social media companies attended the congress. Facebook and Microsoft sent their global heads of security policy.

The contributions in this book, written by those who spoke at the congress, clearly outline the enormous challenges that lie ahead, and one also realizes that even though we have learned a great deal about these phenomena, it remains important to understand them more deeply, and moreover to disseminate our understanding of them. Only in this way can we effectively fight the battle to protect minors in our digitalized world.

The goal has been to establish a dialogue between the many competent and committed people who work tirelessly to defend the dignity of minors and vulnerable people in the digital world. The congress has proven that when this happens, we overcome the sense of disorientation and powerlessness when faced with such a strikingly difficult challenge and are further empowered to intervene creatively.

No country, institution, or individual can solve this problem alone. We must be allied in this multi-faith and multi-national effort to protect the dignity of children; we must understand that we are all responsible for one another. It is a world of great complexity in which problems need to be faced from many perspectives with an interdisciplinary approach.

We do have the necessary means to safeguard the most vulnerable people in the digital world. What is important is that we work together, that we motivate each other in this arduous struggle against inertia, active resistance, and big business interests, and that we keep in mind the reason we are committed to safeguarding: "The minors of whom we speak and whose dignity we wish to defend and promote are human persons, and the value of each of them is unique and unrepeatable. Each of them must be taken seriously and protected in this ever more digitalized world, so that they may be able to fulfill the purpose of their life, their destiny, their coming into the world."[1]

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Hans Zollner

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[1] Card. Parolin, Inaugural address of the congress "Child Dignity in the Digital World," 3 October, 2017 (https://www.youtube.com/watch?v=YYhgL7RKiOE&t=5s accessed 4 August 2020)

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Introduction

Ernesto Caffo

This volume is the result of the work of the Child Dignity Alliance, following the Congress entitled "Child Dignity in the Digital World", which took place from October 3 to October 6, 2017, at the Pontifical Gregorian University in Roma, and was organized by the Gregorian's Centre for Child Protection (CCP), hand in hand with Telefono Azzurro and WeProtect Global Alliance.

The Congress, as well as this publication, was born with the aim of emphasizing the importance of dignity as a universal and inalienable right of every child, and approaching child sexual abuse and exploitation from a multidisciplinary point of view, involving international contributors from different sectors and areas of expertise.

Our society has definitely changed: digital technologies and the Internet permeate the lives of young people and their families. For young people, the Web helps shape their identities and relationships and the way they interact and socialize. Undoubtedly, new technologies are improving the quality of life for millions of children and adolescents around the world, providing them with an opportunity for personal growth and education, especially for those living in poverty or in remote regions. At the same time, however, the risks and negative effects of digital technologies must be considered. The biggest challenge for us adults is to ensure that young people have safe access to these technologies. In fact, the Web can be a prolific ground for perpetrators, and children, especially those who have some kind of vulnerability, can easily fall victim of many kinds of online sexual exploitation, such as sextortion, revenge porn, online grooming and live-streaming of child sexual abuse.

Pornographic contents, accessed both voluntarily and involuntarily, can have a significant impact on mental health of children and adolescents and on their relationships too, thus constituting another significant online harm. In this publication,

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E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_1

the possible negative effects of viewing pornography and explicit contents during childhood development will be examined.

There is a strong body of scientific literature that shows us how toxic childhood experiences significantly shape the brain and have a huge influence on the future adult. Child sexual abuse, both online and offline, in the absence of proper positive supportive experiences, leads to neuropsychological changes and dysfunctional coping mechanisms. The negative consequences include psychical, psychological and emotional impacts, such as depression, anxiety, PTSD and self-harm. Victims can suffer from these consequences also in adulthood, and sometimes they require lifetime mental health treatment. For this reason, it is fundamental to ensure adequate support and therapy for the victims, based on evidence-based approaches. Recent insightful studies on paedophilia and sex offenders reveal how it is also extremely important to implement specifically targeted evidence-based programmes for this population.

Therefore, one of our first goals should be to develop continuous research in order to measure the extent of the problem and to understand the complex origins and factors of child abuse and to provide insights and knowledge for future actions. This book also focuses on prevention and intervention programmes and on how the latest findings should guide us in structuring programmes to prevent child exploitation. Every kind of school should be involved in these activities, since teachers and educators are in a perfect position to prevent and identify the problem. In addition, minimum quality standards should be established for the professionals and operators involved in the field of education and care of children and adolescents.

The world too frequently fails to preserve the rights of children and to protect all minors from abuse and sexual exploitation. People of the world look to governments and international bodies to enact and enforce laws, treaties and protocols to safeguard the rights of children and prevent the exploitation of children in all its forms.

The fight against child sexual abuse requires new thinking, new approaches and a new global awareness of the importance of listening to children and their needs.

The Declaration of Rome, presented as a result of the Congress, issues a call to action to world leaders, in order to undertake a global awareness campaign to educate and inform people on child abuse and exploitation and to demand action from national, and international bodies and from leaders of the world’s religions. The Declaration also urges technology companies to commit to the development and implementation of new tools, both to identify victims and perpetrators and to provide young people with a safe digital environment. The digital era presents unprecedented challenges to guarantee rights and dignity of young people against threats, abuse and exploitation. Governments, private industry, non-profit sector, religious institutions, academia, public health sector and civil society should unify efforts and stand up for the protection of the dignity of children and adolescents. As His Holiness Pope Francis stated in his speech at the Clementine Hall on October 6, “Let us work together, then, so that we will always have the right, the courage and the joy to be able to look into the eyes of the children of our world”.

Child Abuse and Exploitation: What We Know About the Problem and New Perspectives

Ernesto Caffo, Lisa Asta, and Francesca Scandroglio

Introduction and Overview of Child Abuse and Exploitation and Sexual Offending Against Children

Child sexual abuse (CSA) is a complex phenomenon which affects millions of girls and boys around the world.

Child sexual abuse and exploitation (CSAE) are aspects of the broader problem of violence against children. The Convention on the Rights of the Child (CRC), the main instrument for the protection of children's rights promoted by the United Nations in 1989, defines violence against children as "all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse" (Article 19).

There are several definitions of CSA, adding challenges to its measurement and assessment.

The World Health Organization (WHO) 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, or that violates the laws or social taboos of society. Child sexual abuse is evidenced by this activity between a child and an adult or another child who by age or development is in a relationship of responsibility, trust or power, the activity being intended to gratify or satisfy the needs of the other person. This may include but is not limited to: the inducement or coercion of a child to engage in any unlawful sexual activity; the exploitative use of a child in prostitution or other unlawful sexual practices; the exploitative use of children in pornographic performance and materials (WHO, 1999, pp. 15–16).

Here, "child" refers to any individual who has not reached 18 years old.

Obtaining an accurate measure of the prevalence of CSA is difficult, both because of methodological issues (e.g. the definition of CSA may vary, or the age of the

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E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_2

victim taken into account may not be the same among studies) and because, very often, these abuses are not reported out of shame, fear or other factors. This is especially true in the case of intrafamilial CSA (Murray, Nguyen, & Cohen, 2014).

A WHO report (2006), based on a study conducted in 2002, estimated that worldwide 150 million girls and 73 million boys under 18 years old experienced forced sexual intercourse or other forms of sexual violence.

In 2011, Stoltenborgh and colleagues conducted a global meta-analysis reviewing more than 300 studies published between 1980 and 2008, collecting data on nearly one million participants. This research revealed that 18% of females and 8% of males have been victims of CSA. The variance between females and males could be due both to the fact that females are more likely to be victims of sexual abuse and because males are less likely to disclose experiences of child sexual abuse.

Finally, according to the latest Child Maltreatment Report of the US Children's Bureau (USDHHS, 2018), 7% of children suffered from sexual abuse in 2018.

It is now recognised that several factors contribute to causing CSAE. Studies that have examined the risk factors found that females seem to be at a higher risk of CSA victimisation than males, although for the latter the rate of abuse may be underreported (Clayton, Jones, Brown, & Taylor, 2018). Children living in poverty, in the absence of one or both parents, or having a stepfather may be at greater risk of being victims of child sexual abuse (Butler, 2013; Finkelhor & Baron, 1986). Other risk factors for sexual abuse are child impulsivity, low achievement scores or needing special education (Butler, 2013), as well as mental or physical disabilities (Murray et al., 2014). Finally, out-of-home children, children living in conflict environments or unaccompanied children are also at increased risk for CSA or exploitation (Radford, Allnock, & Hynes, 2020).

A recent review found that child sexual abuse is more likely to be committed by an acquaintance or known non-relative rather than a family member or a stranger, and that the offenders (both intrafamilial and extrafamilial) are more likely to perpetuate the abuse at their home (Clayton et al., 2018).

The Internet provides new opportunities for the sexual exploitation of children. In fact, it can be used by individuals with a sexual interest in children in several ways, for example, to get child pornography, to groom children online or to correspond to other individuals with a sexual interest in children (Kloess, Beech, & Harkins, 2014). When the abuse is recorded through photos or videos and shared online, the violation continues even after the victim has been rescued and the offender arrested.

In literature, there has been a debate about whether and how online and offline sexual offenders differ (ibidem). Recent findings suggest that offenders who had online sexual contact with victims would not differ from those who meet the child in person (Wolak & Finkelhor, 2013). This may not be true for online child pornography offenders, who seem to engage in less risky behaviour and criminal activity than contact offenders (Ly, Dwyer, & Fedoroff, 2018).

Experiencing child sexual abuse has been associated with several short- and long-term physical and mental health consequences. Research on this topic suggests that individuals who have suffered abuse in childhood show increased health problems, such as chronic pain syndrome, headaches, gastrointestinal issues and obesity (Irish, Kobayashi, & Delahanty, 2010; Springer, Sheridan, Kuo, & Carnes, 2007). Child sexual abuse also seems to be a risk factor for engaging in risky sexual behaviour, thus increasing the risk of contracting HIV (Jones et al., 2010) or having an early pregnancy (Fiscella, Kitzman, Cole, Sidora, & Olds, 1998).

Apart from physical consequences, child sexual abuse is considered an independent risk factor for the development of a wide range of mental health disorders, which can persist in adolescence and adulthood (De Bellis, Spratt, & Hooper, 2011). A study conducted with a large national sample of the US population found that people who had suffered from CSA were significantly more likely than those without a history of CSA to have a psychiatric disorder sometime in their lifetime. The most common disorders were nicotine dependence, major depressive disorder, post-traumatic stress disorder and specific phobia. Moreover, adult survivors of CSA had higher rates of suicide attempts (Pérez-Fuentes et al., 2013).

Child Exploitation Online

(a) *Risks and opportunities of the digital world for a changing brain*

In the last decade, we have seen incredible growth both in the access and in the use of the Web and digital technology. Fifty per cent of the world population is online, and more than 30% of this population is composed of children and adolescents (ITU and UNESCO, 2019).

According to a recent report (UNICEF, 2019), 71% of young people in the world have access to the Internet. It is estimated that in the next few years, this number will significantly increase (Provider, Forecasts, & Papers, 2019).

The digital growth seems to be prone to expand very rapidly. From 2018 to 2019, an increase of 9.1% of Internet users has been registered globally and a 9% growth of active social media users (WePROTECT, 2019).

The digital world provides children and adolescents with a hub of information and is highly beneficial in terms of greater access to learning opportunities and access to valid resources (Madigan et al., 2018). Moreover, the Web is a place where young people often start new friendships and relationships with peers and learn new interactive and interpersonal strategies. The Internet has changed the way children and adolescents express their feelings, process their emotions and deal with affectivity (ibidem). It has been shown that online communication can predict adolescents' offline sexual and romantic activity over time (Vandenbosch, Beyens, Vangeel, & Eggermont, 2016).

Adolescence is a critical period where psychological and social changes take place, in terms of identity, self-consciousness and interactions with others (Blakemore, 2012). The transition from childhood to adulthood is often described as a period of changes, also in terms of brain and cognitive development (Dumontheil, 2015). There are a few features that define the adolescent brain, such as increased risk-taking, increased sensation seeking, and peer affiliation (Giedd, 2012). In this context, the digital revolution has altered the environment and the way teens establish their independence and identities and the pattern of socialisation with their peers (ibidem).

Concerning peers, as mentioned, adolescence is a developmental stage in which peers become more important and social approval is strongly needed. Social approval is partly reinforced by social media (Crone & Konijn, 2018; Blakemore, 2012, Sebastian et al., 2011). A study conducted with neuroimaging highlighted how brain regions involved in social communication and relationships tend to undergo significant changes during adolescence (Mills, Lalonde, Clasen, Giedd, & Blakemore, 2014), and the impact of social media might be particularly powerful for this reason (Crone & Konijn, 2018). Generally has less capacity to foresee potential threats, also due to a lower social and cognitive sophistication compared to adults (Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005; Madigan et al., 2018). Tend to share (sometimes very impulsively) a massive amount of personal information on online platforms, and this content can influence their online reputation, which is now an important issue to be discussed with young Internet users. The issue of online reputation seems to be connected to the issue of online privacy but should not only be a matter of privacy and data sharing. Experts should also take into account the quantity and quality of personal experiences young people share online.

Given the opportunities of the Web, it has to be said that the Internet can be a potential breeding ground for several risks. Firstly, the fact that relationships are built and developed in the online world and through tech tools exposes young users to the risk of viewing inappropriate content. Secondly, teenagers might share private materials and information which can negatively impact on their wellbeing in the present and future. Some of these risks are sexting, sextortion, revenge porn and live streaming abuse.

(b) *Sexuality and child sexual exploitation online: sexting, sextortion, revenge porn and the use of pornography*

Sexting has become a major concern to many parents, educators and the general public (Rice et al., 2018). Sexting has become a relatively common form of sexual interaction among adolescents and, for many of them, is a part of their romantic life (Jonsson, Priebe, Bladh, & Svedin, 2014; Gámez-Guadix, Santisteban, & Resett, 2017). A systematic review found that sexting prevalence ranges from 7 to 27% (Cooper, Quayle, Jonsson, & Svedin, 2016). Legal issues associated with sexting are now gaining increased attention from both the academic sector and the general public (Dake, Price, Maziarz, & Ward, 2012).

Sexting exposes adolescents to several problems. Not only young people engaging in sexting are at risk of having their intimate images spread to a wider audience but also sexting may negatively affect their reputation or even make them victims of bullying or sextortion (Ringrose, Gill, Livingstone, & Harvey, 2012). Although at the moment, there is no agreement on the definition, sexting can be described as the act of sending and/or receiving and/or forwarding texts/images (Choi, Van Ouytsel,

& Temple, 2016; Cooper et al., 2016). The field of research on sexting is still expanding, but some studies on this topic show that this behaviour might be related to mental health issues.

Some studies, demonstrate that sexting in teens is associated with negative health outcomes, such as high levels of substance use and sexual activity (Temple et al., 2014). Sexting also seems to be connected to a variety of risky and problematic behaviours, such as alcohol use (Dir, Cyders, & Coskupinar, 2013) and high-risk sexual behaviour, like unprotected sex (Baumgartner, Sumter, Peter, & Valkenburg, 2012; Dake et al., 2012).

Given the importance of sexting and the evidence of its possible correlations and consequences, sexting should be addressed by institutions, teachers, parents and professionals. There is an urgent need to understand the possible correlations between sexting and mental health. The youth should be informed about the risks of sexting and the potential danger and consequences of this behaviour.

Sextortion is described as an emerging form of online abuse and is defined as "the threat to expose sexual images to make a person do something. The threats come from both strangers met online and once intimate romantic partners attempting to harass, embarrass, and control victims" (Thorn, 2020). The prevalence of sextortion acted by online perpetrators is unknown (Wolak, Finkelhor, Walsh, & Treitman, 2018). Some research also highlights that sextortion often co-occurs with teen dating violence (Wolak & Finkelhor, 2017). In a recent research conducted by Wolak and Finkelhor (2017), almost 60% of the victims who were minors when sextortion took place affirmed they knew the perpetrator in person.

Despite sextortion being identified as an emerging online threat to youth, research on this issue is scarce (ibidem). Victims interviewed in a study reported feeling shame, embarrassment and self-blame, with only one in five respondents seeking help to solve the problem and only 16% reporting to the police (Wolak & Finkelhor, 2016).

The Canadian organisation *Cybertip.ca* divides sextortion into three different types: (a) sextortion to extort for additional sexual images/videos, once the offender has convinced the teen to engage in sex acts online, he/she threatens to share the material online and/or with family and/or friends if the victim does not agree with sending more nudes; (b) sextortion to obtain money as a reward, the offender asks for money to be sent through an account; and (c) images and/or videos are captured and the offender moves to the next target, the offender does not tell the victim that he/she had captured a sexual image/video. In this case the offender ignores or blocks the victim and then targets another child. The process that leads to sextortion is often initiated on social media platforms, or other video and streaming platforms, or even online games with chat. After the contact has been made and the offender has established a connection with the child/adolescent, sexual materials are asked by the offender and shared by the victim in a private conversation (ibidem).

The Canadian organisation (ibidem) identifies some warning signs, such as if the act of asking for images and sexual contents happens very rapidly, if chats and conversation become sexual and the offender tries to gain the child's attention, or tries to use threats to make the youth uncomfortable and provides inconsistent information about his/her life. Sextortion is very highly connected with revenge porn, and in some cases, the first issue may include the second one. Revenge porn can also be referred to as “intimate image abuse”, or “non-consensual pornography”, or “image-based sexual abuse” and describes the act of sharing intimate images and/or videos of someone, either online or offline, without their consent, to cause distress (Criminal Justice and Courts Act, 2015).

Issues like sexting, sextortion and revenge porn seem to be considered in a framework that involves the expression of sexual activity and romantic relationships online. As already pointed out, during adolescence, sexual exploration and expression are normal (Mattebo, Tydén, Häggström-Nordin, Nilsson, & Larsson, 2018). In these contexts, and given the particular characteristics underlying the stage of adolescence, it is crucial to consider the risks of unwanted exposure to sexually explicit pictures and/or videos, as well as an unwanted online solicitation.

Prevalence rates of unwanted exposure to sexual material, like pornography, range from 2% to 70% (Madigan et al., 2018). This type of exposure may happen, for instance, when receiving unwanted messages, email, pop-up images and advertisements (Chen, Leung, Chen, & Yang, 2013; Peter & Valkenburg, 2016). Exposure to sexual material and pornography can also be intentional. Due to the accessibility of pornographic material on the Web by adolescents and young people, empirical studies in this field have grown in recent years (Peter & Valkenburg, 2016). Prevalence of unintentional exposure to pornography by adolescents ranges from 19% to 84% (ibidem). Ybarra and Mitchell (2005) found that the 7% of 10–17 year-olds in the United States declared to be intentional users, but the percentage greatly varies among the studies (Chen et al., 2013; Peter & Valkenburg, 2016). The evidence seems to highlight a relationship between the use of pornography and gender-stereotype sexual beliefs, but the causality is still unclear (Peter & Valkenburg, 2016).

At the same time, strong correlations between pornography consumption and sexual perceptions and behaviour have been demonstrated, along with the increase in the last years of pornography consumption (Mattebo et al., 2018; Weaver 3rd et al., 2011). Frequent use of pornography among boys is associated with sexual experiences, obesity, alcohol consumption, distress and problems with peers (Häggström-Nordin, Tydén, Hanson, & Larsson, 2009; Mattebo et al., 2018; Svedin, Akerman, & Priebe, 2011). In a recent study (Mattebo et al., 2018), pornography use was demonstrated to predict both psychosomatic and depressive symptoms. The current literature suggests that adolescents’ brains may be more sensitive to sexually explicit material and pornography, but further research is needed (Brown & Wisco, 2019). Overall, Blakemore and colleagues have pointed out that adolescence should be considered as a sensitive period due to the significant brain reorganisations that are taking place (Blakemore, 2012; Brown & Wisco, 2019).

(c) *Online grooming and child sexual exploitation*

The number of people who use the Internet to sexually exploit children has exponentially increased in the past few years (Kloess et al., 2014). Children who are victims of online child sexual exploitation (OCSE) are revictimised every time their images are viewed online (INHOPE, 2020). Despite the difficulties linked to the recognition and reporting of the issue, recent statistics shared by INHOPE show an increase of reports in the latest years (INHOPE, 2020). In 2019, INHOPE processed 183,788 reports of child sexual abuse material, and this number has more than doubled from 2017. In 2019, in 90% of the cases, the age of victims ranged between 3 and 13 years old. Ninety-one per cent of victims depicted in the reports received by INHOPE were girls and 7% were boys (ibidem). In many cases, hotlines play an important role in removing this illegal content online and actively support law enforcement in identifying both victims and perpetrators. Hotlines all over the world often receive reports from the public, from the industry, but also by conducting proactive searches either manually or by using automatic tools (ibidem).

EUROPOL's definition of child sexual exploitation refers "to the sexual abuse of a person below the age of 18, as well as to the production of images of such abuse and the sharing of those images online" (EUROPOL, 2020). Sexual grooming refers to the process in which the offender lures a child for sexual abuse (Kloess et al., 2014; Craven, Brown, & Gilchrist, 2006). The term "grooming" refers to "the situation whereby a potential offender will set up opportunities to abuse by gaining the trust of the child in order to prepare them for abuse" (p. 340), either offline or online (McAlinden, 2006).

The Internet provides a space where offenders can reach children and adolescents (Gillespie, 2002; Kloess et al., 2014). Finkelhor (1984) identified a model to explain online grooming, called the precondition model, which highlights a sequence of four preconditions that may result in sexual grooming: (a) the offender's motivation to sexually abuse, (b) overcoming the internal inhibitors, (c) overcoming external inhibitors and (d) overcoming the resistance of the child. Although this model was initially elaborated to explain the sexual grooming of children offline, it can also be applied to the online pattern of offending behaviours (Kloess et al., 2014).

According to O'Connell (2003), online grooming moves through different stages: (a) friendship forming stage, (b), relationship forming stage, (c) risk assessment stage, (d) exclusivity stage, (e) sexual stage and (f) damage limitation and "hit and run" tactic. In the first stages, the offender tries to get to know the child, by engaging in discussions about interests, hobbies, music and daily activities. More specifically, the perpetrator contacts the child through social networks, or gaming chats, waits for the child to respond and then pursues the conversation based on the child's answers. Not all offenders progress through the different stages sequentially, since it has been shown that some steps may be longer or even skipped (O'Connell, 2003). Some stages have a specific and identifiable goal, for example, the risk assessment stage, whilst other stages are psychologically connected to the aims of the adult and their perception, as well as the characteristics and the vulnerability of the child (ibidem).

The (a) friendship forming stage involves the offender getting to know the child. The length of time spent at this stage, as mentioned, varies from one situation to another. During this stage, the adult may ask the child to send some private pictures. The (b) relationship forming stage sees the adult engaging with the victim by discussing, for example, interests, hobbies, school and home life, creating an illusion of being the child's best friend. In the (c) risk assessment stage, the perpetrator asks the child about their environment, in order to know if they are using the device under the supervision of parents and caregivers. The (d) exclusivity stage typically follows the risk assessment stage. These interactions take place with a strong sense of mutuality, and the child is made to trust the offender exclusively. The (e) sexual stage can appear innocuous since the adult starts these conversations in a sense of shared trust. During the sexual stage, child boundaries may be pressed, and the offender may try to meet the victim offline, requesting a face-to-face meeting or making threats about sharing their pictures and videos.

Nevertheless, child sexual exploitation does not always include contact (offline or online) with children/adolescents. This is an evolving phenomenon which changes with the development of technology (EUROPOL, 2020). Live streaming of child sexual abuse in real time "occurs when a child is forced to appear in front of a webcam to engage in sexual behaviour or to be subjected to sexual abuse" (ECPAT, 2016).

Child sexual exploitation is live-streamed through the Internet to a paying consumer who views and can request a particular type of abuse in real time (ibidem). Live streaming of child sexual abuse is also connected to the commercial distribution of CSEM (child sexual exploitation material) online (EUROPOL, 2020). According to EUROPOL's European Cybercrime Centre (EC3), live streaming of child abuse is no longer an emerging trend, but a very common issue, which is likely to increase in the future (Dushi, 2020; EUROPOL, 2020). Experts highlight the psychological damages that live streaming can cause victims, despite the lack of physical contact with the offender (Dushi, 2020).

At present, live streaming of sexual abuse of children is beginning to be at the core of international and national legislative efforts, but not enough actions have been taken (ibidem). There are still inconsistencies among countries and international and national legislations, and there is a need for more effective regulatory mechanisms and stronger collaboration, to guarantee a better and faster response to this crime. Therefore, it is important to act rapidly, to better understand and investigate the issue and avoid traumatic consequences on the victims (ibidem).

Paedophilia

(a) *What we know about paedophilia*

Paedophilia is usually defined as a recurrent sexual interest in prepubescent children, reflected in persistent thoughts, fantasies, urges, sexual arousal or behaviour (Seto, 2008).

The prevalence of paedophilia in the general population is still unknown since large-scale epidemiological studies have not yet been conducted (Seto, 2009). Currently, based on studies with small samples, it is estimated that the prevalence of paedophilia is around 1% (Seto, 2017). Moreover, it seems to be more frequent among males than among females (ibidem).

Paedophiles become aware of being sexually attracted to children during early adolescence (12–15 years), i.e. when people usually recognise their emerging sexual preferences (Shields et al., 2020), and it appears to be stable over time. For these reasons, it has been hypothesised that paedophilia could be considered a sexual orientation (Seto, 2012). DSM-5 makes a distinction between *paedophilic sexual orientation* and *paedophile disorder*: the latter can only be diagnosed if it causes psychosocial difficulties to the individual, they are functionally limited by their paedophilic impulses and they have acted upon them (e.g. by abusing a child). If these conditions are not met, then paedophilia should not be considered a disorder, but rather a sexual orientation (APA, 2013). Nevertheless, most research does not differentiate between paedophilic disorder and paedophilic sexual orientation.

Paedophiles and child sexual offenders (CSOs) are often used interchangeably; however, being sexually attracted to prepubescent children is neither necessary nor sufficient for CSA. Seto (2008) estimated that about half of CSOs meet the diagnostic criteria for paedophilia; the other half is not primarily attracted to children, but turn to them for other reasons, such as hypersexuality, lack of more preferred sexual opportunities or inability to control impulses. Furthermore, some paedophilic men who are sexually attracted to children may never act upon it.

In an attempt to better understand the factors underlying the onset of child sexual offending, Seto (2019) described the motivation-facilitation model of sexual offending, which postulates that being motivated to sexually offend due to paedophilia (or other factors) is not a sufficient condition to child sexual offending. CSA would occur in conjunction with low self-control and, thus, scarce ability to control one's impulses.

The difference between paedophilia and child sexual offending is supported by recent studies, whose findings indicate that some neurobiological parameters belong to paedophilia, whilst others seem to be associated with sexual offending. For example, Schiffer et al. (2017) compared the grey matter (GM) volume of paedophiles with a history of child sexual offending, paedophiles without any history of child sexual offending and non-paedophilic, non-offending controls. The results showed that, although there were no differences in the relative GM volume of the brain specifically associated with paedophilia, non-offending paedophiles exhibited larger volumes than offending paedophiles in the right temporal pole.

Several theories have been formulated to explain the origin of paedophilia and sexual offending against children. According to the cycle of sexual abuse theory, those who have been victims of sexual abuse during childhood are more likely to become perpetrators later in life (Johnson & Knight, 2000). However, this theory only seems to be valid for a subgroup of CSOs: Gassler and colleagues (Glasser et al., 2001) reviewed retrospective clinical cases of offenders attending forensic psychotherapy services and found that only a minority of offenders had been victims of sexual abuse during childhood (79 out of 227). Moreover, according to this theory, there should be many more women abusing children, since females are victimised at even higher rates than males, but this is not the case (ibidem).

In the last decade, multifactorial theories have also been proposed to explain the aetiology and maintenance of child sexual offending. The integrated theory proposed by Ward and Beech (2006) states that biological, cultural, social and psychological factors and individual learning are all involved in the onset, development and maintenance of child sexual offending, including adverse developmental experiences, cognitive distortion, social skill deficits, antisociality, self-regulation and empathy problems.

From a neurobiological perspective, three major theories exist that try to explain paedophilic child sexual offending: the frontal-dysexecutive model, the temporal-limbic model and the dual-dysfunctional theory (Dillien, Goethals, Sabbe, & Brazil, 2020). According to the frontal-dysexecutive model, paedophilic behaviour would be caused by damage to the frontal lobe, which entails disinhibition of behaviour. On the other hand, the temporal-limbic theory hypothesises that a lesion to the temporal lobe would lead to hypersexuality, as well as to abnormal sexual interests, since the limbic system is involved in regulating emotions and motivations, including sexual behaviour. The dual-dysfunctional theory links the former models, assuming a dysfunction in both the frontal and the temporal lobes, leading to the aforementioned consequences.

However, these theories explain hypersexuality and disinhibition, but not the paedophilic interest per se (Jordan, Wild, Fromberger, Müller, & Müller, 2020).

It has also been proposed that CSOs exhibit neuropsychological impairments (Hucker et al., 1986; Langevin & Curnoe, 2008; Suchy, Whittaker, Strassberg, & Eastvold, 2009). Research that investigated this hypothesis has focused mainly on executive functions, followed by memory and verbal fluency (Joyal, Beaulieu-Plante, & de Chantérac, 2014). In a systematic review, Turner and Rettenberger (2020) found that, compared to healthy controls, CSOs showed more impairments in set switching, inhibition, processing speed and verbal functioning. Inhibition and processing speed were found to be impaired also when comparing child sexual offending to non-sexual offending. Instead, no differences were found when comparing child sexual abusers to sexual offenders against adults.

In general, however, the current state of research in this field is heterogeneous, since studies in the literature differ for the chosen sample, such as the type of sexual offender (i.e. paedophilic and non-paedophilic CSO), the comparison group (healthy controls, non-sexual offender, adult sexual offender) and for the neuropsychological measures adopted (Joyal et al., 2014), leading to inconclusive results.

(b) *Guidelines for treatment*

Different therapeutic approaches have been used to treat paedophiles and CSOs. These treatments focus on the reduction of sexual arousal and prevention of recidivism, rather than on the modification of sexual preferences. Research suggests that paedophilia is a sexual orientation influenced by prenatal factors and is therefore unlikely to respond to treatments provided in adulthood (Seto, 2009).

Surgical castration is among the first methods used to treat paraphilias. In the twentieth century, this kind of treatment was adopted for sexual crimes in the United States, as well as in some European countries, specifically Norway, the Netherlands, Denmark, Germany and Switzerland (Thibaut et al., 2010). Surgical castration would lead to a significant reduction of sexual deviancy by eliminating testosterone, and several studies have shown a decreased overall rate of sexual recidivism after castration (Weinberger et al., 2005). However, these studies have several limitations due to methodological issues, and the generalisability of their results is therefore not guaranteed. Moreover, research has shown that although the sexual desire is lower after castration, the possibility of having an erection is maintained, and this is especially true if individuals take testosterone exogenously (ibidem).

Chemical castration is another option used to decrease recidivism rates by child sexual offenders. Chemical castration is achieved through hormone therapy that reduces sexual arousal by targeting the hormones or neurotransmitters underlying sexual drive, arousal and behaviour (Seto, 2009). Antiandrogens, such as cyproterone acetate, have been used to block androgen and thus to reduce sex drive (ibidem). Similar results have been obtained by administering oestrogen, but this hormone has more serious side effects, including the growth of breasts and the consequent risk of breast cancer and possibly irreversible damage to the gonads (Crawford, 1981).

Cognitive behavioural therapies are the most common form of treatments used with sexual offenders. They aim to prevent relapse into sexual offending by correcting dysfunctional thoughts and maladaptive behaviours that are believed to be related to sexual interest in children (Seto, 2009; Mpofu, Athanasou, Rafe, & Belshaw, 2018). Psychotherapy with paedophiles, and with individuals with paraphilia in general, is thought to be ineffective because of denial, lack of motivation to change and unwillingness to cooperate with voluntary treatment (Crawford, 1981); however, some positive data exists. Hanson et al. (2002), for example, reviewed 43 studies on the psychological treatment of sexual offenders (not only paedophiles) and showed a significantly lower recidivism rate in treated subjects. A similar conclusion was reached by a recent meta-analysis, which also found data supporting the effectiveness of CBT treatments in reducing sexual behaviour in sexual offenders (Harrison et al., 2020).

Prevention and Intervention Programmes

In the context of sexual abuse, prevention can occur at three levels (Quadara et al., 2015). *Primary prevention* refers to strategies implemented before CSA occurs, dealing with factors that cause the abuse. *Secondary prevention* refers to programmes aimed to detect early manifestations of the problems or risk factors (i.e. poverty, parental substance abuse, parental mental health concerns and parental or child disabilities). Finally, *tertiary prevention* refers to programmes implemented after CSA has occurred, to mitigate its consequences and prevent future harm and include, for example, child protection responses, counselling services, justice responses and perpetrator behaviour change programmes (ibidem). The interventions to treat paedophiles and CSOs described in the previous section fall within this last level.

Traditionally, most prevention programmes implemented to fight CSA consisted of school-based child-focused prevention interventions (Letourneau, Schaeffer, Bradshaw, & Feder, 2017). These education programmes are designed for the age and the cognitive level of students, and aim to prevent CSA by providing them with knowledge and skills to recognise and avoid potentially sexually abusive situations, with strategies to resist sexual approaches by offenders and report them (Walsh, Zwi, Woolfenden, & Shlonsky, 2018). However, evidence supporting the effectiveness of child-focused prevention programmes in decreasing the likelihood of CSA is still controversial.

One study asked more than 800 undergraduate women questions regarding past histories of CSA and participation in school-based prevention programmes during childhood. Sixty-two per cent reported having participated in a sexual abuse prevention programme, and 8% of them also reported having been successively sexually abused, compared to 14% of respondents who did not ever have a prevention programme (Gibson & Leitenberg, 2000).

Finkelhor, Asdigian, and Dziuba-Leatherman (1995) interviewed a nationally representative sample of youth twice, 15 months apart. They found that attending prevention programmes was not associated with reduced incidence of victimisation, but with an increased likelihood that children would disclose victimisations and the decreased likelihood that they would blame themself for the episode. Overall, it seems that these programmes increase children's knowledge on sexual abuse, although it is not yet clear whether they can implement this knowledge to protect themselves from abuse when it happens in real life (Topping & Barron, 2009).

School-based prevention programmes have several practical advantages since they can reach virtually every child and take place in a setting which can guarantee continuity of support. School is a relatively controlled environment in which to conduct research (Topping & Barron, 2009). However, the development of new approaches to prevent CSA is needed. Some researchers have suggested making a shift in dealing with CSA prevention by targeting potential offenders outside of law enforcement. Hopefully, this could prevent CSA from happening in the first place (Russell, Higgins, & Posso, 2020). To make this possible, a deeper understanding of the aetiology of paedophilia and child sexual offending is needed. Much progress has been made in this direction over the last decade, but more research is still needed.

There are a few programmes that aim to reach individuals who are sexually interested in children. Stop it Now! is a model of sexual abuse prevention which was first developed in the United States and then implemented in the United Kingdom, Ireland and the Netherlands. At the core of this model is the idea that all the adults in the community have a responsibility in preventing and stopping CSA. Stop it Now! activities include providing information, advice and guidance to professionals, parents and adults in general, as well as providing help to people sexually attracted to children through specific helplines (Horn et al., 2015).

Another innovative programme is the Berlin Prevention Project Dunkelfeld (PPD), launched in Germany in 2004 through a massive media campaign. The word *Dunkelfeld* means "dark field", and it refers to cases of CSA that do not appear in official statistics because they are not reported. This project provides pharmacological and psychological treatment to self-reported paedophiles, free of charge and anonymously. A pilot study demonstrated the effectiveness of the prevention project (Beier et al., 2015), although a recent reassessment of data suggests that the treatment may not be as effective as the authors thought, due to methodological issues of their study (Mokros & Banse, 2019).

This project shows that a significant number of paedophiles or hebephiles (i.e. individuals attracted to pubescent children), unknown to the legal system, are motivated and willing to participate in an intervention programme aiming to prevent CSA if they can count on confidentiality by experts specialised in the assessment and treatment of this disorder (Beier et al., 2009).

Overall Goals, Key Messages and Future Directions

CSA is a traumatic experience that affects millions of children around the world, disrupting their lives. The consequences of CSAE can be devastating and can last a lifetime. CSAE has an impact on the wider society too. Letourneau, Brown, Fang, Hassan, and Mercy (2018) estimated that in the United States, the lifetime economic burden of CSA is approximately $9.3 billion, due to childhood health care costs, special education costs, adult medical costs, productivity losses, crime costs (i.e. robbery, assault, theft) and suicide death costs.

Many researchers have investigated risk and protective factors associated with CSA to implement prevention strategies and mitigate its negative outcomes, but critical gaps still need to be addressed.

Resources for CSA have focused mainly on treatment for victims, to mitigate consequences and prevent negative outcomes, and on intervention for perpetrators aiming to decrease the likelihood of relapse. These efforts are necessary *after* the CSA has occurred; however, there is a need to focus more on primary prevention to prevent sexual abuse from occurring in the first place.

For this purpose, a joint effort from the entire international community is needed. Worldwide, national and international youth-serving organisations are already working to fight against CSAE. In 2012, the European Commission and the United States launched the Global Alliance Against Child Sexual Abuse Online to promote standards and unite efforts worldwide to combat OCSE more efficiently. CSA is a global health issue. The World Health Organization recognises CSA among the preventable risk factors that affect the global burden of disease (Letourneau, Eaton, Bass, Berlin, & Moore, 2014). Prevention must be a priority for all professionals involved in safeguarding to avoid negative consequences. Children, according to the UN Convention on the Rights of the Child, should have the right to participate in decisions and actions affecting them. Therefore, it is crucial to develop programmes that involve young people's voices. Furthermore, resources dedicated to child protection are insufficient in most countries.

Firstly, resources have to be invested in research, to find evidence on which planning concrete programmes can be based. Then, resources must include training of professionals who work in the field of child protection, to guarantee an evidence-based recognition of the problems, improve their knowledge and develop high-quality standards. Overall, since child abuse is related to significant costs, prevention, intervention, recognition and treatment should be the goal of the whole society.

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What Do We Know About Online Sexual Offending?

Michael C. Seto

Introduction

Like so much of the rest of our lives, more and more human activities involve Internet technologies (e.g., see https://ourworldindata.org/internet). This includes sexual offending, as well as other forms of crime such as fraud and theft. Rather than new forms of offending, existing forms of offending have adapted to the online environment. This includes the use of Internet technologies for the access and distribution of child sexual exploitation materials (CSEM) and communicating with minors for sexual purposes, whether in the forms of sexual chat, exchanges of images, or attempts to arrange meetings offline (see Seto, 2013). Individuals who were interested in CSEM could still obtain this content pre-Internet (Jenkins, 2001); however, this content was rare, hard to find, and expensive. In contrast, the Internet has made CSEM more readily accessible and affordable and may have increased activity as well because of its perceived anonymity. Similarly, individuals have been interested in sexual communication with minors pre-Internet. Such contacts were more fraught with finding ways to communicate without being detected. The Internet, however, has brought email, instant messaging, and social platforms, which are potentially less vulnerable to detection.

Reflecting the extent and seriousness of this social problem, there has been an increase in research into online sexual offending (Henshaw, Ogloff, & Clough, 2017; Seto, 2013). Whereas there were few related studies in the early 2000s, as the problem was beginning to gain attention, there are now sufficient numbers of studies for meta-analyses and systematic reviews (e.g., Babchishin, Hanson, & VanZuylen, 2015). Though most policy and public attention has focused on CSEM offending, there are other forms as well that we know relatively little about, including the use

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© Springer Nature Switzerland AG 2021
E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_3

of Internet technologies to facilitate the exchange of other illegal forms of pornography, sexual offending against adults (e.g., the use of dating sites to meet potential victims), and sexual trafficking (Koops, Turner, Neutze, & Briken, 2017; see Seto, 2013).

Much of this illegal online activity is notoriously difficult to observe, given it is criminalized and hidden. But it is clear there are more prosecutions for CSEM offending than ever before (e.g., United States Sentencing Commission, 2012) and that there are many CSEM users, based on analyses of peer-to-peer networks, Internet Protocol addresses, and other indicators of online activity (Bissias et al., 2016; Ray et al., 2014; Steel, 2009; Wolak, Liberatore, & Levine, 2014). The population rates are high enough that it is clear that law enforcement responses will not be sufficient. For example, Seto et al. (2015) found that 4% of young Swedish men had viewed pornography depicting adult-child sex; this viewing was not necessarily intentional or described as a positive experience. In another large survey of over 8000 German men, Dombert et al. (2016) found that 1.7% of men reported CSEM use and another 0.7% reported both CSEM use and contact sexual offending, compared to 0.8% reporting contact sexual offending.

Perpetrator Characteristics

Kelly Babchishin and her colleagues have nicely summarized what we know about online offenders (Babchishin, Hanson, & Hermann, 2011; Babchishin et al. 2015). In particular, almost all identified offenders are male, at an even greater ratio than for contact sexual offending or other forms of offending. In addition, online offenders are disproportionately Caucasian, which is unusual because most identified offender groups are disproportionately non-Caucasian (e.g., Beck & Blumstein, 2017). Last, online offenders are relatively educated compared to other offender groups. Babchishin and her colleagues have also examined studies that compared online and contact offenders, finding both similarities and differences that are theoretically and clinically meaningful. In particular, online offenders were more likely to have paraphilic sexual interests, such as pedophilia or hebephilia, but were less antisocial than contact offenders. This combination of higher motivation and lower facilitation may explain why they were committing online rather than offline offenses (Seto, 2019). In addition, there was evidence that opportunity played a role, with online offenders having more Internet access and contact offenders having more access to children (e.g., by living or working with children).

Recidivism Rates

Much of the alarm about online sexual offending seems to be driven by three related concerns: The first is the idea that someone who is sexually attracted to children is highly likely to offend again, whether that involves accessing CSEM again or committing contact or noncontact offenses directly against children; the second is the idea that online offending may be a gateway to contact offending, where individuals who commit child sexual exploitation materials offenses will eventually cross the line and directly commit offenses against children; and the third is that there is very high overlap between online and contact offending already, so that catching online offenders is a way to identify contact victims.

All three concerns are not supported by the current evidence, as I summarized in Seto (2013): First, recidivism rates are relatively low, with lower rates than found for other sex offenders. In their meta-analysis of nine recidivism studies, approximately 5% of the total of 2630 online offenders (mostly CSEM offenders) were known to have committed a new sexual offense during follow-up periods that ranged from 1.5 to 6 years; of these, 2% committed a contact sexual offense and 3% committed another CSEM offense (Seto, Hanson, & Babchishin, 2011). Newer studies have found similar or even lower rates of recidivism (e.g., Faust, Bickart, Renaud, & Camp, 2015; Goller, Jones, Dittman, Taylor, & Graf, 2016). The highest official recidivism rates have been reported from Canadian data, which may reflect the access to national conviction data as well as local police service data (e.g., Seto & Eke, 2015).

Second, as already mentioned, recidivism studies do not find high rates of subsequent contact sexual offending by CSEM offenders (Seto et al., 2011). This can be understood in the context of the motivation-facilitation model of sexual offending, where online offenders have pedophilic or hebephilic sexual motivations but they are typically lower on facilitation factors, which are also involved if online or offline sexual offenses will occur (Seto, 2019). The highest rates of recidivism are observed for *dual offenders*, those with a history of both child pornography and contact sexual offending (e.g., Eke, Helmus, & Seto, 2019; Goller, Jones, Dittman, Taylor & Graf, 2016). This is also the group that is most likely to show pedophilia or hebephilia when their sexual arousal is assessed, which makes sense because this group has engaged in two forms of behavior that suggest sexual interest in children (Seto et al., 2006, 2017a, 2017b).

Third, there is indeed overlap between online and contact sexual offending, with one in eight online offenders having a sexual offense history in their criminal records, and approximately half having such a history if self-report is also included, for example, as a result of disclosures during polygraph interviews or in treatment (Seto et al., 2011). This overlap does not approach unity, however. I have previously suggested that CSEM offenders, solicitation offenders (e.g., DeHart et al., 2017), and contact offenders represent overlapping but distinct populations, rather than the same population caught at different times (see Seto, 2013; Seto et al., 2012).

Risk Assessment

Though overall recidivism rates are relatively low, we still want to identify higher risk individuals in order to better prioritize law enforcement, clinical, and other resources. Many sexual offender risk assessment measures exist, but none had been specifically developed for online offenders. Wakeling et al. (2011), for example, found that a modified version of the Risk Matrix 2000, a standard risk measure used in the English prison and probation systems, was able to predict sexual recidivism among online offenders, but this effect was driven by a small number who had committed contact sexual offenses as well. It remained unclear how to best assess the risk of online-only offenders, who had no evidence of contact sexual offending.

As noted, committing child pornography offenses is associated with pedophilia or hebephilia, referring to sexual attractions to prepubescent or pubescent children (Seto, 2018; Seto, Cantor & Blanchard, 2006). Previous research has shown that some well-established criminological factors such as a person's age and having a prior criminal history are associated with sexual recidivism among individuals involved with child pornography (Eke, Seto, & Williams, 2011). This was the basis for the development of the Child Pornography Offender Risk Tool (CPORT: Seto & Eke, 2015) and then the Correlates of Admission of Sexual Interest in Children (CASIC: Seto & Eke, 2017), both conducted with my colleague Angela Eke, of the Ontario Provincial Police.

In our CPORT development study, we followed a sample of 266 men convicted of child pornography offenses in Canada for 5 years, most for possession but also a third (37%) for distribution and a quarter (23%) for production (Seto & Eke, 2015). One in five individuals had committed a contact sexual offense, either historically or as part of the criminal actions leading to their most recent convictions. Information about potential risk factors was coded from police case files and included sociodemographic characteristics, criminal history, substance use, police interrogations, child pornography content, other pornography, other child-related content, and online behavior (e.g., using a computer at work). These candidate factors were selected based on prior research regarding paraphilias and sexual offending, capturing both motivation factors (sexual interest in children) and facilitation factors (criminal history). For example, some have speculated that having larger child pornography collections or collections depicting younger children would be associated with greater risk of recidivism. Once files were coded, we obtained recidivism data from national conviction records and examination of police reports regarding any new charges and conducted analyses to identify the variables that helped us predict who committed another sexual offense.

In the 5 year fixed follow-up period, 29% of the sample committed any new offenses, with 11% committing a new sexual offense (3% new contact sexual offense against a minor and 9% committing a new child pornography offense). We identified seven variables that were associated with a greater likelihood of any sexual recidivism, whether contact, noncontact, or involving CSEM. For simplicity, items were coded as present or absent, with a score of 1 for every present item, so the total possible score ranged from 0 to 7. In our development sample, the average score was just below 2 (M = 1.94, SD = 1.57, 95% CI = 1.74–2.12, range 0–7). CPORT scores were moderately predictive of any new sexual offense in our development sample; this was replicated in an independent but geographically similar sample of 80 men with 5 years at risk (Eke et al., 2019). In the combined development and validation sample of 346 men, CPORT scores significantly

Table 1 Child Pornography Offender Risk Tool (CPORT) items present in combined development and validation sample

CPORT item	Present
Offender aged 35 or younger at time of index investigation	48%
Any prior criminal history	41%
Any prior or concurrent failure on conditional release	15%
Any prior or concurrent contact sexual offense	19%
Evidence of pedophilic or hebephilic sexual interest	37%
More boy than girl content in CSEM	16%
More boy than girl content in other child content	17%

predicted new contact sexual offenses and any new sexual offenses among CSEM-only offenders. The items, along with their prevalence in the combined development and validation sample, are listed in Table 1.

After our original CPORT development sample, we carried out the work that led to the Correlates of Admission of Sexual Interest in Children (CASIC) measure. The initial impetus for this work was a concern that the interest in children item on the CPORT would become compromised as more people became aware of the CPORT and the impact of admitting sexual interest in children on the risk assessment (Seto & Eke, 2017). Drawing from the same data set, we identified six variables – again operationalized as to whether it was present or absent, with a point for each "yes" – that predicted the likelihood that someone would have admitted to a sexual interest in children (see Table 2). Subsequent analysis determined that an individual with a score of 3 or more on the CASIC could be coded as "yes" on the interest in children CPORT item, without negative impact on the predictive accuracy of the CPORT. We are currently working with partners who are interested in using the CPORT or conducting additional CPORT research. Interested readers are encouraged to read the CPORT and CASIC scoring guide and FAQ, available from the author or fromaprojectpageathttps://www.researchgate.net/project/Child-Pornography-Offender-Risk-Tool-CPORT.

Others are also working on online offender assessment tools. For example, researchers in the United Kingdom have developed the Kent Internet Risk Assessment Tool (KIRAT) to assist police in prioritizing suspects who were more likely to have already committed a contact sexual offense, that is, who were more likely to be dual offenders (Long, Alison, Tejeiro, Hendricks, & Giles, 2016). This is helpful, but is not the same task as identifying those who are at higher risk of recidivism, that is, trying to predict offending in the future like the CPORT.

The value of risk assessment – whether to identify likely dual offenders like the KIRAT or predict future sexual offending like the CPORT – is to prioritize police, clinical, and other resources. To maximize the effectiveness and efficiency of our responses, we want to reserve the strongest and most expensive options for higher

Table 2 Correlates of Admission of Sexual Interest in Children (CASIC) items present in combined development and validation sample

CASIC item	Present
Never married	53%
Had CSEM videos	65%
Had CSEM stories or text	26%
Evidence CSEM activity spanned 2+ years	51%
Volunteered in role with high access to children (e.g., coach)	9%
Sexual online communication with minor or putative minor	10%

risk individuals, in keeping with the risk principle underlying effective intervention (Andrews & Bonta, 2010). Many CSEM offenders are relatively low risk to reoffend, and thus long prison sentences and prolonged treatment are neither cost-effective nor efficient. Indeed, a recent program evaluation completed in the United Kingdom suggested CSEM offenders were more likely to reoffend than a matched comparison group after participating in treatment, with a rate of 4.4% compared to 2.6% after 2 years of follow-up (Mews, Di Bella, & Purver, 2017). Instead, we need options that are less expensive and that can be more broadly applied.

Prevention and Early Intervention

It is increasingly clear that the number of individuals involved in CSEM offending far exceeds the capacities of law enforcement and clinical services. Scalable prevention and early intervention efforts are needed. Given technology has facilitated online sexual offending, technology is also very likely to be the most important component of scalable responses. Indeed, that is one of the guiding principles of the Thorn Foundation's Tech Task Force (wearethorn.org[1]). Some initial work is being done on these lines, but more work is needed to evaluate the most promising options for further investment.

PhotoDNA (https://www.microsoft.com/en-us/photodna) is the software used by a number of major platforms (e.g., Facebook) to interfere with the distribution of CSEM. The software works by automatically comparing the unique hash values of uploaded images to a database of known CSEM images maintained by the National Center for Missing & Exploited Children in the United States. PhotoDNA can then be used to block the upload and flag accounts engaging in suspicious activity for further investigation. Though PhotoDNA is free to use, there are costs associated with its implementation, including the review of flagged accounts. Universal implementation across all Internet service providers would have a dramatic impact on the distribution and therefore access to known CSEM. This of course does not prevent the uploading of previously unknown images, or of video (though my understanding is that a VideoDNA application is being developed). But given evidence that involvement with CSEM is related to ease of access, especially for more naïve or novice individuals, reducing easy access to CSEM could have a dramatic impact. Similarly, Wolak et al. (2014) pointed out that targeting high-volume traders of CSEM could have a substantial impact on distribution of this illegal content.

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[1] Disclosure: I'm a pro bono scientific advisor for Thorn, and Thorn funded the research study with the National Center for Missing and Exploited Children (NCMEC) described in the research report by Seto et al. (2018).

As another example of a technological intervention, the Thorn Foundation deterrence campaign targets individuals attempting to access CSEM by bursting their assumptions about anonymity and directing them to confidential help from Stop It Now!, a sexual abuse prevention and intervention nonprofit agency (stopitnow.org). Another prevention approach involves self-help or peer support. For example, the Lucy Faithfull Foundation now operates a self-help site initially posted online as croga.org. Now operated by Stop It Now UK!, the material has been updated. A peer support forum has been created by Virtuous Pedophiles (virped.org) for individuals who self-identify as being sexually attracted to prepubescent or pubescent children and who are committed to a nonoffending life.

Conclusion

Our knowledge about online offending has greatly increased over the past decade, as demonstrated by the number of studies that have been conducted and the progress made on a number of important topics such as perpetrator characteristics and risk assessment. However, much more work is needed on many important questions. We are only beginning to see data on the victims of online offending, including data on the characteristics of CSEM content known to police (e.g., Quayle & Jones, 2011), the associations between child victims and online perpetrators (Seto, Buckman, Dwyer, & Quayle, 2018), and child victims (Canadian Centre for Child Protection, 2017; Gewirtz-Meydan, Walsh, Wolak, & Finkelhor, 2018). We know relatively little about treatment or other interventions, which is vital if we are to develop and identify effective responses to this problem. And finally, as already noted, we know relatively little about online offending beyond CSEM offending, even though governments and other agencies have warned us about the potential risk and activities around other illegal pornography, sexual assaults of adults, sexual trafficking, and child sex tourism.

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Affordances, Social Media and the Criminogenic Nature of the Internet: Technology-Mediated Child Sexual Abuse

Ethel Quayle

Introduction

In September 2019, *The New York Times* reported that in the previous year, technology companies reported to the US National Center for Missing & Exploited Children (NCMEC) over 45 million photographs and videos of children being sexually abused, which was more than double what had been reported in the previous year (Keller & Dance, 2019). This hard-hitting article made reference to a paper completed in collaboration with NCMEC which stated that '… online sharing platforms have accelerated the pace of CSAI [child sexual abuse image] content creation and distribution to a breaking point where NCMEC's manual review capabilities and law enforcement investigations no longer scale' (Bursztein et al., 2019 p. 1). While meaningful estimates of these crimes are highly problematic, Wager et al. (2018) have argued that there are essentially four ways in which online-facilitated child sexual abuse (OCSA) can be measured: by counting the number of offences committed, the number of perpetrators, the number of victims and the number of images that have been viewed, downloaded and exchanged. However, they note that quantification based on each of these four measures inevitably produces very different figures, partly because they are attempting to count different aspects of OCSA. For example, disaggregated police data in Scotland would indicate that the number and proportion of police-recorded 'other sexual crimes' in Scotland which were cyber-enabled (the internet used as a means to commit the crime) had increased significantly over 2 years. In 2016/2017, 51% of 'other sexual crimes' were cyber-enabled, up from 38% in 2013/2014. However, a meta-analysis of the prevalence of online solicitation amongst youth (one specific form of OCSA) would indicate that one in nine young people experiences online solicitation but that moderator analyses indicated that prevalence rates had decreased over time (Madigan et al., 2018).

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© Springer Nature Switzerland AG 2021
E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_4

Using image-related data, a recent collaborative report from IT industry and child protection agencies (Google, NCMEC and Thorn) indicated a growth of detected CSAI content, an expanding international scope of abuse and the evolution of the technologies and mediums used to create and distribute CSAI content online. This study used anonymised metadata associated with the 23,494,983 NCMEC reports related to suspected CSAI that were received from March 1998 (when NCMEC's CyberTipline was created) until September 2017 (Bursztein et al., 2019). NCMEC reports come from the US public and many US ESPs (electronic service providers), and over 9.6 million reports (40%) occurred in the year 2017 (approximately 1 million per month) compared to the 565,000 reports (2.4%) in its first 10 years of operation. While there are limitations with this database which may bias the results, the study does provide a good indicator of how OCSA reports have evolved and the implications that the volume of these reports have for clearing houses such as NCMEC and for law enforcement agencies that are tasked with identifying the children in the images and securing convictions of those who have created and exchanged them.

Cybercrime

In this chapter, I will position online child sexual abuse (OCSA) as a cybercrime in which technology plays a role across a broad spectrum of activities. Wall (2017) has described the definition of cybercrime as highly contentious, as while many people agree that cybercrime exists, they are not really clear what it is. In this respect, cybercrime has developed from earlier concepts of computer crime and e-crime and has broadened to cover many different forms of criminal activity. Many researchers and practitioners (McGuire & Dowling, 2013) use 'cyber-dependent crime' and 'cyber-enabled crime' or 'cyber-assisted crime' to classify different forms of cybercrime. Wall (2017) argued that at one end of the spectrum of cybercrime is 'cyber-assisted' crime in which the Internet is used in its organisation and implementation, but which would still take place if the Internet was removed (e.g. a potential offender using online social media to locate a child who is sexually assaulted offline). At the other end of the spectrum is 'cyber-dependent' crime, which exists because of the Internet, such as DDoS (distributed denial-of-service) attacks or spamming. Differentiating between cyber-assisted crime and cyber-enabled crime is at times difficult, but it would appear that **the boundaries between cybercrime and traditional forms of crime have never been clear-cut** and are becoming increasingly blurred due to the level of hyperconnectivity in today's highly digitised and networked world (Sarre, Lau, & Chang, 2018). The **ubiquitous use of the Internet and smart mobile devices** in people's everyday lives, the wide adoption of cloud-based services by industry and government and, for example, the advent of the Internet of Things (IoT), the Internet of Everything (IoE) and cyber-physical systems (CPSs) lead to the widely accepted belief that almost all criminal activities include some cyber elements (see Miraz, Ali, Excell, & Picking, 2018 for a useful overview). As a consequence, **digital forensics (sometimes called cyber forensics) have become an essential part of almost all crime investigation processes** for law enforcement around the world (e.g. EUROPOL, 2018).

The United Nations Office on Drugs and Crime (UNOCDC, 2019) also argues that there is no international definition of cybercrime or cyberattacks, but while they use the cyber-enabled-cyber-dependent dichotomy, they add a further specific-crime type: online child sexual exploitation and abuse which includes abuse on the clear Internet, darknet forums and, increasingly, the exploitation of self-created imagery via extortion – known as 'sextortion'. Quayle (2016) has expanded these crimes to include the production, dissemination and possession of child sexual abuse images (known in many jurisdictions as child pornography), online grooming of children for sexual purposes, 'sexting', sexual extortion of children ('sextortion'), revenge pornography, commercial sexual exploitation of children, exploitation of children through online prostitution and live streaming of sexual abuse. Other authors have defined OCSA as sexual abuse of children involving force or enticement to take part in sexual activities where the online environment is involved at any stage of the offence (May-Chahal & Palmer, 2018). This includes the production, preparation, consumption, sharing, dissemination or possession of child sexual abuse material and the solicitation of children for sexual purposes (sometimes called 'grooming'), whether or not it results, or is intended to result, in a contact offence (ECPAT International, 2016). These crimes exist whether or not a child has access to the Internet. While there is still disparity in children's access to new technologies, all children are living in a digital world where on/offline distinctions do not necessarily represent separate social spaces (May-Chahal et al., 2014). Technology now mediates almost all human activities in some ways, including those of children, which makes an analysis of clear distinctions between offline and online abuse difficult. Digital technologies are embedded in our everyday practices and form an intrinsic part of private and public experiences. Yet while creating opportunities for children to act as receivers, participants and actors in the digital world, the Internet also creates spaces of social interaction which hold the potential for exposure to online risks, including sexual risks such as abuse and exploitation.

Cybercrime Migration?

What is important to note is that while there is converging evidence in some countries to support falling rates of non-technology-mediated child victimisation, including child sexual abuse (Dunne, Purdie, Cook, Boyle, & Najman, 2003; Finkelhor & Jones, 2006; Laaksonen et al., 2011; Shields, Tonmyr, & Hovdestad, 2019), this does not appear to be the case in relation to some forms of OCSA. It is easy to speculate as to whether there is a relationship between the decrease in offline CSA and an increase in OCSA, and whether there has been a migration from one to the other. It is, however, much more difficult to evidence this. Probably, the largest number of convictions for cyber sexual crimes relates to possession of CSAM

(Wolak, Finkelhor, & Mitchell, 2012), and this may relate to the forensic evidence available for law enforcement to secure a conviction (Walsh, Wolak, & Finkelhor, 2013). Many, if not all, people charged with possession will have a 'permanent product' of that crime available to law enforcement: pictures and videos depicting child abuse and exploitation that meet the criteria in that jurisdiction for illegality. It might be argued that this (as opposed to the evidence required for prosecution of a contact offence against a child) will increase the number of successful convictions. However, though not without its critics, the 'cybercrime hypothesis' has been used to account for a reduction of crime in other areas (see Farrell & Birks, 2018).

Mir-Llinares and Moneva (2019) present two hypotheses that they argue highlight the essential role of cyberspace as an environment that has shifted criminal opportunities from physical to virtual space and which ultimately reflects on crime trends. The first hypothesis provides evidence that the more time spent at home by many young people engaging with video games and other online activities could have had an impact on the drop in juvenile crime. Their second hypothesis states, which has relevance for this chapter, that the appearance of cyberspace has led to a shift in opportunities from physical space to cyberspace. This seems particularly pertinent in relation to online grooming or sexual solicitation. For example, Mitchell, Finkelhor, Jones and Wolak's (2010) survey of law enforcement indicated that social networking sites (SNSs) were used to initiate sexual relationships, to provide a means of communication between the victim and offender, to access information about the victim, to disseminate information or pictures about the victim and to get in touch with the victim's friends; SNS's might be said to 'afford' opportunities for offending. In a similar way, Quayle, Allegro, Hutton, Sheath, and Lööf (2014) noted in their offender sample the ease that online sexual behaviour could take place, often prompted by the easy exchange of photographs, text or the presence of web cameras, without any physical contact, or the risks that would be associated with it.

Affordances

Positioning these as cybercrimes forces us to think about the context in which these abuses and exploitations take place. This potentially may offer ways of preventing or managing these crimes and moves us away from a focus on the characteristics of offenders or their victims (and how it may be possible to effect changes in *their* behaviour). In the context of young people's mental health and digital environments, Livingstone (2019) has suggested that digital technologies have their own affordances, which she lists as persistence, replicability, scalability and searchability (as used by boyd, 2008). boyd (2008) elaborates on how the affordances of digital technology (in conjunction with the capabilities of online and networked technology such as social media) allow digital information to be easily copied (replicability), easily shared with large audiences (scalability), easily recorded and archived (persistence) and easily accessed by others and found in the future (searchability). Livingstone (2019) argues that these affordances are 'the result of complex networked infrastructures invented and implemented by people working under huge pressure and at speed in, largely, commercial institutions with global ambitions. That means the needs of vulnerable young people may come very low down in their list of priorities. How far researchers, clinicians and other practitioners can wrest back control to ensure digital networks meet the best interests of young people is as yet unknown, though surely a struggle worth the effort'. Dodge (2019) explores this issue in the context of 'revenge porn' (non-consensual intimate image distribution) where it is argued that replicability and scalability have increased the ease with which such an act can be committed and the ease with which a nude/sexual image can be distributed to a large audience. Persistence and searchability have also augmented an impact of this act in some cases by allowing this content to be located by others and to potentially affect a victim at some point in the future. However, Dodge (2019) is critical of the decontextualised ways in which, for example, the judiciary have universally used these digital affordances to justify harsh sentences, and Costa (2018) adds to this in their discussion of 'affordances-in-practice' which stresses the idea that 'affordances are not intrinsic properties that can be defined outside their situated context of usage, but ongoing enactments by specific users that may vary across space and time' (p 3653).

The term 'affordance' is used throughout this chapter and this warrants further discussion. For Gibson (1979), affordances referred to the possibilities that an object offers for action, where the properties of the object emerge through the interaction between actors and those objects. This is not only related to the physical properties of the object but also to social norms and rules (Meredith, 2017). The concept was further developed by Norman (1988) in relation to human-computer interaction, where it was argued that an affordance should not be understood as a property but rather as a relationship. It is therefore not a static feature of an object and whether an affordance exists depends entirely on the relationship between the actor and the property. Norman (1988) argued that the concept of affordances does not imply that online practices are determined by technology, but rather by how people use it. Therefore, affordances are not static features of technology, but have a number of potential actions associated with them. An affordance exists once a user has perceived it and perceived the potential actions associated with it (Meredith, 2017). For example, Voice Over Internet Protocols (such as Skype) have been used by many people not only to keep in touch with geographically distant family members (e.g. Share, Williams, & Kerrins, 2018) but also to facilitate the live streaming of sexual abuse of children. There are reports of live streaming in South Asia (ECPAT International, 2015) with victims described as deprived children who are coerced into live streaming of sexual abuse, from computers provided by employers, against their will (Quayle, 2016). Live streaming provides real-time access to events for participants who are not actually engaging in the activity themselves. The UK's National Crime Agency's strategic assessment of serious organised crime (NCA, 2016) suggested that "the practice of live streaming is one example of how offenders can simultaneously create indecent images of children (IIOC) online, view IIOC, and commit contact abuse by proxy overseas". Horsman (2018) used a case study on Periscope (a live streaming platform) to provide a forensic examination of the technical and legal challenges for the investigation of live streaming of sexual abuse. This is a good illustration of how actors may use technologies in creative and unpredictable ways (Jarzabkowski & Kaplan, 2015).

Robey, Anderson, and Raymond (2013) have argued that the Internet creates affordances that facilitate innovative ways of committing old and new crimes, and Jerde (2017) uses child sexual abuse images (CSAI) as an example of crime that uses Internet affordances to 'circumvent law enforcement techniques deployed around national borders to avoid detection' (p 2). Chan, Cheung, and Wong (2019) in the context of cyberbullying on social networking sites (SNSs) use affordance to refer to the mutuality of actor intentions and technology capabilities that provide the potential for a particular action. This relational view of affordance is seen as advantageous for understanding technology use because it allows us to consider the symbiotic relationship between the capabilities of the technology and the actor's goal and actions. Chan et al. (2019) argue that the actualisation of affordances occurs when an actor takes advantage of one or more affordances of SNSs to achieve immediate concrete outcomes that support their goals. The focus is therefore on contextualised actions that technology makes qualitatively easier (Earl & Kimport, 2011) but which may be specific to that relationality and which potentially move researchers away from the certainties of separate technology attributes and actors' attitudes (Majchrzak, Faraj, Kane, & Azad, 2013).

Technological Affordances and CSAM

Staksrud, Ólafsson, and Livingstone (2012) considered technological affordances in the context of an interaction between design and usage and give as an example of these privacy settings, where affordances shape practice in that privacy settings distinguish between public, private and partially private communications. However, as previously noted, users also shape affordances, for example, young people setting up multiple profiles on SNSs to project different selves to different audiences (Quayle, 2016). Earlier work by Wellman et al. (2003) suggested that we can also identify 'social affordances' that refer to interactions between how users respond, the social context and social networks. Kaufmann and Clément (2007) argued that other people provide the richest and most significant environmental affordances. One finding, of interest in relation to online grooming of children, is that technological affordances are related to the motivations people have for using them. It is not only important to think about what these 'action possibilities' are, but when and for whom they might happen. For adolescents, this may relate to the developmental task of exploring sexuality, afforded through the ability to create sexual media, the online applications that support this (e.g. WhatsApp, Instagram) and the peer and adult engagement with this digital content. Of importance, boyd (2008) notes that new technologies reshape public life, but teens' engagement also reconfigures the technology itself. In the context of technology-mediated CSA, consideration of the reciprocity of this engagement needs to be widened to include another set of actors – those motivated by a sexual interest in children (Quayle et al., 2014).

Chan et al. (2019) use crime opportunity theory (Felson & Clarke, 1998) and the affordance perspective to develop a meta-framework to inform an understanding of SNS bullying. Specifically, crime opportunity theory argues that two primary components contribute to a crime being committed: a likely perpetrator and environmental conditions that offer criminogenic opportunities. In this context, using an affordance perspective into crime opportunity theory helped explain how social media allows a perpetrator to evaluate whether environmental conditions would facilitate SNS bullying activity. In their empirical study, they proposed two SNS environmental conditions that offered criminogenic opportunities for a likely offender to engage in SNS bullying. These were the presence of suitable targets and the absence of capable guardianships. The affordances that facilitated the identification of suitable targets, and which have relevance for technology-mediated sexual abuse offences, were accessibility, information retrieval, editability and association. The first two of these (accessibility and information retrieval) are particularly salient for OCSA crimes. Accessibility affordance allows a perpetrator to transcend time and spatial constraints to reach potential targets and provides the opportunity to connect with an unlimited number of users, including people who are known and also unknown, leading to an environment where suitable targets can be identified and accessed. Information retrieval affordance refers to the extent to which a user believes that an SNS offers the opportunity to obtain information about a user on that platform. This allows a likely offender to access material created by a potential target, which provides information about the background, preferences and daily activities of that individual. These authors note that SNS updates often include new features that encourage users to continuously create and share information on these platforms.

Earlier work by Taylor and Quayle (2006) had also used these frameworks to understand CSAI-related crimes. Their starting point was Cohen and Felson's (1979) work drawing on routine activity theory in which they identified three minimal elements for criminal action: (i) a likely offender, (ii) a suitable target and (iii) absence of a capable guardian. Focus on access to a suitable target, as with the meta-framework developed by Chan et al. (2019), drew attention to the context in which potential criminal activity takes place which can be modified or changed. This moves the focus away from the 'likely offender' and the likely circumstances (both distal and proximal) that might have influenced their behaviour to the possibility of changing the environment in a way that increases or supplements the availability of capable guardianship. It distinguishes between the inclination to offend and the actual offence. Analysing criminal activity, which is both particular and grounded in its situational context, should therefore relate to the context and circumstances of a particular situation.

In the context of CSAI, the absence of a capable guardian seems particularly pertinent. In November 2019, the BBC News reported (along with other agencies) the decision by Facebook to encrypt all of its messenger services: 'The end-to-end encryption on Facebook-owned WhatsApp will be extended to Facebook Messenger and Instagram, with Mr Zuckerberg [CEO Facebook] acknowledging there would be a "trade-off" that would benefit child sex abusers and other criminals' (BBC News, 2019). While there is limited evidence for the purposeful use of encryption by offenders to conceal online sexual activities against minors (Balfe et al., 2015), tools such as WhatsApp, which have end-to-end encryption, protect the data during transmission (and storage) by default (Loeb, 2017). This also means that the applications used by organisations such as NCMEC and the Internet Watch Foundation (IWF) to detect and remove CSAI content (such as PhotoDNA) may no longer have the same efficacy. PhotoDNA creates a unique digital signature ('hash') of an image which is then compared against hashes of other photos to find copies of the same image. When matched with a database containing hashes of previously identified illegal images, PhotoDNA helps detect, disrupt and report the distribution of child exploitation material (Microsoft, 2019).

Paradoxically, encryption by default may provide an environment which perpetuates the sense of privacy and anonymity associated with such applications. Moreno and D'Angelo (2019), albeit within a different context, conclude that new app developers need to be mindful of the affordances of the products they develop, and in terms of online child protection, this may be crucial. Mirea, Wang, and Jung (2019) comment on the preoccupation of both academic and media reports with how the anonymous nature of the darknet is used to facilitate criminal activities. Their qualitative study suggested that research participants placed an emphasis on the achievement of constructive sociopolitical values through the use of the darknet. This was enabled by affordances that are rooted in the darknet's technological structure. These include anonymity, privacy and the use of cryptocurrencies. Their concluding argument is that these characteristics provide a wide range of opportunities for good as well as for evil.

Criminogenic Qualities of the Internet

Recently, there have been a number of studies examining the criminogenic qualities of the Internet (e.g. Mirea et al., 2019; Reyns, Fisher, Bossler and Holt, 2019; Brewer, Kale, Goldsmith and Holt, 2018; Taylor, 2015). Wortley (2012) has argued that situations vary in their criminogenic qualities (producing or leading to crime), from 'those that challenge offenders by requiring them to create opportunities, through those that provide easy temptations, to those that actively provoke crime'. Importantly, Wortley considers the interaction between criminogenic environments and the criminogenic disposition of the likely offender. The latter has its roots in Cornish and Clarke's (2003) offender typology which is based on the strength of criminal dispositions and the different roles played in their crimes by the immediate environment. In this typology, antisocial predators may actively seek out criminal opportunities and use situational information to make rational choices about the risks and benefits of committing an act. Mundane offenders engage in low-level crime and seem to demonstrate poor self-control and succumb easily to the opportunities offered in a given situation. The final category, provoked offenders, is less likely to have a criminal record but reacts to an array of situational conditions, some which may be internal and others environmental. Related to this, Seto (2019) described a motivation-facilitation model of sex offending which examined the relationships between paraphilic traits (predispositions), state factors (which facilitate acting on these predispositions) and situational factors (access and presence of a capable guardian). Seto (2019) examined this model in the context of CSAI offenders and concluded that many of these individuals are motivated to engage in sexual behaviour with children as they have paedophilic or hebephilic sexual interests, but that they demonstrate high levels of self-control (or low in facilitation factors). This leaves them less likely to commit a contact offence, but this, in the context of access to Internet technologies, is not sufficient to inhibit acting on the opportunity to commit CSAI offences. These offenders have been found to have greater access to technology but less access to children than contact offenders (Babchishin, Hanson, & VanZuylen, 2015).

These issues are also examined in Brewer et al.'s (2019) study on adolescent delinquency and the criminogenic features of digital technology. These authors argue that the Internet exhibits features that make it uniquely criminogenic to offline environments. The Internet as a distinct 'place' is said to de-territorialise encounters which are no longer limited by geography and can take place in synchronous or asynchronous time, which enable identity and motives to remain concealed. They suggest that 'Users can easily move from a point of predictable use (e.g. targeted information searches) to apparently random and unpredictable discoveries of information, images and points of view due to the multiple "hidden" linkages between websites and services that are often driven by commercial considerations' (p 118). Algorithms may also direct or nudge users to certain content or services based on past individual or collective activity. Vaidhyanathan (2011) has argued that these algorithms can be specifically designed to capitalise on cravings and curiosities (and they may well have affordance qualities).

A topical example of this relates to YouTube's video recommendation system (Matamoros-Fernández & Gray, 2019) which displays on a sidebar what is 'up next' for the viewer. These are ranked according to the user's history and context, and newer videos are generally preferenced. Fisher and Taub (2019) writing for *The New York Times* reported that YouTube's algorithm was encouraging people with a sexual interest in children to watch videos of partially clothed minors, often after viewing videos with sexual content. These videos were often domestic and showed children at the swimming pool or on vacation, but their report claimed that there was evidence that for some of the people watching them, they were serving a different (and possibly sexual) purpose. A technical paper by three Google employees (Covington, Adams, & Sargin, 2016) discussed the deep neural networks for YouTube recommendations and stated that a two-stage approach allows recommendations to be made from a very large corpus (millions) of videos while still being certain that the small number of videos appearing on the device is personalised and engaging for the user. Our viewing history will determine what we are 'nudged' to view and, potentially for a number of individuals, will increase the likelihood of viewing content that may approximate sexually inappropriate or illegal content.

Taylor and Quayle (2008) and Taylor (2015) suggested that there are qualities of the Internet either in association with facilitating conditions (personal or environmental) or otherwise that in themselves made accessing and possession of CSAI more likely and in essence operate as 'event' factors (that relate to the commission of this particular crime). This argument was framed within an analysis drawing on a situational crime control model, which emphasises the significance of pre-criminal situations and opportunity. Taylor (2015) drew parallels between terrorist activities and CSAI-related crimes and argues that some forms of user interaction with the Internet suggest the Internet may have criminogenic qualities. Firstly, the distributed nature of the Internet and the corresponding lack of control over content are factors in increased availability of illegal or undesirable material. Secondly, the way that distributed complex global microstructures develop effectively increases opportunity for access to that content. Alongside this, criminal conspiracies can deliberately and intentionally use both content and opportunity to engage with, and draw in, otherwise uncommitted people.

Practice Implications

Changing individuals (likely offenders and likely targets) is both challenging and expensive (Quayle & Koukopoulos, 2019). Jones, Mitchell, and Walsh (2014a) have noted that over the last 20 years, there has been a development of a number of Internet safety and education programmes to increase positive adolescent behaviour and safety online, but their findings from a meta-analysis of related studies suggested that there is still a need for re-evaluating how Internet safety education is delivered in the future. In a further publication, Jones, Mitchell, and Walsh's (2014b) content analysis of four Internet safety education programmes for children indicated that most were not incorporating proven education strategies and lacked any strong evidence base. They also challenged whether messages would be better delivered through broader youth safety prevention programmes versus stand-alone lessons. Intervention programmes that target online offenders have shown equivocal evidence. For example, the UK-accredited treatment programme (iSOTP) was assessed following completion of pre- and post-psychometric assessments by 264 convicted offenders (Middleton, Mandeville-Norden, & Hayes, 2009) and indicated improvements in socio-affective functioning and a decrease in pro-offending attitudes. An evaluation of the psycho-educational programme Inform and Inform Plus, developed in the UK by the Lucy Faithfull Foundation (Gillespie, Dervley, & Squire, 2015) suggested that data from 11 groups indicated that participants felt enabled to face up to being arrested and/or convicted, helped them develop a greater understanding of their offending behaviour and how to establish a non-offending life. However, an Impact evaluation of the prison-based Core Sex Offender Treatment Programme between 2000 and 2012 (Mews, Di Bella, & Purver, 2017) indicated that more treated sex offenders committed at least one child image reoffence during the follow-up period when compared with the matched comparison offenders who had received no treatment (4.4% compared with 2.9%).

It seems likely that for practitioners, changing the contexts in which sexual crimes take place may offer greater opportunity to effect change. Wortley (2012) comments that the most common model of situation prevention is opportunity reduction, which involves manipulating the immediate environmental contingencies so as to increase the perceived costs of offending. He applies this to the problem of CSAI through an examination of the three opportunity-reduction strategies outlined by Clarke and Cornish (1985): reducing perceived rewards, increasing the perceived effort and increasing the perceived risks. Reducing the rewards of CSAI may involve removing or denying access to content that is targeted by offenders through, for example, regulatory control of content by Internet service providers. Disruption tactics, such as blocking efforts by Google and Microsoft, resulted in a 67% drop over 12 months in web-based searches for abuse images compared with no blocking activities from Yandex (Steel, 2015). There are some positive indicators in relation to Internet monitoring, moderation and reporting of problematic content or behaviour (Quayle & Koukopoulos, 2019). One example is the development of a web crawler (Arachnid) by the Canadian Centre for Child Protection to detect images and videos based on confirmed digital fingerprints of illegal content and combat the proliferation of child sexual abuse material on the Internet. They report that the automated crawler helps reduce the online availability of child sexual abuse material through its identification and issuing of a notice to the hosting provider requesting its removal. As of November 2019, over 13.3 million images were identified for analyst review, and 4.7 million notices were sent to providers. Of these, 85% is related to victims who are not known to have been identified by police (Cybertip.ca, 2019). Such disruption tactics reduce the number of images available through simple searching, which is important as the presence of easily available CSAI, and high levels of Internet use, is a risk factor in Internet offending (Babchishin et al., 2015). Increasing the perceived effort of accessing CSAI involves making it more difficult for offenders to gain access to content, which means they have to expend more effort. A publication by the Mobile Alliance Against Child Sexual Abuse Content (2014) presents a collation of approaches that have been proved successful in deterring or detecting illegal or illicit use of mobile payment services used to access CSAI. Wortley (2012) also suggested that increasing perceived risks may be achieved through proactive policing. One example of this is provided by Police2Peer (EUROPOL, 2017), which involves law enforcement informing people trying to access or share CSAI on P2P networks of the risks that they are taking and offering information as to where they can get help.

In a similar vein, Taylor and Quayle (2008) drew attention to the particular context in which access to CSAI occurs, which firmly locates the behaviour within the factors that influence it. These were summarised as the significance of high affordance cues giving access to images, immediate and highly salient reinforcement on achieving access to images, perceived absence of capable guardianship and surveillance (in a general sense as far as the Internet is concerned, and in a specific sense in terms of the privacy associated with Internet use), insensitivity to immediate negative qualities resulting from both motivational factors and the strong affordance qualities of screen-based cues. Brantingham and Faust (1976) identify three kinds of crime prevention initiatives which may be of value in helping to place this into context: primary prevention (focused on stopping a crime before it occurs), secondary prevention (directed at people thought to be at high risk of committing an offence) and tertiary prevention (focused on known offenders). These categories were used by Taylor and Quayle (2008) to explore prevention efforts in relation to CSAI alongside Cornish and Clarke's (2003) typology of situational crime reduction techniques outlined by Wortley (2012) but using also their two additional categories of reducing provocation and removing excuses. Removing excuses (e.g. through informing target audiences of the illegality of CSAM and its associated harms to children) has provided evidence that campaigns represent an effective way to reach a large audience and transmit the messages that there are significant consequences to viewing CSAI, that individuals have personal responsibility in controlling their behaviour and that help is available. In this respect, campaigns appear to be an appropriate strategy for deterring people from viewing CSAI that sits alongside other initiatives (Newman et al., 2019).

Conclusion

While there is no evidence to suggest that online abuse and exploitation are more serious or pervasive offences than crimes occurring offline, it is the case that the affordances offered by online social media may present a significant risk factor for some children. Three factors play an important role in this complex and dynamic scenario: potential perpetrators and victims, the social context in which criminal activities take place and the rapidly changing medium. In this chapter, an argument has been presented that changing the environments that support OCSA is necessary if we are to detect and manage these crimes and more importantly prevent them. In 2019, the Child Dignity Alliance produced a Technical Working Group Report which examined the role of technology in combatting the proliferation of online child sexual exploitation and abuse imagery. Critically, the report recommended that IT companies such as Facebook, Google and Microsoft should continue to support the efforts of law enforcement, government and non-profit agencies through sharing key technical and operational data, to share technology that tackles child sexual abuse imagery, to share operational data about those abusing their networks, to improve the verification of customer identity when new domains are registered or renewed and to proactively identify threat actors and vulnerable users. Such changes, along with the technical solutions that flow from them, offer the only scalable interventions in relation to these crimes. Yet it is clear that prevention of OCSA is in its infancy and that, as argued by Carr (2019), the response from the IT industry in increased proactive deployment and effectiveness of tools used to detect and deter

CSAI is, while welcome, still partial with many of the key organisations not fully engaged.

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Pornography and the Developing Brain: Protecting the Children

Donald L. Hilton Jr

We have, simplistically speaking, two brains. Our cortex, or "thinking brain," allows us to think and to feel, to plan and to plot, and most importantly, to love. Our brainstem, or "wanting brain," simply wants and powers the brain with dopaminergic desire. Both of these areas sent projections to the reward center of the brain. The brainstem says, "Just do it if it feels good," while the cortex says, "Think about the consequences of just doing it, no matter how good it feels." The cortex also colors and flavors our pleasure with meaning and context. It knows the difference between fast food and a candlelight dinner.

The nucleus accumbens, or reward center, is interposed physically and functionally between these two areas. Our current understanding of how the brain balances these forces was remarkably described almost a millennium ago by Thomas Aquinas in his writings about natural or animal appetite and rational appetite, or will.[1] It is the balance of will and appetite that allows pleasure to become a rewarding garnish which motivates, as opposed to addiction, where pleasure becomes a master which dominates.

In the last two decades, we have found that learning changes the brain physically. Like a muscle enlarging with exercise, the brain enlarges physically with learning. Music, sports, and studying have all been shown to enlarge different parts of the brain; one scientist said, "The brain is the source of behavior, but in turn it is modified by the behaviors it produces…learning sculpts brain structure."[2] Indeed,

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[1] Thomas Aquinas. *Summa Theologiae*, Ia, 80, art.1, 2

[2] Zatorre R, Fields RD, Johansen-Berg H. (2012). Plasticity in gray and white: neuroimaging changes in brain structure during learning. *Nature Neuroscience* 15, 528–536

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© Springer Nature Switzerland AG 2021

E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_5

numerous longitudinal learning activities have been shown to physically change the brain, such as playing the violin,[3] juggling,[4] or studying for exams.[5]

The reward system of the brain can be highjacked and diverted from its purpose of helping us survive. If we take in powerful rewards indiscriminately, the reward center can reset the pleasure thermostat of the brain, and a new normal occurs. This can become addiction. Two scientists studying how brain cells change with addiction said, “Addiction represents a pathological, yet powerful, form of learning and memory.”[6] Indeed, addictive learning “sculpts” the brain in a very damaging way.

In addiction, whether to a substance like cocaine or a behavior like sex, physical changes happen at the macro- and microscopic level, and we can see these on brain scans. These structural changes are associated with the behavioral changes seen in addiction and are seen with such diverse behavior and substance addictions as cocaine,[7] methamphetamine,[8] opiates,[9] obesity,[10] Internet addiction,[11] and pornography.[12, 13] Most of these studies are snapshots rather than longitudinal studies, so causation is not established solely on the basis of the study itself. However, if addictive learning is not changing the brain, it is virtually the only learning which does not do so. One of the structural pornography studies was published in the *Journal of the American Medical Association (JAMA)* from of the Max Planck Institute in Germany showed alterations in the reward area of the brain in compulsive pornography use, and the more hours of pornography viewed per week, the more the alteration.[14] A study done at Cambridge University examining compulsive pornography users also demonstrated a different alteration in a region associated with the reward center,[15] and both the British and German studies demonstrated impaired connectivity with the frontal executive control centers of the thinking brain.

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[3] Elbert, et al., Science 1995

[4] Draganski et al., Neuroplasticity: Changes in Grey Matter Induced by Training. Nature, Jan 2004

[5] Draganski et al., Neuroimage, 2006

[6] Kaeur JA, Malenka JC. (2007). “Synaptic plasticity and addiction.” *Nature Reviews Neuroscience* 8, 844–858

[7] Teresa R. Franklin, Paul D. Acton, Joseph A Maldjian, Jason D. Gray, Jason R. Croft, Charles A. Dackis, Charles P. O’Brien, and Anna Rose Childress, “Decreased Gray Matter Concentration in the Insular, Orbitofrontal, Cingulate, and Temporal Cortices of Cocaine Patients,” *Biological Psychiatry* (51)2, January 15, 2002, 134–142

[8] Paul M. Thompson, Kikralee M. Hayashi, Sara L. Simon, Jennifer A. Geaga, Michael S. Hong, Yihong Sui, Jessica Y. Lee, Arthur W. Toga, Walter Ling, and Edythe D. London, “Structural Abnormalities in the Brains of Human Subjects Who Use Methamphetamine,” *The Journal of Neuroscience*, 24(26) June 302,004;6028–6036

[9] Nicola Pannacciulli, Angelo Del Parigi, Kewei Chen, Dec Son N.T. Le, Eric M. Reiman and Pietro A. Tataranni, “Brain abnormalities in human obesity: A voxel-based morphometry study.” *Neuroimage* 31(4) July 152,006, 1419–1425

[10] Nicola Pannacciulli, Angelo Del Parigi, Kewei Chen, Dec Son N.T. Le, Eric M. Reiman and Pietro A. Tataranni, “Brain abnormalities in human obesity: A voxel-based morphometry study.” *Neuroimage* 31(4) July 152,006, 1419–1425

[11] Zhao, Eur J Rad 2011

[12] Kuhn S., Gallinat J. Brain Structure and Functional Connectivity Associated With Pornography Consumption: The Brain on Porn (2014). *JAMA Psychiatry*, May 28

[13] Schmidt C, Morris LS, Kvamme TL, Hall P, Birchard T, Voon V. Human Brain Mapping (2016). DOI: https://doi.org/10.1002/hbm.23447

Other studies have shown metabolic changes in how the addicted brain responds when it is given a cue related to the specific addiction. The reward center of such brains lights up in these functional MRI scans much more than an individual who is not addicted. These responses have been seen with substance addictions, such as cocaine,[16] and with behavioral addictions such as gambling[17] and pornography.[18, 19]

The American Society of Addiction Medicine, comprised of medical doctors, defined addiction in 2011 as including sex, food, gambling, and other behavioral addictions along with substance addictions, because the same changes in these varied addictions are found in brain studies and the behaviors are almost identical.[20, 21] Even the latest Diagnostic and Statistical Manual, which is not based on biology or etiology, has accepted the reality of behavioral addiction with the inclusion of gambling in the DSM-5, although gambling was first termed an impulse control disorder. The ICD-11, used internationally for medical and mental diagnoses, has also taken the first step toward including sex addiction as a behavioral addiction by terming compulsive sexual behavior an impulse control disorder for the first time. The data supporting terming compulsive sexual behavior a natural addiction is at least as strong as the data that prompted gambling to be termed a behavioral addiction in the

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[14] Kuhn S., Gallinat J. Brain Structure and Functional Connectivity Associated With Pornography Consumption: The Brain on Porn (2014). *JAMA Psychiatry*, May 28

[15] Schmidt C, Morris LS, Kvamme TL, Hall P, Birchard T, Voon V. Human Brain Mapping (2016). DOI: https://doi.org/10.1002/hbm.23447

[16] Bruce E. Wexler, Christopher H. Gottschalk, Robert K. Fulbright, Isak Prohovnik, Cheryl M. Lacadie, Bruce J. Rounsaville, and John C. Gore, “Functional Magnetic Resonance Imaging of Cocaine Craving,” *American Journal of Psychiatry*, 158, 2001, 86–95

[17] Jan Reuter, Thomas Raedler, Michael Rose, Iver Hand, Jan Glascher, and Christian Buchel, “Pathological gambling is linked to reduced activation of the mesolimbic reward system,” *Nature Neuroscience* 8, January 2005, 147–148

[18] Voon, V., Mole T.B., Banca P., Porter L., Morris L., Mitchell S., Lapa T.R., Potenza M.N., Irvine M. (2014). Neural Correlates of Sexual cue Reactivity In Individuals with and without Compulsive Sexual Behaviors. *Plos One*, July 11, 2014

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[20] Hilton DL, Carnes S, Love T (2016), *The Neurobiology of Behavioral Addictions: Sexual Addiction*, chapter 8, in *Neurobiology of Addiction*, Editors Alan Swann and Gerard Moeller. Oxford University Press, May 2016

[21] Gola M, Wordecha M, Sescousse G, Lew-Starowicz M, Kossowski B, Wypych M, Makeig S, Potenza MN, & Marchewka A (2017), Can Pornography Be Addictive? An fMRI Study of Men Seeking Treatment for Problematic Pornography Use. *Neuropsychopharmacology* Sept 2017, 42(10):2021–2031

DSM-5, as expressed by numerous researchers from such diverse institutions as Yale and Cambridge,[22] and indeed many of these researchers felt classifying compulsive sexual behavior as an addiction was appropriate.[23] As expected, the pornography industry and its apologists strongly oppose such a label, for obvious reasons. It is not surprising, then, that mental health professionals who are closely allied with the pornography industry and its culture opposed the inclusion of the term compulsive sexual disorder under any category. Some of these individuals, who enjoy a fawning media given their message that pornography is a harmless fantasy, even attend pornography industry media award shows and publish books promoting pornography which are endorsed by such large pornography companies as MindGeek. These apologists, along with the pornography industry which they support, are desperate to keep pornography and sexual addiction framed as simply a moralistic, religious issue with any associated harm coming only from externally imposed shame from a prudish culture. They dismiss the scientific evidence because they are either unable or unwilling to understand it, as it challenges something they enjoy and actively continue to use. Despite their cozy relationship with the pornography industry, they claim that they are not biased in the pro-porn views they espouse with religious zeal. This bias is seen in the fact that the same pro-porn apologists who fight an addiction label for compulsive sexual behavior have no problem accepting gambling as a behavioral addiction. Online poker is an addiction in their mindset, but not online porn, a ludicrous premise which strains credibility.

Children and emerging adults are particularly vulnerable to these brain changes. Let us consider five reasons for this. First, the frontal executive centers in the thinking brain are not fully developed until the mid-twenties. This is because the connections have not matured and the brain wires are not yet insulated, processes which are respectively called pruning and myelination. Yet this age represents a large percentage of those who view pornography and those used as performers in pornography without real informed consent. Wealthy companies like MindGeek are profiting from the exploitation of vulnerable emerging adults.[24] Their profits are built on the broken minds and bodies of these young people.

This continued development of the executive control centers should not be understood to mean that children and emerging adults have more difficulty learning; on the contrary, they surpass adults in memory skills. Because their judgment centers are not fully developed, and their experience and perspective are more limited than that of adults, they are more vulnerable to exploitation by industries selling addictive products and eager to attract young customers. Legislation to protect children and emerging adults from the tobacco and alcohol industries recognizes this vulnerability, as do insurance companies in charging higher rates for younger drivers.

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[22] Lew-Starowics M, Wordecha M, Sescousse, G, Potenza MN, Wypych M, Gola M (July 2018), Reward Processing – Related Orbitofrontal Reactivity Alterations in Patients Suffering From Problematic Pornography Use. *Proceedings of the 21st World Meeting on Sexual Medicine.* July 2018 Vol. 15, Issue 7, Supp. 3, pg. S 178

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[24] David Auerbach. Vampire Porn: MindGeek is a cautionary tale of consolidating production and distribution in a single, monopolistic owner. *Slate Magazine*, Oct 23, 2014

Second, brain chemicals such as DeltaFosB which are important in pleasure-reward processing and in addiction are expressed more potently in immature brains.[25] Children and emerging adults are more responsive and vulnerable to rewards than adults.[26] Drugs like cocaine and behaviors like sex can reset the hedonic set point, or pleasure thermostat, of their brains more easily and create a new normal. Thus, the evidence supports greater vulnerability in forming novel attachments to powerful rewards such as pornography. An immature braking system is in effect paired with an accelerated reward system drive.

Third, pornography has effectively become *the* primary mode of sexual education of youth. Because pornography is often the first exposure to sexuality, it influences sexual arousal templates and programs sexual scripts, particularly when potentiated with masturbatory conditioning. Because these experiences are primary, index events, they instill aggression and depersonalization into the child's sexual templates. There is no other reference for the child to use in weighting these pornographic sexual experiences; in effect, pornography *is* sex to these youth. Consider that 93% of boys and 62% of girls under the age of 18 have been exposed to Internet pornography.[27] What are these minors seeing? Ninety-four percent reported watching mixed sexual intercourse, 69% watched same-sex intercourse, and 83% watched sexual intercourse between more than two people.[28] A review of the 250 most popular pornographic films found that 88% of the scenes contain physical aggression and 49% contain verbal aggression toward women.[29] Therefore, many girls are thus scripted to be "porn-ready" for "porn-conditioned" boys. For instance, the push for teen girls to allow porn-programmed boys to perform painful anal sex on them was described as "coercion" in a recent study in the *British Medical Journal*,[30] yet *Teen Vogue* then contributed to this coercion by encouraging minor teenage females to allow porn-scripted boys to perform anal sex on them.[31] Their sexual scripts are thus programmed to cater to males and to suppress their own feelings and desires.

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[25] Ehrlich ME, Sommer J, Unterwald EM. (2002) Periadolescent Mice Show Enhanced DeltaFosB Upregulation in response to Cocaine and Amphetamine. *Journal of Neuroscience,* 22(21) 9155–9159

[26] Sturman DA & Moghaddam B. (2011). Striatum processes reward differently in adolescents versus adults. *PNAS* Vol. 109, No. 5, 1719–1724

[27] Sabina C., Wolak J., Finkelhor D. The Nature and Dynamics of Internet Pornography Exposure for Youth. *CyberPsychology & Behavior*, Vol 11, Num 6, 2008

[28] Ibid

[29] Bridges AJ, Wosnitzer R, Scharrer E, Sun C, Liberman R. (2010). Aggression and Sexual Behavior in Best Selling Pornography Videos: A Content Analysis Update. *Violence Against Women* 16 (10) 1065–1085

[30] Marston C, & Lewis R. (2014). Anal heterosex among young people and implications for health promotion: a qualitative study in the UK. *British Medical Journal* Vol 4, Issue 8

[31] Engle, G. (July 7, 2017). Anal Sex: What You Need to Know: How to do it the Right way. Teen Vogue

Fourth, the brain's mirror neuron systems are also an important consideration in understanding the impact of pornography on young brains. Mirror neurons cause us to project ourselves into what we are seeing. A study out of France used functional MRI to examine the effect of pornography on the brains of those watching it. The authors found that "…the mirror-neuron system prompts the observers to resonate with the motivational state …."[32] of those they are watching. What is the motivational state these youth are emotionally "resonating" with?

Bill Margold, a famous male pornography performer, said, "I'd like to really show what I believe the men want to see: violence against women. The most violent we can get is [ejaculation to the face]. I firmly believe that we serve a purpose by showing that. We want to inundate the world with orgasms to the face."[33] He and his fellow performers are infusing the next generation of males and females with a violent "motivational state." They are programming the sexual templates of millions of youth with toxic sexual scripts through a powerful neuroplastic process of pathological learning.[34] Porn is also destroying the ability to feel emotion. As one woman said of the change that came over her husband because of pornography, "A layer of empathy had been ground away."[35] Porn-scripted children and teens learn to consider sex as a strictly transactional experience and learn to suppress emotion and empathy.

Fifth, pornography is a supranormal stimulus.[36] Nikolaas Tinbergen, a Nobel Prize-winning behavioral biologist, coined the term in the 1970s. He found that when he presented male butterflies with a choice between enhanced, but artificial cardboard, females and real female butterflies, the males chose the artificial females over the real females. Internet pornography is a supranormal stimulus as well, and young and old males are increasingly choosing artificial electronic females over real females for a substitute, masturbatory, counterfeit form of mating. Virtual reality pornography with robotic, haptically filmed female performers using telodildonics is making porn increasingly interactive and even more supranormal. No wonder girls and women of all ages are finding it difficult to compete with porn; as Naomi Wolfe said, "Today real…women are just bad porn."[37]

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[32] Mouras et al. (2008) Activation of mirror-neuron system by erotic video clips predicts degree of induced erection: an fMRI study. *Neuroimage* 42(3):1142–50

[33] Gail Dines, *Pornland: How Porn Has Hijacked our Sexuality*. Beacon Press, Boston 2010, pg xxvi

[34] Kaeur JA, Malenka JC. "Synaptic plasticity and addiction." *Nature Reviews Neuroscience* 8, 844–858 (November 2007)

[35] Melinda Tankard Reist and Abigail Bray, *Big Porn, Inc: Exposing the Harms of the Global Pornography Industry.* Prologue, *Caroline: The Impact of Pornography on My Life.* Spinifix, 2011, pg xxx

[36] Hilton DL (2013). "Pornography Addiction: A Supranormal Stimulus Considered in the Context of Neuroplasticity." *Socioaffective Neuroscience and Psychology*. 3:20767

[37] Naomi Wolf. The Porn Myth: In the end, porn doesn't whet men's appetites-it turns them off the real thing. *New York Magazine*, Oct 20, 2003

And porn is not just targeting males, as females are increasingly exposed. Thousands of teenage girls follow male performers such as James Deen on social media sites, modeling him as the male sexual ideal. When asked about youth viewing his porn movies, he said, "If there was a 15-year-old … that is viewing a scene that I'm in or any sort of porn…it's not necessarily a bad thing."[38] Yet many female performers have accused him of violence on and off set, with one female performer saying: "James Deen ruthlessly attacked and degraded me, leaving me with mental wounds that took years to heal."[39] Countless youth are thus being programmed with this toxic "motivational state." Deen and Margold continue the legacy of the late Hugh Hefner: when asked about Playboy's objectification of women, he famously said, "They *are* objects!"[40] Sadly, some women actually believe this lie that objectification in a world of toxic masculinity is empowering to them. They exemplify Huxley's "…population of slaves who do not have to be coerced, because they love their servitude. To make them love it is the task assigned…."[41]

Some academic apologists seem to have no concern about youth and emerging adults allowing these teachers of sexual violence and eroticized rage to infuse our children with toxic sexuality and destroying their ability to feel empathy. They voice no concern about young female performers who are exposed to drug abuse, sexual disease, and emotional, physical, and sexual violence on set.[42] One academic paper even suggests that society should encourage the use of "…[pornography] at younger ages [to] broaden…"[43] their perspective.

It is imperative that pornographers and porn proponents do not control the sexual education of our children, as they are now doing. The pornography industry's toxic tutorials script the next generation to dehumanize and objectify. It is time for a public health approach. All now seem to agree we must keep tobacco out of the lungs of our children; we must become as serious about keeping pornography out of their minds. We should begin by following Britain's example in protecting children and youth online by blocking underage access to pornography.

Our marvelous brains are designed to allow sexuality to be an apex emotional and physical experience. Pornography is not only hijacking human sexuality, but it is also destroying our empathetic core, our very humanity. It was a Roman, Cicero, who said, "Yet more, if emotion be eliminated, what difference is there, I say not between a man and a brute, but between a man and a rock, or the trunk of a tree, or any inanimate object?"[44]

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[38] Vega C. & Przygoda J. Teens Swoon for Porn's Fresh, 'Approachable' James Deen. *ABC News*, Feb 12, 2012. http://abcnews.go.com/Entertainment/teens-swoon-porns-fresh-approachable-james-deen/story?id=15508220

[39] Tori Lux. James Deen Assaulted Me, Too. *Daily Beast*, Nov 30, 2015

[40] John Heilpern. To the Mansion Born: Over banana-cream pie, Hugh Hefner discusses heartbreak, Miss December, and his part in the sexual revolution. *Vanity Fair*, July 29, 2010

[41] Aldous Huxley, *Brave New World*, Harper, 1946, 2nd edition, foreword

[42] Gruzen CR, Ryan G, Margold W, Torres J, Gelberg L. (2009) Pathways to Health Risk Exposure in Adult Film Performers. *Journal of Urban Health* 86(1):67–78

[43] Ley D, Prause N, Finn P. The Emperor Has No Cloths: A Review of the 'Pornography Addiction' Model. *Current Sexual Health Reports* DOI https://doi.org/10.1007/s11930-014-0016-8

It is imperative that responsible citizens from all nations and cultures, from all perspectives, both secular and religious, and healthcare professionals defend and protect the physical and emotional health of our children. It is essential that all involved educate themselves on the harmful effects of pornography on the young minds of our children. Lawmakers must refuse to protect the pornography industry and to pass laws that will instead protect our children. Parents need to be educated and empowered to act responsibly in teaching their children the harmful effects of pornography. Children mirror what they see and feel. Therefore, parents must set an example and be cautious and thoughtful regarding their own media choices. Children are our best and brightest hope for the future. They are our only hope. What kind of world will we leave them with? What will be our cultural and emotional endowment to them? Tolkien made this profound statement, "It is not our part to master all the tides of the world, but to do what is in us for the succor of those years wherein we are set, uprooting the evil in the fields that we know, so that those who live after may have clean earth to till. What weather they shall have is not ours to rule."[45] Global culture is presently delivering caustic sexuality to the fertile soil of the minds of our youth. It is time to change that. We must give children and emerging adults clean earth to till, so they can better weather their storms and have a chance to experience the full measure of human emotion and love.

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[44] Cicero, *On Friendship*

[45] J.R.R. Tolkien, *The Return of the King*, The Easton Press with permission of the Houghton Mifflin Company, 1955,1965, 1984. Pg. 155.

Pornified: Pornography's Connection to Long-Term Damage and Violence

Mary Anne Layden

The society has become pornified. This is even more true today than it was when Paul first coined the term (2005). This means that sex is now seen as a product and the body is a commodity. In advertising, products are sold using the body and sex appeal. TV shows and movies are awash in sexual innuendo. Restaurants are named for insulting terms for women's sexual body parts in order to encourage customers to buy chicken wings, although the first product of these restaurants is actually the selling of the sexual appeal of the waitresses. Companies selling women's underwear advertise themselves in "fashion shows," but in reality, these shows are similar to soft-core pornography. This pornification has become so commonplace that we often do not even register that what is being sold is the commodification of female bodies, the monetizing of sex, and sexual visual invasion. It becomes the pornography of everyday life.

One of the reasons this has happened is the trickle up from the massive expansion of pornography available on the Internet. With the advent of the Internet, the availability of pornography is 24 h a day. Some of the pornography is free. Some websites use drug dealer tactics and offer the first sample of porn free. Amateurs are producing pornography and sharing some of it for free.

There is access everywhere. People can access it on their computer, on their PlayStation, and on their smart phone. There are now very few places where pornography cannot be accessed. It is almost as available as air. Use is almost universal, and the frequency of use is quite high. One study found that among young adult males aged 18–29, only 1.3% had never seen pornography and that 89% currently used pornography. About half of those exposed had been exposed before the age of 13. Frequency of use data was described as daily use (13.5%), one to two times per week (31.2%) and three to five times per week (20%). Almost 12% of subjects

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© Springer Nature Switzerland AG 2021

E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_6

indicated that they never masturbated without it (Sun, Bridges, Johnason, & Ezzell, 2014).

With other substances that we find deeply rewarding, there are external limitations placed upon them that make them unavailable at times. Food and alcohol and cocaine are not constantly available. Porn is the only deeply rewarding appetite that we can indulge with very few external restraints. Imagine the increase in problems that would develop with food and alcohol and cocaine if chocolate chip cookies, beer, and crack cocaine were available 24 h a day, free or with little cost and with complete ease in accessing them. What would happen if we could easily and constantly indulge in those appetites in our offices, on the bus, or piped into our homes constantly while we were sitting on our sofas? I think in all of these situations, we would be drowning in physical obesity and drug and alcohol addiction. Today, with constant, free, available everywhere Internet pornography, we are drowning in sexual obesity and sexual addiction.

Frighteningly, children often know how to use the current technologies better than some adults. Parents may not even know what their children are viewing. In one study, 63% of the minors indicated that they had taken some action to hide their online activities from their parents (Livingstone, Bobert & Helsper, 2005). Adults may not know how to block this material from the child's technology, and they may not even know how to determine if the child has accessed this material. Children are being left to fend for themselves in this toxic world.

Pornography as Teacher

Miseducation About Sexuality

Pornography is a dramatically efficient teacher. Pornography contains visual images that are highly arousing and get the attention focused on the action. They show how both partners act in sexual scenarios teaching what to expect not only from yourself but from others as well. The specific behaviors are modeled by the performers, and no imagination is needed to know exactly what to do. Most people use pornography as a way to get sexually aroused and the goal is orgasm. Orgasms are highly rewarding. Finally, most people who are watching pornography feel that they are anonymous and undetectable and that the action is happening in private. The pornography scripts are deeply learned because they are imputed visually, and while you are aroused, there are models showing you how to act and you are pleasurably rewarded for the activity which no one can see. The learning is not only strong but potentially permanent. These images are burned upon our brain in a very deep way. So, Internet pornography is a perfect teacher except for the fact that everything it says is a lie.

Internet pornography lies about what others do. Pornography teaches the viewers that women are sexually insatiable and indiscriminate and that women will readily have sex with whomever approaches them, known or unknown. Women will have a lot of sex and they will have any kind of sex and love it. They will have torturous sex and degrading sex and pathological sex and beg for more. Pornography is based on the male sexual fantasy about what men think they would like women to be or do. Internet pornography is the most potent teacher of the message that women's bodies are just sexual entertainment for men.

When viewing Internet pornographic pictures, the viewer can just "click" up any images they want at that moment. Change of body proportions or hair color or ethnicity is just a click away. Real women are not so "clickable." This opens up the possibility that sex with real women is less arousing than pornography. Research indicated that males who use pornography develop erectile dysfunction when they interact with real women but not when using pornography (Voon et al., 2014). These males are now sexually attached to pixels and not to people.

Pornography sex is instantly available. Pornography can teach you to expect fast sex and to only be able to function fast. Real sex is not always that fast. Partners who are not porn-conditioned may not function, desire, or enjoy fast sex.

Pornography sex is a one-way street in which you only focus on your own pleasure and needs. The viewer thinks nothing about the other person's pleasure or needs. So, a porn viewer may just click until they get exactly the experience they want and discard everything that is not momentarily desired by them. The only decision rule is what pleases the viewer. Porn-infected sex can become completely self-focused and non-relational.

Pornography teaches the viewer that sex is not about caring or intimacy or love or commitment; sex is not even about having children. It teaches that sex with a stranger is the best and most intense kind of sex. Being overloaded with sex can produce satiation with more typical kinds of sex acts, and then tolerance develops in which those common sex acts are no longer arousing. This opens the door for use of pathological kinds of sex to ratchet up the arousal again. Pornography will show any sexual behavior that you can imagine and many that you can't imagine. Pathological sex stops seeming pathological since the viewer thinks "everyone is doing it." This includes sex with animals or sex that involves feces or sex that happens in groups. All are normalized.

Violence is especially normalized since the vast majority of sexual videos include violence. One study found that nearly 90% of pornographic videos contained violence (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010), teaching a lesson that violence is sexy. Violence is almost always men being violent toward women and women responding either neutrally or with pleasure. Child abuse images (aka child pornography) even teach that children love having sex with adults. So pornography sex teaches that the best sex is vicious, narcissistic, non-relational, non-intimate and adversarial. Everything that pornography teaches is a lie.

Miseducation About Self-Esteem

In the pornified world, one toxic message that is sent is that your self-esteem is based upon sexual attractiveness and sexual activity. Females often get the message that they have self-esteem based upon being sexually chosen and desired. Nothing else matters as much or for some, nothing else matters at all. Male sexual self-esteem means having sex with a lot of people, and these partners are willing to engage in a variety of sex acts and will do so often. So, self-esteem is partly a numbers game. How many, doing what, and how often.

One problem with this version of self-esteem is that it does not produce real self-esteem. Sexuality was meant to meet sexual and intimacy needs; it is not truly connected to self-esteem. Once you have attained the desired sexual outcome, the expected good feeling is always short-lived and not based on self-esteem. When this expected positive feeling about yourself is not there or is there only very briefly, one common response is to believe you didn't do the behavior enough. So, you need to do it again. You need to escalate and expand. However, you can't get enough of what you don't need. The cycle becomes endless. A short burst of good feelings is followed by letdown and then a repeat of the behavior or an escalation or expansion of the behavior. Some will think if they do it more maybe the good feeling will last and they will finally feel worthwhile, but it never happens. Some just give up and feel depressed. Some get angry and resentful and lash out. Some aggress against those whom they believe are withholding or interfering with the good feelings and who are somehow responsible for the inability to have long-lasting good feelings about the self. Self-esteem is vital to our psychological health, and people will do almost anything to get it and keep it. Self-esteem is to the psychology what air is to the body. Once they believe that sexual activity is the pathway to self-esteem, sexual escalation is almost inevitable.

Children are in a period of life in which they are especially vulnerable to this process of self-esteem. They are trying to figure out if they are lovable, if they are competent, if they are "enough," and if they are worthwhile. If they don't feel good about themselves, children invariably develop theories about how to be "enough" and what they need to be and do in order to be "enough." Pornography introduced at this early stage of self-esteem development is particularly toxic. The role models are toxic, the behaviors are toxic, and the child has very little history of other positive self-attitudes to buffer the messages coming in. Children see the male actors focused on casual, non-intimate, non-relational, adversarial sex, and they are learning what it means to be a male. Children see the female actors who are only good for sex and are nameless and pleasurably abusable but chosen for sex, and they are learning the rules for being a female. So, the message is toxic and the process is one that so easily leads to addictive consumption.

Porn: Flexible and Fast

Porn has special addictive qualities not shared by many other addictive substances. One is that pornography can get you up and pornography can bring you down. If you are bored and under-stimulated, porn can stimulate and pleasurably arouse you. If you are agitated and anxious and too stimulated, pornography can distract you and bring down your anxiety and agitation. Many drugs are either "uppers" or "downers." Porn is a more flexible drug as it can do both.

In addition, pornography has a short delivery pathway. Your eyes are a short distance from your brain and the optic nerve is a fast pathway. Brain stimulation from pornography is almost instantaneous. With drugs you take by mouth or through a vein, the delivery is slower, and there is a longer pathway to get to your brain. Pornography is a fast flexible drug.

Entitlement, Narcissism, and Relative Deprivation

We think that anything that others have, we have an entitlement to have as well. We feel relatively deprived it they have it and we don't. Concerning sex, those who think that others are having a lot of sex can think they are entitled to a lot of sex as well. If others are engaging in many kinds of sexual behaviors, they expect to engage in those behaviors. If others are paying for sex, they can also pay for it. If others have it and they don't, then they are resentful and feel deprived of what they rightly deserve. This entitlement leads to a belief about unfairness and unfairness is hooked to anger.

Narcissism, especially sexual narcissism, adds to the mix. We all want pleasure and good things for ourselves. That is built into the species. However, some take this a step farther. They believe they deserve pleasure and good outcomes more than others, to the exclusion of others and at the expense of others. In the sexual area, they think that their sexual pleasure is more important than other's sexual pleasure, and they may think that it is totally unimportant whether their partner is getting sexual pleasure or not. Some just assume that the partner is getting sexual pleasure because they assume that since they themselves are pleasured, then it just naturally follows that the partner is also pleasured. If they desire sex with a partner, they conclude that the partner desires sex with them. Some believe that they have such a high level of sexual ability that the partner is assumed to be pleasured. Whatever is the assumption, the person with sexual narcissism is focused on their own pleasure and not on that of the other since their own pleasure is what is most important. Mixing sexual narcissism, sexual entitlement, and relative deprivation together produces a toxic soup.

Permission-Giving Beliefs

Permission-giving beliefs are a set of beliefs that say what I am doing is normal and doesn't hurt anyone, everybody is doing it, I have a right, and I am entitled. These permission-giving beliefs encompass sexual narcissism, entitlement, deprivation, and all the learning about sexual expectations for myself and others including miseducation about sex and relationships. They include beliefs about self-esteem if these beliefs allow me to do what I want to do in order to feel good about myself. This belief constellation of permission-giving beliefs is the central factor in our choices of sexual behaviors. These beliefs are releasers of behavior.

Moving from Beliefs to Behaviors

Once someone has expectations about themselves and others, it is natural to act upon them. Pornography may teach them the pornified beliefs and then they may act on those beliefs at strip clubs or by prostituting women. Those who go to strip clubs or prostitute women are not only acting on those beliefs, but they are reinforcing them and expanding them. Then they take those beliefs away from the artificial lives they experience in the strip club and brothel or on the pornography website and act upon them in their real lives. When they transfer these beliefs and behaviors to real life, often it does not go well. They may find resistance from their partners to engage in certain sexual behaviors seen in porn videos. Their partners may not be accommodating to sexual requests in the way that prostituted women feel compelled to be accommodating. Their partners may not look like strippers with their surgically altered bodies. All this can lead to the porn-taught male to feel resentment and anger and a sense of having been cheated. The option of using force or intimidation to make desired sexual partners act in the expected way becomes an option. Rape or sexual harassment can flow from this. The person with sexual desire and a sense of entitlement can realize that they have power to take what they want. Even a small differential in power can shift the beliefs about the other and activate the sexual behaviors (Kunstman & Maner, 2011). A small differential in power caused the more powerful person to project their own sexual desire onto a subordinate. Physical power or status power can be used to push their sexual desires on unwilling others.

If You Can Buy It, You Can Steal It: The Seamless Continuum

The sexual exploitation industry includes any aspects of selling sex such as pornography, strip clubs, prostitution, and sex trafficking. Sexual violence and abuse include molestation, rape, incest, and sexual harassment. The sexual exploitation industry is the selling of sex and sexual violence is the stealing of sex. The sexual exploitation industry and sexual violence are on a seamless continuum. They reverberate back and forth, both sending the message and triggering the behavior. You can get the message from pornography and act on it by prostituting women or going to strip clubs or raping women. Pornography can send the message and the message releases the behavior. Pornography can also be an immediate trigger of these behaviors as well such that sexual arousal looks for an immediate outlet. Once you believe that sex is a commodity and that you buy it, then the possibility of just taking for free with force becomes an option. Mixed with the permission-giving beliefs that allow all of this, it becomes more understandable why these factors are interconnected and why sexual violence is at a tsunami level.

Research Findings on the Impact of Pornography

A great deal of research focuses on the impact of pornography and its connection to long-term damage, to violence, and to the sexual exploitation industry. Since males are the most frequent users of pornography, we begin by looking at research on the thinking changes in males who view pornography and then behavior changes in males. Then we will focus our attention to the research on the impact of pornography on females. Next we examine the research on children. Research on children combines the impact of viewing pornography with the added impact of children's exposure to all sexualized media. Sexualized media may not meet the definition of pornography but may carry some of the same underlying messages, and children are frequently viewing this kind of media. Finally, we will look at the impact on the performers in the sexual exploitation industry.

Pornography's Effect on Male Thinking

Males who look at pornography get strong messages. Research has looked at those messages and in particular the acceptance of the rape myth. The rape myth is a set of beliefs about rape that are not true but are believed by many. Examples from the questionnaire include the following: "Although most women wouldn't admit it, they generally find being physically forced into sex a real 'turn-on'"; "Men from nice middle-class homes almost never rape"; "Women tend to exaggerate how much rape affects them"; and "If the rapist doesn't have a weapon, you really can't call it a rape" (Payne, Lonsway, & Fitzgerald, 1999).

Males who look at pornography are more likely to accept these rape myth beliefs as true (Carr & VanDeusen, 2004; Check & Guloien, 1989; Foubert, Brosi, & Bannon, 2011; Weisz & Earls, 1995). Some research looks at more narrow aspects of that belief system. Males who look at pornography are more likely to think that women enjoy being raped (Check & Malamuth, 1985; Ohbuchi, Ikeda, & Takeuchi, 1994), that she got "what she wanted" when she was raped (Millburn, Mather, &

Conrad, 2000), and that women make false accusations of rape (Ohbuchi et al., 1994). These studies have a narrower focus on particular rape beliefs, but these beliefs are all in line with the rape myth in general. It is concerning but not surprising then that men who were shown pornography think that men who commit rape should receive significantly shorter prison sentences (Zillmann & Bryant, 1984). Males not shown pornography thought an appropriate sentence for rape would be 94 months, while males shown pornography thought 50 months was enough. These porn-exposed males may have reduced their beliefs about the severity of the crime of rape or have reduced their beliefs in the level of damage that rape produces in the victim. They may have changed their beliefs about rape as non-consenting since they believe that "she wanted it and enjoyed it." Any of these porn-generated beliefs could be the foundation of the permission-giving beliefs which allow males to rape. Given these findings, it should not be surprising that males shown pornography have a more adversarial view of sex and have more sexually callous beliefs (Zillmann & Bryant, 1984).

Males shown pornography also change what they believe about what others are doing sexually. When asked to estimate the percentage of individuals who would engage in unusual sexual practices, males who were shown pornography gave higher estimates. This including in some cases doubling or tripling the estimates of how many people engaged in group sex, sex with animals, or sex with violence (Zillmann & Bryant, 1984). It is noteworthy that in this study, none of the pornography that they were shown included any group sex, sex with animals, or sex with violence and despite that they had higher estimates of the prevalence of these behaviors. For example, men not shown pornography thought 7.4% of the population engaged in sex with violence, while men shown pornography thought 14.8% did so. Males who use pornography also indicate that they would be willing to engage in unusual sexual practices if they thought they could not get caught such as having sex with a woman against her will or sadomasochistic sex (Briere & Malamuth, 1983). Males who use pornography were more sexually narcissistic (Kasper, Short, & Milam, 2015) and had more sexual entitlement beliefs (Bouffard, 2010).

Male's views about women in general also change when they have been exposed to pornography. They are more likely to see women as sex objects (Peter & Valkenburg, 2007) and more likely to use more sexual terms to describe women (Frable, Johnson, & Kellman, 1997). They are more accepting of violence against women (Allen, Emmers, Gebhardt, & Giery, 1995; Hald, Malamuth, & Yuen, 2010; Weisz & Earls, 1995). Finally, their support for the women's liberation movement is dramatically reduced (Zillmann & Bryant, 1984). Of the males not shown pornography, 71% indicated support for the women's liberation movement, but only 25% of the males shown pornography agreed.

Their view of their own partners shifted as well. They rate their own partner as less attractive (Albright, 2008; Weaver, Masland, & Zillmann, 1984; Zillmann & Bryant, 1988) and are less satisfied with their partner's sexual performance (Zillmann & Bryant, 1988). Even their view of their own sexual life and relationships changes. They have a greater desire for sex without emotional involvement (Zillmann & Bryant, 1988), have a greater acceptance of sex outside of marriage for married individuals (Carroll et al., 2008; Wright, Tokunaga, & Bae, 2014), are expecting to be less child centered during marriage (Carroll et al., 2008), and were less desiring of female children (Zillmann, 1989).

Another very troubling shift in male's attitudes who are exposed to pornography is revealed in their attitudes toward minors and sex. The research finds that males who use pornography say they are more willing to have sex with 13–14-year-olds (Hegna, Mossige, & Wichstrom, 2004) and are more sexually attracted to children (Briere & Runtz, 1989: Smiljanich & Briere, 1996). Since these males are using pornography themselves, it follows that they are less likely to think that pornography needs to be restricted from children (Zillmann & Bryant, 1984). When asked if pornography needed to be restricted from children, 83.5% of males not shown pornography agreed, but only 36.8% of males shown pornography agreed. We might expect that males who use pornography will not only continue to expose themselves to pornography, but they may expose children to it as well and spread the damage to these vulnerable others.

Pornography's Effect on Male Behavior

The attitude changes just described might be expected to impact behavior. Research supports this transfer from beliefs to behavior. Males who use pornography will try to get their partners to act out scenes from pornographic videos that they have seen (Bergen & Bogle, 2000; Cramer & McFarlane, 1994; Sun et al., 2014). They will have more sex partners (Carroll et al., 2008) but have less sexual satisfaction (Sun et al., 2014; Wright, Steffen, & Sun, 2017). They sexually cheat on their spouse when they are married (Stack, Wasserman, & Kern, 2004). They are also more likely to prostitute women (Monto, 1999; Monto & McRee, 2005) and more likely to go to strip clubs (Monto & McRee, 2005).

Males who use porn are more likely to engage in physical aggression against women (Allen, D'Allessio, & Brezgel, 1995; Donnerstein, 1984). In fact, if a male batters a partner and also uses pornography, they are more likely to both physically and sexually aggress against the partner (Shope, 2004).

The use of pornography does not just transfer to physical aggression but transfers to sexual aggression as well and is found in a number of studies. Males who use pornography are more likely to sexually harass (Barak, Fisher, Belfry, & Lashambe, 1999; Vega & Malamuth, 2007; Ybarra & Thompson, 2017), date rape (Warshaw, 1988), stranger rape (Boeringer, 1994), marital rape (Simmons, Lehmann, & Collier-Tenison, 2008), verbally coerce sex (Boeringer, 1994), physically coerce sex (Carr & VanDeusen, 2004; Crossman, 1995), and use drugs and alcohol to coerce sex (Boeringer, 1994). Even when not with a partner, males who use porn are likely to use violent sexual fantasies to get themselves aroused (Malamuth, 1981). The use of pornography is higher among adult sex offenders, child molesters, and incest offenders (Carter, Prentky, Knight, & Vanderveer, 1987; Marshall, 1988).

Pornography use also predicted that child molesters would repeat their offenses (Kingston, Fedoroff, Firestone, Curry, & Bradford, 2008).

Research that examines the characteristics found in those who commit sexual violence identify three factors: (1) hostility toward women; (2) the belief that sex is a casual, non-intimate, recreational and adversarial behavior; and (3) the use of pornography (Malamuth, Addison, & Koss, 2000). It is likely that all three of these factors are actually connected through pornography. Pornography generates hostility toward women, and it sends the message that sex is recreational, non-intimate, adversarial, and casual. It may be that pornography is a reliable producer of sexual violence. In fact, Foubert (2017) has calculated that given the current research, the probability that pornography is not connect to sexual violence is 1 in 88,817,841,970,012,523,233,890,533,447,265,625. The case for the connection between pornography and sexual violence has been made for all those who are willing to see.

Pornography's Effect on Females

It is not just males who are exposed to pornography. Females, especially young adult females, may also be exposed. They may be unwillingly exposed or be encouraged by partners or friends to be exposed, or they may on their own chose to be exposed. However it happens, females may experience changes due to that exposure. Females receive from pornography some of the same messages about sexual behavior and expectations in a sexual encounter as do their male partners. They may hook their self-esteem to sexual attractiveness and being sexually chosen. This is the female version of the self-esteem messages that are received by males. These messages produce both attitude and behavioral changes. Like their male counterparts, females may have attitude changes that involve rape. Research indicates that females who are exposed to pornography are more likely to accept the rape myth (Brosi, Foubert, Bannon, & Yandell, 2011; Kjellgren, Priebe, Svedin, Mossige, & Långström, 2011). Females who are shown pornography think that rapists deserve less time in prison (Zillmann & Bryant, 1984). Females shown non-pornographic media think that rapists deserve 144 months in prison, while females shown pornography think that 77 months is enough. Both of these findings may indicate a reduction in the belief that rape is a devastating event.

Female's attitudes toward women in general may change in similar ways to exposed males. Of females shown pornography, only 52% indicate support for the women's liberation movement, while 82% of females shown non-pornographic media are supportive (Zillmann & Bryant, 1984). Other changes in females may be focused on themselves. Female pornography viewers have a more negative attitude toward their own bodies and think that their partners also have a negative attitude toward the female's bodies (Albright, 2008). Behavior changes occur connected to their attitude changes. They engage in more sexual fantasy that involves rape (Corne, Briere, & Esses, 1992) but have less actual sex (Albright, 2008). The most troubling finding is that females who use pornography are more likely to be victims of non-consenting sex (Bekele, Aken, & Dubas, 2011; Bonino, Ciairano, Rabaglietti, & Cattelino, 2006; Yimin et al., 2002). It is unclear if this is caused by a reduction in noticing the cues of impending sexual assault, a normalizing of sexually aggressive behavior or something else.

Pornography's Effect on Children

Many believe that children should not be exposed to pornography, but few believe that children are not being exposed. Male children especially are exposed early, often by 13 years old (Sun et al., 2014), are seeing more pornographic images, and are seeing more violent and other kinds of toxic images (Livingstone, Bobert & Helsper, 2005). Internet pornography has made this an almost universal experience with few males never having seen pornography (Sun et al., 2014).

The research on children and the impact of exposure differs somewhat from the research on adults. There are no experimental studies in which the research protocol involves showing pornographic images to children. This research design would invariably be unethical. Given the significant number of studies that shows numerous kinds of damage produced by pornography, IRBs would not agree to let this material be shown to subjects. In addition, a number of studies collect information about the child being exposed to pornographic images but also include exposure to sexualized media which is not strictly speaking pornographic. Children watch TV shows and movies which have sexual innuendo and sexual situations which are also teaching lessons about sexual rules and expectations and promote permission-giving beliefs. Many research protocols assess for exposure to that kind of media as well.

Children, who have been exposed, show changes in attitudes similar to those found in adults. They have less progressive gender role attitudes (Brown & L'Engle, 2009; Braun-Courville & Rojas, 2009; Stanley et al., 2016). They have higher sexual permissiveness scores (Braun-Courville & Rojas, 2009). They have a negative attitude toward using condoms (Wingood et al., 2001). Behavior changes follow. Exposed children start having sex earlier in their lives (Brown et al., 2006; Brown & L'Engle, 2009), have more sex partners (Braun-Courville & Rojas, 2009; Wingood et al., 2001) including having had more than one sex partner in a 3-month period (Braun-Courville & Rojas, 2009), and have sex more frequently (L'Engle, Brown, & Kenneavy, 2006; Wingood et al., 2001). They engage in more kinds of sexual acts such as sexual intercourse (Brown & L'Engle, 2009; Collins et al., 2004), oral sex (Brown & L'Engle, 2009), and anal sex (Braun-Courville & Rojas, 2009). They are less likely to have used contraception during their last sexual encounter and more likely to not have used contraception at all during the last 6 months (Braun-Courville & Rojas, 2009; Wingood et al., 2001). They are more likely to have used alcohol or other substances in their last sexual encounter (Braun-Courville & Rojas, 2009). These minors who start sex earlier, have sex more often with more partners, and engage in more kinds of sex acts and more risky kinds of sex acts without the use of contraception have the expected life outcomes that are connected to these behaviors. They are more likely to test positive for chlamydia (Wingood et al., 2001), and they are more likely to become pregnant (Chandra et al., 2008).

In a study of adolescents who sell sex, it was found that they are frequent users of pornography especially deviant pornography which involves violence, children, and animals (Svedin & Priebe, 2007). These adolescents have started to have sex earlier than others and have had more sexual experiences. They use alcohol more frequently. They show more antisocial behaviors such as stealing a car. They have poorer mental health including feeling more depressed and tense. They have been victims of sexual abuse and have abused others. Pornography may be a teacher of life rules which are acted on in the selling of sex, but it may also be acting as a trigger for sexually abusing others. It may be that pornography was involved in their being a sexual abuse victim as well. This may be part of the full circle from abuse victim to one who goes on to perpetrate abuse against others and then becomes part of the sexual exploitation industry by selling sex.

Several studies show that female children, like female adults, who are exposed to pornography are likely to be victims of non-consenting sex (Bekele et al., 2011; Bonino et al., 2006; Yimin et al., 2002). The connection between pornography use and sexual victimization may be true for both males and females (Bonino et al., 2006). In one study which found the outcome true for both males and females, the authors proposed the intervening factors were risky sexual behaviors which were linked to risky sexual scripts that were developed through pornography viewing (Tomaszewska & Krahe, 2018). Studies of female victims show that these victims used pornography, started having sex earlier, had more sex partners, used alcohol and drugs, had a larger age difference between themselves and their male partners, or had been a victim of physical abuse by a male partner. They may also be selling sex (Svedin & Priebe, 2007).

At the other end of the spectrum, adolescents who use pornography may become perpetrators of sexual violence. Adolescents who are exposed to sexualized media have a more accepting attitude toward sexual harassment (Strouse, Goodwin, & Roscoe, 1994) and are more likely to sexually harass (Bonino et al., 2006; Brown & L'Engle, 2009; Ybarra & Thompson, 2017). They are more accepting of the rape myth (Zgourides, Monto, & Harris, 1997). Adolescents who engage in forced sex have viewed more pornography (Bonino et al., 2006; Ford & Linney, 1995; Ybarra, Mitchell, Hamburger, Diener-West, & Leaf, 2011; Ybarra & Thompson, 2017), viewed it earlier (Svedin & Priebe, 2007), and viewed more deviant kinds (Svedin & Priebe, 2007). Adolescents who sexually abuse their own siblings have viewed more pornography, have seen more domestic violence in their homes, and have been victims of sexual abuse themselves (Latzman, Viljoen, Scalora, & Ullman, 2011). These sibling abusers start abusing others at an earlier age and have more victims.

Juvenile sex offenders who use pornography have a significant number of antisocial behaviors in addition to the sexual perpetration against others. These antisocial behaviors include lying, stealing, fire setting, manipulating others, and having sex with animals (Alexy, Burgess, & Prentky, 2009). The number of female adolescents who sexually coerce others may be small, but they show some of the same factors as the males. These female perpetrators use more violent pornography, are more accepting of the rape myth, have more sex partners, and are more likely to have been victims of sexual violence (Kjellgren et al., 2011).

Sexual Exploitation Industry Performers

Pornography is just one aspect of the sexual exploitation industry although it may be the area that males engage with the most. However, all forms of sex for sale share common themes and messages. Pornography and stripping and prostitution have at their center the concept that women's bodies are sexual entertainment for men. The permission-giving beliefs of male sexual entitlement and male sexual narcissism become releasers of the exploitation that is central to sex for sale. The normalizing of all of this affects not only those on the user/perpetrator end but also to those who provide the sex, and these providers are also in the circle of damage.

Pornography performers have many negative issues in their past histories as well as current negative outcomes. They are significantly more likely than nonperformers to have experienced forced sex before the age of 18 and to have been on welfare or in foster care before the age of 18 (Grudzen et al., 2011). This same study found that they had also experienced forced sex as an adult as well as current domestic violence, poverty, more frequent alcohol use and tobacco use, and depression. They were significantly less likely to be married.

Strippers have a high level of abuse on their jobs coming both from customers and from the management (Holsopple, Vol 9). Physical abuse and emotional abuse are common including slapping, pinching, breast grabbing, buttocks grabbing, and name-calling. A significant number have been followed home or stalked.

Prostituted females also fare poorly. Their histories include sexual abuse as a child and homelessness. They often are first prostituted when they are still a minor. Research in nine countries show significant negative factors connect to being prostituted (Farley et al., 2003). They are physically assaulted at a high rate (70–95%), receive head injuries (77%), are threatened with a weapon (64%), or are murdered (29–100%). They are drug abusing (75%) and/or alcohol abusing (27%). They have frequently been raped (73–85%); some are raped more than five times (48%). They have mental health problems such as depression (60%), posttraumatic stress disorder (68%), borderline personality disorder (11%), dissociative identity disorder (5%) (Ross, Anderson, Heber, & Norton, 1990), and desire to commit suicide (5%) (Farley et al., 2003). Not surprisingly, 87% wish to leave prostitution (Farley et al., 2003).

Summary

Based upon both theory and research, pornography appears to play a major teaching role in the sexual beliefs and behaviors of men, women, and children. As a teacher, it is arousing, rewarding, and modeling. It miseducates about sexuality and relationships. It teaches unhealthy self-esteem, sexual narcissism, sexual entitlement, and relative deprivation. It is a potent drug that is both flexible and fast. It encourages permission-giving beliefs that include that sex is a commodity that we buy and if we can buy it, we can steal it. This makes a natural and potent pathway to sexual violence. Numerous studies show a variety of negative effects in both attitudes and behaviors, but the most troubling is this connection to sexual violence. The messages of pornography damage the providers of sex as well as the users of sex. The continuum of the sexual exploitation industry and the continuum of sexual abuse and violence are seamlessly interconnected.

Many have focused on how to heal the harm produced by both the sexual exploitation industry and sexual violence. This healing is important but prevention is more important. We will not solve the problem by focusing only on healing; we must act decisively to prevent the damage. We will not reduce this tsunami of sexual exploitation and violence until we understand what is causing it. We will misplace our time and resources on ineffectual or slightly effective solutions until we name and understand the underlying factors and how they function. The cost of that mistake is too high.

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Therapeutic Approaches to Abuse and Intellectual Disability: The Invisible Victims

Sheila Hollins and Valerie Sinason

Introduction: Child Dignity at Risk for Disabled Children

The dignity of a disabled child is at risk from before birth in a world where the discourse of elimination of the foetus with trisomy 21 and other genetic disorders is gaining prominence (Bruce, 2013). The manner in which parents are informed of their child's possible or known impairment will affect parental attachment and how well the child is welcomed into the family (Bicknell, 1983; Bowlby, 1979). The support given to families to help them make sense of the diagnosis will underpin the relationships, aspirations and acceptance within society for the whole of the child's life (Hollins & Hollins, 2005).

Parents and other family carers often find themselves unsupported as they try to make sense of why and how their child is different from other children. Their initial concerns are to get a diagnosis and to try to find some treatment which will help their child develop more normally or to recover from a catastrophic illness or accident. Having a disabled child who has extra care needs can make it very difficult for family carers to obtain or keep work, especially if their care needs are time consuming or need frequent specialist interventions. A child who cannot feed him or herself, who cannot wash or dress without help, or one who cannot communicate or has a visual impairment will occupy much of a parent's emotional energy and time. This can contribute to family poverty and marginalisation. In many LAMI countries,

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© Springer Nature Switzerland AG 2021

E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_7

such children are also excluded from school, thus providing another obstacle for caregivers who are trying to earn a living. Other children in the family may be left to care whilst a parent is at work, thus also impacting on a sibling's educational chances. Children who present such challenges to family survival are at increased risk of neglect and abuse, and there are many examples of children being locked in the house or hut, or chained to furniture or a post, whilst others are at school or work. Some innovative projects have intervened to offer low-cost supports to assist such families (Dawson, Hollins, Mukongolwa, & Hollins, 2003).

Professionals, who are proficient at working with disabled children, may not have any experience of child protection work, and the opposite is true too. Child protection staff may have little or no experience of the disability. This leads to a skills gap for this at-risk group, particularly with respect to understanding non-verbal communication, sign language, deaf culture and other development issues.

Intellectual Disability: Prevalence and Incidence and Definition

Intellectual developmental disability (IDD) is a term used when a person has limitations in cognitive functioning and skills compared to others of the same age. The American Association on Intellectual and Developmental Disabilities defines an individual as having an intellectual disability if their IQ is below 70–75; if they have significant limitations in two or more adaptive skills that are needed to live, work and play in the community (such as communication or self-care); and if the condition manifested itself before the age of 18. It can be caused by injury, disease and trauma/neglect or have a genetic origin. Some causes of IDD such as Down syndrome, fragile X, birth defects, environmental harms and infections manifest before birth. It is estimated that 2–3% of the global population have an IDD, as many as 200 million people, but this is likely to be an underestimate (Blackburn, Spencer, & Read, 2010; Evans, 2013). For example, foetal alcohol syndrome caused by maternal drinking during pregnancy is grossly underdiagnosed (Mukherjee, Hollins, & Turk, 2006).

Worryingly (Hughes, Bellis, Jones, Wood, et al., 2012), the prevalence of IDD increases in poorer and more traumatised countries. The United Nations estimates that 80% of all disabled people live in low-income countries. Whilst a small percentage of children from affluent families are born with or develop an IDD in childhood, the majority of those with a mild intellectual disability are in the lowest social class. This is why sociopolitical and multi-professional approaches are necessary.

The best way to keep disabled people safe is for them to be visible and included in everyday activities, including school, leisure activities and of course, within faith communities (WHO, 2010). Children who have been 'put away', and placed in special institutions, are immediately at greater risk of abuse, including orphanage trafficking, because of the lack of external oversight and the absence of the interest and advocacy that grows when someone is a neighbour, a parishioner or a friend.

A key priority in the WHO EURO Declaration on the health and wellbeing of children and young people with intellectual disabilities is to keep them safe from abuse and neglect, and the Declaration stresses the need for every child to grow up in a family.

The Basic Statistics of Abuse

The Department of Health in the UK has estimated that in a lifetime, 11 million adults will have experienced abuse – that's one in four people. The NSPCC reports 1 in 20 children in the UK has been abused; however, most people do not report abuse until they are adults (Miller & Brown, 2014). If the figures are so high for a relatively stable Western democracy, the dangers to children and vulnerable young people can be expected to be higher in countries going through major political turmoil. Within the UK, we have established (Hollins & Sinason, 2000; Hughes et al., 2012) that prevalence and risk of violence are greater for children with intellectual developmental disabilities. Abuse occurs in every social class, every nationality and every belief system. A particular problem Churches face is that they are often the only providers of health, education and social care services and therefore are also the overseers of the very institutions where abuse will take place if safeguarding arrangements are not robust. This is what happened in Ireland before the State began making and paying for provision of public services in 1949 (see speeches by Pope Francis and the Taoiseach (the prime minister of Ireland) in Dublin Castle – August 2018).

Whilst it is understood no child can give consent to any sexual activity with an adult that they are induced or made to take part in or to watch, whether in a room or in cyberspace, there are other forms of abuse. Abuse by other children or adults with IDD poses ethical problems (Hubert & Flynn, 2007).

The Discourse About Sexuality and Risk

Unlike natural geographic or man-made disasters, sexual abuse is a private decimation, an attack on identity, body and soul, privacy and hope. Shame affects the victim, the witnesses and then the wider community. Admitting the extent of sexual abuse of all children and adults, let alone ones with a disability, evokes a terror of cultural, political, religious or class disloyalty. Even in families, schools, residential units or institutions where many were abused, the pain and shame remain individual. Being believed by a mother has the single largest positive outcome, followed by being believed by one's community. The importance of being heard and believed is why conferences, books and speaking out have such a positive impact. Indeed, the fact of the Nobel Prize being given to a Yazidi abused and trafficked woman, Nadia Murad, aged 25, the first Iraqi to win a Nobel Peace Prize, has meant an enormous amount internationally. In too many countries, the victim is further victimised by either societal disbelief, or acceptance coupled with repugnance, blame and banishment. Shooting the messenger is a regular dynamic of sexual trauma.

Sexuality is a private matter due to the taboos in most cultures, and speaking about it is therefore seen as shameful. This is where educators and adults can play a helpful role in speaking of the violation that happens when non-consenting sex occurs. Child marriages are one area of international concern in this context as well as young people and adults with intellectual developmental disabilities being forced into abusive arranged marriages for the sake of citizenship elsewhere or being trafficked into prostitution with promises of payment and a better life.

Institutional Abuse and Institutional Care

The Australian Royal Commission into Institutional Responses to Child Sexual Abuse commissioned a research report to find out what mattered to disabled children and young people with cognitive impairments with respect to keeping safe (Robinson, 2016). The researchers reported that '...they pointed out in a number of ways that it can be very hard to know what is safe or unsafe, especially for children and young people with higher support needs. They talked about complexity in relationships, when people were trustworthy on some occasions but not others. Few remembered learning about safety, either at school or anywhere else'.

And the young people said that the things which helped them to feel safer included:

> …having a secure foundational space (home, for most), having friends, feeling known and valued, having someone to confide in, avoiding contact with people they didn't know (both strangers and professionals who were little known), feeling able to tell someone if they felt unsafe, and having appropriate opportunities to learn about how to be safe.

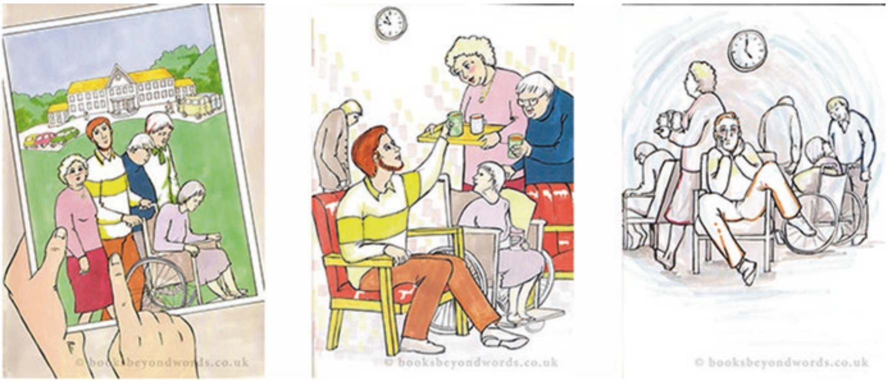
Children living in an environment where their own humanity is not recognised, as shown by a failure to respect their individual choice, by a lack of personal possessions, choice of food, stimulation, decoration or an inappropriate use of constraint all experience institutional abuse. The opportunities for sexual abuse are also greater in such deprived environments.

Research done for the United Nations (Groce, 2005, p. 4) found that children with physical, sensory (deaf or blind) and intellectual impairments or with mental illness were the most marginalised and that stigma, traditional beliefs and ignorance put them at significantly increased risk of violence of all kinds. Attitudes to disabled people do vary culturally, and according to different impairments, depending on the attributes which are most highly valued in a particular context, as, for example, when cognition or communication is impaired, or deafness occurs in a musical family or community.

Disabled children are more likely to be abandoned by struggling parents or taken into care. There is a higher proportion of disabled children living in orphanages than in the community at large. Abuse and neglect are now known to occur at higher rates in institutional settings, and such settings also contribute to developmental impairments through a lack of stimulation and a lack of affection (WHO, 2010). In the past, orphanages were thought to be kindly places rescuing abandoned children and preparing them for adulthood. Many religious orders were set up with this charitable work as their primary focus and have been successful in raising money to care for the children and young people admitted. However, there is now plenty of research to show that orphanages are not good for children's general development, mental health and wellbeing. Furthermore, widespread abuse and neglect have been uncovered in state-run, church-run and private orphanages and children's homes all over the world.

Many concerns have been expressed in recent years about the prison-like conditions in some children's institutions where there has been no stimulation or engagement between the children and the staff, where children with epilepsy were tied to their beds or cots had bars over the top to prevent children and young people getting out. Descriptions of such inhumane behaviour are readily available in the media, such as previously was found on the island of Leros in Greece, in Romania and in the Czech Republic.

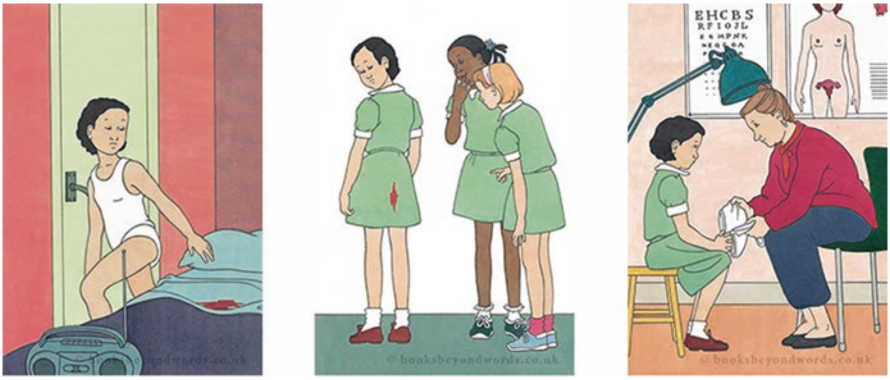
There are international movements trying to prevent new admissions to orphanages and redirect international aid programmes and charitable donations to supporting family-based care. There are still eight million children living in orphanages worldwide.



Institutional care. (Pictures from A New Home in the Community, Hollins, Towell et al., 2017)

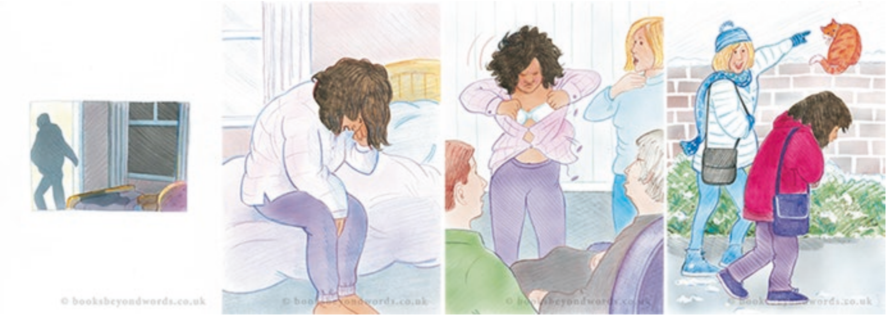
Relationship and Sex Education/Staff Training and Barefoot Help

As a result of the extra vulnerability, the importance of sex education especially for children and adults with IDD cannot be underestimated (Catholic Education Service 2017). They are rarely able to access Internet educational aids because of their reading problems, or, if they had an adequate reading capacity, they are less likely to have private access to a computer. *Books Beyond Words* are a crucial asset here.



How intellectually disabled young people cope with puberty. (Pictures from Susan's Growing Up (Hollins and Sinason 2016)

Staff training is also essential. In most countries, the majority of residential care for children and adults with IDD is from the least trained staff. It is not possible to 'see' trauma in those we live and work with if the culture does not want us to notice or we are not supported for the impact of such trauma. Abuse inquiry after abuse inquiry has documented the impact of a culture that cannot bear to notice such trauma because there is no adequate help or resource to understand the signs. Spotlight (2015) was an American film following the *The Boston Globe's* Spotlight team as they uncovered abuse in Boston by several Roman Catholic priests. However, whilst trainers and potential staff and trainers need to gain help from such topical aids, people with an IDD would rarely be taken to the cinema to see such a film. Recognising abuse requires living in a context and culture where such behaviour is acknowledged as wrong, damaging and illegal. Cultures that allow violence against women and children are going to be harder to spread such knowledge in. Literate children, young people and adults can access film, fiction and nonfiction writings and other materials to help them make sense of abusive relationships. The child with IDD has no independent neutral source of information and explanation available to them. Non-language-dependent wordless books (Hollins, Books Beyond Words) provide a universal level of access to graphic stories about everyday emotional problems as well as to more serious issues. The series includes male and female abuse, flashbacks, speaking to the police and going to Court. They show some of the behavioural expressions of abuse such as self-injury, destruction of property and clothing or violence to others.



Something is wrong. (Pictures from I Can Get Through It, Hollins, Horrocks et al., 1998)

Education and Inclusion

One of the main challenges facing disabled people is their exclusion from ordinary society which leads to profound feelings of difference and loneliness. Church communities are often notable by the absence of disabled children and adults in their congregation, and this must be a source of shame given the Christian emphasis on human dignity for all. Theologians are beginning to develop a theology of disability (Swinton, 2001). The invisibility of a disabled child or adult puts them at greater risk of abuse of all kinds. In Zambia, a community school established by a religious order for displaced and orphaned children invited the students attending the school to provide the names and addresses of any disabled children in their own family or neighbourhood. The 500 non-disabled children identified 120 disabled children who were hidden away, and the teaching staff were then able to begin providing inclusive in-school and home education to these children (Dawson et al., 2003).

In Romania and Armenia, a widespread twinning scheme was established to link high school students to special schools for at least once weekly shared learning whether drama, sport or art. As the disabled children reached adulthood, there are many stories of how their new friends became advocates for them, preventing them from being sent away to institutions and helping them to speak up for themselves.

How to Recognise Abuse and How to Listen to Disabled People Who Have Become Victims of Abuse

Learning to listen is key, and Pope Francis' words on World Communication Day 2016 are an excellent reminder of how hard we have to practice – this is especially so for a disabled child or adult with cognitive and/or communication impairments.

> *Listening means paying attention, wanting to understand, to value, to respect and to ponder what the other person says.* ***Knowing how to listen is an immense grace****, it is a gift which we need to ask for and then make every effort to practice.*

Many counselling training organisations teach listening skills.

Hibbing and Rankin-Erickson's review (Hibbing & Rankin-Erickson, 2003) found that supporting understanding through pictures helped to resolve difficulties decoding words. Pictures help people to identify and understand ideas and events, to reflect on the past and to predict what might happen next. The research evidence shows that some people really do understand pictures better than words.

The picture illustrations used in this presentation demonstrate one evidence-based approach to listen to people and to provide information to individuals, families, communities and responsible care and law enforcement agencies. The deliberate omission of words allows for personal and local interpretation regardless of language (Bradley & Hollins, 2013).

Disabled children and vulnerable adults who have been abused may not have the cognitive understanding or the vocabulary to be able to make any sense of what has happened to them or to ask someone else about it. They may believe that what has happened is 'normal' and that there is something wrong with them that is making them feel scared, dirty and uncomfortable. Keeping a secret makes them feel even worse.

The first challenge is to *recognise* that a child or vulnerable adult is or may be at risk of abuse and to understand the ways in which social and environmental factors may increase the risk (Sequeira & Hollins, 2003; Sequeira, Howlin, & Hollins, 2003).

Mental Illness and Behavioural Changes Following Abuse

Mental illness is more common in anyone who has been abused. This is true for disabled people, but it may be overlooked. Depression, anxiety and post-traumatic stress disorder are more difficult to diagnose in people with cognitive difficulties.

They might show their hurt through changes in their behaviour, and this is something that families and caregivers can look out for. A change in behaviour often means that something confusing or harmful has happened to the person. Sometimes people lose interest in food, or they don't sleep very well.

When Jenny in the case study below remembers her abuser, she bangs her head against the wall. Many people hurt themselves or things around them when their bodies and minds have been hurt by abuse, and some people hit out at those who are trying to help them.

The picture scenarios provided include some of these signs and symptoms which will alert you to the possibility of abuse and help you to minimise risk and alert child protection services.

Case Study

'Jenny Speaks Out' is a story that mirrors the experience of many other disabled girls and young women. The story shows Jenny moving to a shared home or hostel with some other young people who can no longer live with their families, perhaps because of family illness or bereavement. Jenny is unhappy and cannot settle in her new home. She spends a lot of time in her room and doesn't mix with the others. She hasn't unpacked her things, and no one understands why she is behaving this way. Another woman spends time with Jenny slowly building a trusting relationship with her. Jenny becomes very upset when this person sees a photograph from Jenny's past. The person waits patiently for Jenny to explain why she is so upset and listens carefully. She doesn't show how shocked she is when Jenny discloses that she has been sexually abused. She realises that if she shows her shock, Jenny may be unable to confide in her.

She knows that the most common and unhelpful response is not to believe the disclosure. And as in the story, the abuser may have threatened reprisals if she tells anyone.

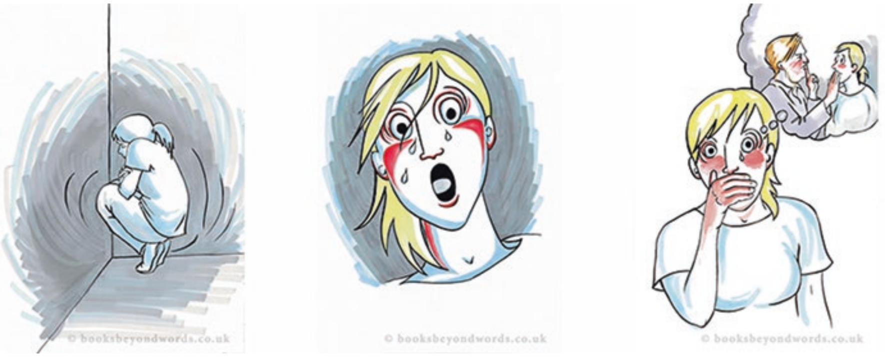
The full picture story illustrates the power of relationships with trusted people to begin the healing process.

So, what did happen to Jenny?

Jenny was one of three children and the only girl. She was very slow to talk and slow to understand, and Jenny didn't play much with other children. When she was school age, questions were asked about whether she should go to school. In some countries, Jenny would have been sent to a special school for children with learning and communication disabilities, and a doctor or speech therapist would have diagnosed her as autistic and having a lower than average IQ in the mild/moderate intellectual disability range. In some countries, she would have been included in the same community school as her brothers and sisters and been given extra help to join in the classes, and extra help with her speech and language. Moreover, in some countries, she would have been left at home with whoever was there to keep an eye on her.

As she grew up, Jenny spent a lot of time on her own. The lack of many regular activities or relationships in her life was detrimental. Her behaviour became repetitive, she engaged in many rituals and her mother found it increasingly difficult to get Jenny to go shopping with her. She left her on her own for long periods and was grateful to any neighbours or family members who offered to keep an eye on her.

Nobody knows when it started, and nobody noticed that it was happening at the time, but someone started abusing Jenny. Her behaviour deteriorated in several ways. She became more withdrawn, and gradually stopped talking. She started masturbating, and her mother tried to teach her not to do it in front of other people. She hit out at people who came too close to her.



Who had hurt Jenny? (Pictures from Jenny Speaks Out, Hollins, Sinason et al., 2005)

The picture story leaves it open for the reader to decide who the perpetrator was – many people assume it was her father, and abuse in the family is the most common form of sexual abuse.

In the case study, Jenny has someone supporting her who knows how to listen, and she is given a chance to tell her story. Being listened to and believed is the best way to help someone recover. It can be too easy to turn away through shock or disgust, and not to be able to listen to another person's distress. We would all rather assume that abuse did not happen. But it has happened throughout time and will always happen. Our job must be to be alert to the possibility and to try to prevent it and to support victims to survive and recover as best as they can.

Responding Effectively and Some of the Barriers to an Effective Response

The same *response* is required as for any child or young person at risk of harm and must be to protect the person as soon as possible.

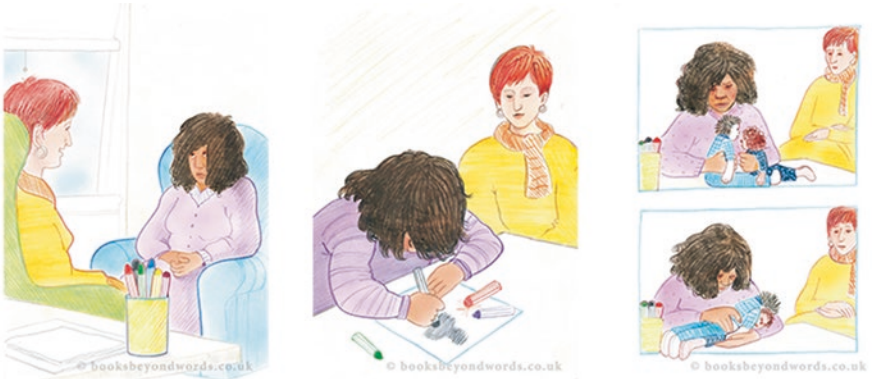
The most important action to take when anyone is at risk is to try to remove the threat by *stopping* any known harm, but not necessarily by removing them from the situation. Removing the alleged or suspected victim, for example, from their family or familiar carers, can cause additional harm including a loss of support. In some circumstances, this will involve putting care in place to prevent harm occurring in the future.

The action needs to be proportionate. If the harmful situation is primarily one of neglect, then providing practical support and counselling for the family carer may be all that is needed to support the family unit and avoid the child or young person being admitted to an institution.

The best approach is to help the child or adult to understand how to stay safe and how to make choices in their relationships with other people. This will require providing information and listening tools in accessible formats. The cultural context and local arrangements for supporting disabled children and adults differ. But in every country, increased awareness in local communities about the needs of these groups is important and will provide the best *protection and support* for them.

Psychotherapy and Counselling

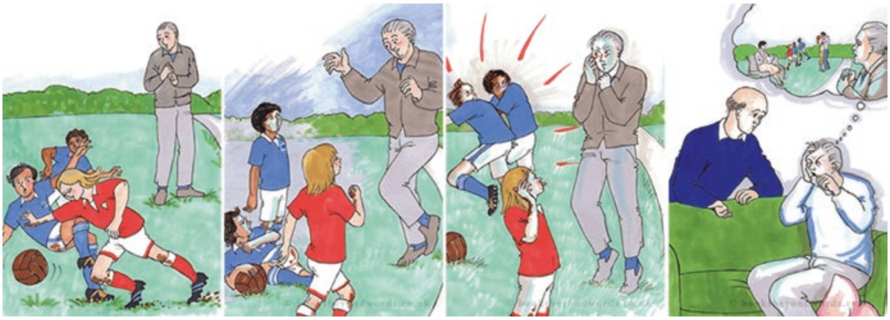
Therapy is often not considered appropriate for this group who may have additional difficulties talking about what has happened. It is true that counsellors and therapists have to be a little more patient in order to listen and understand (Boardman, Bernal, & Hollins, 2014; Hollins & Sinason, 2000). Counselling interventions can be adapted to make them suitable and effective for victims with intellectual and/or communication impairments. Suggestions include using pictures to prompt the person, such as ‘I wonder what is happening here?’ and ‘Has this ever happened to you?’ (Hollins, Carpenter, Bradley, & Egerton, 2017). Another widely used approach which is also used with young able children is to provide anatomically ‘correct’ dolls and to observe what the child does with them such as re-enacting an abusive experience, or to provide paper and colouring pens, so that the child or young person can draw.



Counselling approaches are easily adapted. (Pictures from I Can Get Through It, Hollins, Horrocks et al., 1998)

Counselling/psychotherapy may help the person to learn how to find new boundaries to keep them safe in the future, as well as to make sense of their bad memories and replace them with valid happier memories (Parkes et al., 2004). One of the hardest things for all victims of abuse is feeling bad, dirty and unlovable, and believing that it must be their fault. These feelings take a long time to work through, and during therapy, the memories may come back even stronger. They may have difficulty sleeping or lose their appetite, and their behaviour may become more difficult. These are not reasons to stop listening or to stop therapy, however. Trying to bury bad memories will store up trouble for the future. But it is not easy, and people need courage and support – this is especially true for victims with an intellectual disability.

Remembering abuse might make a victim/survivor avoid other people and the possibility of close relationships. But some people show their hurt by getting *too* friendly with other people including in a sexual way. One way to understand this is to recognise that their intimate boundaries have been disturbed or broken and they don't know what is normal now. Their ordinary emotional and sexual development was interrupted, and, without help, the possibility of developing emotional maturity is much reduced. Another way of looking at this is to realise that they do not know how or when to say 'no'. They do not know how to keep themselves and others safe. Sometimes this even more difficult if the person is also on the autistic spectrum and has difficulty understanding the rules that govern our everyday relationships.



Understanding safe boundaries. (Pictures from Making Friends, Hollins, Roth et al., 1995)

Individual and Group Therapy

In a group for victim-perpetrators with IDD run by the authors, wordless books were used regularly. All the book titles available would be placed on a table, and for the first half of the group, the men picked and read a book without words. In the second half, everyone discussed what they had seen or recognised. People were free to focus on a single picture or read in a chronological way. The relief the men experienced at finding a picture that represented their experience was reminiscent of the early struggles in the UK to include black faces on television programmes and books. If you are not 'seen', if you are invisible, what does that mean about your worth and the build-up of your identity?

The authors ran long-term psychoanalytic therapy groups for IDD adults (who were victim- perpetrators), child groups and long-term individual therapy, and found a number of barriers and other challenges in this work.

Additional Challenges Observed During the Course of Therapy

1. The child/adult with IDD may be dependent on others for help with basic toileting and personal care.
2. Educational packages about 'private' parts are of no use when their private parts have to be touched by caretakers every day.
3. The difficulty in communicating verbally makes it harder for the IDD child to show his/her plight to anyone except by body language.
4. Excessive masturbation or inappropriate eroticised behaviour is all too often dismissed as part of the IDD rather than a possible sign of abuse.
5. The difficulty in communicating verbally makes it harder for the IDD person to disclose their abuse.
6. The belief that attractiveness is a part of rape erases the possibility of seeing that a child or adult with IDD has been abused.
7. The guilt at being disabled can lead to compliance out of fear of abandonment.
8. The child or adult with IDD can have a fantasy that their disability was caused by 'bad sex' which arrests psychosexual development.
9. The victim with IDD may only function at their age-appropriate level for a short time each day which makes an age-appropriate response to abusive encounters more difficult.
10. The IDD child or adult victim when faced with a perpetrator who denies the abuse is more vulnerable to psychotic breakdown.

We found that a 'therapeutic' silence was persecutory for our patients, as was the adoption of formal behaviour and neutral expressions. Our patients needed to check our faces to know they were not objects of disgust to us. They needed a warm empathic containment and transparent response.

Being heard and acknowledged when you're brave enough to come forward really matters. Without trained therapists, care and education staff or volunteers can be helped to become barefoot therapists.

Dr. Deborah Marks, a British disability psychotherapist, named our kind of treatment 'psychoanalytic advocacy'. For example, in one group, a man came with badly bruised face. He said he had bumped into a tree because he could not see properly. He had broken his glasses, and the optician said he had already had his free yearly pair and he could not have another free one yet. SH asked the group what they thought should be done and they said, 'Write a letter'. So, we did. SH then had a further idea. She said she was talking on an important radio programme next morning about cuts to funding, and she could mention this as an example. The man concerned was thrilled. She mentioned him and his optician rang him offering new glasses!

With a minimum of 18 months of individual or group psychotherapy, we found a major reduction of self-injurious symptoms and a greater capacity to communicate and have pleasure in being. Indeed, we found even those with profound and multiple IDD showed important changes in treatment (Parkes et al., 2007).

Public Education

It might seem a long distance from working with township illiterate adults to working with highly trained professionals at a workshop or conference, but the way of gently approaching any group of citizens to increase their awareness and understanding is similar. It relies on the understanding that any group of 100 may include around 25 victims and 5 victim perpetrators.

At the World Meeting of Families in Dublin in 2018, SH as moderator of a live-streamed panel discussion on safeguarding used this principle too by acknowledging that the audience included victims as part of her approach to educating those present:

> I will think about the impact of abuse, and why *how* we respond affects all kinds of outcomes including the culture of the church. I hope this will be relevant to people in the room concerned about education and accountability at all levels. We (the panel) are acutely aware that some people in this hall will have been directly or indirectly affected by sexual abuse, whether it was clerical abuse, or abuse in the family or elsewhere.
>
> For some of you this may be something that you have not yet shared with others. There are so many people in our communities who have suffered the tragedy of sexual abuse and have never spoken to anyone about their experience, often because of a fear of not being believed.
>
> We hope you will be able to receive the support and help that you need now and in the future.

SH informed the group that there were two local organisations, *Towards Healing* which is an independent organisation providing professional support for people who have experienced institutional clerical or religious abuse in Ireland. A second organisation that was doing very good work in Ireland is *Towards Peace* that was founded to provide a safe supportive space where people who have been affected by abuse, in a church context, can be accompanied as they seek their own experience of spiritual peace one step at a time.

Both of these organisations, *Towards Healing* and *Towards Peace*, have websites that are easily accessed. They also have representatives here if anyone would like to learn more about their services either for yourself or a friend or loved one. They are in the room today and also in the exhibition hall. For those of you from abroad and with leadership positions in your church communities, you may wish to learn from these two organisations and see whether what they offer could also be developed in your own country.

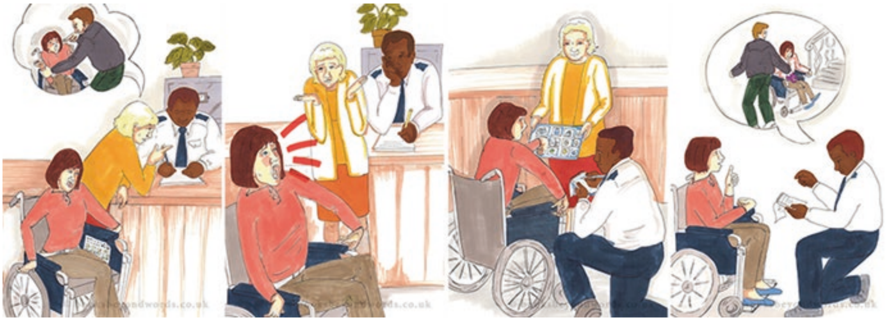
Professional Consultation to a Barefoot Group

Although the illustrations shown in this chapter depict typical victim/survivor responses, the stories also end in a genuinely positive way showing healthy attachment and trust being rebuilt. The stories are both a 'barefoot' communication tool for the concerned community leader, safeguarding lead or parent and a therapeutic tool for trained professionals. The books don't have to be read in chronological order, but the reader can choose any pictures which have meaning for them and which assist their understanding. Each book has been trialled extensively with people who find pictures easier than words in the UK, and many have been used in non-English-speaking countries without any adaptation to the artwork. Some readers have found local images from magazines and other sources to add images to help make the stories more culturally or contextually familiar, for example, with respect to clothing, skin colour, etc., but without changing the impact of the difficult topic being communicated. A couple of books were co-created with a team in South Africa to help understanding about being tested for and living with HIV.

A group of mothers in a South African township were concerned that a teenage girl with IDD might be being abused by her father who was bringing her up alone since his wife's death from AIDS. They saw her disturbed behaviour when she was stirring the alcohol for her father who was running an illegal bar (shebeen). The mothers wanted him spoken to gently by a visiting trauma specialist (VS) because he had been tortured by police in the pre-Mandela apartheid regime for a crime he was innocent of. They said they would encourage him to visit her by the true suggestion that he was a man bringing up a daughter who had lost her mother as well as having a disability. When he nervously approached VS, a thin, anguished looking man, wringing his hands nervously, she said to him how hard it was for a man to bring up a girl alone, let alone a girl with an IDD. She added it was especially hard when a man had faced such cruel experiences as he had. He smiled embarrassedly and said that sometimes he did not treat her right, that he was hard on her. VS said how brave he was to admit that too as parents all over the world found it hard to admit it when they were not treating their child right. And it was harder when someone had gone through something awful. Each week over a month, he would return to tell VS he was treating his daughter a bit better. On the fourth meeting, he told her he had been anally raped with a glass bottle by a policeman who had wrongfully arrested him. He covered his face with his hands and left. By this time, he had stopped abusing his daughter. The mothers of the community all knew it from her behaviour and his behaviour. On the next visit a year later, he told VS he had stopped working with alcohol and bottles. Now, he was a barber.

This example from the year 1990 was when South Africa was in political turmoil before Nelson Mandela became president. Readers may wonder why this abuse was not reported to the police. In countries where the police force is not trusted by the people, the ethics of reporting or not are even harder to deal with.

However, justice through the Courts is increasingly proving possible.



When the victim has no voice. (Pictures from Michelle Finds a Voice, Hollins et al., 2016)

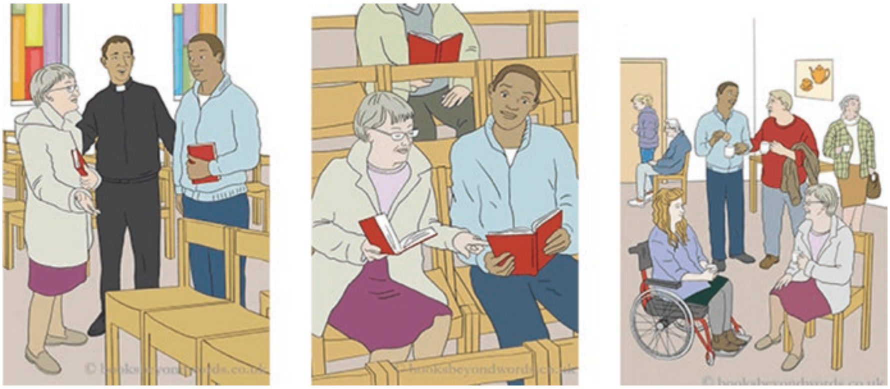
There is a wider crucial context where a victim becomes a perpetrator. This is as true for parents with an IDD, victims with an IDD and victims from the rest of the population. Addressing the perpetrator's own trauma has to be dealt with first before the attachment leads to improvement. Perpetrators need help to change and will need skilled containment including through the criminal justice system. However, this provides little long-term protection if therapy is not provided to the perpetrator who in our experience is highly likely to have been a victim.

How Can the Church Meet the Spiritual Needs of Disabled Children and Adults?

Disability is something to live with for life, but treatment allows someone to understand and learn how to live with their disability. Abuse breaks through the soul and identity of any child and leaves different scars. The combination of both is a cruel double handicap. However, such is the courage and resilience of children and adults when treated with dignity and respect that this too can be lived with. As for everyone who is abused, treatment and care will never compensate for the loss of their childhood, and when the abuse is clerical, the loss of faith is an additional jeopardy. Care must also attend to the needs of their soul.

In 1986, a film was produced, 'Children of a Lesser God,' that highlighted the plight of children with a hearing impairment. The title became as powerful an inspiration as the film. We do not want our children and adults with an IDD to become children of a lesser God or a lesser society. When we help, the most vulnerable our society becomes enriched.

Christian theology often emphasises the purity of the unblemished which is why the sixteenth-century painting by a follower of Jan Joest of Kalkar is remarkable in including both a shepherd and an angel with the facial features of Down's syndrome, by the crib where the baby Jesus is lying (Hollins, 2018). Shepherds considered were lowly people, rather than people with IDD, and rarely invited into full fellowship. It is for our Churches to reach out and offer a welcome to this group of people and their families (Hollins, 2005; Hollins & Lodge, 2015; Made in God's Image, 2018; Swinton, 2001).



A welcome into the parish. (Pictures from Going to Church, Hollins, Swinton et al., 2017)

Conclusions

Several of the goals of the Child Dignity Global Alliance are relevant to the issues discussed in this chapter. Improving education of children and young people (Goal 12) will be a protective factor for some, and may facilitate earlier disclosure, the fact is that such education is seldom offered to children with IDD (McElearney, Scott, Stephenson, Tracey, & Corry, 2011).

Helping a community to speak about the subject (Goal 13: to ensure all citizens are alert to the risks of abuse and know how to report it) will reduce the shame and stigma of abuse and allow it to be more visible and easier to name and thus more likely to have a greater preventive value with less need then for costly interventions. Goals 8 (to train clinicians to better serve the needs of victims) and 9 (to expand treatment resources) focus on the provision of specialist help for victims and their families. In most countries, however, the provision of such treatment is just not available for disabled children and young people at all even though this group have much higher risks of abuse and will be the largest group amongst victims of abuse, even if not usually recognised as such. The authors have therefore focussed on the simple ways in which regular caregivers and concerned adults can respond effectively to hear the pain of these victims and start them on a path towards understanding and healing.

Additional Reading

WHO: Better health, better lives: children and young people with intellectual disabilities and their families. European Declaration on the Health of Children and Young People with Intellectual Disabilities and their Families, EUR/51298/17/6 26 November 2010.

In 2012 the Declaration was signed by 52 Ministers of Health for the WHO Euro region and has since been adopted by some Ministries of Health in other regions. It identified 10 priorities of which the first and most important was to keep disabled children and young people safe from harm and abuse.

This paper can be downloaded (in English and Russian) from the World Health Organisation: http://www.euro.who.int/__data/assets/pdf_file/0015/121263/e94506.pdf

The research underpinning the priorities is available from: http://www.euro.who.int/__data/assets/pdf_file/0018/174411/e96676.pdf

Useful resources about keeping safe are available from the British Institute of Learning (Intellectual) Disability: http://www.bild.org.uk/resources/useful-resources/advocacy-to-employment/#Abuse

**The illustrations are drawn from Books *Beyond Words. The full stories are available as print and E-books from* the not for profit publisher, Beyond Words, London: https://booksbeyondwords.co.uk, or from Amazon. Discounted prices available to LAMI countries on request from: admin@booksbeyondwords.co.uk

Short scenarios from the books are available in a searchable APP downloadable from the APP Store (android or IOS).

1. HOLLINS S., SWINTON J., CARPENTER K., Illustrator Lucy Bergonzi (2017) *Going to Church*. This book tells the story of a disabled man who is welcomed by his parish after initially feeling excluded. (Pictures 23,24 and 28)
2. HOLLINS, S., CURRAN, J., BANKS, R., WEBB, B. (2011) *Ron's Feeling Blue; and Sonia's Feeling Sad;* HOLLINS, S., HORROCKS, C., SINASON, V., KOPPER, L. (2002) *Mugged.* These stories show how depression, PTSD or anxiety are recognised in young people with a communication disability. (Pictures from
3. HOLLINS, S. and SINASON, V., WEBB, B. (2005) Jenny *Speaks Out; Bob Tells All; and* HOLLINS, S., HORROCKS, C., SINASON, V., KOPPER, L. (1998) *I Can Get Through It.* These 3 books show how people with intellectual disabilities may react to abuse and how therapy needs to be adapted to be effective. (Pictures from *I Can Get Through It:* 10, 16, 19, 21).
4. HOLLINS, S., FLYNN, M., RUSSELL, P., BRIGHTON, C. (2016) George *Gets Smart; and Susan's Growing Up. These books show how intellectually disabled young people cope with puberty.* (Pictures from *Susan's Growing Up*: 13, 19, 22).
5. HOLLINS, S. and ROTH, T., WEBB, B. (1995) *Making Friends; Hug Me Touch Me;* HOLLINS, S., PEREZ, W. and ABDELNOOR, A., WEBB, B. (1999) *Falling in Love;* HOLLINS, S. and SINASON, V., BERGONZI, L. (2018) *Belonging; and HOLLINS, S., DOWNER, J., FARQUARSON, L., KOPPER, L. (2009) Speaking Up for Myself.* These stories explore aspects of living safely in the

community. These stories show how difficult it is for many autistic and intellectually disabled people to understand safe boundaries in relationship to others. (Pictures from *Making Friends:* 7, 8, 9, 21).

6. HOLLINS, S., SINASON, V., BONIFACE, J., WEBB, B. (2016) Going *to Court; and* HOLLINS, S., BARNETT, S., WEBB, B. (2016) *Michelle Finds a Voice. These 2* stories show how it is possible for disabled victims to give evidence with the right support. *(Pictures from Michelle Finds a Voice:19, 20, 29, 30).*
7. HOLLINS, S., TOWELL, D., WEBB, B. (2017) A *New Home in the Community*. Beyond Words, London: https://booksbeyondwords.co.uk. This book explores what it is like to move from institutional care to family-based care. *(pictures from A New Home in the Community: 2, 28, 29*

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[1] Note: Some of the case examples are drawn from the PhD submitted to the University of London in 2003 by Dr. Sinason entitled: 'Learning Disability as trauma and the impact of trauma on disability', which was supervised by the first author.

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Evidence-Based Treatment for Victims of Child Sexual Abuse and Exploitation

Anthony P. Mannarino and Judith A. Cohen

The major focus of this book is online child sexual exploitation. This is an extremely important topic given the wide availability of the Internet in most parts of the world. Children and adolescents often have ready access to the digital world and are potentially vulnerable to older adolescents and adults who can exploit their immaturity and naivete.

Since terminology differs across locations, we first clarify our use of the term “child sexual abuse” versus “child sexual exploitation.” In Europe, “child sexual exploitation” typically refers broadly to any situation in which offenders misuse power (physical, financial, or emotional) over youth to sexually abuse them, whereas in the United States, this is typically referred to as “child sexual abuse.” In the United States, the term “child sexual exploitation” commonly refers specifically to the commercial sexual exploitation of youth, in which something of value (e.g., money, food, accommodations, gifts, drugs, clothing, etc.) is exchanged for the youth’s participation in sexual activity. Since this chapter focuses on and cites empirical treatment research studies, most of which use the terms “child sexual abuse” or “commercial sexual exploitation of children,” we will use these terms throughout the chapter.

To date, there has been one randomized clinical trial (RCT) for youth who have experienced commercial sexual exploitation (described below), but none specifically for children who experienced online (vs. in-person) child sexual exploitation. Current clinical experience and scientific knowledge suggest that online child sexual exploitation leads to similar symptoms as in-person sexual abuse. Moreover, a substantial proportion of these youth may have also experienced in-person sexual abuse and/or other types of trauma. It is thus likely that these youth would benefit from evidence-based treatments (EBTs) for these trauma experiences. Accordingly, we will focus on the broader topic of EBTs for victims of child sexual abuse and

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E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5_8

other trauma types and address the implications of this literature for online exploitation.

Introduction

Child sexual abuse is a type of childhood trauma. However, for many years, sexual abuse was considered part of the child maltreatment field, while trauma as a research area and focus of intervention was more aligned with clinical psychiatry and psychology. For example, in the United States, child maltreatment became a formal area of study and discipline in the early 1980s and found its professional home in organizations like the American Professional Society on the Abuse of Children (APSAC). And, of the different types of child maltreatment and neglect, sexual abuse was the major focus in terms of research and the development of appropriate treatment interventions. In contrast, childhood trauma and posttraumatic stress disorder (PTSD) have resided in the clinical domain and have been more the purview of clinical disciplines (e.g., child and adolescent psychiatry, clinical child and adolescent psychology) and have been more allied with organizations like the International Society for Traumatic Stress Studies (ISTSS). Basically, child maltreatment and childhood trauma/PTSD existed in two separate silos, and professionals and investigators in these separate fields did not typically collaborate on research or clinical projects.

This separation of disciplines began to change in the United States in 2001 with the creation of the National Child Traumatic Stress Network (NCTSN), a federal initiative that is focused on improving the quality and access to care for children and families exposed to traumatic life events. Child abuse and child trauma professionals started to collaborate with the end result being one area of study broadly represented by child trauma, with child abuse being one type. This merger of separate disciplines has truly advanced both fields and has contributed to the development of numerous EBTs for childhood trauma exposure, childhood PTSD, different forms of child maltreatment, and the sequelae of child sexual abuse.

The first RCT for childhood trauma was published in 1996 by Cohen and Mannarino. This study was the first to examine the efficacy of trauma-focused cognitive behavioral therapy (TF-CBT) as a treatment intervention and focused on preschool children ages 3–6 who had been victims of sexual abuse. Results indicated that TF-CBT was significantly more effective than nondirective therapy with regard to a variety of emotional and behavioral adjustment outcomes, including sexually inappropriate behaviors (Cohen & Mannarino, 1996a). Moreover, these significant gains were maintained at the 1-year follow-up (Cohen & Mannarino, 1997). Also noteworthy in this study and follow-up was the importance of parental/caregiver involvement in TF-CBT. Specifically, at the end of treatment, a reduction in parental distress correlated significantly with clinical improvement in the children (Cohen & Mannarino, 1996b), while at the 6- and 12-month follow-ups, parental support was highly predictive of better clinical outcomes (Cohen & Mannarino, 1998a).

During this same time period, there were two additional RCTs, both of which examined the efficacy of TF-CBT and again focused on child victims of sexual abuse. Deblinger, Lippman, and Steer (1996) found that TF-CBT was effective in reducing symptoms of PTSD in school-age children, while Cohen and Mannarino (1998b) found that 12 sessions of TF-CBT were significantly more effective than nondirective supportive therapy for children ages 7–14 in reducing depressive symptoms and sexually inappropriate behaviors.

Until the early 2000s, these were the only RCTs focused on the sequelae of childhood trauma. It is important to note that these studies specifically focused on clinical outcomes, including PTSD, for children who were victims of sexual abuse. Up until that time, child maltreatment researchers developed conceptual models of the impact of child sexual abuse (e.g., traumagenic dynamics model by Finkelhor & Browne, 1985), but there was little understanding of how sexual abuse could result in PTSD and other traumatic stress symptoms. Accordingly, the advent of the NCTSN along with these early RCTs of TF-CBT for child victims of sexual abuse greatly advanced the field and set the foundation for the emergence of other child trauma interventions. However, despite the development of at least a dozen other EBTs for childhood trauma, TF-CBT remains the most scientifically studied and efficacious treatment for the sequelae of childhood trauma. Moreover, TF-CBT has been the most extensively studied treatment for child victims of child sexual abuse, child commercial sexual exploitation (O'Callaghan, McMullen, Shannon, Rafferty, & Black, 2013), and other types of childhood trauma including multiple and complex traumas (Cohen, Deblinger, Mannarino, & Steer, 2004; Goldbeck, Muche, Sacher, Tutus, & Rosner, 2016; Jensen et al., 2013; Murray et al., 2015).

Common Elements in EBTs for Childhood Trauma Including Sexual Abuse

Prior to the development of EBTs for childhood trauma, the prevailing treatment strategies included nondirective client-centered therapies and play therapy. These treatments typically included child sessions, with minimal involvement of parents or other caregivers. In fact, parents were often perceived as responsible to some extent for what happened to the child by allowing ongoing trauma, especially sexual abuse, to occur in the home. However, early demographic studies (Mannarino & Cohen, 1986) demonstrated that non-offending parents most often were not aware of the sexual abuse and did not collude with perpetrators to perpetuate these offenses. Additionally, the NCTSN began to promote standards that strongly recommend that parents/caregivers be included in child trauma treatment (National Child Traumatic Stress Network [NCTSN] Core Concepts and Curriculum Workgroup, 2013). Thus, including parents/caregivers has become the gold standard in the child trauma treatment field, and again TF-CBT has led the way in this regard.

Of course, from both a conceptual and developmental perspective, it makes sense to involve parents in child trauma treatment. Specifically with respect to sexual abuse, the non-offending parent will benefit from understanding its impact, including the potential onset of sexually reactive behaviors and how to manage these behaviors. Also, given that parental distress correlates with negative clinical outcomes and that parental support increases the likelihood of more positive clinical outcomes (Cohen & Mannarino, 1996b; Cohen & Mannarino, 1998a), helping parents to cope more effectively with their own emotional reactions to the sexual abuse and learn ways to support their child are critical to treatment success.

The majority of trauma treatments for both children and adults are phase-based; clients learn an array of self-regulation skills to enhance stabilization prior to progressing to trauma narration (i.e., describing the details of their traumatic experiences). This phased approach is important given that trauma impacts many functional domains, including affect, behavior, biological functioning, interpersonal relationships, and cognitions. Phase-based treatment provides the opportunity for children to develop stabilization skills in these important areas and helps parents/caregivers to better understand trauma impact and to develop these skills themselves since parents are frequently dysregulated in response to their children's trauma experiences (Cohen & Mannarino, 2020).

The development of these skills in both children and parents is similar to building the foundation of a house. Without the foundation, a house would not be sufficiently sturdy to support the upper levels. In a similar way, the initial phase of trauma treatment assists both children and parents to better understand the impact of trauma and develop the skills to deal more effectively with its sequelae. Such preparatory work sets the stage for children to be less avoidant of progressing to the trauma narration work and for parents to hear about the experiences that their children have endured.

Providing an initial skills-building (stabilization) phase is particularly critical for children who have experienced interpersonal trauma, including online child sexual exploitation or in-person sexual abuse. Sexual abuse often involves a betrayal of trust and typically occurs in an environment of secrecy which augments the shame of victims. Betrayal, secrecy, and shame serve to reinforce the avoidance of child victims who may become extremely reluctant to discuss and process their victimization experiences. The early stabilization phase of trauma treatment helps children to overcome the painful betrayal, secrecy, and shame that they have endured and thus be in a better place both emotionally and cognitively to share and process the actual details of their sexual abuse or other exploitation.

In addition to inclusion of parents/caregivers and the incorporation of a phase-based treatment approach, most EBTs for the sequelae of childhood trauma, including online sexual exploitation or in-person sexual abuse, address other areas of functioning in addition to PTSD symptoms. This comprehensive approach is based on the evolving treatment for complex trauma which recognizes that many children have been exposed to multiple traumas, including sexual abuse, early in life and typically in their family of origin, and that their clinical outcomes encompass more than simple PTSD. Treatment for complex trauma usually addresses the following major areas:

1. Disturbances in trust, attachment, and other interpersonal relationships
2. Affective regulation problems such as depression, anxiety, anger, or severe affective dysregulation
3. Behavioral regulation problems such as problematic sexual behaviors or externalizing behavior problems, substance abuse, or self-injury
4. Cognitive and perceptive perceptual not perceptive problems such as highly negative self-perceptions or distortions related to responsibility and self-blame
5. Changes in biological functioning, including sleep problems, headaches, and other physical symptoms
6. Problems with school and learning and/or problems with adaptive functioning (Cohen & Mannarino, 2020)

As mentioned above, this constellation of clinical problems is sometimes referred to as "complex trauma" or "complex PTSD," and although not included in the DSM-5 (American Psychiatric Association, 2013), the 11th edition of the International Classifications of Diseases (ICD-11, https://icd.who.int/en/) diagnostic criteria include both PTSD and complex PTSD (Cohen & Mannarino, 2020). Relevant to this chapter, many children with a history of sexual abuse or other sexual exploitation have experienced other trauma types early in life, including domestic violence and physical abuse, and other adverse child experiences (ACEs) such as parental substance abuse, parental psychiatric problems, and neglect. In fact, one of the RCTs by the Cohen, Deblinger, and Mannarino team (Cohen et al., 2004) demonstrated that the average number of trauma types experienced by children receiving TF-CBT or the comparison treatment was 3.66. Subsequent TF-CBT RCTs of youth with complex traumas have documented exposure to as many as 11 different trauma types (O'Callaghan et al., 2013).

Additionally, although child victims of sexual abuse often display at least some PTSD symptoms, they also exhibit problems in the domains typically defined as complex trauma, including trust issues, anxiety and depressive symptoms, self-blame and shame, and inappropriate sexualized behaviors. Thus, child victims of sexual abuse and other sexual exploitation require comprehensive EBTs that broadly address the often diverse nature of their early trauma experiences as well as their complicated clinical outcomes.

EBTs for Childhood Trauma

As mentioned earlier in this chapter, at least a dozen EBTs have now been developed to treat the sequelae of childhood trauma. Unfortunately, what constitutes an EBT has been somewhat controversial among both researchers and mental health clinicians. For example, in the latter group, anecdotal clinical evidence is sometimes touted as sufficient to consider an intervention to be evidence-based. For the purposes of this chapter, however, an EBT will be defined as an intervention that has at least one RCT to support its efficacy.

The large majority of EBTs for childhood trauma were not developed specifically to address the consequences of sexual abuse or exploitation. In fact, most have been developed to treat PTSD and other traumatic stress symptoms associated with a wide variety of trauma, including sexual abuse, physical abuse, domestic violence, community violence, and multiple traumas. Moreover, it is beyond the scope of this chapter to provide a cursory summary of each of these EBTs. (Please see the website of the National Child Traumatic Stress Network [www.NCTSN.org] for a comprehensive summary of these EBTs.) Therefore, the specific EBTS mentioned below are included because either conceptually they are relevant to online child sexual exploitation or other forms of sexual abuse, or in the RCTs supporting their efficacy, victims of sexual abuse were included.

Child and Family Traumatic Stress Intervention (CFTSI) is a brief (five to eight sessions), evidence-based treatment for children 7–18 years old that is geared toward decreasing traumatic stress reactions in the acute or early stages of trauma response (www.NCTSN.org). CFTSI is typically implemented within 30–45 days following a traumatic event or the disclosure of physical or sexual abuse. Results from the one RCT (Berkowitz, Stover, & Marans, 2011) supporting its efficacy demonstrated that CFTSI was more effective than the comparison treatment (four sessions of supportive counseling) in reducing traumatic stress responses.

Risk Reduction through Family Therapy (RRFT) was developed to address the large array of symptoms in teenagers who have been exposed to interpersonal violence and trauma, including sexual abuse and/or sexual assault (www.NCTSN.org). In addition to trauma-related difficulties, RRFT is focused on dangerous behaviors which are often present in this population, including substance abuse, risky sexual behaviors, and non-suicidal self-injury (e.g., cutting). Key components of RRFT are psychoeducation, coping skills, family communication, substance abuse interventions, healthy dating and sexual decision-making, and sexual revictimization risk reduction. In the original pilot study (Danielson et al., 2012), results indicated that RRFT was effective in reducing both PTSD symptoms and substance use problems. In a subsequent larger RCT study, RRFT was compared to usual care and found to be equivalent to usual care in improving PTSD but superior for reducing days of substance use at 3-month follow-up. It should be noted that in this study, usual care in most cases consisted of TF-CBT and that both treatments were highly effective at improving PTSD and substance abuse at the end of active treatment (Danielson et al., 2020).

Problematic Sexual Behavior-Cognitive-Behavioral Therapy for School-Age Children (PSB-CBT-S) was developed for children ages 7–12 with problematic sexual behaviors who may or may not have a history of trauma. This intervention includes the family or other support systems in the child's treatment. Additionally, PSB-CBT-S requires the parent/caregiver to actively participate in therapy sessions as the child is learning skills to reduce the risk or eliminate any problematic sexual behaviors. Assessment of treatment progress is ongoing. Key components of PSB-CBT-S include rules about sexual behavior and boundaries, abuse prevention skills and safety planning, affective regulation skills, coping skills, impulse control and problem-solving skills, developmentally appropriate sexual education, social skills development, and acknowledgment of sexual behavior, apology, and making amends (www.nctsn.org). In one outcome study (Carpentier, Silovsky, & Chaffin, 2006), results indicated that children who had been referred for problematic sexual behavior and treated with PSB-CBT-S were no more likely to commit sexual offenses than a comparison group of youth with disruptive behavior but no known sexual behavior problems.

As mentioned above, PSB-CBT-S was not specifically developed for children with a history of online sexual exploitation or other sexual abuse. However, since many children who have been sexually victimized exhibit some sexually inappropriate behaviors, PSB-CBT-S can be an important intervention for this subset of victimized children. Additionally, long-term follow-up PSB-CBT-S has demonstrated that children treated with this intervention had significantly fewer sexual offenses than the comparison group treated with play therapy (Carpentier et al., 2006).

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)

TF-CBT was the first intervention to be scientifically studied with respect to treating the sequelae of childhood trauma. As of this writing, it remains the child trauma intervention with the greatest amount of empirical support. TF-CBT integrates several approaches and theories, including trauma-sensitive interventions, cognitive behavioral principles, attachment theory, developmental neurobiology, family therapy, empowerment therapy, and humanistic therapy (Cohen, Mannarino, & Deblinger, 2017). TF-CBT is appropriate for children who have experienced any type of traumatic experience, including sexual abuse, commercial sexual exploitation, physical abuse, domestic violence, and multiple/complex traumas. The nonoffending parent or caregiver actively participates in TF-CBT and generally is involved in treatment to the same degree as the child. For example, in an average 60-min treatment session, the child's individual treatment would be for approximately 30 min, and the parent would receive the same amount of time. (Of course, this division of time is not rigid and may vary from week to week based on clinical considerations (Cohen et al., 2017).)

TF-CBT was developed to address the multiple impacts of trauma including PTSD; affective, biological, behavioral, cognitive, dissociation, and relationship problems; as well as adaptive functioning. TF-CBT is appropriate for children ages 3–18 years old. (This is the age range for which there is empirical support for the efficacy of TF-CBT.) It is typically implemented over the course of 12–16 sessions in outpatient clinic settings, but it is also provided in the home, school, residential centers, and inpatient and juvenile justice settings (Cohen & Mannarino, 2020). For youth with complex trauma, the length of treatment can be up to 25 sessions.

TF-CBT is perhaps best known for its treatment components which are summarized by the acronym PRACTICE:

- Psychoeducation and parenting skills
- Relaxation
- Affective regulation
- Cognitive processing
- Trauma narration and processing
- In vivo mastery
- Conjoint sessions
- Enhancing safety and future development

The early components (PRAC) are the stabilization phase of TF-CBT and are focused on helping both the child and parent/caregiver to better manage their thoughts and feelings related to the trauma(s). Psychoeducation is focused on normalizing the reactions that both children and parents have to trauma and helping them to understand the impact of trauma on the body, the brain, and the mind. In this early phase, there is a particular emphasis on learning effective coping skills for trauma reminders. For example, with children who have experienced sexual abuse or other sexual exploitation, trauma reminders may include other people who look like the perpetrator or the location of the sexual abuse (e.g., child's bedroom). As children learn effective coping skills and better affective regulation strategies, avoidance typically decreases, and they are then able to move forward with trauma narration and processing (Cohen et al., 2017).

The trauma narration and processing component provides the opportunity for the child to share details about their trauma experiences, to process any cognitive distortions and/or unhelpful thoughts about their trauma, and to contextualize their experiences (i.e., making meaning). Children who have been sexually abused or have experienced other types of sexual exploitation typically have known the perpetrator (e.g., father, stepfather, older cousin) and have developed some level of trust in that individual. Accordingly, the trauma narration often addresses issues of secrecy, shame, trust, and betrayal which are so common with sexual victimization. Also, children are praised for their courage in disclosing the abuse and participating in therapy which often become part of their contextualization (e.g., "I got stronger." "It helps to talk about your feelings in therapy.")

One of the major goals of the conjoint sessions is for the child to share their trauma narrative with the non-offending parent. Prior to that occurring, the therapist shares the narrative with the parent without the child there to provide the parent with the opportunity to process their own reactions. For example, when a child has been sexually abused, parents may struggle with issues of betrayal, guilt, and anger at the perpetrator and sometimes mixed loyalties. Also, parents may not completely support the child because believing that the sexual abuse occurred could have major repercussions for the family such as the father having to move out of the home and possibly be prosecuted, or the family having to relocate because they can no longer afford their current residence. Having the opportunity to address and at least partially resolve these difficult issues enable parents to be more supportive of their child when the child shares the trauma narrative in a conjoint session. When this occurs, the conjoint session can be a major highlight of the TF-CBT treatment (Cohen et al., 2017).

The enhancing safety and future development component of TF-CBT is particularly important for children who have been victimized by sexual abuse or other forms of sexual exploitation. For example, young children can learn and practice "telling someone" they trust if in the future they are touched inappropriately again. For older children and adolescents, there is the opportunity to discuss how to use the Internet in a safe manner and what signs to look for that might suggest the potential for online sexual exploitation. With adolescents, TF-CBT can also address healthy vs. unhealthy relationships, intimate partner violence, sexually transmitted diseases, and issues of gender identity and sexual preference (Cohen, Mannarino, Wilson, & Zinny, 2018).

TF-CBT Research Related to Child Sexual Abuse

In the introduction to this chapter, we discussed the early TF-CBT randomized trials for children exposed to sexual abuse and other forms of sexual exploitation (Cohen & Mannarino, 1996a; Cohen & Mannarino, 1998b; Deblinger et al., 1996). The Cohen, Mannarino, and Deblinger teams joined together for the largest TF-CBT clinical trial for the sequelae of sexual abuse in which 229 children ages 8–14 were randomly assigned to either TF-CBT or the comparison treatment which was client-centered therapy (Cohen et al., 2004). The index trauma for all of these children was sexual abuse, although most had experienced multiple traumatic events. (In fact, the mean number of traumatic experiences was 2.66 in addition to the sexual abuse.) Each treatment was provided in 12 weekly individual sessions for both the parent and child. Results indicated that TF-CBT was significantly more effective than client-centered therapy in reducing PTSD symptoms, depressive symptoms, abuse-related shame, and behavioral problems. Similarly, children who received TF-CBT experienced significantly greater gains in interpersonal trust and perceived credibility than children receiving client-centered therapy.

As we discussed earlier in the chapter, parent/caregiver involvement is a critical part of the TF-CBT model. In the large study described above (Cohen et al., 2004), parents/caregivers who participated in the TF-CBT treatment had significantly greater reductions in depression and abuse-related distress than those who participated in client-centered therapy. Additionally, they experienced significantly greater improvement in parenting practices and parental support than parents/caregivers receiving client-centered therapy. Thus, this large TF-CBT trial demonstrated that not only do children victimized by sexual abuse make significant treatment gains but their parents do as well. It is worth noting that at the 6- and 12-month follow-up assessments for this study (Deblinger, Mannarino, Cohen, & Steer, 2006) that children who received TF-CBT experienced significantly fewer PTSD symptoms and abuse-related shame than their counterparts who had received client-centered therapy. Also, during this same follow-up period, parents who participated in TF-CBT continued to exhibit lower levels of abuse-related distress than parents who received client-centered therapy.

The Cohen, Mannarino, and Deblinger team completed a second large RCT for 210 children ages 4–11 exposed to sexual abuse (Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011). In the latter study, the major areas of focus were on the trauma narration and processing component and length of treatment. Results indicated that TF-CBT, with or without the trauma narration and processing component and regardless of whether treatment was 8 or 16 sessions, was significantly effective in reducing PTSD symptoms, behavioral problems, depressive and anxiety symptoms, abuse-related shame, and problematic sexual behaviors. Also, parents made significant improvements in their own depressive symptoms, abuse-related distress, and parenting skills. All of these findings were sustained at the 6- and 12-month follow-up assessments (Mannarino, Cohen, Deblinger, Runyon, & Steer, 2012).

Thus, the research supporting the efficacy of TF-CBT to treat the sequelae of sexual abuse in child victims is very strong. Although there have been many TF-CBT RCTs for other types of trauma, including domestic violence, civil war exposure, sex trafficking, and multiple traumas, the most extensive research has been focused on victims of sexual abuse and their non-offending parents. It should be noted that children in these trials were typically victimized by contact sexual abuse of some type (e.g., inappropriate touching, vaginal, oral, or anal penetration) or exposure to pornography. Perhaps because these studies were completed at least a decade ago, there were few child victims included who had been exposed to online sexual exploitation only. Accordingly, it is difficult to determine whether the findings from the TF-CBT efficacy trials for children exposed to contact sexual abuse or pornography would specifically apply to children who have experienced online sexual exploitation.

However, one of the most important achievements of collaborative efforts such as the NCTSN has been to highlight commonalities across different trauma types and to break down the “silo” approach to treating these. As documented by Saunders (2003) and others, most children experience more than one form of trauma, and our research has confirmed this among youth who experience sexual abuse. Additionally, cumulative studies document the strong efficacy of TF-CBT across diverse and multiple trauma types, developmental levels (3–18 years), treatment settings (e.g., inpatient, outpatient, residential treatment, child welfare, nongovernmental organization, etc.), delivery format (e.g., individual, group, in-person, online), and cultures (e.g., United States, Europe, Africa, Asia, Australia), contributing to its generalizability across populations of traumatized youth. As the generalizability of TF-CBT and other child trauma EBTs increases, so can confidence that these treatments can be successfully implemented for youth who experience online sexual exploitation, either alone or in combination with other traumas. While it would be ideal to conduct an RCT specifically for this population, our clinical experience with many such children and adolescents, as well as the broad generalizability of TF-CBT for youth who have experienced other forms of sexual abuse as well as multiple other forms of trauma, all suggest that TF-CBT would be an effective intervention for these youth.

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Annex

The Declaration of Rome

World Congress: Child Dignity in the Digital World
6 October 2017
Pope Francis – "A society can be judged by the way it treats its children."

Every child's life is unique, meaningful, and precious and every child has a right to dignity and safety. Yet today, global society is failing its children. Millions of children are being abused and exploited in tragic and unspeakable ways, and on an unprecedented scale, all over the world.

Technology's exponential advancement and integration into our everyday lives is not only changing what we do and how we do it, but who we are. Much of the impact of these changes has been very positive. However, we face the dark side of this newfound world, a world which is enabling a host of social ills that are harming the most vulnerable members of society.

While undoubtedly the Internet creates numerous benefits and opportunities in terms of social inclusion and educational attainment, today, content that is increasingly extreme and dehumanizing is available literally at children's fingertips. The proliferation of social media means insidious acts, such as cyberbullying, harassment, and sextortion, are becoming commonplace. Specifically, the range and scope of child sexual abuse and exploitation online are shocking. Vast numbers of sexual abuse images of children and youth are available online and continue to grow unabated.

The detrimental impact of pornography on the malleable minds of young children is another significant online harm. We embrace the vision of an Internet accessible by all people. However, we believe the constitution of this vision must recognize the unwavering value of protecting all children.

The challenges are enormous, but our response must not be gloom and dismay. We must work together to seek positive, empowering solutions for all. We must

© Springer Nature Switzerland AG 2021
E. Caffo (ed.), *Online Child Sexual Exploitation*,
https://doi.org/10.1007/978-3-030-66654-5

ensure that all children have safe access to the Internet to enhance their education, communications, and connections.

Technology companies and government have shown leadership in this fight and must continue to innovate to better protect children. We must also awaken families, neighbors, communities, and children themselves around the world to the reality of the Internet's impact upon them.

We already have potent global platforms in place and important global leaders making significant progress in fulfilling these aims. The Centre for Child Protection at the Pontifical Gregorian University conducts international safeguarding work in 30 countries on four continents. The WePROTECT Global Alliance, launched by the United Kingdom, in partnership with the European Union and the United States, unites 70 nations, 23 technology companies, and many international organizations in this fight. The United Nations is leading a global effort to achieve UN Sustainable Development Goal 16.2 to eradicate violence against children by 2030, particularly through the Global Partnership to End Violence Against Children.

This is a problem that cannot be solved by one nation or one company or one faith acting alone; it is a global problem that requires global solutions. It requires that we build awareness and that we mobilize action from every government, every faith, every company, and every institution.

This Declaration of Rome issues a call to action:

1. To world leaders to undertake a global awareness campaign to educate and inform the people of the world about the severity and extent of the abuse and exploitation of the world's children and to urge them to demand action from national leaders
2. To leaders of the world's great religions to inform and mobilize members of every faith to join in a global movement to protect the world's children
3. To the parliaments of the world to improve their laws to better protect children and hold those accountable who abuse and exploit children
4. To leaders of technology companies to commit to the development and implementation of new tools and technologies to attack the proliferation of sex abuse images on the Internet and to interdict the redistribution of the images of identified child victims
5. To world's ministries of public health and the leaders of nongovernmental organizations to expand the rescue of child victims and improve treatment programs for victims of abuse and sexual exploitation
6. To government agencies, civil society, and law enforcement to work to improve the recognition and identification of child victims and ensure help for the massive numbers of hidden victims of child abuse and sexual exploitation
7. To the world's law enforcement organizations to expand regional and global cooperation in order to improve information sharing in investigations and increase collaborative efforts in addressing these crimes against children which cross national boundaries

8. To the world's medical institutions to enhance training for medical professionals in recognizing the indicators of abuse and sexual exploitation and improve the reporting and treatment of such abuse and sexual exploitation
9. To governments and private institutions to enhance resources available to psychiatric and other treatment professionals for expanded treatment and rehabilitation services for children who have been abused or exploited
10. To the leading authorities in public health to expand research into the health impacts resulting from the exposure of young children and adolescents to graphic, extreme Internet pornography
11. To leaders of the world's governments, legislative bodies, private industry, and religious institutions to advocate for and implement techniques to deny access by children and youth to Internet content suitable only for adults
12. To governments, private industry, and religious institutions to undertake a global awareness campaign directed at children and youth to educate them and provide them with the tools necessary to use the Internet safely and responsibly and to avoid the harm being done to many of their peers
13. To governments, private industry, and religious institutions to undertake a global awareness initiative to make citizens in every country more alert and aware regarding the abuse and sexual exploitation of children and to encourage them to report such abuse or exploitation to appropriate authorities if they see it, know about it, or suspect it

In this era of the Internet, the world faces unprecedented challenges if it is to preserve the rights and dignity of children and protect them from abuse and exploitation. These challenges require new thinking and approaches, heightened global awareness, and inspired leadership. For this reason, this Declaration of Rome appeals to everyone to stand up for the protection of the dignity of children.

Presented this sixth day of October 2017.

Address of His Holiness Pope Francis to the Participants in the Congress on "Child Dignity in the Digital World"

Clementine Hall
Friday, 6 October 2017

Your Eminences,
President of the Senate, Madame Minister,
Your Excellencies, Father Rector,
Distinguished Ambassadors and Civil Authorities,
Dear Professors, Ladies and Gentlemen,

I thank the Rector of the Gregorian University, Father Nuno da Silva Gonçalves, and the young lady representative of the youth for their kind and informative words of introduction to our meeting. I am grateful to all of you for being here this morning and informing me of the results of your work. Above all, I thank you for sharing your concerns and your commitment to confront together, for the sake of young people worldwide, a grave new problem felt in our time. A problem that had not yet been studied and discussed by a broad spectrum of experts from various fields and areas of responsibility as you have done in these days: the problem of the effective protection of the dignity of minors in the digital world.

The acknowledgment and defense of the dignity of the human person is the origin and basis of every right social and political order, and the Church has recognized the Universal Declaration of Human Rights (1948) as "a true milestone on the path of moral progress of humanity" (cf. JOHN PAUL II, Addresses to the United Nations Organization, 1979 and 1995). So too, in the knowledge that children are among those most in need of care and protection, the Holy See received the Declaration of the Rights of the Child (1959) and adhered to the relative Convention (1990) and its two optional protocols (2001). The dignity and rights of children must be protected by legal systems as priceless goods for the entire human family (cf. *Compendium of the Social Doctrine of the Church*, Nos. 244–245).

While completely and firmly agreed on these principles, we must work together on their basis. We need to do this decisively and with genuine passion, considering with tender affection all those children who come into this world every day and in every place. They need our respect, but also our care and affection, so that they can grow and achieve all their rich potential.

Scripture tells us that man and woman are created by God in his own image. Could any more forceful statement be made about our human dignity? The Gospel speaks to us of the affection with which Jesus welcomes children; he takes them in his arms and blesses them (cf. *Mk* 10:16), because "it is to such as these that the kingdom of heaven belongs" (*Mt* 19:14). Jesus' harshest words are reserved for those who give scandal to the little ones: "It were better for them to have a great millstone fastened around their neck and to be drowned in the depth of the sea" (*Mt* 18:6). It follows that we must work to protect the dignity of minors, gently yet firmly, opposing with all our might the throwaway culture nowadays that is everywhere apparent, to the detriment especially of the weak and the most vulnerable, such as minors.

We are living in a new world that, when we were young, we could hardly have imagined. We define it by two simple words as a "digital world," but it is the fruit of extraordinary achievements of science and technology. In a few decades, it has changed the way we live and communicate. Even now, it is in some sense changing our very way of thinking and of being, and profoundly influencing the perception of our possibilities and our identity.

If, on the one hand, we are filled with real wonder and admiration at the new and impressive horizons opening up before us, on the other, we can sense a certain concern and even apprehension when we consider how quickly this development has taken place, the new and unforeseen problems it sets before us, and the negative consequences it entails. Those consequences are seldom willed, and yet are quite real. We rightly wonder if we are capable of guiding the processes we ourselves have set in motion, whether they might be escaping our grasp, and whether we are doing enough to keep them in check.

This is the great existential question facing humanity today, in light of a global crisis at once environmental, social, economic, political, moral, and spiritual.

As representatives of various scientific disciplines and the fields of digital communications, law, and political life, you have come together precisely because you realize the gravity of these challenges linked to scientific and technical progress. With great foresight, you have concentrated on what is probably the most crucial challenge for the future of the human family: the protection of young people's dignity, their healthy development, their joy, and their hope.

We know that minors are presently more than a quarter of the over 3 billion users of the Internet; this means that over 800 million minors are navigating the Internet. We know that within 2 years, in India alone, over 500 million persons will have access to the Internet, and that half of these will be minors. What do they find on the net? And how are they regarded by those who exercise various kinds of influence over the net?

We have to keep our eyes open and not hide from an unpleasant truth that we would rather not see. For that matter, surely we have realized sufficiently in recent years that concealing the reality of sexual abuse is a grave error and the source of many other evils? So let us face reality, as you have done in these days. We encounter extremely troubling things on the net, including the spread of ever more extreme pornography, since habitual use raises the threshold of stimulation; the increasing phenomenon of *sexting* between young men and women who use the social media; and the growth of online bullying, a true form of moral and physical attack on the dignity of other young people. To this can be added *sextortion*; the solicitation of minors for sexual purposes, now widely reported in the news; to say nothing of the grave and appalling crimes of online trafficking in persons, prostitution, and even the commissioning and live viewing of acts of rape and violence against minors in other parts of the world. The net has its dark side (the "dark net"), where evil finds ever new, effective, and pervasive ways to act and to expand. The spread of printed pornography in the past was a relatively small phenomenon compared to the proliferation of pornography on the net. You have addressed this clearly, based on solid research and documentation, and for this we are grateful.

Faced with these facts, we are naturally alarmed. But, regrettably, we also remain bewildered. As you know well, and are teaching us, what is distinctive about the net is precisely that it is worldwide; it covers the planet, breaking down every barrier, becoming ever more pervasive, reaching everywhere and to every kind of user, including children, due to mobile devices that are becoming smaller and easier to use. As a result, today no one in the world, or any single national authority, feels capable of monitoring and adequately controlling the extent and the growth of these phenomena, themselves interconnected and linked to other grave problems associated with the net, such as illicit trafficking, economic and financial crimes, and international terrorism. From an educational standpoint too, we feel bewildered, because the speed of its growth has left the older generation on the sidelines, rendering extremely difficult, if not impossible, intergenerational dialogue and a serene transmission of rules and wisdom acquired by years of life and experience.

But we must not let ourselves be overcome by fear, which is always a poor counselor. Nor let ourselves be paralyzed by the sense of powerlessness that overwhelms us before the difficulty of the task before us. Rather, we are called to join forces, realizing that we need one another in order to seek and find the right means and approaches needed for effective responses. We must be confident that "we can broaden our vision. We have the freedom needed to limit and direct technology; we can put it at the service of another type of progress, one which is healthier, more human, more social, more integral" (*Laudato Si′*, 112).

For such a mobilization to be effective, I encourage you to oppose firmly certain potentially mistaken approaches. I will limit myself to indicating three of these.

The first is to underestimate the harm done to minors by these phenomena. The difficulty of countering them can lead us to be tempted to say: "Really, the situation is not so bad as all that…" But the progress of neurobiology, psychology, and psychiatry have brought to light the profound impact of violent and sexual images on the impressionable minds of children, the psychological problems that emerge as they grow older, the dependent behaviors and situations, and genuine enslavement that result from a steady diet of provocative or violent images. These problems will surely have a serious and lifelong effect on today's children.

Here I would add an observation. We rightly insist on the gravity of these problems for minors. But we can also underestimate or overlook the extent that they are also problems for adults. Determining the age of minority and majority is important for legal systems, but it is insufficient for dealing with other issues. The spread of ever more extreme pornography and other improper uses of the net not only causes disorders, dependencies, and grave harm among adults but also has a real impact on the way we view love and relations between the sexes. We would be seriously deluding ourselves were we to think that a society where an abnormal consumption of Internet sex is rampant among adults could be capable of effectively protecting minors.

The second mistaken approach would be to think that automatic technical solutions, filters devised by ever more refined algorithms in order to identify and block the spread of abusive and harmful images, are sufficient to deal with these problems. Certainly, such measures are necessary. Certainly, businesses that provide millions of people with social media and increasingly powerful, speedy, and pervasive software should invest in this area a fair portion of their great profits. But there is also an urgent need, as part of the process of technological growth itself, for all those involved to acknowledge and address the ethical concerns that this growth raises, in all its breadth and its various consequences.

Here we find ourselves having to reckon with a third potentially mistaken approach, which consists in an ideological and mythical vision of the net as a realm of unlimited freedom. Quite rightly, your meeting includes representatives of lawmakers and law enforcement agencies whose task is to provide for and to protect the common good and the good of individual persons. The net has opened a vast new forum for free expression and the exchange of ideas and information. This is certainly beneficial, but, as we have seen, it has also offered new means for engaging in heinous illicit activities, and, in the area with which we are concerned, for the abuse of minors and offences against their dignity, for the corruption of their minds and violence against their bodies. This has nothing to do with the exercise of freedom; it has to do with crimes that need to be fought with intelligence and determination, through a broader cooperation among governments and law enforcement agencies on the global level, even as the net itself is now global.

You have been discussing all these matters, and, in the "Declaration" you presented me, you have pointed out a variety of different ways to promote concrete cooperation among all concerned parties working to combat the great challenge of defending the dignity of minors in the digital world. I firmly and enthusiastically support the commitments that you have undertaken.

These include raising awareness of the gravity of the problems, enacting suitable legislation, overseeing developments in technology, identifying victims, and prosecuting those guilty of crimes. They include assisting minors who have been affected and providing for their rehabilitation, assisting educators and families, and finding creative ways of training young people in the proper use of the Internet in ways healthy for themselves and for other minors. They also include fostering greater sensitivity and providing moral formation, as well as continuing scientific research in all the fields associated with this challenge.

Very appropriately, you have expressed the hope that religious leaders and communities of believers can also share in this common effort, drawing on their experience, their authority, and their resources for education and for moral and spiritual formation. In effect, only the light and the strength that come from God can enable us to face these new challenges. As for the Catholic Church, I would assure you of her commitment and her readiness to help. As all of us know, in recent years, the Church has come to acknowledge her own failures in providing for the protection of children: extremely grave facts have come to light, for which we have to accept our responsibility before God, before the victims, and before public opinion. For this very reason, as a result of these painful experiences and the skills gained in the process of conversion and purification, the Church today feels especially bound to work strenuously and with foresight for the protection of minors and their dignity, not only within her own ranks but in society as a whole and throughout the world. She does not attempt to do this alone – for that is clearly not enough – but by offering her own effective and ready cooperation to all those individuals and groups in society that are committed to the same end. In this sense, the Church adheres to the goal of putting an end to "the abuse, exploitation, trafficking and all forms of violence against and torture of children" set by the United Nations in the 2030 Agenda for Sustainable Development (Target 16.2).

On many occasions, and in many different countries, I gaze into the eyes of children, poor and rich, healthy and ill, joyful and suffering. To see children looking us in the eye is an experience we have all had. It touches our hearts and requires us to examine our consciences. What are we doing to ensure that those children can continue smiling at us, with clear eyes and faces filled with trust and hope? What are we doing to make sure that they are not robbed of this light, to ensure that those eyes will not be not darkened and corrupted by what they will find on the Internet, which will soon be so integral and important part of their daily lives?

Let us work together, then, so that we will always have the right, the courage, and the joy to be able to look into the eyes of the children of our world. Thank you.