

Running Head: A SYSTEMATIC REVIEW OF ONLINE CHILD SEXUAL ABUSE

**A SYSTEMATIC REVIEW OF ONLINE CHILD SEXUAL ABUSE: VICTIM RISK AND
OFFENDER PROFILE AND METHODOLOGIES**

by

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Declaration: I hereby declare that the above-mentioned treatise is my own work and that it has not previously been submitted for assessment to another University for another qualification.

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*It matters not how strait the gate,
How charged with punishments the scroll,
I am the master of my fate,
I am the captain of my soul.*

William Ernest Henley

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Abstract

Purpose: The purpose of this treatise was to synthesize the current research, nationally and internationally, both qualitative and quantitative, concerning online child sexual abuse. The study focused on crimes of a sexual nature perpetrated against children, with or without consent, in an online environment. The aim was to clearly articulate the characteristics of victims, including both their vulnerabilities and their protective factors and to provide offender profiles, including their methodologies.

Method: A systematic search for peer reviewed articles published between 2000 and 2006 was conducted. The final sample included 73 articles, which were arranged in order of publication, and the top and bottom interquartile range was selected for review and coding.

Results: 36 articles were thematically coded in order to identify the most prominent themes in the articles. The result of this review was a typology of victims and offenders, as well as offender methodologies that reflects an aggregation of the most prominent research on the subject of online child sexual abuse.

Conclusion: Much of the common knowledge concerning online child sexual offenders and their victims is incorrect. The typologies identified in this review show a much more diverse picture of both offenders and victims than is held in popular knowledge. This research has identified the damage that misinformation can do, and has highlighted the need for accurate, empirically sound information to be made available to parents, teachers, health care professionals and youth.

Keywords: Computer mediated communication, ephebophilia, grooming, hebephilia, internet child pornography, online child sexual abuse, paedophilia, systematic review

Chapter 1: Introduction

Overview of the Chapter

This chapter provides an overview of the current study. It aims to detail the context in which the study arose, provide the aims and objectives, and outlines the methodology. Finally, an overview of the chapters that follow are provided to orientate the reader to the process and outcomes of the research.

Context of Research

Many young people today are exposed to unwanted sexual material and sexual solicitation online. Data from the third Youth Internet Safety Survey, which involved some 1500 youth between the ages of 10 and 17, found that 9% of youth experience unwanted sexual solicitations and 23% report exposure to unwanted sexual material (Jones, Mitchell, & Finkelhor, 2012). There is a growing need for parents, schools, and health care professionals to provide advice on how to help youth avoid and deal with these kinds of experiences (Wolak, Finkelhor, & Mitchell, 2004).

In the early 1990's, publicised high-profile cases of online child sexual abuse caused major concern, and with a lack of scientific information available at the time, the media assisted in creating a picture of the internet as the haven of paedophiles, waiting to prey on vulnerable and innocent children (Cockbain, 2013; Staksrud, 2013; Wolak, Finkelhor, Mitchell, & Ybarra, 2008). Parents believed that their children were at risk of exploitation merely by having access to the internet, and all online child-related offences were assumed to be the work of paedophiles.

The media often provides opposing perspectives on internet technology and those who use it. At times it is heralded as an indispensable tool for education, resources and communication, while at other times is admonished for its risk to youth; their safety and security,

and a danger to their development. Youths themselves are depicted in contrasting images: the 'tech-savvy' adolescent who quickly adapts to the online environment, with internet skills surpassing adults around them; and the naïve and innocent child, who is easily taken advantage of by immoral and calculating child molesters (Mitchell, Finkelhor, & Becker-Blease, 2007a; Mitchell, Finkelhor, & Wolak, 2001; Mitchell, Ybarra, & Finkelhor, 2007d).

The media's description of internet-initiated child sexual abuse has focused on the deceit of offenders, who are portrayed as paedophiles that misrepresent themselves as peers of their victims. These offenders are reported to establish what appears to be benevolent relationships with children, stalking their victims and then ultimately luring them into sexually forceful encounters (Wolak et al., 2004).

This in turn has led to prevention messages that focus on advising youth not to correspond with strangers, not to give out personal information, and not to go alone to meetings with people they have met online (Wolak et al., 2004). These messages do not take into account how youth use online technologies. Many children and adolescents use the internet to chat casually with people they do not know, often forming online relationships with people they have never met physically, most of whom are peers. Youth also form online friendships with adults that are benevolent and supportive (Wolak et al., 2004). Generic protection messages that focus on not talking to strangers or giving out personal information are therefore seen as unrealistic and are largely ignored by adolescents (Wolak et al., 2004).

According to Wolak et al. (2004) sex crimes have been particularly prone to misrepresentation. This has led to, amongst other things, an under-emphasis on the role of abuse at the hands of family members and acquaintances, which is also facilitated by the use of online technologies (Mitchell, Finkelhor, & Wolak, 2005). Family members and acquaintances account

for approximately half of all arrests for internet related crimes against identified victims (Mitchell et al., 2005). Depicting online offenders in black and white terms, as predatory strangers, might be an attempt by the community to distance themselves from the reality of child sexual abuse (Tener, Wolak, & Finkelhor, 2015).

The media is not a valid or reliable source of information and is prone to sensationalism. A study conducted, over the course of six years, on newspaper articles concerning online child sexual abuse, found that there is a selection bias on the part of the media concerning stories on which they report (Alexy, Burgess, & Baker, 2005). The media tends to focus on covering more sensational stories, which is evidenced by 36% of all internet offender related stories being published in 1997, after which there was a steady decline. This decline does not reflect a decline in incidents, but rather a decline in media interest.

There is presently much research to support that the stereotype of the internet child offender who uses deception and coercion to offend against children, is largely inaccurate. Most internet related sex offences involve men and women who use the internet to find and seduce under age youth into sexual relationships, in which they are often willing to participate (Mitchell, Jones, Finkelhor, & Wolak, 2010; Quayle, Allegro, Hutton, Sheath, & Lööf, 2014; Wolak et al., 2008). Research now supports the position that the majority of online child sexual offenders are not paedophiles, and they do not tend to be violent, impulsive or have criminal records (Tener et al., 2015). Online offenders are much more complicated than the stereotypical picture portrays. They are largely diverse and heterogeneous, with a diverse range of motivations and methodologies.

The volume of information available concerning online child sexual abuse is overwhelming and often contradictory. With a lack of empirical information available on these

phenomena, the media is relied upon to provide information. Increasing pressure and demand from the public has seen policies developed retroactively and in response to the media, rather than to scientific research. Some of these policies and prevention measures are therefore aimed at the wrong targets and miss their mark (Cockbain, 2013; Staksrud, 2013; Wolak et al., 2008).

The sexual abuse of children is a global phenomenon with current statistics indicating that 1 in 5 girls and 1 in 20 boys will be a victim of child sexual abuse (The National Centre for Victims of Crime, 2012). The commercial availability of the internet since the 1990's has added new dynamics to this phenomenon. From 2000 to 2009, the number of internet users rose from 394 million to 1.858 billion, and by 2014 this figure had risen to above the 3 billion mark; which amounts to 43.6 % of the world's population (International Telecommunication Union, 2015). If mental health practitioners, law enforcement, government, teachers, and parents are to respond effectively to the threat of online child sexual abuse, they need an accurate picture that details the nature of these diverse and complex offences, including who commits them, what motivates them, and who their victims are.

Research Objectives

The aim of this review was to synthesise current research, both national and international, and qualitative and quantitative, concerning online child sexual abuse. As the number and nature of crimes committed against children are wide, varied, and overlapping, the review focuses specifically on crimes of a sexual nature perpetrated against children, with or without their consent, in an online environment, which either results in contact or non-contact sexual offences.

The objectives of this study are to create an accurate profile of victims and offenders, and to detail the methodology utilised in the commission of these offences. The research questions to be answered are:

1. What factors place children at risk of sexual abuse in an online environment?
2. What factors protect children from online sexual abuse?
3. What are the characteristics of an individual who uses the internet to perpetrate sexual crimes against a child, with or without consent, in an online environment?
4. What are the techniques used by an individual to perpetrate sexual crimes against a child, with or without consent, in an online environment?

Methodology

This research was conducted using a systematic review methodology that is designed to interpret large bodies of information (Petticrew & Roberts, 2006), and is considered to be the most effective way of locating, appraising, and synthesising information (Dickson, Cherry, & Boland, 2014; Petticrew & Roberts, 2006).

Sources consisted of peer-reviewed journals accessed through the University of Port Elizabeth's Library Catalogues (UPECAT). UPECAT is part of the South East Academic Libraries System (SEALS). Both databases provide access to a wide range of information platforms such as EBSCOhost, Academic Search Complete, Psychinfo, Sage Publications, Science Direct and Taylor and Francis Online. The following key words were used in the search: 'abuse', 'child', 'exploitation', 'online', 'solicitation'.

Information gathered from the systematic review was analysed using thematic analysis as detailed by Braun and Clarke (2006). This method of data analysis is used to identify, analyse and report on patterns within data (Braun & Clarke, 2006). According to Braun and Clarke (2006), thematic analysis is independent of theory and is therefore a flexible research tool which can provide rich and detailed data.

Ethical Considerations

The main ethical consideration in a systematic review is to ensure that neutrality is maintained. By using stringent methodological protocols, the researcher ensured that bias was kept to an absolute minimum. APA 6 referencing (American Psychological Association, 2010) was used throughout the documentation, so as to ensure against plagiarism. Finally, all copyright restrictions were observed, and permissions sought where appropriate.

Chapter Overview

The context, process and outcomes of this review will be discussed in the following chapters. Chapter two will place the study within the broader context of current knowledge. This chapter aims to familiarise the reader with the background history of online child sexual abuse, and highlight the difficulties currently experienced in this field. Concepts will be discussed in terms of their definition and description as well as the challenges concerning these definitions.

Chapter three outlines the research methodology used in conducting this review. The steps taken are described in detail in order to ensure replicability and academic rigour.

Chapter four discusses the findings of the thematic analysis resulting from the final selection of articles. Themes arising from the analysis will be described in detail and discussed within the context of the current body of knowledge in order to draw conclusions.

Chapter five will identify the limitations of this study as well as recommendations for future research. Finally, a reflection on the development and progression of this research will be provided from the perspective of the researcher.

Conclusion

This first chapter provided the context of this review and a rationale for this research. It has aimed to provide the reader with an outline of how the research will progress and how the findings will be described and discussed.

The following chapter details the available literature on the subject of online child sexual abuse. It will aim to highlight the difficulties currently experienced in this field, and will define the concepts and terms to be used throughout the review.

Chapter 2: Literature Review

Introduction

Having outlined the context and motivation for this review in the previous chapter, this chapter focuses on establishing the current context of the research. This chapter will define what constitutes online child sexual abuse and its current international and national prevalence, including a guide as to the terms and their definitions used throughout this review. This will be followed by a discussion and definition of the context in which online child sexual abuse occurs, namely, the internet. Finally, previous theories on offender typologies will be discussed so as to provide a context for the findings and discussion chapter.

Online Child Sexual Abuse

The sexual abuse of children is a global phenomenon. Current statistics indicate that 1 in 5 girls and 1 in 20 boys will be a victim of child sexual abuse (The National Centre for Victims of Crime, 2012). The commercial availability of the internet since the 1990's has added new dynamics to this phenomenon. From 2000 to 2009, the number of internet users increased from 394 million to 1.858 billion, and by 2014, it had risen to above the three billion mark; which amounts to 43.6% of the world's population (Harrison, 2015).

While child sexual abuse is not a new phenomenon, the advent of the internet has created a new medium for an old crime (Taylor & Quayle, 2010). The internet provides potential offenders with access to a wide range of legal and illegal sexual content, as well as potential victims. Services that cater for individuals with deviant sexual interests are affordable, and above all, provide anonymity for their users. The 'Triple A Engine'; accessibility, affordability and anonymity, as defined by Cooper (2009) has turned the internet into a powerful tool for online sexual offending.

As children and adolescents engage with new and ever-evolving technologies that allow for increasing connectivity, they are increasingly exposed to new opportunities online, as well as risk (Vandoninck, d'Haenens, & Roe, 2013). The following section will discuss the prevalence of child sexual abuse in general and online sexual abuse in particular, and aims to outline some of the experiences that the youth are faced with in the online environment.

Prevalence.

Establishing the prevalence of online child sexual abuse is an international problem. A lack of reporting, inconsistent recording of offences, and differences in definition makes establishing prevalence a chronic difficulty (Child Exploitation and Online Protection Centre, 2012; Mathews, Loots, Sikweyiya, & Jewkes, 2013). Sexual abuse in general is underreported, and this trend extends to online victimisation as well (Kloess, Beech, & Harkins, 2014).

In the United Kingdom (UK) children are highly accessible to online offenders, as 91% have access to the internet at home. Adolescents in the UK between the ages of 12 and 15 are estimated to be spending 17.1 hours per week on the internet, which represents a 15% increase since 2011 (Child Exploitation and Online Protection Centre, 2010a).

In the United States of America (USA), by 2010 97% of children had internet access at home, and approximately half of the children had internet on their phones (Jones et al., 2012).

The picture of internet availability in South Africa is quite different from that of the UK and the USA. In 2013, South Africa had 23,655,690 internet users, which only represented 48.9% of the population. Mobile penetration, however, was estimated in 2008 to be at 100.48%, with youth between the ages of 15 to 24 being the primary owners at 72% (Beger & Sinha, 2012). An estimated 88% of mobile phone owners access the internet from their phones ("SA Internet Penetration Stats," 2014).

Establishing the prevalence of child sexual abuse in South Africa is also difficult. The Sexual Offences and Related Matters Amendment Act of 2007 (2007) defines 59 different types of sexual offences (2007). Under-reporting signifies that police statistics, which are the main source of data, are grossly underestimated (Mathews et al., 2013). Prior to the promulgation of the SOA, the police reported separate data for rape and indecent assault, post 2008 this practice was stopped and the figures are now combined. Without a breakdown, it is impossible to know which of the 59 offences are included and the nature of their trends. Police statistics therefore only provide a vague and broad picture (Vetten, 2014). With a lack of nationally representative data on sexual offences, accurate information is dependent upon research conducted within the community, specifically focusing on areas of abuse (Vetten, 2014).

To provide some indication of the statistics, RAPCAN (Resources Aimed at the Prevention of Child Abuse and Neglect) released a fact sheet that identified rape statistics as currently reported in South Africa. According to the RAPCAN Fact Sheet of 2008 as cited in Mathews et al. (2013), between 2007 and 2008, 16,068 children were raped, representing 44.4% of rape cases, while 3,517 children were indecently assaulted, representing 52% of indecent assault cases.

None of the 59 sexual offences in the SOA refer to crimes being committed in an online or cyber environment. Crimes such as sex tourism, child pornography, and other cyber related offences have little reliable data, and what data there is suggests that there is an increase in this behaviour (Mathews et al., 2013). South Africa is a primary destination for trafficked victims, both for sexual and labour purposes. Whilst South Africa has pledged its commitment to the prevention of offline and online victimisation of children, it lacks the national data to effectively

implement prevention and apprehension protocols, and is unable to meet its obligations (Mathews et al., 2013).

When child abuse is reported, the recording of information is inconsistent, and gender and age details are missing in a large number of cases. If the crime was committed or initiated online, the online component of the abuse is not recorded (Mathews et al., 2013; Richter & Dawes, 2008; Vetten, 2014).

Data from the studies included in this review will attempt to provide some indication of the prevalence of online sexual abuse. The Child Online Protection Centre (CEOP) established in 2006, is tasked with aiding in the prosecution of national and international online child sexual offenders in the United Kingdom (Child Exploitation and Online Protection Centre, 2010b). According to the CEOP's 2010 annual survey, there was an increasing number of reports of online grooming between 2009 and 2010, with a total of 2,391 reports, 64% related to grooming, making it the most reported activity. In 2012, 1,145 reports of online child sexual abuse were received by the CEOP (Child Exploitation and Online Protection Centre, 2012).

A study conducted in the United States as far back as 2001 found that one in five youths received online solicitation requests, with 3% reporting a request by an offender for offline contact. A follow-up study five years later revealed a 21% increase in the arrests of offenders for soliciting sex from underage youth. In 2010 there were more than 700,000 registered online sex offenders in the United States (Black, Wollis, Woodworth, & Hancock, 2015).

America has conducted a number of studies in an attempt to accurately estimate the number of youth who are exposed to unwanted sexual solicitation and exposure to sexual material, as well as the number of offenders who are arrested for internet related sexual offences. The Youth Internet Safety Survey (YISS), is a youth self-report study that was conducted on

three occasions between 2000 and 2011, with each study sampling approximately 1,500 youth between the ages of 10 and 17. The National Juvenile Online Victimization study (NJOV) was also conducted three times between the 2001 and 2011 and was based on a national stratified random sample of law enforcement agencies, focusing on sexual offences that involved an online component.

According to the first Youth Internet Safety Survey (YISS-1) conducted in 2000, 25% of youth had experienced unwanted exposure to sexual material during the previous year. Seventy-one percent of these instances occurred whilst searching the internet; 28% occurred whilst opening emails or clicking on links in instant messages (Mitchell et al., 2001; Mitchell, Finkelhor, & Wolak, 2004). In 17% of unwanted exposure incidents, youth were unaware that the sites contained explicit material before entering them. Pornography sites are often designed so that they are difficult to exit and in 26% of cases youth reported that while trying to exit the site they were taken to another pornography site (Mitchell et al., 2001, 2004).

The same study revealed that one in seven youths (19%) received at least one sexual solicitation during the previous year, with 3% reporting these solicitations to be aggressive. Solicitations are defined as aggressive when the solicitor attempts to make some form of offline contact. Five percent of youths found these solicitations to be extremely distressing (Mitchell et al., 2004; Mitchell et al., 2007d).

According to the second Youth Internet Safety Survey, 13% of youth aged between 10 and 17 had received unwanted sexual solicitations during the previous year, which represented a 3% decrease since the YISS-1. Of the 20% of youth who had reported online victimisation, 45% reported that they had received requests to take sexual pictures of themselves (Mitchell et al., 2004; Mitchell, Finkelhor, & Wolak, 2007b). Based on the internet usage statistics at the time,

the YISS-1 estimated that 4.5 million youth, between the ages of 10 and 17, are propositioned on the internet every year (Mitchell et al., 2004).

Youth in the YISS-2 were more likely to report an aggressive solicitation compared to youth in the YISS-1 (Mitchell et al., 2007b). Four percent of youth reported an aggressive solicitation in which the offender called them on the phone, sent them regular mail, money or gifts, and/or attempted to meet them offline (Wells & Mitchell, 2007). The YISS-2 estimated that 4% of all internet-using youth received a request for a sexual image.

Finally, the third Youth Internet Safety Survey conducted in 2011 found that 1 in 5 youth (9%) experienced online sexual solicitation and 23% of youth were exposed to unwanted sexual material (Jones et al., 2012; Wells & Mitchell, 2007). This represented a further decrease in rates of solicitation, compared to the 13% reported in the YISS-2 and 19% reported in the YISS 1.

To add different perspectives, a study conducted with mental health practitioners, in which 512 cases were reviewed of youth aged 17 and below, indicated that one in four youth who came for treatment with an internet related problem, had experienced an online sexual solicitation (Wells & Mitchell, 2007).

A Spanish study of 3,219 adolescents between the ages of 12 and 18, found that 23% of youth had experienced some form of sexual solicitation (Montiel, Carbonell, & Pereda, 2016). In 2010 a follow up study of Spanish adolescents was conducted with 3,897 youth between 12 and 20. This study was unique in that it differentiated between different types of sexual solicitation. The study found that 24.4% of youth had experienced exposure to unwanted sexual content, 17.2% had experienced online grooming by an adult, 12.2% had experienced sexual pressure, and 6.7% had experienced sexual coercion (Montiel et al., 2016).

What is evident in the discussion regarding statistics and rates of prevalence, is that there is no single accurate representation of the rate of online child sexual abuse. This is due, in part, to the different methodologies used by the various studies. Some studies have focused on victim self-report data, whilst others have focused on data from law enforcement agencies. This effectively means that the data is impossible to aggregate. A second difficulty in establishing prevalence is the use of different definitions for the constructs concerned. Various countries define online sexual offences differently, which is therefore reflected in the data collected. The following section will outline the definitions of the various concepts used through this review, whilst simultaneously highlighting the way in which difficulties with definitions affect research data.

Definitions and their Challenges

Internet offending.

There is no single definition for internet offending, and the term refers to a range of crimes that overlap with the definition of cybercrime. Cybercrime refers to a range of old and new crimes committed with the aid of computer technology (Kierkegaard, 2008; Taylor & Quayle, 2010).

A narrower definition of internet offending is used to refer to crimes of a sexual nature, facilitated by computer technology and perpetrated against children (Kierkegaard, 2008); but again, online child sexual abuse refers to a range of crimes including pornography, cyber bullying, grooming, paedophilia and trafficking. Each crime is defined within its own right, and has nuances that are unique to its perpetration. To further compound the challenge of definition, these crimes are not discrete as one may aid the perpetration of another, and they may not relate

specifically to the use of the internet, for example, the trading of illegal pornography using mobile phones (Taylor & Quayle, 2010).

Online sexual solicitation.

Online sexual solicitation is defined as being overtly persuaded, by an adult, to disclose personal and/or intimate information, to talk about sex, or to commit some form of sexual act when the individual is not willing (Mitchell et al., 2004; Ybarra, Leaf, & Diener-West, 2004).

The Youth Internet Safety Survey draws a distinction between online limited sexual solicitation, and aggressive solicitation. Aggressive solicitation is defined as attempts made by the solicitor to engage the victim offline either by telephone, meeting in person, or some form of offline contact (Mitchell et al., 2004).

Cyber grooming/online grooming.

There is no commonly accepted definition of online grooming. The definition by Craven, Brown, and Gilchrist (2006) which defines offline grooming, is the most commonly cited and defines grooming as a “process by which a person prepares a child, significant adults and the environment for the abuse of this child. Specific goals include gaining access to the child, gaining the child’s compliance and maintaining the child’s secrecy to avoid disclosure” (Craven et al., 2006, p. 292).

Lorenzo-Dus, Izura, and Pérez-Tattam (2016) define online grooming as a process through which an adult seeks to arrange a sexually abusive situation with a minor through the use of cyber-technology, such as mobile telephones, internet games and chat rooms.

Grooming is an integral part of a number of online sexual offences ranging from grooming a child to taking sexually explicit photos of themselves, to grooming a child with the intention of a contact offence at some point in the future.

Online child sexual abuse may involve the communication between an adult and a child with the purpose of exploitation, this however, has often been generically referred to as grooming, but it is only an element of abuse and not necessarily a definition (Child Exploitation and Online Protection Centre, 2012).

Child sexual exploitation material.

In the majority of literature, the term ‘child pornography’ is not preferred. ‘Child pornography’ consists of images or videos that depict the sexual abuse of a child, and should therefore not be misconstrued with adult pornography, which is assumed to be a voluntary activity between two consenting adults. The term child sexual exploitation material (CSEM), therefore, is preferred and will be used throughout this review (Aiken, Mc Mahon, Haughton, O'Neill, & O'Carroll, 2015; Gallagher, 2007). CSEM is defined by Kierkegaard (2008) as any visual depiction of sexually explicit conduct involving children under the age of 18.

Unwanted exposure to sexual material.

Unwanted exposure to sexual material is defined as being exposed to sexual material, including nude pictures, and/or pictures of individuals engaged in sexual activity, without seeking or expecting such material, when searching the internet, opening emails, or clicking on email links (Mitchell et al., 2004).

Cybersex.

Cybersex is defined as a form of fantasy sexual activity or role play in which individuals interact in a chat room describing sexual acts, sometimes undressing and masturbating (Mitchell et al., 2004).

Sexting.

Sexting is a form of messaging facilitated by the use of cellular telephones where people send pictures of a sexually explicit nature, or engage in sexually explicit conversations through text. It can also be described as the creating, sharing, and forwarding of sexually suggestive nude or nearly nude images (Aiken et al., 2015).

Sextortion.

Sextortion is defined as a specific kind of blackmail in which offenders use the intimate material of others in order to ensure the achievement of their goals. It is a means of coercing online victims to perform sexual acts or to pay a sum of money in exchange for non- exposure of this sensitive material (Kopecký, 2016b).

Internet.

“The internet is a global wide area network that connects computer systems across the world.” The internet provides different online services including the web, which is a collection of billions of webpages that you can view with a web browser; email, a common way of sending and receiving messages on line; social media, websites and applications that allow people to share comments, photos, and videos; online gaming, that allow people to play games together online; and software updates, operating systems and applications can update automatically through the internet (Christensson, 2015).

Paedophilia.

According to the DSM 5 (American Psychiatric Association, 2013) paedophilia is defined by the following criteria, namely: “Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving sexual activity with a prepubescent child or children (generally aged 13 years or younger).” The individual must be at least 16 years

of age, and at least five years older than the child. In some instances, the definition of paedophilia may be extended to include youth that are not prepubescent, extending the definition to children between 13 and 15, which is sometimes defined as hebephilia. This may be of particular reference to internet paedophilia (Bartol & Bartol, 2005).

Defining the Context in which Online Sexual Abuse Occurs

With the permeation of the internet into society, the manner in which individuals interact with each other is constantly evolving (Black et al., 2015). Individuals may have online experiences that can lead to reinterpretations of society, relationships and themselves, which, coupled with the anarchic nature of the internet, is likely to continue to impact social, cultural and psychological aspects of humanity (Quayle & Taylor, 2003).

Multiple theories have been developed to explain how and why the internet has become such an effective tool in the commission of crimes. One such theory is that of the 'Triple A Engine' developed by Cooper (2009) who hypothesised that accessibility, affordability and anonymity combine to have a powerful effect on the internet user, and assist in creating an environment that is suitable for the commission of crimes.

Access refers to the availability of the internet throughout the world, with increasing numbers of individuals accessing the internet every day. Individuals are now able to access the internet from almost any location including, home, school, work, libraries, public transport, and through smart phones. With the internet's accessibility has also come affordability, allowing individuals from all walks of life to access the internet as well as the massive population that uses it. Finally, the internet provides anonymity, which allows individuals to present themselves as they see fit, conducting themselves, their communications, and their relationships in relative privacy (Mitchell et al., 2005). The Triple A Engine does not define all online actions as

criminal but rather describes the manner in which these factors may come together to influence online behaviour.

Another such theory is the routine activities theory which postulates that crime will increase when suitable targets, absent guardians and motivated offenders converge (Cohen & Felson, 1979). This can clearly be seen in the context of the internet. It provides access to innumerable targets, as well as the anonymity necessary to ensure that there are few capable guardians able to intervene in their activities.

Using the internet to form relationships.

Seeking out new people and forming relationships is a developmental imperative for the adolescent (Wolak, Mitchell, & Finkelhor, 2003). For many youth, technology is now part of their friendships, romances, and sexual relationships. They are using technological and internet platforms more than any other medium to initiate and maintain those relationships (Jonsson, Priebe, Bladh, & Svedin, 2014; Say, Babadağı, Karabekiroğlu, Yüce, & Akbaş, 2015).

This has also become a cause for concern, as there exists a possibility that youth may be taken advantage of by online predators who seek to form relationships with underage youth to satisfy their sexual proclivities.

Computer-mediated communication has removed many of the barriers encountered when individuals form relationships face-to-face, such as appearance, non-verbal body language cues, and stigmas (Black et al., 2015). This creates an acceleration in the formation of online relationships. Another factor that accelerates the establishment of online relationships is disinhibition. It is postulated that the internet has a powerful disinhibiting effect on those who utilise it (Quayle & Taylor, 2003). The anonymity of the internet, along with a sense that it is virtual, and somehow 'not real,' amplifies this disinhibiting effect, the consequence of which,

among many, is the swift establishment of relationships and the sharing of personal and intimate material (Quayle & Taylor, 2003).

This disinhibiting effect may also allow individuals to express parts of their personality that may otherwise have remained dormant or have been kept hidden, with positive or negative consequences (Quayle & Taylor, 2001, 2003). The expression of sexual interest is facilitated by the ability to represent oneself in any way that seems fit, and in the online environment, identities can become a resource. Offenders and victims can manipulate their identities based on context-specific requirements to achieve their desired goals, and to manipulate the perceptions of the other party, who have no way of reliably establishing their veracity (Alexy et al., 2005; Malesky, 2007; Quayle & Taylor, 2001, 2003).

Taken together, computer-mediated communication and a strong disinhibiting effect may lead to the swift formation of relationships that are superficial, erotic associations, which are accelerated into a form of pseudointimacy (Quayle & Taylor, 2001).

The role of the internet for adolescents.

The developmental imperative of forming new and enduring relationships in adolescence may draw youth to the use of the internet (Wolak et al., 2003). The internet may provide an environment where adolescents can form friendships and explore their identities free from the awkwardness of face-to-face encounters. Computer-mediated communication allows youth to spend time composing what they want to say, making communication easier for those that might find it anxiety-provoking. The internet provides access to a much larger social network as opposed to what is provided by their immediate environment, and may provide a level of privacy that is so coveted by developing adolescents (Wolak, Mitchell, & Finkelhor, 2002).

The internet can provide youth with a lot more than just the ability to form new friendships. According to the first Youth Internet Safety Survey (Mitchell et al., 2004), 84% of youth use the internet for entertainment, such as playing games (66%) or listening to music (59%). Ninety-two percent of adolescents, aged 12 to 17, use the internet to send and receive emails, 74% use it to send instant messages, and 55% to visit chat rooms. Sixty-nine percent use the internet to look for information on their hobbies, 68% looked for news, 66% used the internet for school related projects, 26% looked for health information, and 18% looked for information on a topic that they found difficult to talk about (Mitchell et al., 2004).

Youth who are curious about their sexuality may use the internet to explore aspects that they are too embarrassed to discuss with others (Mitchell et al., 2007a).

The role of the internet for offenders.

The Triple A Engine, as mentioned above, is a key concern of law enforcement in the commission of online crimes (Mitchell et al., 2004; Schulz, Bergen, Schuhmann, Hoyer, & Santtila, 2015). The anonymity of the internet allows offenders to find and contact like-minded individuals who can fulfil the function of validating behaviour, and gaining greater access to illegal material (Gallagher, 2007). The accessibility and affordability of the internet allows offenders to access an ever-growing pool of children and adolescents who are using the internet (Mitchell et al., 2005).

Anonymity allows offenders to represent themselves in any way they see fit. This can serve two functions: firstly, offenders may be able to represent parts of their identity that they have previously been required to keep hidden; secondly, offenders are able to adopt identities that serve the purpose of sexual solicitation or grooming. Offenders use the anonymity provided

them to access internet chat rooms and meet potential victims (Alexy et al., 2005; Malesky, 2007; Wells & Mitchell, 2007).

The hastening of relationships formed online as described above, may allow offenders to move through the stages of grooming more quickly in computer-mediated communication than in offline and face-to-face relationships (Black et al., 2015).

Technology can also be used to produce, record, store and distribute images and videos of child sexual abuse, whether committed online or offline (Say et al., 2015). The online sexual abuse of youth is diverse and may include stalking, grooming, online sexual solicitation, exposure to unwanted sexual material, and the production of pornography (Say et al., 2015).

The internet and the role of pornography.

The internet has made illegal forms of pornography more readily available to the general public. Law enforcement believes that access to this kind of material has led to the production of more extreme, sadistic and abusive forms of pornography (Mitchell et al., 2007a). It is likely that the internet has made all forms of pornography more available, such as deviant types of sexual material, which were previously only available at great personal risk (Quayle & Taylor, 2003). The availability of this material is used to justify and normalise deviant sexual behaviour as well as fuelling fantasy (Alexy et al., 2005; Quayle & Taylor, 2003).

Online Child Sexual Abuse Victims

There is much misconception with regard to victims of online child sexual abuse, and especially with children often being portrayed as the innocent and unwilling victims of vicious predators (Wolak et al., 2003). Online crimes against children are defined by age of consent laws (Slane, 2011). All countries have laws that define the age at which a child is considered to be too young to consent. When these laws are contravened, it is referred to as statutory rape

(Wolak et al., 2008). In the USA, statutory rape accounts for 25% of offences against minors in general and this is likely to be an underestimation when compared to forcible rape. Non-forced sexual crimes committed against minors are often not seen as crimes, nor do youth see themselves as victims (Wolak et al., 2008).

The majority of online child sexual offences fall into the category of statutory rape. Most victims are between the ages of 13 and 17 and are aware that they are conversing with an adult. The majority of offenders do not deceive their victims about their age nor their intentions. The subject of sex is usually broached early in the engagement, and victims who agree to meet offenders face-to-face often meet with the expectation of sexual activity, and do so several times (Wolak et.al., 2008).

While statutory rape is considered voluntary, as opposed to forced, it still represents a degree of coercion. Youth may be pressured into engaging in sexual activities, and individuals in positions of authority and trust may use their status to gain compliance (Wolak et.al., 2008). Younger adolescents are considered more at risk as they are considered to have little experience with intimate relationships, and lack the knowledge to effectively deal with sexual activity (Wolak et.al., 2008).

What are the risks posed to youth online?

Surveys aimed at understanding the risks posed to youth from online activities have linked the provision of personal information to victimisation, despite a lack of empirical evidence (Slane, 2011). This might be explained by the concept of 'Juvenoaia', coined by Finkelhor (2011). This refers to the fear that deviance and vulnerability among the youth is exaggerated by social and technological change. Early fears regarding the internet centred on its anonymity and vast reach, and as a result, adolescents were told not to contact strangers or give

out personal information. As social networking platforms became more widely used, youth were described as reckless in divulging their personal information (Slane, 2011).

Youth with online profiles on social networking sites, online blogs or journals, even those who are actively trying to meet new people online, are no more likely than other youth to receive sexual solicitations (Wolak et.al., 2008). Youth are most likely to be solicited through instant messaging services and chat rooms, not through social networking sites (Wolak et.al., 2008).

Research by Wolak et al. (2008) has indicated that the majority of individuals who give out information are not at risk; it is rather a *pattern* of interaction that puts them at risk. Wolak et al. (2008) identified nine online activities that, when combined, could place youth at greater risk. These include interacting with unknown people; talking online to unknown people about sex; seeking pornography online, and being rude or nasty online. The more this behaviour is displayed, the more likely these individuals are to become a target (Wolak et.al., 2008).

Research suggests that the same children who are at risk for face-to-face sexual abuse are at risk online. Offenders take advantage of the same vulnerabilities online as they do offline, including a history of previous abuse and/or victimisation, depression, isolation, and loneliness (Wolak et.al., 2008).

The distinctions drawn above regarding users of the internet and those who are at risk of victimisation are vital; the way in which victims are perceived affects the prevention messages and strategies that are developed. As long as these victims are seen as innocent, unwitting children, prevention methods place the onus on parents to protect their children against the evils of the internet. What is in fact needed are frank and open discussions with adolescents about the nature of relationships online, sexual or otherwise. Prevention messages and strategies also need to be tailored to the age and developmental level of the youth concerned (Wolak et.al., 2008).

Youth who meet the criteria for being at risk are particularly vulnerable to online abuse, and steps must be taken to identify and protect these individuals.

Online Child Sexual Abuse Offenders

Men who engage in online child sexual abuse have been generally referred to as paedophiles, both in the media and in academic articles (Berlin, 2014; Briggs, Simon, & Simonsen, 2011). There is a tendency to equate paedophilia with child abuse, however, they are not the same thing and the psychological aspects of paedophilia must be separated from its potential criminal consequences (Berlin, 2014; Briggs et al., 2011).

Not all child abusers are paedophiles, and not all paedophiles are child abusers. In order to be classified as a paedophile, an individual must be at least 16 years old or 5 years older than the victim, and must be attracted to prepubescent children (American Psychiatric Association, 2013). Data from three NJOV studies have shown that the majority of victims of online abuse are teenagers between the ages of 13 and 17 (Wolak et al., 2004; Wolak et al., 2008), and therefore do not meet the criteria for paedophilia. Online sexual offenders are better classified as hebephiliacs, which is an attraction to young adolescents, predominantly between the ages of 11 and 14; or ephebophiliacs who are predominantly attracted to adolescents between the ages of 14 and 17 (Blanchard et al., 2009). Neither of these are currently considered diagnoses in the DSM-5, and debate currently rages about whether they should be or not (Wolak et al., 2008).

Prepubescent children are much less accessible online. They use the internet in more limited ways and are less independent (Mitchell et al., 2004). It is a developmental need of adolescents to expand their social network that leads them to use the internet to explore their identity, their sexuality and form new friendships. Younger children are still dependent on their

caregivers and are much less likely to be exploring sexual themes and content (Mitchell et al., 2004, 2005; Schulz et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2003).

The internet sex offender requires that their intended victim responds to sexual overtures in order for a dialogue to commence. Due to their level of development, prepubescent children are less likely to respond as compared to their older counterparts (Wolak et al., 2008).

Online child sexual abuse may never result in contact with the victim, and whilst non-contact offending is not a new phenomenon, the internet has facilitated new opportunities for offences to occur. Sheldon and Howitt (2007) are of the opinion that the internet has allowed for the emergence of a new sex offender who finds online child pornography and stores the information on a computer, but who may never physically touch a child. This individual uses chat rooms, not to engage with prepubescent children, but to interact with like-minded individuals with whom they can exchange sexual images of children (Briggs et al., 2011).

Online Methodologies and Typologies.

Durkin and Bryant (1999) as cited in Quayle and Taylor (2001), postulate that there are four main ways in which an individual who has a sexual interest in children may use the internet to satisfy their proclivities: to trade CSEM; to locate children to abuse face-to-face; to engage in inappropriate sexual communication with underage youth; and to communicate with like-minded communities.

The concern of youth's vulnerability to online sexual predation has resulted in a great deal of research, some of which has focused on offender motivations, while others have focused on offender characteristics and modus operandi (Black et al., 2015).

Due to some of the limitations of this particular review, which will be discussed in the limitations chapter, it has not been possible to include all models of predation and grooming in

the sample. These will be discussed here in order to provide a thorough overview of the literature concerning the methodologies and modus operandi of online sexual offenders.

As defined above, the process employed by offenders to lure victims into some form of sexual interaction is commonly referred to as grooming (Black et al., 2015). Grooming involves a specific set of steps, containing specialised strategies that are focused on gaining a victim's trust, compliance and secrecy (Black et al., 2015). It is important to reiterate that, as stated in the definition, grooming is only a step in the overall act of online sexual predation and is not synonymous with the process as a whole. Grooming will be described and discussed as such together with additional factors, methodologies, typologies and modus operandi that comprise online sexual offending.

Grooming.

Much research has been conducted on the dynamics of online CSEM, and as an element of online child sexual abuse, but little focus has been placed on the process of grooming specifically, and is most often only addressed as part of the larger picture of offending behaviour (Kloess et al., 2014). In describing the process of grooming, methodologies have often been drawn from explanations of face-to-face sexual abuse, resulting in the lack of empirical research on the process of online grooming specifically (Black et al., 2015; Kloess et al., 2014; Lorenzo-Dus et al., 2016).

The most comprehensive theoretical model of offline grooming was developed by Olson, Daggs, Ellevold, and Rogers (2007) as cited in Lorenzo-Dus et al. (2016), which was based on an extensive review of multi-disciplinary literature on the characteristics of grooming. Olson's model begins with offenders gaining access to their victims and communicating their interest in sexual activities. The core phase of the luring cycle is deceptive trust development, in which the

offender systematically focuses on establishing trust with the victim in any way possible. Once trust has been developed, grooming begins. During the grooming phase, desensitization and reframing is used to ensure future sexual contact with the victim. Isolation and approach constitute the two final stages of the entrapment cycle prior to the offender physically approaching the victim (Olson et al., 2007).

It is important however, to consider the manner in which the role of computer-mediated communication changes the process of grooming as conceptualised for offline grooming. As aptly stated by Black et al. (2015), while the internet does not necessarily change the basic manner in which humans interact, there is evidence to suggest that it does impact the *way* or manner in which people communicate and develop relationships (Black et al., 2015).

One of the first online models of grooming was developed by O'Connell (2003). This process model focuses on accessibility, opportunity and vulnerability (Quayle et al., 2014). O'Connell (2003) developed this model by reviewing 50 hours of online grooming interaction in which she posed as a child of 8, 10 or 12 years of age. The model identified six sequential stages of grooming, namely friendship forming, relationship forming, risk assessment, exclusivity, sexuality, and the concluding stage.

In the friendship forming stage, the offender gets to know the child. The offender usually uses small talk to casually assess basic information about the victim, such as age and gender. In the relationship-forming stage, the offender aims to create the perception and feeling of being best friends. The offender might talk to the victim about friends at school, relationships with siblings, and their social life in general. The offender displays an active interest in the child's life, shows compassion when they are distressed and seeks to develop trust. In the risk assessment phase, the offender will begin to ask questions regarding where the child lives, with

whom they live, and their general day to day schedule. The offender is simultaneously assessing the level of risk of being detected, and the ease of access to the victim. In the exclusivity phase, the offender seeks to create a mutually exclusive relationship with the victim and encourages the exclusion of others from their relationship, necessitating the need for secrecy. In the sexual phase, the offender will begin to introduce sexual content. This might begin with the use of sexual words, then the introduction of images and/or videos. The offender might also enquire about the victim's previous sexual experiences, their fantasies or even general questions. In the final stage, the offender will begin to introduce the idea of meeting with the victim. Attempts are made by the offender to strengthen the relationship, reduce the victim's fear, and limit the possibility of being caught (Black et al., 2015; Lorenzo-Dus et al., 2016). While this model was one of the first to look specifically at online grooming, it has as yet not been empirically validated.

Another model of online grooming was developed by Williams, Elliott, and Beech (2013), who reviewed the first hour of eight chat logs containing illegal conversations between an adult and an underage child. Their research identified three main themes: (1) rapport building, in which the offender seeks to develop a friendship with the victim; (2) sexual content, in which the offender introduces, maintains and escalates the sexual content of the conversation with the victim; and (3) assessment, in which the offender attempts to establish if the victim will keep the relationship a secret.

It is important to note that while these studies suggest that there are discrete stages in the process of online grooming, recent research has shown that these stages do not conform to any linear sequence, nor are these stages evident across all offender types (Quayle et al., 2014).

Grooming is not the only methodological component deserves consideration in the online context. Other aspects of methodology have also been shown to have changed as a result of the internet.

Changing methodologies.

In 2013 the Child Exploitation and Online Protection Centre (CEOP) in the UK completed a threat assessment, within which it was identified that the traditional methods of grooming, as described above, are changing. Rather than taking the time to develop trust over months, new evidence indicates that offenders approach a large number of children simultaneously. Offenders quickly escalate to threats, intimidation, and coercion, and rely on the power of numbers to ensure that someone will fall prey to their strategy. Current research suggests that the time period between initial contact and abuse is extremely short (Child Exploitation and Online Protection Centre, 2012).

Methodology does not represent the only change in online sexual offending, objectives have changed as well. The (Child Exploitation and Online Protection Centre, 2012) found that most online sexual offending takes place online only. This includes influencing children to engage in sexual activities online, such as sex talk, recording sexual acts using a web cam, and/or taking indecent images of themselves. These types of offences are referred to as non-contact sexual offences, as the interaction might never result in physical contact between the offender and the victim. Examples of such non-contact sexual offences include the possession of, non-contact creation of, and exchange of illegal child pornography. Wolak et.al. (2008) point out that possession of child pornography used to be considered a low incidence crime, and one committed usually only by those with a particular interest in children. The internet has changed this, and child pornography has become a much larger crime, with a diverse range of offenders.

Offender typologies.

Some offender models have focused on differentiating offenders, based on demographic and clinical characteristics. Research by Babchishin, Hanson, and Hermann (2011) found that online sex offenders tended to be younger, were more likely to be single, and were likely to have a greater concern for their victims than offline offenders.

Research into online offenders has also found that they are not a homogenous group. Online sexual offenders constitute a diverse group, including those who view and trade in CSEM; those who are contact-driven offenders; those who are hypersexual offenders; those who are fantasy-driven offenders; and those who are affection seeking offenders. The details of these different types of offenders will be discussed under the findings and discussions chapter.

Heterogeneity appears to be a characteristic of online sex offenders, whose motives and methods vary significantly between different types of offenders. There are a number of differences in offender profiles, which would be lost if online sexual offenders were seen as a homogenous group of paedophiles.

Despite this heterogeneity, current research has identified that there are number of observable strategies utilised by online offenders who are focused on sexually offending against victims who are below the age of consent (Black et al., 2015). Many of these strategies overlap with what is known about offline grooming, however, no research has been conducted to empirically assess, with a large enough sample, if these findings are valid and reliable (Black et al., 2015).

Conclusion

This chapter has focused on providing the historical background information concerning online child sexual abuse as it concerns this review. The challenges of defining online child

sexual abuse were discussed, followed by a detailed account of the current national and international prevalence of child sexual abuse in general and online child sexual abuse in particular. The terminology that will be used throughout this review was outlined and discussed. The rest of the chapter concerned the major domains of discussion pertinent to this review: the context in which online sexual abuse occurs was defined, and described in terms of its specificity in making it so conducive to the commission of crime; the online child sex offender was defined; and the victims of online child sexual abuse were discussed. Finally, current research on offender typologies and methodologies was provided in order to orientate the reader with current knowledge of what will be discussed in the findings of this research.

The next chapter will describe the methodology used in this review. It aims to provide an accurate representation of the process that was followed in order to ensure replicability and academic rigour.

Chapter 3: Research Methodology

Introduction

The aim of this chapter is to accurately and transparently detail the decisions made and processes followed during this study. The chapter begins with a reorientation to the aims and objectives of the study, followed by a rationale for the choice of research strategy and design. The data collection process and management will be addressed as well as the data analysis. The chapter concludes with a discussion of ethical considerations and concluding comments.

Aims and Objectives

The aim of this review was to synthesize current research, both national and international, and qualitative and quantitative concerning online child sexual abuse. As the number and nature of crimes committed against children are wide, varied, and overlapping, the review focused specifically on crimes of a sexual nature perpetrated against children, with or without their consent, in an online environment, which either resulted in contact or non-contact sexual offences.

The objectives of the study were to create an accurate typology and profile of victims, offenders, and their methodologies from a synthesis of the review. The research questions to be answered were:

1. What factors place children at risk of sexual abuse in an online environment?
2. What factors protect children from online sexual abuse?
3. What are the characteristics of an individual who uses the internet to perpetrate sexual crimes against a child with or without consent in an online environment?
4. What are the techniques used by an individual to perpetrate sexual crimes against a child with or without consent in an online environment?

Research Strategy

“If I have seen further it is by standing on the shoulders of giants.”

(Sir Isaac Newton)

This section provides a description and explanation of the research strategy used to answer the research questions and explains why it was suited to this particular approach. This research was conducted using a systematic review methodology which is designed to make sense of large bodies of information (Petticrew & Roberts, 2006), and is considered to be the most effective way of locating, appraising, and synthesising information (Dickson et al., 2014; Petticrew & Roberts, 2006).

A rationale for the systematic review methodology is succinctly provided by Petticrew and Roberts (2006) who advocate that one would never consider a single survey, interview or data set as sufficient information to form a conclusion. Research often yields conflicting results, and interviews and experiments may yield contradictory findings, therefore a researcher will amalgamate an array of data on a particular subject in order to ensure that the findings are reliable and valid and not affected by confounding variables.

Similarly, a single study taken in isolation can also be misleading. Through the use of systematic reviews, the data, be that studies, surveys, articles, information, or grey literature concerning a particular subject can be amalgamated to provide a macro-level view. Each piece of data becomes part of the ‘sample’ which once established, can be used to answer a specific question, test a hypothesis, or review effectiveness (Petticrew & Roberts, 2006). A systematic review is, therefore, more than a summary of information, as might be the case with a literature review or an expert review; it is a scientific, systematic method used to summarise information in order to meet a specific aim or outcome (Petticrew & Roberts, 2006).

What makes a systematic review 'systematic' is well defined, transparent and documented steps (Dickson et al., 2014). The design of this method goes to great lengths to minimise the bias in locating, selecting, coding, and synthesising data so as to provide an objective, impartial, and scientific synthesis on a particular subject (Petticrew & Roberts, 2006; Schlosser, 2007).

There are several different kinds of systematic reviews, the most well-known include meta-analysis, which involves a statistical summary of primary research studies in order to determine the effectiveness of an intervention both medical and social. It is essentially quantitative in nature, as one is left with a single quantitative estimate at the end (Petticrew & Roberts, 2006). A second well-known type of review is a narrative review which follows the same process as a meta-analysis but deviates in that the summary of information is described narratively rather than statistically and is also quantitative in nature (Petticrew & Roberts, 2006).

For the purpose of this review, it was not the 'effectiveness' of a study or intervention that was being reviewed. Studies concerning online child sexual abuse have been conducted qualitatively and quantitatively and have yielded descriptions of the offender, the offender's methodology as well as descriptions of victims and their vulnerability and protective factors. It was these descriptions, the *results* of the research conducted, that were systematically reviewed and synthesized.

While a systematic literature review focuses on reviewing the validity and/or efficacy of studies, and a narrative review focuses on synthesising results descriptively, this review aimed to synthesize conceptual literature in a given field in order to contribute to a better understanding of a particular issue, and is referred to as a conceptual review (Petticrew & Roberts, 2006). More

specifically, because this review included qualitative and quantitative data, the research design is a mixed method conceptual systematic review (Petticrew & Roberts, 2006).

One of the advantages of this method is that it allows for a manageable conceptualization and presentation of large volumes of data. The transparency and rigour of the methodology allows for decisions to be made on the basis of evidence-based information. This makes it an attractive model for policy makers and advisors, as they are then in the defensible position to say that they have considered all relevant literature and are making evidence-based decisions (Petticrew & Roberts, 2006).

The 20th century has seen a massive increase in the amount of information available to researchers. According to Petticrew and Roberts (2006) 80-90% of all research papers ever written have been written in the past 30 to 40 years, and there has been a huge increase in the number of scientific papers published both in print and online. Not all of this information is scientific in nature, and those publications that are may adhere to varying degrees of scientific rigour.

Due to the vast amount of information available and the uncertainty concerning the quality and scientific rigour of available research, there is increasing pressure on researchers and policy and decision makers to show that their practices and decisions are based on the best available information (Petticrew & Roberts, 2006). By including both qualitative and quantitative research, mixed-method reviews aim to maximise findings to assist in policy making and informed practice (Harden, 2010).

This section has provided details and a rationale for the research strategy which is uniquely suited to answer the current research questions. The next section details the research design and describes the steps taken in the research process. It is also vital that there is

alignment between the research design and the research strategy because this will in part determine the inclusion and exclusion criteria.

Research Design

According to Schlosser (2007) there are internationally recognised standards for determining whether a systematic review is of a high quality. The following section aims to outline the steps taken in the research design and identify alignment with these standards.

In the 1970's Noel Burch outlined a model for learning which proposed four stages. An individual may start in a position of 'unconscious incompetence' in which they are not aware of what they do not know. As the individual learns he or she may become aware of what it is that they do not know, most often by making mistakes, and in this way move into a position of 'conscious incompetence.' As skill and knowledge grow the individual becomes 'consciously competent' by knowing how something is done and demonstrating the knowledge gained. At this stage the execution of the acquired skill still requires active concentration, which then leads to the final stage of 'unconscious competence.' This is when the skill or knowledge is so well learnt or ingrained that it appears automatic.

This model accurately describes the process of learning which accompanied this research. In the researcher's initial state of unconscious incompetence, a research proposal was written that outlined the steps to be taken for a systematic review. At this stage a seven step process as recommended by Barb Danson (2007) who is a senior technical writer and research analyst with more than 20 years of experience was detailed (Danson, n.d). Pursuant to this it was found that these steps were not detailed enough in their explanation to assist such a novice researcher. In ignorance or unconscious incompetence, the researcher did not realise that there would be differences in medical systematic reviews as opposed to reviews in the social sciences.

It was therefore decided to follow the steps outlined in the book *Systematic Reviews in the Social Sciences*, by Mark Petticrew and Helen Roberts. This book is highly detailed, draws on a large body of knowledge on the subject of systematic reviews and relates specifically to the challenges of doing systematic reviews in the social sciences (Petticrew & Roberts, 2006). The steps of a systematic review as recommended by Petticrew and Roberts (2006) are listed below and compared to the steps outlined by Danson (2007) so that the reader may compare and identify the deviations in strategy.

Table 1

Comparison of Steps between Reviews by Danson and Petticrew and Roberts

Danson (2007)	Petticrew and Roberts (2006)
1. Write a detailed plan	1. Find existing reviews
2. Execute the search	2. Define the research question
3. Procure articles	3. Write the review protocol
4. Review and summarise articles	4. Decide on inclusion/exclusion criteria
5. Preparing a data analysis spreadsheet	5. Source the literature
6. Create report tables	6. Assess the literature
7. Write the report	7. Write the report

Table 1: Comparison of Steps between Systematic Reviews by Danson and Petticrew and Roberts

Having detailed the overarching research design and explained the reason for the deviation from the protocol, the following sections will detail and provide justification for each step in the research design as recommended by Petticrew and Roberts (2006).

Find existing reviews.

Before any decisions were made the first step was to identify if a systematic review was the appropriate methodology to answer the proposed research questions, as opposed to primary research (Petticrew & Roberts, 2006). A systematic review is particularly valuable as a method

of reviewing all the available evidence on a particular subject especially if there is uncertainty or inconsistency concerning the content.

When this research was initiated it was with the intention to construct a profile of online child sexual offenders. As the initial literature was sourced in preparing the research proposal it became apparent, as detailed in the context of the research, how much conflicting information was available on the subject. Some of the data were highly emotive and made sweeping claims about the nature of the internet and the dangers thereof. Other articles and research studies had a narrow focus with more specific criteria and had consequent inconsistent and contradictory outcomes.

As discussed under the context of the research, it is necessary for service providers, decision and policy makers, as well as anyone who may work with those affected by online child sexual abuse to know the facts about this phenomenon. It is therefore necessary to separate assumptions from evidence-based knowledge which may only become apparent when taking a macro level view.

Given the uncertain and inconsistent landscape of the subject field it was decided that the best approach would be to first conduct a systematic review of the available scientific research and peer-reviewed articles concerning the subject of online child sexual abuse, and then, once summarised, to complete a thematic analysis on this data to determine the victim and offender typology and methodology.

A final consideration before deciding on a systematic review was to identify if a similar systematic review had already been conducted so as not to duplicate any existing research. In order to establish the existence of prior reviews the following databases, which are considered to be authoritative in the field of systematic reviews, were consulted:

- The Campbell Collaboration lists systematic reviews which concern public policy. Its objective is to prepare, maintain and disseminate systematic reviews of studies of interventions (Petticrew & Roberts, 2006).
- The Cochrane Database of Systematic Reviews lists systematic reviews primarily concerning health care as well as some social and public health interventions (Petticrew & Roberts, 2006).
- The NICE website in the UK includes systematic reviews in the public health sector (Petticrew & Roberts, 2006).
- The Evidence for Policy and Practice Information Centre (EPPI-Centre) is a Social Science Research Unit at the Institute of Education, University of London. EPPI-Centre are concerned with informing policy and professional practice by utilizing sound evidence gathered by way of systematic reviews (*EPPI-Centre*, 2015).

The following bibliographic databases were searched for existing systematic reviews concerning online child sexual abuse:

- EBSCO host (Academic Search Complete, CINAHL, Communications and Mass Media, E-Journals, ERIC, Health Source: Nursing Academic Edition, Humanities International Complete, Masterfile Premier, Medline, Psych Info), Emerald, JSTOR, PUBMED, Sabinet (SA ePublications, ISAP, African Journal Archive), Sage, Science Direct, Cordis, Taylor & Francis, Springer.

No systematic review was identified that either completely or partially addressed online child sexual abuse. No systematic review was identified that could be built on or used as a base for the current review. This further confirmed the gap in the literature as well as the need for this review.

Having established that a systematic review was an appropriate methodology to answer the research question, and that no such prior review had been done in full or in part, the next step was to formulate concise research questions.

Defining the research question.

In order for a systematic review to be aligned with international standards, the subject to be investigated must be clearly outlined in the form of a concise research question. The research question explicitly guides the process of the review. Schlosser (2007) went so far as to say that if the research question was not clearly and concisely articulated then it rendered the standard of the rest of the review questionable. A clearly defined research question assists in the defining of inclusion and exclusion criteria and keeps the review on track (Petticrew & Roberts, 2006).

In this research the subject area to be reviewed was online child sexual abuse. As covered in the literature review, what is defined as online child sexual abuse ranges from one-on-one crimes, to large international commercial crimes, and to further complicate the picture, online child sexual offences overlap often making it difficult to conceptualise the dynamics of a single type.

The scope of the review therefore was narrowed to focus specifically on crimes of a sexual nature perpetrated against children, with or without consent, in an online environment, which either resulted in contact or non-contact sexual offences.

The objectives were to create an accurate typology and profile of victims, offenders and their methodologies from the larger synthesis of information. The research questions to be answered were:

1. What factors place children at risk of sexual abuse in an online environment?
2. What factors protect children from online sexual abuse?

3. What are the characteristics of an individual who uses the internet to perpetrate sexual crimes against a child with or without consent in an online environment?
4. What are the techniques used by an individual to perpetrate sexual crimes against a child with or without consent in an online environment?

With the research questions having been concisely formulated and the decision made with regard to the research strategy, the review protocol could now be constructed and submitted to the Nelson Mandela Metropolitan University (NMMU) research and ethics committee for approval.

Writing the review protocol.

A research protocol is vital to ensure the rigorous implementation of a systematic review. It provides guidelines for step-by step implementation of components essential to conducting the review (Schlosser, 2007). It outlines the decisions made prior to the commencement of the study and includes literature on the subject which places the review in context, rationale for the research question/s, criteria for selecting studies, the search strategy, methods for analysing the information, identification of limitations, costs and timelines, and information regarding dissemination of findings (Schlosser, 2007).

The existence of this protocol with the inclusion of the above criteria, aligns the research with international standards and ensures the rigour, transparency, and replicability of the research, without which the validity of the study could be called into question (Schlosser, 2007).

As a master's treatise, the protocol was created in the form of a research proposal. This proposal was reviewed by an assigned research supervisor to ensure accuracy and appropriateness. It was then presented to colleagues and senior members of the psychology department in order to test the rigour of the protocol and suggest modifications to the approach.

Following this, the protocol was sent to the NMMU research and ethics department for approval, which was granted.

The protocol therefore had gone through a number of iterations prior to final approval, and was subsequently used as the ‘road-map’ to guide the research process. Any deviations from this protocol were detailed and justified.

Deciding on the inclusion/exclusion criteria.

The defining of a concise research question and the decisions made concerning the research design and strategy help to inform the inclusion and exclusion criteria which are detailed in the research protocol and explained and justified.

Inclusion criteria.

Qualitative and Quantitative: As stated above, the purpose of this review was not an evaluation of the ‘effectiveness’ of a study or intervention, but focused on the results of both qualitative and quantitative research concerning online child sexual abuse.

Studies concerning online child sexual abuse have been conducted qualitatively and quantitatively and have yielded descriptions of the offender, the offender’s methodology, as well as descriptions of victims and their vulnerability and protective factors. These will be summarised and used to answer the research questions.

National and International: Scoping studies revealed limited available information concerning online child sexual abuse in South Africa. In order not to limit the scope too far and to create a macro level view of current information available regarding online child sexual abuse, both national and international data were included.

Time Frame 2000-2016: Sources were restricted to work done between 2000 and 2016. The reason for this was that the internet or ‘World Wide Web’ only became publically available

on the 6th of August 1991 (Bryant, 2011), and it was only in 1993 when The European Organization for Nuclear Research (CERN) announced that it would make the underlying code for the internet freely available. This sparked a wave of creativity and innovation and by 2014 two in every five people were using the internet (Bryant, 2011).

The year 2000 was chosen as a starting point because by this time almost 10 years had passed since the public release of the internet and saturation had reached 6.8% (Pechtel, Evans, & Podd). It was determined that sufficient time had passed for the benefits and risks of the internet to start becoming apparent, and it was during this period that the public began to comment on the risk to children posed by the internet.

English Language: For the purpose of a master's treatise the decision was made to limit the scope of language to English, due to insufficient funds and time available to translate data. The researcher is aware that this introduces a language bias into the research. It has been suggested that positive findings are more often printed in international journals which mostly use English as the medium of communication (Petticrew & Roberts, 2006). This means that studies with positive findings may be over-represented. This will be further discussed in the section under limitations and areas of further research.

Peer Reviewed Data: In the early 1990's as internet access began to spread through private households and into business, several high profile cases of online child sexual abuse caused public panic (Cockbain, 2013; Staksrud, 2013; Wolak et al., 2008). The internet was still in its infancy and there was a consequent lack of evidence-based information to assist in addressing the fears of the public. The media assisted in creating a highly negative picture of the internet with very little scientific evidence to substantiate the findings. Articles and books were

written on the dangers of the internet, however there was little scientific evidence available to back up their claims (Cockbain, 2013; Staksrud, 2013).

It is for these reasons that it was decided to only include peer reviewed, published articles. The researcher is aware that this introduces a publication bias into the research. There is evidence to suggest that journal editors are more likely to include studies that have statistically significant results. It is also likely that a researcher whose results are negative or statistically insignificant may not submit the paper for publication. In a similar manner to language bias, publication bias means that positive findings may again be over-represented in the study. The risk of publication bias will be discussed further under limitations and suggestions for further research.

Exclusion criteria.

Forms of Child Sexual Abuse: In chapter two online child sexual abuse was defined as a crime of a sexual nature, perpetrated against children, and facilitated by computer technology (Kierkegaard, 2008). According to this definition online child sexual abuse refers to a range of crimes including pornography, cyberbullying, grooming, paedophilia, and trafficking. Each crime is defined in its own right, and has nuances that are unique to its perpetration. These crimes are not discrete, and one crime may facilitate the perpetration of another (Taylor & Quayle, 2010).

In order to limit the scope and answer the research question the following areas of online child sexual abuse were excluded: sex tourism, cyberbullying, offline child pornography producers, and child trafficking. These crimes in general describe situations where the internet has been used to exploit a child, however the child has not necessarily engaged with the offender in the online context and is therefore not suitable to answer the research question.

Types of Data: For the reasons stated under the inclusion criteria, grey literature, non-peer-reviewed data, and secondary sources were excluded from the study. Chapters in books and books themselves were also not included. While this data is often valuable and may include studies that were not published or indexed, this data has not been peer reviewed and the academic rigour therefore, cannot be commented on (Petticrew & Roberts, 2006).

Only searching for articles available online also adds location bias: not all journals are indexed on major databases; not all research is published in journals and sometimes completed research cannot be found due to the lead time between submission and publication. This will be addressed under limitations.

Sourcing the Literature

Having determined the research question and the research strategy and design, the next step is to source the literature. The first step in conducting the systematic search is to establish a search strategy (Dundar & Fleeman, 2014). The ‘search strategy’ is the term used to refer to the overall process of identifying the types of available information, identifying the specific databases to be searched, identifying key search terms, and managing the results (Dundar & Fleeman, 2014). The term ‘search phrase’ is used to refer to the specific terms used to search a single database (Dundar & Fleeman, 2014).

Identifying specific databases to be searched.

Information was accessed through the University of Port Elizabeth’s Library Catalogues (UPECAT) which are part of the South East Academic Libraries System (SEALS). Both UPECAT and SEALS catalogue a large number of databases and therefore provide access to a wide range of information.

In order to identify the most relevant databases, an information specialist was consulted at the NMMU who is specifically assigned to assist psychology students completing their master's treatise. The information specialist assisted the researcher to identify the relevant databases, as well as details on how each database works and how best to search them. At this stage the researcher was not yet aware that different databases would require different search strategies. The information specialist also provided details on how specifically to construct the search phrase. A careful selection of databases can help to reduce the risk of database bias and increase the yield of relevant results (Schlosser, 2007).

The databases identified to which the researcher had access included: EBSCO host (Academic Search Complete, CINAHL, Communications and Mass Media, E-Journals, ERIC, Health Source: Nursing Academic Edition, Humanities International Complete, Masterfile Premier, Medline, Psych Info), Emerald, JSTOR, PUBMED, Sabinet (SA ePublications, ISAP, African Journal Archive), Sage, Science Direct, Cordis, Taylor & Francis, and Springer.

Constructing the search phrase

The scoping searches done as part of the literature review for the research protocol aided in identifying the key issues and key words used in the topic area. In deciding on a particular search phrase the aim was to obtain a balance between specificity (the search identifies the relevant data) and sensitivity (and does not identify too much irrelevant data) (Dundar & Fleeman, 2014). Arriving at a final search phrase was an iterative process and required much trial and error until an effective search phrase is created.

The initial key words identified from the scoping searches included:

Online	Paedophilia
Child	Ephebophilia

Sexual	Hebephilia
Abuse	

Following the identification of key words, synonyms were then derived

Online	(Internet, Cyber)
Child	(Minor, Prepubescent, Teenager, Adolescent)
Abuse	(Solicitation, Exploitation)

Wild cards were then added to the appropriate terms so that variations of a word could be retrieved. For example, searching for ‘Child*’ will return results with both ‘Child’ and ‘Children.’ Terms with wild cards included the following:

Child*	Child AND Children
P*dophil\$	Paedophile, Paedophiles, Paedophilia, Pedophile, Pedophiles, Pedophilia
Hebephil\$	Hebephile, Hebephiles, Hebephilia
Ephebophil\$	Ephebophile, Ephebophiles, Ephebophila

Search terms were then combined using Boolean operators: “AND”, “OR”, “NOT.” “AND” narrows a search by returning results that only include all the terms entered. “OR” broadens a search by returning results which include any of the terms entered. “NOT” also narrows the search by returning results that do not contain the terms specified (Dundar & Fleeman, 2014).

Each database gives different options to identify where in the article the key words are to be found, for example, databases can search through the subject index, title, abstract, or main text or any combination thereof (Dundar & Fleeman, 2014).

Through the process of several trial runs, the key terms were collapsed into each other as some were found to be more effective in retrieving relevant results than others. For example, the term 'abuse' was more effective in retrieving relevant articles than using the terms 'solicitation' and 'exploitation' as these terms returned articles mostly concerned with commercial exploitation, which is part of the exclusion criteria. The term 'abuse' however, proved effective in returning relevant results, with fewer irrelevant results. The same process applied to the word 'child.'

Regarding the terms used to refer to the offender, the key words identified were found to complicate the search and lead to an over inclusion of results which ranged into the thousands. Through testing of different combinations, the researcher discovered that if the terms 'online', 'child' and 'sexual abuse' were included together with appropriate synonyms and Boolean operators, then information regarding the offender would be present. An article was never found where the offender had been referred to without some reference being made to the victim and visa versa.

The final search phrase constructed to complete the searches was:

(child* AND "sexual abuse") AND (online or Internet or cyber)

(((((child* AND "sexual abuse") AND online) AND Internet) AND cyber)

These phrases were modified depending on the requirements of the database being searched.

In Appendix A copies of the search records can be found which detail each individual search and includes the platform searched and the databases contained therein, the search phrase used, the date parameters, the number of results, the number of duplicates (both within a single database and when compared to other searches), a final total, and the type of search (Subject/index search, title, abstract, free text (all)). A space at the bottom of the document was included for any notes made concerning the search. Each search was numbered and dated and a record of the results was saved in a specified file on the hard drive, which was periodically backed up onto an external hard drive and into a cloud based storage system (Google docs).

At this stage of the search exclusion criteria permitted by the database were used to narrow down the results, which included language, which could be specified as English; the date range, which was specified as 2000-2016; and a limit that only peer-reviewed articles be returned.

With a clear understanding of how the search phrase was constructed and where the information was sought. The following section will detail the number of results found and how these results were managed.

Managing the results of the systematic search.

As suggested by Dundar and Fleeman (2014), the results of the various searches were managed using the bibliographic software Endnote ("EndNote," 2013). Endnote is specifically designed for managing large numbers of studies and was invaluable in assisting with this review.

A folder was created in Endnote for each database searched. Once a search had been conducted in a particular database the results were exported directly into the corresponding Endnote folder and this usually included the article title, abstract, and citation. Duplicates could then be identified and removed using Endnote's deduplicating function. Once all the searches

were completed all of the results were grouped together in a single file and then deduplicated against each other. Once the search had been completed and duplicates removed, 3694 results had been identified.

Assessing the Literature

Once the search had been executed, and the data saved in a management system, the results were assessed. In this process inclusion and exclusion criteria were applied to all the results to determine if they were appropriate to retain in the final sample and answer the research question. This screening process is traditionally done over two to three rounds and often includes other researchers to ensure that inclusion and exclusion criteria are rigorously and objectively applied. This section details how the 3694 results identified from the searches were assessed.

First round screening.

The aim of the first round of screening is to get rid of results which are quite obviously not related to the research question. This usually does not require the input of a second reviewer, and can be completed quickly (Dundar & Fleeman, 2014).

It was found that the use of the terms 'online' or 'internet' were highly prolific. The term 'online' assisted in producing a large number of irrelevant results which was due to it returning references that referred to online surveys or studies, online databases, or articles with an online status. The term 'sexual abuse,' due to its broad subject coverage also produced a large number of irrelevant results.

Using Endnote, which has a sophisticated search function, a Boolean search phrase was constructed to screen the 3694 articles identified in the literature search. The Boolean phrase was constructed so that Endnote would search each database folder and return articles with

abstracts and titles that contained the terms “Child*” AND “Sexual Abuse” AND “Internet OR Online OR Cyber.”

Each database folder in Endnote therefore had three subfolders, as shown in the picture below: a subfolder which contained the original number of results returned from that specific database; a subfolder which contained the included articles; and a subfolder which contained the excluded articles. This method of creating subfolders facilitated detailed tracking of all databases and articles for improved replication.

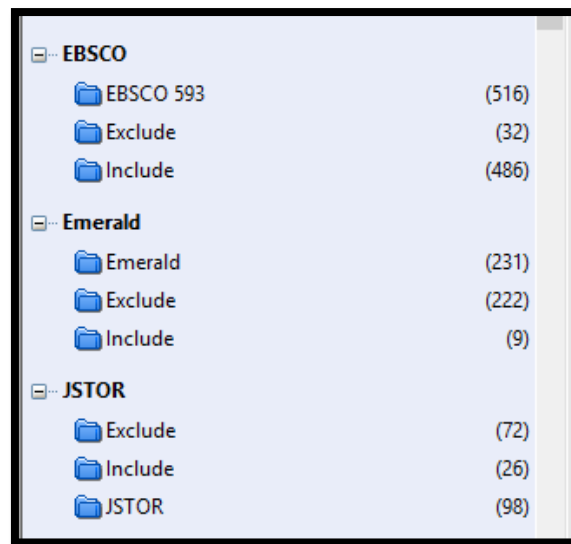


Figure 1. Example of Reference Management in Endnote

Finally, all of the subfolders containing included articles were combined into a single folder. Endnote’s deduplicate function was then used to deduplicate all of the included articles from the various databases against each other. This resulted in 892 results for second round screening of titles and abstracts.

Second round screening.

In the second round of screening, the inclusion and exclusion criteria defined and discussed above were applied to the identified results. In order to effectively screen the results,

an online program ("Covidence Systematic Review Software," 2016) was used which is specifically designed to assist researchers with screening and managing systematic reviews.

Covidence allows the researcher to create and maintain systematic reviews online.

The 892 results from Endnote were uploaded into Covidence. Covidence allows the researcher to load the results into a folder depending on which round of screening is being done. 892 results were loaded into title and abstract screening. Covidence identified a further five duplicates leaving 887 results to screen.

Covidence has a function which allows the researcher to search for keywords. This function was used to quickly identify key terms in articles. At the end of the second round of screening 729 results had been deemed irrelevant and 156 results were identified for full text screening.

In the majority of systematic reviews, it is standard practice to have a secondary screener to assist with title and abstract screening to ensure clarity and efficacy of inclusion and exclusion criteria. At a master's level, with limited resources and time this was not possible and will be identified as a limitation of the study.

Third round screening.

Title and abstract screening identified 156 results for full text review. The full text documents were obtained for each result and attached to the citation in Endnote as well as to the result in Covidence.

Covidence allows the researcher to read the full text of each result and then determine if it is to be included or excluded, by selecting one of two buttons labelled accordingly. If the researcher decides to include an article the include button is selected. If the researcher decides to

exclude an article, then a reason must be provided for that exclusion. Once the screening is complete a record can be produced of all excluded results and the reason for the decision.

After full text screening 72 results were left for final inclusion and thematic analysis. Appendix B provides the list of articles that were considered for full text review. It indicates which articles were included, and which were excluded, and for what reason.

At this stage in the research, and in consultation with the supervisor and co-supervisor, it was decided that a sample 72 results was still too large a sample given the requirements and time constraints of a master's treatise. As such it was decided to reduce the results by analysing only the top and bottom of the interquartile range of the results.

As analysis proceeded articles that had appeared in the third round screening stage to be worthy of inclusion proved to not meet the inclusion criteria. This occurred because retrospectively the researcher realised that the definition of what was meant by 'internet sex offender' was not made sufficiently explicit at the start of the research. Several articles refer to 'internet sex offenders', when what they are specifically referring to is 'online child pornography offenders.' Several articles used the term 'internet sex offender' synonymously without distinguishing the nature of the offence. As a result, after a much closer reading, the article was then later excluded.

Furthermore, as each article was read, the list of references was checked for articles that had been overlooked by the main search strategy. Several articles were included based on hand searches, and then subject to the inclusion and exclusion criteria.

The final sample was made up of 72 articles. The interquartile ranges comprised of 18 articles respectively. The list of results was organized by publication from oldest to newest, and the 18 oldest and 18 newest articles were selected from analysis. Thus a total of 36 articles were

analysed to provide summation for the typologies to be constructed, which can be found in Appendix C.

Data Analysis

Information gathered from the systematic review was analysed using thematic analysis as detailed by Braun and Clarke (2006). This method of data analysis is used to identify, analyse and report on patterns within data, and can simultaneously reflect and unpack research (Braun & Clarke, 2006). According to Braun and Clarke (2006) thematic analysis is independent of theory and is therefore a flexible research tool which can provide rich and detailed data. A step by step, transparent and documented procedure outlines exactly *how* the analysis was done, and *how* conclusions were drawn. Prior to analysis the researcher must decide on the level and detail of the analysis.

Analysis can be conducted inductively or deductively. In an inductive analysis the themes are derived from the data itself without any prior attempt to fit it into a pre-existing theoretical framework. Deductive analysis is driven by the researcher's theoretical framework and requires a predetermined set of themes (Braun & Clarke, 2006). This review utilised an inductive method of analysis.

The level at which the data is analysed may be semantic or latent. In semantic analysis, themes are identified within the explicit meanings of the data. The analytical process involves a progression from description to interpretation. Latent analysis goes beyond the semantic content and seeks the underlying ideas and conceptualizations (Braun & Clarke, 2006). This review utilised semantic coding.

The epistemology of the research was an essential/realist epistemology as opposed to the constructionist thematic epistemology. The review was not focusing on the shared meaning or

social construction within the data, but rather on a direct linear relationship between the data and the descriptive typology required to answer the research question (Braun & Clarke, 2006).

Braun and Clarke (2006) outlined a six phase guide to performing thematic analysis.

1. The data was read and re-read to facilitate immersion, during which preliminary notes were taken on ideas for coding.
2. From the notes a potential list of codes was created, which was then applied systematically to the data set. Once the coding of the data set was completed the codes were collated.
3. Out of the collation of codes the typology of both victim and offender began to emerge as well as the offender's methodology. The codes were analysed to see if they could be combined to form a more overarching theme, or if they needed to be broken down into further specific elements.
4. The themes were then further refined, collapsed and expanded. The description and discussion of these themes is detailed in the findings and discussion chapter.

Coding.

The process of coding was facilitated by the use of Atlas.ti7 ("Atlas.ti7," 1993-2016). The approach to coding was guided by Saldana (2009), the sole purpose of which was to guide the researcher in coding data in order to extract themes. Several steps were followed in this process which are briefly outlined below.

Firstly a 'code' in this context means a word or phrase that has been assigned to a piece of text aiming to summarise or highlight a salient point (Saldana, 2009).

Step 1: The first stage of the coding was to read the texts as a whole and if applicable to group them into categories. The articles were organised in ascending date order and then read accordingly.

Step 2: The articles were then re-read. Text that appeared to jump out to the researcher was highlighted and a loose set of labels for codes were constructed.

Step 3: The text was systematically coded using Atlas.ti which then allowed the researcher to assign codes to passages of text, as well as to add memo's and thoughts where necessary.

Step 4: Finally, the codes were read, re-read and defined. Duplicates and synonymous codes were either removed or collapsed into each other leaving the final categories for the construction of the typology to follow in the findings and discussions chapter.

Ethical Considerations

The main ethical consideration in a systematic review is to ensure that neutrality is maintained. By using stringent methodological protocols, bias was kept to an absolute minimum. All copyright restrictions were observed and permission sought where appropriate.

Reliability and validity in this qualitative study were considered in terms of Guba's model of trustworthiness. Guba's (1981) model identifies four aspects of trustworthiness, namely truth value, applicability, consistency and neutrality. This present study assessed reliability and validity based on these constructs as follows:

Credibility or truth value is determined by how well threats to internal validity are managed to ensure that no extraneous variables are affecting the outcome (Guba, 1981; Krefting, 1991). In this study, credibility was established due to the themes being extracted directly from the original articles and not re-interpreted. Transferability or applicability refers to the degree to

which the results can be applied beyond the scope of the study (Guba, 1981). The aim of this research was to elicit the themes inherent in both national and international data, and therefore aimed to be applicable and transferable. Consistency or dependability is defined as keeping track of variations in the study and attempting to explain this variation (Guba, 1981). In this study, extraneous variables were coded so as to keep track of influencing factors. Neutrality or conformability is determined by whether findings can be replicated. To minimize the effects of prejudice, bias and judgment an independent coder independently and simultaneously coded the data. Once the coding was complete the findings were compared and analysed together with the supervisor to ensure as objective an approach as possible.

Conclusion

This chapter has provided a detailed outline of the research methodology, including the research strategy and design. Due to the research being a systematic review detail was provided as to how the searches were constructed, what the inclusion and exclusion criteria were and how the data resulting from the searches were managed.

The stages of screening were outlined so as to elucidate how the final sample for analysis was arrived at. The stages of coding were described as an iterative process which allowed the researcher to arrive at themes which could then be constructed into a typology. The chapter concluded with a discussion of the ethical considerations that were maintained throughout the research process.

The following chapter will present the findings of the systematic review in the form of the typology which it set out to create.

Chapter 4: Findings and Discussions

The previous chapter outlined the process by which the final sample of articles was obtained. The final sample consisted of 72 articles, which were then analysed using the top and bottom interquartile range of results. These articles were organised by publication from oldest to newest. Each quartile consisted of 18.25 articles, resulting in the top and bottom 18 being selected for analysis respectively. A final total of 36 articles were analysed to provide a summation for each typology.

Thematic analysis was conducted on all 36 articles, facilitated by the use of Atlas.ti7 ("Atlas.ti7," 1993-2016). The stages of coding described in the previous chapter allowed for the identification of salient themes that were then used to construct a typology of the victims of online sexual abuse, a typology of the offenders of online child sexual abuse, and a description of their methodology.

The researcher found that the analysed data could be divided into three categories: data that involved research with or surveys of victims, data that involved research with offenders, and data that involved analyses of offences already committed. Each type of article adds a different perspective to the overall understanding of the phenomena of online sexual abuse.

Two important studies that need mentioning are the Youth Internet Safety Survey (YISS) and the National Juvenile Online Victimization study (NJOV). Each of these studies has been conducted three times over various years. As results from the analysis are discussed, findings from these studies will be stated. Due to the nature of each study, it is necessary to state the findings separately as the data was gathered from different sources. While the YISS was conducted with a randomised national sample of 1500 youth, who were between the ages of 10 and 17, the NJOV was based on a national survey with a stratified random sample of law

enforcement agencies. What was examined through the sample were cases of sexual offenses where the offender and victim met online. As such, these two studies are qualitatively different and their results cannot be summed together.

Victim Typology

The themes and dimensions derived through the analysis were not subjected to organisation through the perspective of a theoretical framework. The aim was to identify the factors and dimensions that contribute to youth becoming vulnerable to online sexual abuse as objectively as possible. A structure was needed however, to make sense of the multitude of variables that contribute to youth vulnerability.

Two prominent structures were adopted from the field of psychology which are often used to assist in complex and comprehensive case formulations. The 'Biopsychosocial' model is a method used in order to prevent reductionism by ensuring that all biological, psychological and social factors are considered in attempting to understand aetiology (Engel, 1979). The 'Four P's' model looks at conceptualisation through a chronological perspective by considering predisposing factors, precipitating factors, perpetuating factors and protective factors. The Four P's model can also be easily used in conjunction with other models (Weerasekera, 1996).

The models were then adapted in order to fully capture the dimensions identified in this analysis. The Biopsychosocial model was integrated into the Four P's, meaning that under each of the four P's, biological, psychological and social factors were considered, which allows for aetiology to be described in terms of chronology.

In considering the appropriateness of this framework for organising the data, a fifth dimension or fifth 'P' as it were, needed to be added to the structure. This was used to capture a salient theme that emerged in the analysis, which was that of participation. This will be

discussed in detail in the victim typology, but it refers to the 'willing victim'; a youth who by virtue of the age of consent laws is considered unable to give consent and is therefore perceived as a victim, even if their engagement with the 'offender' is completely voluntary.

It should also be noted that none of these factors are discrete, and there is a great deal of overlap among factors. Often variables are sequelae for other variables and so could be discussed under multiple dimensions. An attempt has been made to indicate the chronicity and development of risk as it accumulates or develops over time. For example, social disconnection is a predisposing factor for forming online relationships, which is a factor that increases online vulnerability.

The findings presented below are an amalgamation and summation of 36 of the oldest and most recent articles concerning online child sexual abuse. Themes and factors are organised according to predisposing, precipitating, perpetuating, participating and protective dimensions as well as considered in terms of the biological, psychological and social factors that contribute to each dimension. This structure allows for the findings to be presented in a meaningful way without running the risk of overlooking important dimensions owing to a theoretical foreclosure.

Introduction.

Millions of teenagers use the internet everyday (Malesky, 2007) and yet only a relative handful ever fall victim to online sexual abuse. It is therefore vital to understand what makes certain youth vulnerable to victimisation so that policy and prevention measures can be directed appropriately.

No child exists in isolation, and it is therefore necessary to consider risk and protective factors from the perspective of multiple interdependent factors (Whittle, Hamilton-Giachritsis, & Beech, 2014). A number of studies have identified that a single risk factor may not in isolation

lead to negative consequences but rather it is a 'profile' of risk, or an accumulation of risk factors over time that increase the chance that a young person may become a victim of online sexual abuse and consequent harm.

A study conducted in Spain (Montiel et al., 2016) which will be detailed under victim demographics recognised a vitally important facet in understanding victimology. Risk, as it relates to adolescence is not static, it changes over the course of adolescence and is influenced by psychological, social, biological, and environmental factors.

In some cases, risk factors may have built up over the course of a lifetime, while for others, specific or recent events may serve as a catalyst to either increase vulnerability and/or activate risky online behaviour (Whittle et al., 2014).

Recent research (Whittle et al., 2014) suggests that offline vulnerability may spill over into online vulnerability, youth considered high risk in the offline realm increase their vulnerability and likelihood of being a victim when they use the internet in ways outlined in this research. The European Online Grooming Project (Webster et al., 2012) outlined three possible responses youths have when confronted with negative online experiences. There are those who are considered resilient, and do not respond to any form of solicitation. Some youth may take a risk and respond out of curiosity, which may form part of normal adolescent development. Other youths however, are considered vulnerable, particularly if offline victimisation is present (Whittle et al., 2014).

It is also important to note that a large number of victims of online sexual abuse are not considered high risk and do not engage in risky online behaviours. This indicates the possibility that anyone can be a victim of online victimisation (Mitchell et al., 2007d).

Results from the first Youth Internet Safety Survey (YISS-1) (Mitchell et al., 2001) found that 75% of sexually solicited youth were not troubled, 10% did not use chat rooms, and 9% did not talk to strangers. As the risk factors are discussed, it is important to consider that it is not only high risk youth, or those that engage in risky online behaviour who are solicited (Mitchell et al., 2001).

Victim Demographics

Due to methodological differences, the demographic characteristics of offenders and victims are difficult to accurately represent. The data used to create demographic typologies comes from a multitude of sources, including youth surveys; victim reports; offender samples; and reports from law enforcement agencies. Findings on perpetrator and victim characteristics will vary depending on the method used. Youth surveys, for example, indicate a substantial number of female offenders, but in offender samples the presence of female offenders is almost negligible. A victims' perception of an offender may be incorrect owing to the use of constructed identities on the part of the offender. Law enforcement reports, furthermore, may be skewed owing to a bias in reporting.

A further limitation on the demographic variables identified in this section is that these variables rely only on the articles included in this review, and are therefore not representative of the data as a whole. Some of the articles included, however, were based on highly empirical data from national surveys.

As stated above data from all three Youth Internet Safety Surveys were included as well as data from all three National Juvenile Online Victimization surveys. Additional research in this review included victim and offender surveys which added to the diversity of the data. The challenge is that each article looked at a particular aspect of the data depending on the focus of

the research, and as such did not represent all the data from the original research, but only that which was of relevance. For example, one article used data from the first NJOV survey to look at family and acquaintance abuse. As such it does not represent all the data found in the survey, but only that which was relevant to this topic.

The majority of articles included in this review gave fairly detailed findings on victim age and gender. As for the rest of the demographic factors, victims appeared to vary hugely, with very few commonalities or identifying features. As such what is reflected here is what is present in the articles reviewed in the form of thin descriptions of additional variables.

Most of the studies in this review conclude that victims of online sexual victimisation are between the ages of 13 and 15 and predominantly female (Gallagher, 2007; Kopecký, 2016b; Mitchell et al., 2007a; Montiel et al., 2016; Schulz et al., 2015; Tener et al., 2015; Walsh & Wolak, 2005).

Age.

Pre-adolescent children use the internet in more limited ways and are less independent, than older adolescents. This may be one of the reasons why older adolescents, those 14 and above are targeted by online offenders (Mitchell et al., 2004).

Data from the YISS-1 found that the majority of victims were between the ages of 14 and 17 (Mitchell et al., 2001). Seventy-seven percent of victims of unwanted sexual solicitation were between the ages of 14 and 17, with only 22% between 10 and 13. This younger age group however report more distress (Mitchell et al., 2001, 2004; Vandoninck et al., 2013).

Sixty-three percent of youth 15 years and older were victims of unwanted exposure to sexual material, with 11 and 12 year olds accounting for only 7% of unwanted exposures (Mitchell et al., 2001, 2004; Vandoninck et al., 2013).

Data from the NJOV-1 found that 67% of victims are between the ages of 13 and 15. Less than 1% of which were 12, and none were below the age of 12 (Tener et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004).

In a study on family and acquaintance abuse utilising data from the NJOV-1 it was found that 48% of victims were between the ages of 13 and 17, and 45% were between the ages of six and 12 (Mitchell et al., 2005). Eighty-two percent of female victims of family members were under the age of 12, compared to 71% of male victims of acquaintances who were adolescents (Mitchell et al., 2005).

A study conducted by Gallagher (2007) on 13 cases of online sexual incitement found that the ages of victims ranged considerably from five years old to adolescents.

Another study conducted by Mitchell et al. (2007a) with data gathered from clinical professionals who had worked on 512 cases of online sexual abuse, found that ages ranged from six to 17 years old.

In a study conducted with 3897 Spanish adolescents who had experienced some form of online victimisation, rates of exposure to unwanted sexual content were similar to those found in other studies, with the majority of youth being older adolescents; specifically, 17.9% of youth aged 12-13 and 29.5% for youth aged 16-17. The same was found concerning rates of online grooming, where 9.6% of youth were aged 12-13 and 25.6% were aged 16-17 (Montiel et al., 2016).

Gender.

Data from the YISS-1 and YISS-2 found that the majority of victims were female (Mitchell et al., 2001, 2007b). Specifically, 66% of victims were female while 34% of victims were male (Mitchell et al., 2004). Boys are slightly more likely to experience exposure to

unwanted sexual material than girls, which may reflect the consequence of their naturally higher curiosity (Mitchell et al., 2004). Being female was associated with a 2.33-fold increase in experiencing and online sexual solicitation, and a 4.59-fold increase in the chances of that solicitation being aggressive (Mitchell, Finkelhor, & Wolak, 2007c). Twenty-one percent of aggressive solicitations are received by boys (Mitchell et al., 2007c).

Data from the NJOV-1 and NJOV-3 found that seventy-five percent of victims were female (Wolak et al., 2004; Ybarra, Mitchell, Palmer, & Reisner, 2015). Almost all of the cases that involved male victims, involved male offenders (Wolak et al., 2004). In nonforcible cases, 61% of victims were female and 39% were male (Walsh & Wolak, 2005). Data from law enforcement does not represent the overwhelming percentage of female victims found in victim or youth self-report studies; case data shows a significant percentage of male victims (Navarro & Jasinski, 2015).

In a study on family and acquaintance abuse utilising data from the NJOV-1 it was found that 70% of victims were female (Mitchell et al., 2005). Ninety-three percent of female victims were the victims of family members, compared to 49% of males who were the victims of acquaintances. The NJOV-1 also found that boys are more likely to be exposed to sexual material during victimisation. This might be because offenders find it easier to initiate relationships with boys through the use of sexual material.

Data from additional studies outside of the YISS and the NJOV also concluded that the majority of victims were female, but a notable minority were also male (Gallagher, 2007; Kopecký, 2016b; Mitchell et al., 2007a; Montiel et al., 2016; Wells & Mitchell, 2007; Whittle et al., 2014; Ybarra et al., 2015). Indeed, males may comprise a larger percentage of online

victims than in offline sexual victimisation (Wells & Mitchell, 2007). It has been found that males tend to underreport sexually abusive experiences in general (Schulz et al., 2015).

Data from the YISS-3 focusing on youth with disabilities who receive special education services, found that girls were almost three times more likely to report a sexual solicitation (Wells & Mitchell, 2014).

Race/ethnicity.

Data from the NJOV-1 found that the majority of victims were non-Hispanic and white (Mitchell et al., 2005). Another study conducted by Mitchell et al. (2007a) with data gathered from clinical professionals who had worked on 512 cases of online sexual abuse, found that victims were predominantly white.

Data from the YISS-2 concerning online requests for sexual pictures found that the majority were black (Mitchell et al., 2007b).

Annual household income.

In a study on family and acquaintance abuse facilitated by the internet, victims lived in households with an annual income of less than \$50,000 (Mitchell et al., 2005). Victims of acquaintance offenders were more likely to live in higher income families (Mitchell et al., 2005).

In the Gallagher (2007) study it was found that the majority of victims were from economically disadvantaged backgrounds, however, some did have a relatively high socio-economic status.

Data from a clinic sample of 512 cases reported the majority of victims to be from predominantly middle-class families who had a variety of incomes. Seven percent had an annual income of \$20,000 and 19% had an annual income of over \$80,000 (Mitchell et al., 2007a).

Geographical location.

In a study on family and acquaintance abuse facilitated by the internet, victims lived in a range of geographical areas, including small towns, and urban and suburban areas (Mitchell et al., 2005). Thirty-five percent of victims lived with their biological parents, 39% lived with only one biological parent, and 19% lived with one biological parent and a step-parent (Mitchell et al., 2005). Victims of family members were more likely to live with stepparents (Mitchell et al., 2005)

In the Gallagher (2007) study it was found that the majority of victims lived in single-parent or reconstituted families. Data from a clinic sample of 512 cases reported that the majority of victims lived with both biological parents or a biological parent and one step parent (Mitchell et al., 2007a). A study by Whittle et al. (2014) found that seventy-five percent of victims were from separated/reconstituted families.

Mental health.

There is a relationship between mental health issues and internet related problems, what is not clear is if they both share the same aetiology or if either the mental health issue or the internet related problem was the cause of the other (Wells & Mitchell, 2007). A study on the co-occurring internet related problems and DSM-IV diagnoses found that youth experiencing internet related problems had a variety of DSM-IV diagnoses. A large percentage of youth in this study had a current and lifetime diagnosis of post-traumatic stress disorder. As identified above, this may have pre-dated an internet victimisation or may be the result of online victimisation (Wells & Mitchell, 2007).

The experience of offline victimisation may result in biological, cognitive, affective, and behavioural changes that can leave youth vulnerable to online victimisation. Offline abuse

sequelae may cause youth to engage in risky online behaviour which will also result in increased risk of victimisation (Noll, Shenk, Barnes, & Haralson, 2013).

In a study by Whittle et al. (2014) youth identified feeling depressed, having low self-esteem and feeling lonely as reasons they began to engage with strangers online.

It was consistently found throughout this review that youths who had experienced offline abuse and psychosocial problems experienced more online victimisation than youth who did not experience these problems (Noll et al., 2013; Wells & Mitchell, 2007; Whittle et al., 2014).

Furthermore, online sexual solicitation was also found to relate to concurrent reports of depression and substance use. Youth reporting online solicitation were two times more likely to report depression and substance use even when offline victimisation was taken into account. This points to the idea that online sexual solicitation may be related to a victim's mental state over and above offline victimisation (Mitchell et al., 2007d).

Sexual orientation.

Youth who are questioning their sexual orientation may use the internet to seek out information and to make contact with similar individuals. These youths may be vulnerable to exploitation by adults who under the guise of offering much wanted information and validation, initiate sexual relationships (Wolak et al., 2004; Ybarra et al., 2015).

Lesbian, gay, bisexual, and transgender (LGBT) youth may find the online environment particularly important (Ybarra et al., 2015). These youths are more likely to face stigma and be ostracised by society leading them to turn to the online environment as a source of information and support. LGBT youth are more likely to have friends they have only met online and they tend to rate these friendships as more supportive than their face-to-face friendships (Ybarra et al., 2015).

Predisposing Factors

The factors that predispose youth to becoming victims of online sexual abuse are numerous and multidimensional. Risk is not a dichotomous variable but rather varies along a continuum. Risk appears cumulative, such that youths may present with a number of risk factors but not necessarily be vulnerable to online sexual abuse. What emerges from the literature is that there are three scenarios that contribute to youths becoming vulnerable to online sexual abuse (Whittle et al., 2014):

1. **Multiple Long Term Risk Factors:** Youth may experience a number of events that increase their vulnerability throughout childhood. Eventually the risk factors outweigh the protective factors and youth become vulnerable. They are less likely to display resilience when approached by an online offender and are also considered to be at risk offline (Whittle et al., 2014).
2. **Trigger Events:** These youths may present with some risk factors, as do all youth, but are considered to have a relatively healthy childhood with a balance of risk and protective factors. When an event or combination of events are such that they wear down a youth's protective factors, the youth will then become more vulnerable to risk and less resilient. Outside of the triggering event these youths are not considered vulnerable offline (Whittle et al., 2014).
3. **Online Behavioural Risk:** These youths may have few risk factors with a number of protective factors but engage in risk taking behaviour online. This could be due to a combination of normal adolescent development, curiosity and impulsivity, which could result in increased online vulnerability (Whittle et al., 2014).

The factors that contribute to increased risk are discussed below. These online behavioural risk factors will first be identified and discussed separately. They will then be summated in the form of a profile of high risk youth.

Biological factors.

Research from the third Youth Internet Safety Survey (YISS-3) conducted by Wells and Mitchell (2014), indicates that youth with disabilities are at a greater risk for victimisation. This research focused on biological and psychological difficulties; to avoid repetition psychological factors will be discussed in greater detail here.

This research found that youth with particular kinds of disabilities are at greater risk for particular types of victimisation. For example, some psychological disorders increase the risk of sexual victimisation, attention deficit hyperactive disorder (ADHD) being one such disorder. ADHD can lead to increased risk of peer victimisation (Wells & Mitchell, 2014), as well as increased impulsive behaviour, which may cause youth to engage in risky online behaviour. This in turn increases their risk of victimisation (American Psychiatric Association, 2013).

The research indicates that there are differences among youth with specific types of disabilities in terms of their psychosocial characteristics, internet use, online behaviour and consequent online victimisation (Wells & Mitchell, 2014).

On the surface, it would seem that youth receiving special education services would have less risk of victimisation. These youths use the internet fewer days per week and are less likely to use the internet at home, at a friend's house, or on a cell phone than other youth. They are less likely to use social networking sites and are less likely to post pictures of themselves on the internet (Wells & Mitchell, 2014). The significance of each of these factors will be discussed under their respective headings.

The main difference between youth who receive specialised education services and those who do not, is that those with a physical disability are more likely to form relationships online (Wells & Mitchell, 2014). This will be discussed as a risk under precipitating factors.

Youth who receive specialised education are more likely to send pictures of themselves to someone they have met online and to engage in online sexual behaviour. This is not to be confused with the statement above asserting that these youths are less likely to post pictures of themselves. They are less likely to spontaneously post pictures of themselves on the internet but are more likely to comply if specifically asked for a picture, therefore making them more susceptible to being sexually solicited online. These youth are also more likely to report an online interpersonal victimisation (Wells & Mitchell, 2014). Specifically, youth receiving special education were 14% more likely to receive an unwanted sexual solicitation and were also 7% more likely to report distress as a result of it (Wells & Mitchell, 2014).

Youth who receive specialised education also have significantly higher risks of offline physical abuse and higher levels of depression, which independently increase their risk of online victimisation (Wells & Mitchell, 2014).

The specific features of a young person's disability may create a context for an increase in their online risk profile. Their risk profile is almost identical to that of youths who do not receive special educational services, however, they are still more likely to report unwanted sexual solicitation (Wells & Mitchell, 2014).

Psychological factors.

As identified above, youth who are affected by mental health issues are at an increased risk for victimisation, with different types of mental health issues creating a context for different forms of vulnerability (Wells & Mitchell, 2014). It is also important to consider that while the

vast majority of the problems experienced on the internet are an extension of problems that predated its existence, there are those for whom the internet may exacerbate or create additional problems from these pre-existing vulnerabilities (Mitchell et al., 2007a).

Emotional vulnerability.

A large number of articles analysed for this review indicate that youth who feel alienated, emotionally vulnerable or depressed are more susceptible to victimisation and may be using the internet in an attempt to cope with their feelings and find additional support (Mitchell et al., 2007c; Whittle et al., 2014; Wolak et al., 2004; Wolak et al., 2003). These youths are not only more vulnerable to online sexual exploitation but are also more vulnerable to the harmful effects of such victimisation (Mitchell et al., 2001; Wolak et al., 2004; Ybarra et al., 2004; Ybarra et al., 2015).

Depression in general is a risk for all forms of victimisation (Mitchell et al., 2001). Of youth who were considered regular users of the internet, 5% had displayed symptoms of major depressive disorders in the past month, with an additional 14% meeting criteria for minor depression. Females were 60% more likely to have had symptoms of major depression (Ybarra et al., 2004).

Youths who are sexually acting out as a result of mental health issues or offline victimisation are more likely to report online sexual abuse (Wells & Mitchell, 2007) and this forms part of high risk internet use.

Adolescent stage of development.

The adolescent stage of development is a time when youth begin to explore their sexuality. They are naturally curious, easily aroused, seeking of attention, and more willing to take risks. A developmental imperative of adolescence is the seeking out and development of

new relationships, and the internet now provides free access to an innumerable amount of people from all over the world. Youth are no longer constrained by their immediate family, school or community environment (Jonsson et al., 2014; Walsh & Wolak, 2005; Whittle et al., 2014; Wolak et al., 2003).

These normal development characteristics can leave youth vulnerable to online victimisation. If these developmental factors are coupled with high risk youth, who are not only dealing with the normal challenges that accompany adolescence, but may also be experiencing problems at home as well as emotional and social issues, their risk increases exponentially (Walsh & Wolak, 2005; Whittle et al., 2014). Adolescents also do not yet possess the necessary skills to be able to defend against sexual advances whether online or in person (Noll et al., 2013)

Adolescents, who are naturally curious about sex and are interested in forming relationships, may be too shy or embarrassed to meet other people face-to-face, in which case they may use the internet as a means to explore these domains and feel less threatened while doing so (Mitchell et al., 2007a). This in turn can expose youth to increased vulnerability and the risk of sexual abuse.

Adolescents who are questioning their sexual orientation use the internet to seek out information and make contact with people who can help validate and/or shed light on their experiences. This, however, makes these youths extremely vulnerable to exploitation, and therefore need to be considered for specific intervention (Wolak et al., 2004).

Social.

Social disconnection.

Youths who lack social support or feel socially alienated may turn to the internet to seek out the support they feel they are lacking. Depression rates furthermore, are higher in youth who

lack social support. Both these risk factors contribute independently to increased risk for online victimisation (Wolak et al., 2004; Wolak et al., 2003). This is further confirmed by data from the YISS-1 and the NJOV-1 (Wolak et al., 2004; Ybarra et al., 2004).

From another perspective, some youth may have problems with online isolation, either as a result of choosing to have all their social engagements online, or from spending so much time online that they do not engage socially (Mitchell et al., 2007a).

Negative life events.

Negative life events are defined as experiencing a death in the family, moving to a new home, parents divorcing or separating, and a parent losing a job. As discussed above these may be incidental events, which for a limited time override the protective factors and temporarily leave youth more vulnerable to online victimisation. Negative life events can also include conflict with friends and difficulties at school (Whittle et al., 2014).

Family situation.

Multiple studies included in this review revealed the family environment to be one of the most significant variables in predisposing, perpetuating and precipitating vulnerability to online sexual abuse (Jonsson et al., 2014; Mitchell et al., 2001; Mitchell et al., 2007c; Mitchell et al., 2007d; Whittle et al., 2014; Wolak et al., 2004; Wolak et al., 2003).

Studies by Whittle et al. (2014) and Jonsson et al. (2014) found that the majority of victims in their study came from acrimoniously separated parents and/or blended families, where there appeared to be a great deal of conflict.

The YISS-1 and the NJOV-1 identified a multitude of family variables that leave youth emotionally, psychological and socially vulnerable to online victimisation. Youths who have poor relationships with their parents, low parental monitoring, high parent conflict and poor

communication may seek to form relationships with people online, leaving them vulnerable to victimisation (Mitchell et al., 2001; Wolak et al., 2004).

In other instances, in which family difficulties were not pervasive, the family was experiencing some kind of difficulty at the time that the online victimisation occurred.

Conflict within the family may leave youth lacking the traditional support and guidance from their family, which could serve as a protective factor (Mitchell et al., 2007c; Mitchell et al., 2007d; Wolak et al., 2003). Furthermore it was found that strong bonds with siblings were insufficient protection from online victimisation (Whittle et al., 2014).

Only half of the victims had ever discussed internet safety with their parents, and most victims described their parents as ‘clueless’ when it came to technology. Some parents were reported to monitor their child’s activities, but inconsistently (Whittle et al., 2014).

Offline victimisation.

A number of articles in this review indicate that offline victimisation is a significant factor in the development and maintenance of vulnerability to online victimisation. In a circularly causal fashion, offline victimisation creates a range of physical, emotional, psychological and social sequelae that effect a range of changes in behaviour, cognition and affect. These sequelae then result in a range of risky online behaviour that increase a youth’s vulnerability to online victimisation. These factors are necessarily predisposing, precipitating and perpetuating (Mitchell et al., 2007a; Noll et al., 2013; Wells & Mitchell, 2007; Whittle et al., 2014; Wolak et al., 2003; Ybarra et al., 2015).

More youth report victimisation than not, meaning that it is a common experience for most youth. The YISS-1 identified eight forms of offline victimisation namely sexual assault, gang and/or group assault, simple assault, physical abuse, bullying, witnessing assault, peer

and/or sibling assault, and theft (Mitchell et al., 2007d). Fifty-seven percent of youth reported at least one of the eight forms of offline victimisation in the past year. Seventy-three percent of youth who reported at least one online victimisation also reported at least one offline victimisation. One fourth of youth who reported online solicitation reported experiencing three or more types of offline victimisation in the past year.

It was also found that the youth who had experienced less common forms of offline victimisation had higher rates of overall victimisation, possibly indicating that the more severe the offline victimisation was, the more predisposed a youth may be to further victimisation both offline and online. Specifically, youth who in the previous year reported a gang or group assault reported an average of 3.68 total victimisations. Those youth reporting a single assault, reported an average of 3.60 total victimisations, and those youth reporting physical victimisation reported an average of 3.45 victimisations.

By comparison, youth who reported more common forms of victimisation had the lowest average of total victimisations. Those experiencing online sexual solicitation alone, for example, experienced an average of 1.81 victimisations in the past year, while those reporting harassment reported a total of 1.64 victimisations in the past year (Mitchell et al., 2007a). Twenty-nine percent of youth who reported at least one offline victimisation also reported at least one online victimisation (Mitchell et al., 2007d). This means that for a subgroup of youth there is a greater need for intervention, as online victimisation may be part of a larger pattern of victimisation (Mitchell et al., 2007d).

As stated above offline victimisation leaves youth exposed to a range of sequelae which include depression, substance use, externalising behaviour and poverty, low quality parental relationships, sexually provocative behaviour, and sexual acting out (Noll et al., 2013).

The YISS-1 (Mitchell et al., 2007d) identified that among youth who had experienced victimisation in the past year, 5% reported depressive symptoms, 5% reported engaging in delinquent behaviours and 7% reported using 3 or more illegal substances in the past year. The study indicated that nearly all types of interpersonal victimisation are related to depression, delinquency and substance use (Mitchell et al., 2007d). Youth are left feeling isolated, misunderstood, and depressed (Mitchell et al., 2007d; Wolak et al., 2003).

Offline victimisation and its consequent sequelae leads to a range of disruptions in cognitive, emotional, psychological and behavioural regulatory processes (Noll et al., 2013). Youth may be more vulnerable to online offenders as they are less able to deter or resist approaches, and are less able to accurately interpret the intentions of others.

Offline victimisation and its consequences create a number of online risks including unintentional exposure to sexual material, sexually provocative profiles, high risk online behaviour, sexual solicitation, and requests for sexual pictures. This in turn can result in offline meetings with offenders and the risk of face-to-face victimisation (Noll et al., 2013; Ybarra et al., 2015).

In order to assist with a conceptualisation of how offline vulnerability affects youth in a multidimensional manner, the research developed the diagram below, Figure 1, in order to graphically represent the sequelae of offline victimisation.

Figure 2: Sequelae of Offline Victimization

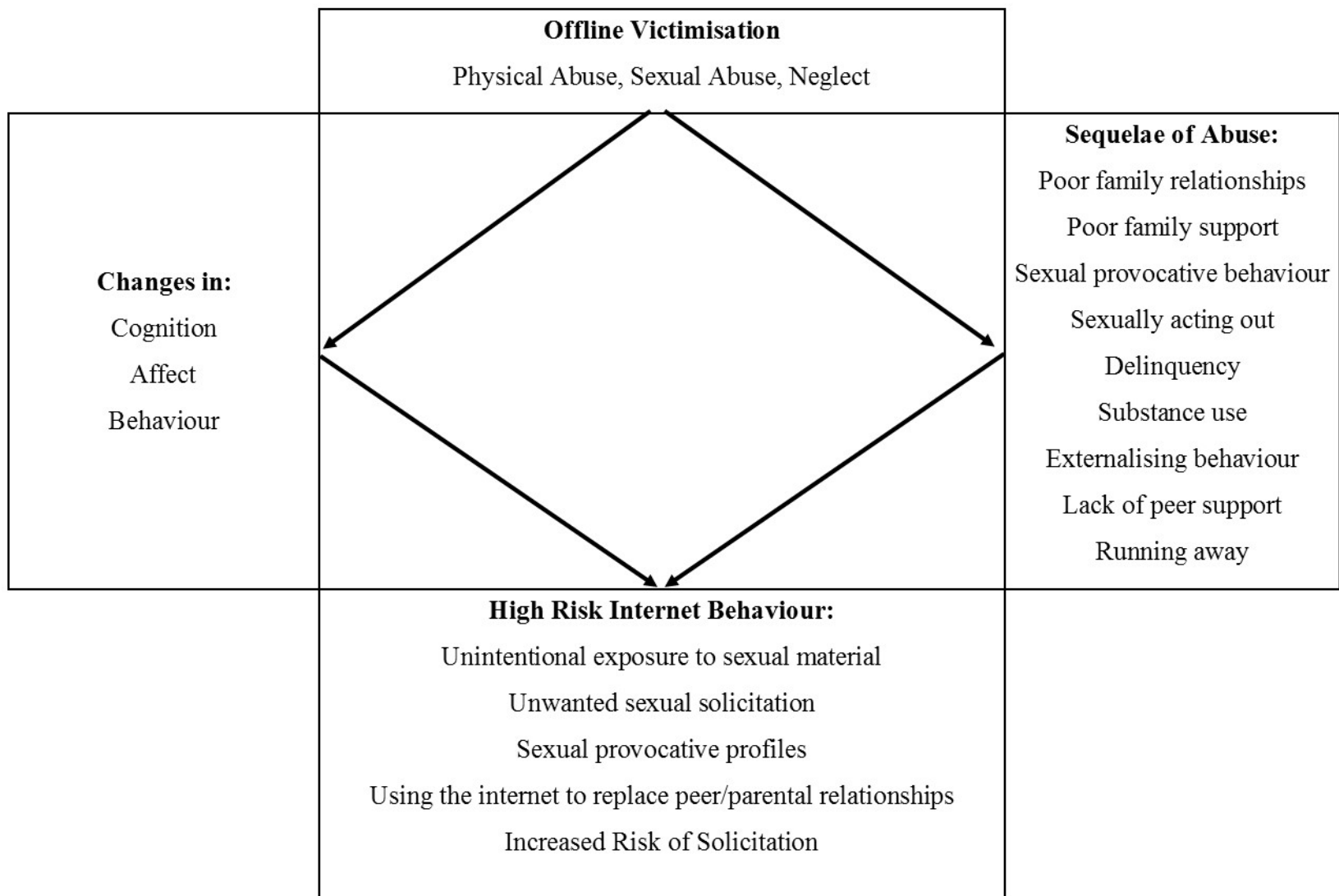


Figure 2: Sequelae of Offline Victimization

Use of technology.*Internet access and time spent online.*

It is self-evident that having internet access creates vulnerability. Without internet access, or sufficient time spent online, youth cannot be exposed to online victimisation. The more time spent online the more opportunity exists for online victimisation (Jonsson et al., 2014; Mitchell et al., 2001; Whittle et al., 2014; Wolak et al., 2003).

Data from the YISS-1 (Mitchell et al., 2004) showed that 74% of youth had access to the internet at home. Youth also accessed the internet at school (73%), other households (68%), and public libraries (32%). Eighty-six percent of youth used the internet in more than one location. At the time of the study, 76% of youths had used the internet in the last week. In a typical week, 29% spent time online one day or less, 40% used the internet two to four days a week, and 31% went online five to seven days. Sixty-one percent spent one hour or less on a typical day, 26% spent one to two hours per day, with 13% spending more than two hours per day (Mitchell et al., 2004).

While findings indicate that using the internet away from home, or in a private room significantly increases risk of sexual solicitation, the YISS-1 found that in 70% of incidents of sexual solicitation, youth were at home when solicited, and in 22% of incidents, youth were using the internet at someone else's home. Regarding exposure to unwanted sexual material, 67% of incidences occurred at home, 15% at school and 3% in libraries (Mitchell et al., 2001, 2004; Whittle et al., 2014; Wolak et al., 2003). In order to explain the apparent contradiction in the data, one must consider that online sexual solicitation is not a single event. Youth may first be contacted while using the internet away from home, such as at school, or in libraries, but the actual culmination of the solicitation most often occurs at home.

Use of social networking sites, chatrooms and forms of technology.

Youth are using social networking sites, video and non-video chat rooms to make contact with new people and form relationships online. Research has shown that using chat rooms is associated with increased risk of sexual solicitation (Mitchell et al., 2001; Whittle et al., 2014).

The NJOV-1 found that more than 60% of initial contact was made in an online chat room (Walsh & Wolak, 2005; Wolak et al., 2004).

Data from the YISS-1 found that 65% of online sexual solicitation is initiated in chat rooms, and 24% in instant messaging. In 10% of cases, youth were asked to meet face-to-face, 6% of youth received regular mail, 2% received phone calls, and 1% received money or gifts (Mitchell et al., 2004). Some youth may use smart phones to keep in contact with the offender, while others use text messages and regular phone calls (Whittle et al., 2014). Youth often shared personal information via email and telephone, and shared their telephone numbers with people they had only ever met online.

In a study conducted by Kopecký (2016a) on Facebook use among children from the Czech Republic, they were found to use Facebook to maintain friendships, meet new people, and share photos, videos and information about their lives (Kopecký, 2016a). Youth will form friendships with people they have never met, and once befriended will give them access to their profile and thereby their personal information.

Among Czech children, it was found that 36.6% did not know all, or nearly all, of their friends on Facebook, and 43% of children aged 12 were also found to communicate with strangers (Kopecký, 2016a). With regard to requests made by Facebook friends in particular, 31% were asked to send a photo of their face, 18% were asked to talk via webcam, 10.6% were

asked to send a naked photo of themselves, and 5.8% were asked to strip in front of a webcam (Kopecký, 2016a).

This study also found that youths may have multiple accounts on Facebook. Seventy-eight percent had one account, 15.58% had between two to three accounts, 0.79% had between four to five accounts, and 1.18% had more than five accounts. Overall, 12% of these children using Facebook were found to have false accounts (Kopecký, 2016a).

More than 60% of children were actively using Facebook for more than one hour a day, and almost 33% used Facebook for more than three hours per day (Kopecký, 2016a).

Other points of interest to arise from this study are that 21% of children aged 11 post negative comments on Facebook, 26% were also able to break into another person's Facebook account and post comments on their behalf, and approximately half of the sample for this study had an internet friend who they had blocked due to bullying or victimisation of some kind (Kopecký, 2016a).

Downloading pornography.

The availability of the internet has provided youth with unprecedented access to sexual material (Noll et al., 2013). There is still much research needed to be done on the effects of pornography on adolescents, however, what is of concern in this review is that exposure to sexual material can contribute to the formation of adolescent sexual scripts, underpinning sexual behaviour (Noll et al., 2013). One hypothesis is that youth who are exposed to deviant sexual imagery online may become aroused by this content, and therefore continue to search for this type of material as opposed to more standard forms of sexual material. Inexperienced youth may come to see these images as 'normal' since they are still forming their sexual identity, and have no basis as yet for defining what is within a normal range of imagery (Mitchell et al., 2007a).

Youth who download pornography have an increased risk of being sexually solicited (Jonsson et al., 2014; Wells & Mitchell, 2014; Whittle et al., 2014).

High risk youth.

The factors above describe the array of vulnerabilities that youth may face. No single factor is causally linked to online sexual abuse, but rather an accumulation of risk over a period of time results in increased vulnerability. The following section brings together the factors discussed above into a profile of high risk youth.

The YISS-1 defined high risk youth as exhibiting the following factors:

- High parental conflict, including parents who yelled and nagged, and those who took away privileges.
- Low communication with parents, defined by parent's lack of knowledge of where youth were and who they were with.
- High delinquency, defined as above average alcohol use (four or more times per year) and at least one delinquent behaviour
- Highly troubled, defined as high depression (five or more symptoms), physical assault, sexual assault, and at least one negative life event (experiencing a death in the family, moving to a new home, parents divorcing or separating, parent losing a job).
- High internet use, defined as more than four days per week, for more than 2 hours per day, internet rated as very or extremely important, above average or expert use of the internet (Mitchell et al., 2001).

Youths with disabilities, both physical and psychological, are at an increased risk for victimisation, with particular kinds of disabilities creating different types of victimisation risk (Wells & Mitchell, 2014).

There is a circular causality between negative internet experiences and co-occurring biopsychosocial issues. Youth who have low self-esteem, psychological problems, aggressive behaviour, low life satisfaction and problematic relationships with adults and peers are more likely to use the internet as a form of escape, and to form online relationship in the hope that they may replace poor relationships in their current environment (Walsh & Wolak, 2005; Whittle et al., 2014; Wolak et al., 2004). They are also more likely to engage in risky online behaviour, all of which place youth at increased risk for online sexual abuse. These youth are also likely to experience a greater degree of distress when exposed to negative online experiences, thereby creating further psychosocial concerns (Mitchell et al., 2001; Vandoninck et al., 2013; Whittle et al., 2014; Wolak et al., 2004).

Youth who are experiencing depression, loneliness and social isolation may turn to the internet to form relationships, possibly because they lack the social skills or confidence to do so face-to-face or because they find the internet more accessible and less threatening (Jonsson et al., 2014; Walsh & Wolak, 2005; Whittle et al., 2014; Wolak et al., 2003).

Youths who form close online relationships display more factors of high risk youth as defined. They are likely to be between 14 and 17, white, and report high levels of internet use and home access (Mitchell et al., 2001; Wolak et al., 2004).

In terms of offline victimisation, research reviewed indicates that it may affect biological, cognitive, emotional and behavioural regulatory processes, which can leave youth vulnerable to inaccurately identifying, and responding inappropriately to social cues. This increases their risk of online victimisation, and re-victimisation in general (Ybarra et al., 2015).

Offline victimisation is also associated with depression, substance use, externalising behaviour and poverty, all of which increase vulnerability (Ybarra et al., 2015).

In general, adolescents who report offline victimisation and maltreatment, also report low quality parental relationships and live in predominantly single parent households.

The aim of this section has been to outline a ‘profile of risk,’ which is dimensional and accumulative. Additionally, factors do not stack up like discrete variables, but instead are reciprocally influential, in either enhancing protective factors or facilitating their ‘risk profile.’ The accumulation of risk factors over time is likely to influence how youth think, behave and engage with the internet, which will influence their risk of victimisation (Whittle et al., 2014).

Precipitating Factors

Precipitating factors may consist of a sequelae of predisposing factors, as well as incidental factors that leave youth temporarily vulnerable to online victimisation. Sequelae and significant events may see youth starting to engage in risky online behaviour which, depending on the number of behaviours can increase their risk of victimisation.

Biological and psychological factors.

No precipitating factors that were specifically biological or psychological in nature were identified in the current review. The researcher is of the opinion that the onset of adolescent development may be considered a precipitating factor when combined with additional predisposing factors identified above. The researcher further hypothesises that the diagnosis or onset of a disability, both physical or psychological, as well as a youth’s response to that event, may be considered a likely precipitating factor. These events may lead youth to respond as outlined above.

The researcher postulates that the factors of emotional vulnerability under predisposing factors can also be considered precipitative. If youth are experiencing a period of depression, low self-esteem, or loneliness relating to precipitating events, the emotional and psychological

sequelae may cause youth to seek out comfort online, and be subsequently vulnerable to victimisation (Whittle et al., 2014; Wolak et al., 2004; Wolak et al., 2003; Ybarra et al., 2004).

Social.

The internet has become a central part of an adolescent's social life; it is not reserved for use only by those who are considered high risk. Most adolescents use the internet to chat online with people they have never met, often forming online relationships that become friendships or romances, which become offline relationships. Most of these relationships are with other youth but may include benign or even supportive relationships with adults. Again, it is important to distinguish the youth who become victims of online victimisation and exploitation from those youth who engage in the same activities but do not succumb to this risk (Wolak et al., 2004).

Precipitating events.

As discussed under predisposing factors, the Whittle et al. (2014) study found that certain precipitating events may cause a young person to seek comfort online. These kinds of events were identified as negative life events, problems at home, or problems with friends at school (Whittle et al., 2014).

Unwanted sexual solicitation, exposure to sexual material, and requests for sexual pictures can all be considered precipitating events. How youth make sense of these experiences will determine the level of affect and distress it has on them, which in turn may determine the sequelae that youth experience as a result.

The most recent data from the third Youth Internet Safety Survey (YISS-3) conducted in 2011, found that 9% of youth between the ages of 10 and 17 had experienced unwanted sexual solicitations in the past year, representing a 4% drop from the second Youth Internet Safety Survey conducted in 2005 (Jones et al., 2012). Three percent of youth reported an aggressive

solicitation, which is defined as those solicitations in which the offender attempts to make offline contact with a victim through the use of telephone, mail or in person (Mitchell et al., 2001, 2004).

The second Youth Internet Safety Survey (YISS-2) found that of the 20% of youth who reported online victimisation, 45% reported that they had received requests for sexual images of themselves (Mitchell et al., 2007b). In 2005, it was estimated that 4% of all internet using youth received a request for a sexual image.

A quarter of the youth in the YISS-1 study experienced exposure to unwanted sexual material while surfing the internet, using email, or clicking on links in instant messages. Youth were often unaware that the links they were clicking on contained explicit material and then found it very difficult to exit a pornographic website once on one. Almost half of these events were disclosed to parents (Mitchell et al., 2004).

Family situation.

As mentioned before, family factors are both predisposing and precipitating factors. The majority of victims of online sexual abuse described their families as having pervasive difficulties, but for some individuals however, the family issues which precipitated an online victimisation experience were incidental. For some youth, for example, a death in the family, separation or divorce, or a parent losing a job was the precipitating factor prior to victimisation (Whittle et al., 2014). This, as described under predisposing factors, will contribute to a youth's profile of risk.

Forming online relationships.

Seeking out new people and forming relationships is a developmental imperative for the adolescent (Wolak et al., 2003). For many youth, technology is now part of their friendships,

romances, and sexual relationships and they are using technological and internet platforms more than any other medium to initiate and maintain those relationships (Jonsson et al., 2014; Say et al., 2015).

In a Swedish study, nine out of 10 youths between the ages of 18 and 25 used the internet for romantic or sexual purposes (Jonsson et al., 2014). Results from the YISS-1 (Wolak et al., 2003) found that 25% of youth who use the internet had formed casual relationships online in the previous year. Of these youth, 75% of relationships were described as close, 41% included face-to-face meetings, and 7% were described as romantic. Two thirds of relationships reported by girls were with boys, and 79% of relationships reported by boys were with girls; girls were less likely to report cross-gender relationships (Wolak et al., 2002). Adolescents between the ages of 14 and 17 were more likely to report cross-gender relationships. Eighty-four percent of youths who formed relationships online knew where their friend lived, and only a few had made friends with people from other countries. In 26% of cases the two lived within an hour's drive of each other (Wolak et al., 2002).

Online relationships may progress to become offline relationships (Say et al., 2015). In 70% of close online relationships there was some form of offline contact, which included telephone calls and emails. Those friendships that resulted in face-to-face meetings had specific differences from those that did not. The two individuals were most often introduced by friends or family, and they tended to live within an hour's drive of each other. More than half of the face-to-face meetings involved relationships that were described as not being close or romantic (Wolak et al., 2002). Most of the close online relationships involved youth who were close enough in age that they could attend school together or could go to places where adolescents normally frequent (Wolak et al., 2002).

While the forming of relationships is a normal part of development, doing so online can be fraught with danger, especially for youth who are troubled or engaged in high risk internet behaviour (Wolak et al., 2003).

In an analysis conducted using data from the YISS-1 (Wolak et al., 2003), the researchers found that a disproportionate number of youth who formed close online relationships were highly troubled, with significant parental conflict, had poor communication with parents, and had high levels of delinquent behaviour. These youths were likely to be white, between the ages of 14 and 17, have internet access at home, and have high levels of internet use as previously defined (Wolak et al., 2003).

Logistic regressions completed on this data showed that different variables are prominent for the different genders in forming online relationships (Wolak et al., 2003). In the case of girls, high school age youth between the ages of 14 and 17 were twice as likely to form close online relationships compared to youth aged 10 to 13. High risk factors included high parental conflict, high levels of depression, victimisation (mostly physical assault by peers), negative life events, internet access, and high levels of internet use. Girls displaying these factors were twice as likely as girls who did not to form close online relationships (Wolak et al., 2003).

For boys, factors that were identified included being white, low communication with parents, being highly troubled, having access to the internet at home, and high levels of internet use. The strongest predictive variable for boys was poor communication with parents (Wolak et al., 2003).

When comparing youth who form relationships online, and who are high risk, to those who are low risk, the former appear to be more vulnerable to victimisation (Wolak et al., 2003).

High risk youth are more likely to have formed an online relationship, to be asked to meet face-to-face, and to have attended face-to-face meetings (Mitchell et al., 2001; Wolak et al., 2003).

Youth who are troubled or feel alienated can benefit from online relationships as they may find face-to-face relationships challenging. The internet can be a source of positive social and peer support and connection (Wolak et al., 2003). Online relationships however, can be very difficult to negotiate, especially without visual cues and peer or parental supervision. If an adolescent has difficulty negotiating face-to-face relationships, this difficulty could be further exacerbated when a relationship is attempted online, and can carry considerable risk (Mitchell et al., 2001; Wells & Mitchell, 2007; Wolak et al., 2003). As these youths are likely to have few friends, they may lack the protective factors of peer supervision and advice (Wolak et al., 2003). Youth with problems are not likely to have access to networks that are going to give them good advice and feedback, they may be searching for closeness online and may be prone to view the people they meet online unrealistically, and over confide their trust in them (Wolak et al., 2003). These relationships are likely to be driven by a need to fulfil a fantasy that resolves the youth's internal crisis (Wolak et al., 2003).

Evidence from prior research studies indicates that youth who are depressed or have experienced previous physical and/or sexual abuse are vulnerable to repeat victimisation and online exploitation (Mitchell et al., 2001; Wolak et al., 2004; Wolak et al., 2003). Research conducted with offenders has indicated that these individuals are purposefully targeted by online sex offenders (Wolak et al., 2003).

High risk online behaviours.

High risk internet behaviours include the following; talking to strangers, sexual behaviour online, sharing personal information with strangers, meeting contacts offline, discussing sexual

issues with people one has never met, intentionally downloading pornography, and using the internet at places other than at home.

Those youths who are considered troubled as discussed above, those who have experienced offline victimisation and have low cognitive capacities are more likely to engage in high risk online behaviour. High risk internet behaviours can precipitate online sexual abuse and are associated with increased risk (Jones et al., 2012; Mitchell et al., 2001; Mitchell et al., 2007c; Whittle et al., 2014).

Data from the YISS-2 (Mitchell et al., 2007c) found that those who were most at risk of an aggressive solicitation were using chat rooms, talking with people they met online, talking about sexual issues or content with someone they met online, and had experienced offline physical or sexual abuse. Two risk factors that are unique to aggressive solicitations are the sharing of personal information and the use of internet on a cell phone. Youth who divulged personal information to people who they had met online were three times more likely to experience an aggressive solicitation (Mitchell et al., 2007c).

Findings also indicate that some youth may be truly unaware that creating provocative profiles or posting sexually suggesting information and/or pictures, may signal to those that are looking that they may be willing to engage in sexual contact or consider an offline meeting. This articulates with the changes in cognitive and affective behaviour as a result of offline victimisation (Ybarra et al., 2015).

Perpetuating Factors

Biological and psychological.

No perpetuating factors that were specifically biological or psychological in nature were identified by the current review. The researcher hypothesises that the experience of offline

victimisation or neglect can cause disruptions to biological, cognitive and emotional processes, leaving the youth perpetually vulnerable to online victimisation and to re-victimisation in general (Noll et al., 2013).

Social.

Family situation.

As indicated above, family factors are also perpetuating. If conflict or difficulties within the family continue for extended periods of time, it can keep youth engaging in high risk behaviour in an attempt to escape the situation at home (Jonsson et al., 2014; Whittle et al., 2014).

Awareness of illegality.

Awareness of illegality is seen as a perpetuating factor from the perspective that if the youth are either unaware of the illegality, or are aware but fear no consequences then the behaviour is likely to continue.

It is unclear if youth are aware that taking sexually suggestive pictures could in some countries, depending on their definition of what constitutes child pornography, be considered an inappropriate and/or an illegal act. It is also unclear if such knowledge would act as a deterrent (Mitchell et al., 2007b). As discussed under dimensions of the internet, there is a sense that the internet is somehow not 'real,' and the sense of anonymity and the consequent dysregulation provided by the internet may provide a young person with a feeling that they may never get caught, or that somehow it does not count.

If youth are approached by offenders, or made requests of for images and/or videos that they know are illegal, youth could act to stop further abuse. Youth who receive a request for a sexually suggestive picture, who thankfully dismiss them, may not be aware that such requests

are illegal and should be reported (Mitchell et al., 2007b), and if they were to comply, they are guilty of the production of child pornography.

Disclosure/reporting.

Results from YISS-1 (Mitchell et al., 2004) indicate that 49% of youths did not disclose an incident, even if the event was aggressive. Only 24% disclosed to parents and 29% told friends or family. Only 10% of events were reported to authorities (Mitchell et al., 2001), with only 18% when the event was aggressive (Mitchell et al., 2004). Seventy-six percent of youth, and 69% of parents, did not know where incidents of online sexual solicitation or exposure to unwanted material could be reported (Mitchell et al., 2001). The Whittle et al. (2014) study found similarly results in that only 25% of victims reported that they would tell their parents.

In terms of unwanted exposure to sexual material, 44% of youth did not disclose to anyone. Only 3% of incidents were reported to an authority figure. Possible reasons for this lack of disclose could be that youths may not have experienced the event as alarming, and/or may not have believed that anything could be done about it. Additional reasons for not reporting include feeling guilt and/or shame concerning what happened with the offender. Youth may be worried about the responses of parents and peers, and feel embarrassed about engaging in activities they know they should have avoided (Mitchell et al., 2004; Walsh & Wolak, 2005). If youths have been using the internet to explore their sexual orientation, they may be fearful that reporting the incident might leave them exposed to stigma (Walsh & Wolak, 2005).

Disclosure and reporting of unwanted sexual solicitation was considered a perpetuating factor, because if the abuse is not reported to an authority figure it can then continue to occur. The results of youth confiding in neither friends nor family results in them being unable to process or understand how to deal with these kind of experiences (Mitchell et al., 2004).

Meeting a person offline who was met online.

Data from the YISS-1 and the NJOV 1 found that 65% of youth met the person who had solicited them online (Mitchell et al., 2004; Walsh & Wolak, 2005). In 70% of close online relationships there was some form of offline contact, which included telephone calls and emails. One third spoke on the phone and 41% had face to face meetings (Walsh & Wolak, 2005; Wolak et al., 2004; Wolak et al., 2002). Data from the study by Say et al. (2015) found that 74% of victims had face-to-face meetings that involved some form of sexual contact.

The NJOV found that meetings happened in 73% of cases, and within those, 93% involved some form of illegal sexual contact (Wolak et al., 2004). In a study done with Czech children, those with an account on Facebook would be requested by 30% of their Facebook friends to physically meet, and of those, 24.5% would go if asked (Kopecký, 2016a).

According to the NJOV -1 (Wolak et al., 2004), and despite well-known protection messages, 46% of youth who met individuals for the first time face-to-face, after meeting them online, did not do so in a public place. Thirty-nine percent of meetings occurred in the victim or the offender's home, while 13% happened in hotels or motels. Eighty-three percent of victims who met with offenders willingly went with them to another destination, and 41% spent at least one night with the offender (Wolak et al., 2004).

Participatory Factors***Voluntary sexual exposure and the willing victim.******Awareness of illegality.***

This dimension is also described under participating factors, because as stated above, a young person may or may not be aware of the illegality of their conduct. The main focus in this

section is that the engagement is willing. Data from the YISS-1, YISS-2 and NJOV all support this finding (Quayle et al., 2014).

The willing victim and the relationship with the offender.

Every country has some form of law that prohibits sexual relationships between adults and children of a certain age. These laws centre around when a youth is considered capable of consenting to a sexual relationship and may vary from 14 to 18 years of age (Walsh & Wolak, 2005). Cases that involve willing youth under the age of consent are often referred to as ‘nonforcible’ crimes and victims are referred to as ‘statutory’ or ‘compliant’ victims (Tener et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004).

The issue of capacity to consent is a contentious one and a philosophical or developmental debate about these issues is beyond the scope of this treatise. It is important to point out however, that as mentioned under adolescent stage of development, those youths particularly between the ages of 14 and 18 are negotiating the range of challenges that come with entering puberty. This natural and normal stage of development in itself leaves youth vulnerable to victimisation especially if they have additional biopsychosocial challenges. Can these youths truly be regarded as ready or capable of making an informed decision regarding consent?

Offenders use youths’ vulnerabilities in order to engage in a process of grooming and seduction and once this process is complete, youth may willingly engage in a sexual relationship fully aware of the offender’s identity and intention (Walsh & Wolak, 2005). It is therefore very important not to confuse deception and manipulation. Data from the YISS-1 (Wolak et al., 2004) indicates that in most cases victims know the identity of the offender, know their sexual intention, and engage willingly with the offenders. This does not mean that the victim was not manipulated in some fashion, especially when offenders occupy positions of trust (Walsh

&Wolak, 2005). In some cases, as a result of grooming, the victim is willing to engage in sexual activity with the offender, but this willingness may vary from being reluctant to enthusiastic (Walsh & Wolak, 2005).

Results from three National Juvenile Online Victimization surveys from 2001-2011, have found that with few exceptions, the majority of offenders do not force or coerce their victims. In most cases, individuals were aware of the identity and sexual intentions of the offender, and engaged in multiple sexual activities over multiple occasions (Tener et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004).

While the victim might be aware of the offender's identity and intention, youth under the age of consent are often manipulated to believe that the relationship is romantic through promises of love and intimacy, when the offender's true intention is sexual gratification. The crimes committed are usually nonforcible and when victims meet the offender they expect a sexual encounter (Tener et al., 2015).

Youth often do not report online solicitation, nor do they want it to be reported. These individuals do not perceive themselves to be victims, and they do not see their relationship with the offender as a crime (Tener et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004). Often times these youths have developed strong bonds with the offender in the form of sexual and/or romantic relationships, and are unwilling to co-operate with law enforcement (Tener et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004). Many of the victims are physically mature, rebellious and sexually aware and have embarked willingly in the relationship with the offender (Walsh & Wolak, 2005).

In the NJOV-3 study (Tener et al., 2015), it was found that in some cases victims initiated the sexual relationship, often creating false identities that portrayed them as adults looking for sexual encounters with other adults (Tener et al., 2015).

The NJOV-1 study (Wolak et al., 2004) found that of the 74% of cases that resulted in face-to-face meetings, 93% involved some form of illegal sexual contact. In 73% of those cases, victims met with the offender on more than one occasion, 13% met offenders twice, and 39% met offenders more than three times. Twenty percent lived with the offender for a period of time.

A separate study, done with the medical records of 662 victims of sexual abuse with an online and/or technological component, found similar results. In 74% of cases, victims met the offenders face-to-face, and their meeting involved some form of illegal sexual contact (Say et al., 2015).

Only 3% of cases involved abduction. In 29% of cases youth were reported missing but in most cases this was due to them either having run away from home to be with the offender (24%), or because youth had lied about their whereabouts (5%) to their parents in order to meet with the offender. Youth who are troubled are also less likely to tell their parents prior to meeting someone face-to-face who they originally met online (Wolak et al., 2003). The stereotypical view of the kidnapping of youth therefore is largely inaccurate, as youth are only reported missing because they have run away or have lied about their whereabouts, not because they have been kidnapped (Wolak et al., 2004).

Voluntary sexual exposure.

Most often adolescents do not fit the stereotype of innocent, naïve victims of a sexual predator. Some youth choose to share material that is of a sexually provocative nature, which

may knowingly or unknowingly result in those youth being perceived as ready to engage in a sexual encounter (Noll et al., 2013). A youth survey indicated that 30% of social networking site profiles contained at least one sexual self-disclosure or message (Noll et al., 2013). In a Czech study (Kopecký, 2016a), it was found that 4.1% of Czech youth are voluntarily sharing material of an intimate, sexual nature on Facebook.

Not only do youth actively download and view pornography as indicated above, they are also producers and distributors of sexual material (Jonsson et al., 2014; Mitchell et al., 2007b; Quayle et al., 2014). One of the ways in which this is achieved is through what has come to be referred to as 'sexting.'

Sexting involves the voluntary sexual exposure and distribution of sexual content. This can take many different forms such as taking pictures or making a video, and may be distributed across several platforms. Images and videos are shared, posted and received and then redistributed (Jonsson et al., 2014). Most youth who have sent sexual material also have received sexual material, and they give a number of reasons for sending sexual material, including as a joke, trying to start a relationship, seeing it as fun or flirty, or as part of a relationship (Jonsson et al., 2014). Research also indicated the presence of pressure from a partner or friend as an important driver of the decision to send sexual material.

A study conducted by Wolak and Finkelhor (2011) as cited in Jonsson et al. (2014) found that youth generated sexual material can fall into two categories: aggravated and experimental. The aggravated material involved criminal and coercive elements, either by adults or other youth. The experimental group usually involved youth who took pictures of themselves or their romantic partner as part of their relationship, or in the hope of starting one, or for attention seeking purposes.

A Swedish study (Jonsson et al., 2014) found that one in five Swedish youth have experienced voluntary sexual exposure online. Twenty percent of their sample had experienced at least one of four different ways identified as voluntary sexual exposure, including, flashing in a webcam or phone, posting a partially undressed picture or film, masturbating on a webcam or having sex on a webcam (Jonsson et al., 2014). 'Sexters' tend to be older youth, who have experienced cyber-bullying and tend to spend more time online than other youths per week.

The most common form of voluntary exposure was to have exposed oneself sexually by flashing via a webcam or mobile phone. The least common being masturbating or having sex in front of a camera, both of these acts were more common in boys if they did occur. Sixty percent had exposed themselves in one way, 29% in two different ways, 7.7% in three different ways and 2.6% in four different ways (Jonsson et al., 2014).

A significant correlation was found between sending and receiving messages containing sexual content, as well as between using pornography and voluntary sexual exposure. This could indicate that the consumption of pornography may encourage the sending of sexual material of oneself (Jonsson et al., 2014).

The youths in the group who voluntarily exposed themselves sent more text messages, shared more personal information, shared their telephone numbers with people they only knew online, and watched more pornography, than youths in the comparison group. Overall, these youths were found to exhibit more psychosocial problems than youth who did not voluntarily expose themselves, again supporting the view that psychosocial factors have an impact on internet use characteristics, which significantly increase risk of online victimisation (Jonsson et al., 2014).

Adolescents may experience the sending of sexual pictures as harmless fun. It has been suggested that the physical distance between the correspondence may provide the youth with a false sense of safety. Another possibility is that the internet feels like it is not real, and this creates a dysregulation. Taking these two factors together might make youth more vulnerable and willing to respond to requests for a sexual picture (Mitchell et al., 2007b).

Another way in which the production of sexual material by youth is achieved, is through requests for sexual pictures. The YISS-2 (Mitchell et al., 2007b) identified that a substantial number of youth receive requests online to send sexual pictures of themselves. Forty-five percent of youth who reported some form of online victimisation had received a request for a picture. This means that 4% of all internet using youth are likely to receive a request for a sexual picture (Mitchell et al., 2007b).

When comparing youth who have experienced online victimisation, specifically where they have received a request for a sexual picture, to youth who have not, the following characteristics were prevalent: youth were more likely to be black, female, to have close online relationships, to engage in sexual behaviour online, and are likely to report offline physical and sexual abuse (Mitchell et al., 2007b).

Much research has focused on the possession, production and trading of pornography by adults, but research may have neglected to consider youth who produce pornographic images of themselves. Even if only a small number of youth agree to the request, it could still make a large contribution to the production and availability of online child pornography (Mitchell et al., 2007b; Quayle et al., 2014).

Protective Factors

As discussed under participatory factors, 73% of cases resulted in offline contact (Wolak et al., 2004). The cases that did not result in contact were sometimes due to victims reporting negative experiences to parents, police or another adult; or observant parents who were able to intervene before an offence could occur. In some cases, the offence was committed solely online and never resulted in a contact offence.

It is not impossible to find healthy, supportive online relationships, it is only that these are usually fraught with a great deal of risk. Those youth who tend to seek out support online as opposed to face-to-face, tend to be at risk for victimisation owing to the sequelae that are described above (Wolak et al., 2003). Some youth may find online resources indispensable in finding constructive advice for current difficulties they may be experiencing. Some adolescents may use online relationships as a safety net to initiate supportive face-to-face relationships, while others who lack social support networks may rely on online relationships to fill a crucial role of support for their wellbeing (Wolak et al., 2003; Ybarra et al., 2015).

In terms of prevention and protection, the research shows that it is far more effective to invest time and energy into building resilience in youth than in trying to protect them from the dangers of the internet. Research from the YISS -1 (Mitchell et al., 2001) found that parental supervision techniques, such as requiring youth to ask for permission before going online, having rules about the amount of time that may be spend online, having rules about what may or may not be done online, monitoring what youth were doing online, and checking the history of searches was not related to any reduction in risk of solicitation nor was the use of blocking or filtering software (Mitchell et al., 2001).

Biological.***Gender, age and sociodemographics.***

Girls tend to be more susceptible to the harmful effects of online sexual abuse, but they are also more talkative than boys, regardless of the type of risk they are confronted with.

Talking about challenges can be the first step in finding a proactive and effective way in dealing with it, which highlights the importance of communication at home and at school (Vandoninck et al., 2013).

Overall, younger children tend to be less resilient. They will have had less time to develop necessary digital literacy skills, and their emotional coping mechanisms are not yet fully developed. It would therefore be recommended to start digital literacy skills, even if only informally from an early age (Vandoninck et al., 2013).

Sociodemographics, personality, and social contexts have an impact on the choice of coping strategy and the level of resilience that youth adopt (Vandoninck et al., 2013).

Psychological.***Online resilience.***

The idea of 'risk' and subsequent distress as a result of exposure to risk, is directly linked to a person's perception of what is risk. An adolescent's view of what risk is may be different from that of adults, and thus how children experience harm will be determined by how they perceive risk. If a youth does not feel distressed or threatened, they may react with indifference, as it is not perceived as a problem. Moral protection and over reaction therefore, should be avoided as this can inadvertently cause harm, where there previously would have been none. Some children, however, do feel distressed by events that happen online and what is therefore

required is that this feeling of harm activates proactive, healthy and effective coping strategies (Vandoninck et al., 2013).

Online resilience is conceptualised as the ability to deal with negative online experiences by using proactive coping strategies that will assist in preventing future harm, as opposed to passive coping strategies, where a person might ignore the problem, or hope that it will go away on its own (Vandoninck et al., 2013). Online resilience involves learning from one's mistakes and recovering from negative experiences. Risk and resilience go hand in hand, as one cannot develop resilience without first having been exposed to and actively dealing with these outcomes. Resilience is enhanced with youth feeling capable of dealing with challenges that they experience, and usually result in positive emotions. The more children adequately learn to deal with adversity the better the resilience they develop (Vandoninck et al., 2013).

As might be expected, this requires the presence of a good social support structure in terms of both family and friends, and those who are able to guide a youth through a difficult experience and provide help and support.

Self-efficacy is related to the development of resilience and problem solving strategies. It is not necessarily the case that children who experience significant negative emotions as a result of an online event will be more passive. In some cases, the more harmful the experience, the more motivated they may feel to act proactively. This would however, rely on the presence of resilience at the time of the event (Vandoninck et al., 2013). There is no 'one-size-fits-all' approach to improving resilience in youth with regard to their internet use (Vandoninck et al., 2013).

Coping mechanisms.

Research into online coping strategies has identified three kinds of coping strategies (Vandoninck et al., 2013):

- Passive, this is defined as the absence of taking any action that deals with the actual problem
- Communicative, refers to speaking to someone that the youth trusts
- Proactive/Problem solving, refers to taking action with a view to reduce or eliminate future harm

Communication is the most prevalent coping strategy among all youth and across all types of risk (Vandoninck et al., 2013)

Social.

Research conducted by Ybarra et al. (2015) indicates that online social support does not appear to reduce the likelihood of online victimisation. There is even some evidence to suggest that as online social support grows, so too does the risk of online sexual victimisation. Social support that begins from relationships online does not appear to be protective, however, social support that begins from relationships that were face-to-face do appear to have some protective value (Ybarra et al., 2015)

Protective strategies.

A well-known protection strategy, is educating youth about ‘stranger danger’ online. Offenders will however, spend a month or more developing a relationship with a victim, and as a result over the course of this relationship the offender is no longer seen as a stranger, and an increasing amount of personal information is therefore shared with the offender. So while youths might be initially wary and employ protection strategies, overtime, with grooming and

manipulation, the youth will eventually drop their guard (Whittle et al., 2014; Wolak et al., 2004).

In a study conducted by Whittle et al. (2014), all of the victims identified had employed some form of protective strategy such as protecting personal information and being cautious about who they sent pictures or videos to, but it was found that these practices were implemented inconsistently. Once a relationship begins to develop however, between the offender and the victim, these protective strategies are no longer utilised as the victim does not view the offender as a stranger, or someone dangerous (Whittle et al., 2014).

Youth with a good social support structure including friends and family, are able to discuss their online encounters and to receive advice about events that they find concerning or distressing. Through their social support structure, they are able to gain a sense of what is appropriate and inappropriate as well as normal and abnormal. They are likely to be more realistic in their perception of the motives of others they encounter online and are more likely to follow advice about how to safely use the internet (Wolak et al., 2003).

Girls tend to be more susceptible to the harmful effects of online sexual abuse, but they are also more talkative than boys, regardless of the type of risk they are confronted with. Talking about challenges can be the first step in finding a proactive and effective way in dealing with it, which highlights the importance of communication at home and at school (Vandoninck et al., 2013).

Socio-economic status.

Low socio-economic status is associated with lower internet use by parents, but this does not necessarily mean that children are more vulnerable, indeed they do appear to adapt proactive

coping strategies when confronted with negative online experiences. Lower socio-economic status does not equate to lower parental involvement (Vandoninck et al., 2013).

Friendship.

In the study by Whittle et al. (2014), friendship was the only domain where protective factors outweighed risk factors. All of the individuals in the study had at least one close friend who was able to help and support them through the experience. Friendship, however, can be a double edged sword, as in some of the cases in this study, it was when friendships were jeopardised that youth sought online contact (Whittle et al., 2014).

According to Vandoninck et al. (2013), the social environment has a strong influence on how youth will feel and behave when confronted with difficulty in the online environment. The majority of participants in this study indicated that if they were experiencing any difficulty with something online, they would first ask a peer for support (Vandoninck et al., 2013).

Youth who receive support from friends and classmates appear to be resilient when confronted with online challenges and are more likely to respond in a proactive manner by deleting inappropriate messages and content and then changing their settings so that they cannot be bothered again (Vandoninck et al., 2013).

As youth develop, their peer group becomes increasingly important to them and they co-create and influence each other's internet use, normalising and validating it. If a child is part of a peer-group, which regularly engages in online activities, they are more likely to develop all round skills in the online domain. Results from the study by Vandoninck et al. (2013) indicated that peer support enhances proactive coping. The children who have developed good online skills are then able to, and usually do, respond more effectively and proactively when confronted with a negative experience online (Vandoninck et al., 2013).

Disclosure/Reporting

Results from the YISS-1 (Mitchell et al., 2001) found that only 10% of incidents were reported, and that most parents (69%) and youth (76%) were unaware of where they could report such cases. Younger children and girls are more likely to report to an adult when they feel upset due to a negative online experience (Vandoninck et al., 2013). Disclosure is considered to be a therapeutic coping strategy.

Parental involvement.

Children learn how to cope with adversity by observing how their parents deal with stressful situations in their social environment. They model their parents coping strategies, which directly affects their resilience (Vandoninck et al., 2013). The social environment strongly influences how children respond when confronted with challenges. Three groups of parental regulation strategies have been identified (Vandoninck et al., 2013):

- Active or instruction mediation, either positive and instruction or negative and critical.
- Restrictive mediation, involves creating rules and boundaries that govern when, where, what and how media is used.
- Co-using, as the name suggests, refers to parents who are physically present while the child uses media, ranging from actually sitting with the child to simply being around in the same room.

The research is unclear as to whether any of these techniques are actually effective in reducing vulnerability and exposure to online risks (Vandoninck et al., 2013). Parents need to know that restricting online activities does not assist the child and can be counterproductive. They need to learn to cope rather than learning to avoid negative experiences. This what is

required in developing proactive coping strategies that result in actions which leave the child feeling in control, and autonomous, and assists in building resilience (Vandoninck et al., 2013).

Restricting internet access after a negative event can promote passive coping strategies, while monitoring or mediating a youth's internet use will do more in the way of building online resilience. Monitoring a child's internet safety is shown to be related to more proactive coping strategies in the case of a negative experience, and is also shown to facilitate reporting in the event of an incident (Vandoninck et al., 2013).

As stated above, there is no 'one size fits all' strategy, however, parents should look at each risk and decide on the best approach. Overall, parents need to be active in their child's internet use and open to communication (Vandoninck et al., 2013).

Only 30-50% of households used parental control devices consistently (Noll et al., 2013). The majority of parents (86%) tend to use monitoring as a primary means of intervention with restricting at least one type of online activity (85%). Most parents (70%) will talk to their children about what they do online and will explain why a particular website is good or bad (68%). Parents will often also assist in helping their child do something that they are finding difficult to do online. Three in four parents will monitor their child's internet activity mostly (46%) by checking the history of websites the child has visited (Vandoninck et al., 2013).

It is also necessary to promote internet use among adults. Children who grow up in families where parents are poor internet users are less likely to develop resilience, and tend to respond to negative events by either stopping internet use or hoping the problem will go away on its own. Parents who themselves are confident, competent, and frequent internet users may feel more confident in being able to guide their children (Vandoninck et al., 2013). Jonsson et al.

(2014) found that if parents are involved with their children and their internet use, they are less likely to take sexual risks online.

Online and technological literacy.

Effective online coping strategies are facilitated by ‘digital literacy’ skills, which refer to skills concerning the use of technology in general, and online technology specifically. Knowing how to block someone or delete a message requires a level of online competency (Vandoninck et al., 2013). Poor digital skills among teachers is also a challenge, as they may lack the confidence and competence to impart digital literacy skills to youth (Vandoninck et al., 2013). Eight in ten children report going to a teacher for help. Teachers also most often assist by setting rules for internet use, helping a child find or do something they are struggling with, and explain why a website may be considered good or bad. Only a few youth described having some form of generic internet safety learning at school, the rest had had none (Whittle et al., 2014).

Age of consent.

Every country has laws that prohibit sexual relationships between adults and youth of a certain age. Ages of consent vary from country to country and range from 14 to 18 (Walsh & Wolak, 2005). The laws concerning age of consent vary hugely from country to country, for example, providing heavier penalties depending on the age difference between the victim and the offenders, providing heavier penalties if alcohol or substances were used to gain compliance, and heavier penalties if the adult involved was employed in a position of trust (Walsh & Wolak, 2005). In America most states also prosecute lewd behaviour such as taking pictures of youth that constitute CSEM, and exposing a minor to sexually explicit material (Walsh & Wolak, 2005).

Unwanted sexual solicitation.

According to the YISS-2 (Mitchell et al., 2007b) of the 48% of youth who received a request to send a sexual picture of themselves, only one complied.

Youth at risk should be targeted for intervention owing to their increased risk for online sexual solicitation, however other youths should not be ignored as 42% of those who reported sexual solicitation were not high risk internet users (Mitchell et al., 2004).

Offline victimisation.

Those youth who as a result of offline victimisation become victims of online sexual abuse may need additional protective guidance and monitoring, especially in relation to their internet use (Ybarra et al., 2015). Counselling will need to focus on motivations for creating sexually provocative profiles as well as the need to engage with sexual solicitors (Ybarra et al., 2015).

Consequence of Online Sexual Abuse

Most of the children exposed to online risk do not feel affected by it afterwards and most children either respond in a positive, proactive, or neutral way (Vandoninck et al., 2013). Some children, however, are significantly more distressed by these online experiences than others and have difficulty activating an appropriate coping strategy (Mitchell et al., 2001, 2004; Vandoninck et al., 2013). Some of the effects on youth include anxiety, post-traumatic stress disorder, depression, developmental disruption, self-destructive behaviour, poor self-esteem and substance abuse (Noll et al., 2013; Say et al., 2015; Schulz et al., 2015).

In the YISS-1, 75% of youth reported only minor reactions to online solicitation, 20% however, reported being very upset and 13% report feeling extremely afraid. Distress was also more common for youth who were between the ages of 10 and 13 (Mitchell et al., 2001). Of the

incidents that were aggressive in nature, 36% of youth were extremely upset, with one quarter reporting at least one symptom of stress, and 17% showing five or more signs of depression at the time of the interview, which was twice the rate of depressive symptoms for the overall sample (Mitchell et al., 2001, 2004).

In the YISS-2 youth who received requests for sexual pictures, 33% were likely to report feeling extremely upset, with some showing symptoms of trauma, such as being unable to stop thinking about it or having an increased startle response (Mitchell et al., 2007d).

According to Mitchell et al. (2007d) youth reporting online sexual solicitation were almost twice as likely to report symptoms of depression and substance use, even when offline victimisation was controlled for. Mental health practitioners reported that one in four of their youth clients who had come to them due to an internet related problem had experienced an online solicitation (Wells & Mitchell, 2007).

The NJOV-1 (Wolak et al., 2004) found that in 89% of cases that resulted in face-to-face contact, offenders had sexual intercourse, oral sex or another form of penetrative sex. Data from the study by Say et al. (2015) found that of 662 cases, nearly half of the victims experienced penetrative forms of sexual abuse. Seventy-four percent of victims had face-to-face meetings with the offender, most of which involved illegal sexual contact. Say et al. (2015) found that in cases of sexual abuse, which involved a digital component, the abuse tended to be more severe. Victims were 2.18 times more likely to experience penetrative abuse, 2.63 time more likely to be exposed to recurrent sexual abuse, and 3.1 times more likely to be abused by multiple offenders. This study also found that violence was more prominent in these forms of sexual abuse. The introduction of new forms of technology have given offenders new ways to threaten and control victims in order to initiate and repeat the sexual abuse of victims (Say et al., 2015).

Only 5% of cases involved violent offences, mostly rape or attempted rape. Sixteen percent of cases involved some form of coercion in which victims were pressured into having intercourse or engaging in sexual acts. In some of the cases, victims were given illegal drugs or alcohol (40%), were exposed to adult pornography (23%) or CSEM (15%), and 21% were photographed in sexual poses. In the cases where recordings of the child were involved, it included the use of either photographic or hidden cameras. Some offenders managed to convince the victim to take sexual pictures of themselves or friends and send them to the offender (Wolak et al., 2004).

In the study by Say et al. (2015) 49.5% reported that an image was recorded by the offender and 44% of victims were then threatened with that image. In 21.6% of cases the image was shared with other offenders.

In cases of internet initiated incitement the consequences were much more severe (Gallagher, 2007). Children experienced a range of sexual abuse from indecent photographs and films, to gross indecency, indecent assault, rape and sodomy. When these types of crimes were involved, they were often viewed by other people over the internet. For many of these children this was not the first incident, most of these children had been sexually abused multiple times by the offender. Most often they also suffered physical and emotional abuse and neglect (Gallagher, 2007).

Prevention of Online Sexual Abuse

According to the NJOV-1 (Wolak et al., 2004), the majority of prevention messages focus on educating youth about the risk of deception. They emphasise not trusting people that might be met online, and not divulging personal information. While these are useful messages they only speak to a small part of the adolescent community, which are seen as unrealistic and

are largely ignored. The problem this creates is that if adolescents do not trust the information they are given they may discount prevention messages that are important. Most adolescents use the internet to form friendships, with some of them being close and very supportive. It is common practice for youth to converse online with people they do not know, and to share personal information. To issue blanket warnings that advise against doing so is therefore unrealistic to most teens. What they need is realistic and relevant prevention messages (Wolak et al., 2004).

The NJOV-1 proposes that what needs to be acknowledged is that there is a group of young adolescents who are willing to enter into a sexual relationship with people they have met online. This reality needs to be accepted, understood, and acknowledged in order to effectively address these youth (Wolak et al., 2004).

A possible avenue is to educate youth about the potential consequences of these relationships, which is something that very few adolescents truly consider. Youth may be unaware that the adults who engage in these relationships with them are committing an offence and could serve a prison sentence, as well as being placed on the sex offender register. They will probably have not considered the potential embarrassment and long term effects on their life if this offence comes to light, especially if the offender has created and distributed pornography based on their encounters.

Youth need to appreciate the manipulative strategies that offenders use to gain trust and compliance from them, and can be educated to understand that no adult who cares about their well-being would propose a sexual relationship with someone below the age of consent.

Youth can be educated about how these offenders rarely have a single victim, and that while the offender may spend a great deal of time making the youth feel special and unique, they

are doing and have done this countless times before with others. Once the offender has what they want from the relationship, or if the offender perceives the risk to be too great, they will end the relationship immediately and abruptly with no thought or concern for a youth's feelings.

They need to be educated that once digital images or videos are created they can be distributed online for anyone to see. Also, if the case goes to court, the images might be used as evidence.

Youth need to be aware that when they are being solicited, the solicitor is committing an offence and should be reported to the police. They need to know that if they engage with the solicitor and send sexual content, then they too are committing an offence (Mitchell et al., 2007b).

Teachers and healthcare workers need to be aware of the dynamics and actively have age appropriate conversations with youth about the issues concerning the internet (Mitchell et al., 2007b).

Conclusion

The aim of this section of the chapter was to establish a profile of youth who become victims of online sexual abuse in its various forms. The predisposing, precipitating, perpetuating, participating, and protective factors were described using the biopsychosocial model in order to make sense of the multitude of factors that can effect a youth's vulnerability. What this review has established is that there is no single profile of a vulnerable youth, with discrete factors, that lead to victimisation in a linear fashion. As indicated by Wolak et al. (2008) in the literature review, a 'profile' of risk emerges for an individual that exists along a continuum. Factors are cumulative, iterative, and mutually reinforcing, especially when one considers the sequelae described when offline victimisation is present.

One of the most powerful driving factors identified in this section was the stage of adolescent development in itself. Youth are actively engaging in their online world to seek out new friendships, to define themselves, and to explore their newly unfolding sexuality. At this stage youth are naturally curious and impulsive, which leaves them vulnerable to online exploitation.

What is vitally important to note, however, is that as stated in the literature review, youth are not the naïve and innocent bystanders portrayed in the media. Often they are actively involved in engaging with another person online in pursuit of a mutual sexual interest. This of course does not mean that youth are not misled or manipulated, but it does mean that there is an element of active agency in online relationships.

This information is vital as it serves to inform the prevention messages outlined above. Some youth are naturally vulnerable owing to their stage of development, however, for some youth with co-existing offline challenges, the risk is amplified. Youth require frank, honest and informative prevention messages that will allow them to make sense of, and proactively deal with experiences they have online.

Victims and offenders are similar in the way that they are not a homogenous group. As with victims, no single offender can be identified, and their typology is as varied as their methodology. When looking at offenders, the purpose of this review is to articulate the profile of an individual who engages in the online sexual abuse of children, and what methodologies might be used to do so. Developmental factors are not considered, as they were with victims, but instead the focus is on the current factors and dimensions that facilitate offending.

Offender Typology and Methodology

Online sex offenders cannot be profiled or categorised as if they represented a single entity. Differences in demographics, motives, underlying psychological drives, and methodology make online offenders vastly heterogeneous (Alexy et al., 2005; Gallagher, 2007; Merdian et al., 2016; Navarro & Jasinski, 2015; Quayle & Taylor, 2003; Schulz et al., 2015). Schulz et al. (2015) stress the need for a diverse conceptualisation of offenders and online sexual solicitation as well as exploring the phenomenon from different perspectives. In fact, the only way in which offenders are similar is in that they are so vastly heterogeneous (Alexy et al., 2005; Gallagher, 2007; Schulz et al., 2015).

The findings of this review indicate that online sexual offences represent a complex array of actions and behaviours that are iterative, repetitive, and follow a kind of circular causality, that is, they do not represent a discrete or linear set of activities (Quayle & Taylor, 2003). These actions and behaviours occur in relation to each other, simultaneously initiating and reinforcing one another. This makes offending a highly dynamic activity, with offenders moving along a continuum of actions and reactions, which is relative to their driving motivation and modus operandi (Quayle & Taylor, 2003).

The outcomes of online sexual offending can be numerous including, discussing sexually explicit topics with minors, cybersex, the exchange of sexual images, and face-to-face meetings, which most often involve sexual activity. Outcomes can, in some cases, be violent, which can include manipulation, coercion, physical and sexual violence, including rape, and in extreme and very rare cases, murder (Malesky, 2007; Mitchell et al., 2005; Say et al., 2015; Schulz et al., 2015; Walsh & Wolak, 2005; Wolak et al., 2004).

Offender Typology Introduction

The two most prominent general themes to emerge in this review were cognitive distortions and the collaboration with communities of like-minded individuals. These two factors appear to the researcher to be central and specific to the online child sexual offender. That is not to say that offline offenders do not have cognitive distortions or collaborate with others, but it appears that in the online context these two factors are mutually facilitating, reinforcing, supporting, and may result in an escalation of online behaviour (Alexy et al., 2005; Gallagher, 2007; Quayle & Taylor, 2003).

The advent of the internet has allowed for a degree of collaboration, which did not previously exist with off line offenders, and if it did, it was often at great risk to the offender. Anonymity, affordability, and accessibility appear to have allowed for dormant proclivities to arise in individuals who would possibly have never acted upon them if not for their anonymous availability (Alexy et al., 2005; Gallagher, 2007; Quayle & Taylor, 2003).

Cognitive distortions and collaboration go hand in hand. Cognitive distortions are simultaneously created, normalised, reinforced and legitimised through collaboration with online communities. As such, the discussion of these two sections as discrete entities creates a false sense of separation. This was done in order to facilitate the discussion of themes.

The following section will discuss the factors that emerged through the review and delineate the characteristics and methodology of the online offender. Research from multiple sources will be integrated into what is hoped to be a coherent picture of the online child sexual offender and the methods used to achieve online sexual abuse. Initially, demographic factors will be discussed. This will be followed by two sections which will firstly discuss factors that were found to be common to all offenders, and then secondly, factors that were specific to

certain types of offenders. This section concludes with a detailed discussion of offender methodology.

Demographic Variables of Offenders

The same methodological limitations, as well as limitations of the review apply to offenders as was outlined for victim demographics. The following section will detail the demographic factors of offenders as far as possible within the limitations previous described.

As was found with victims, the majority of articles included in this review gave fairly detailed findings on offender age and gender. As for the rest of the demographic factors, offenders appeared to vary hugely, with very few commonalities or identifying features. As such what is reflected here is what is present in the articles reviewed in the form of thin descriptions of additional variables. For example, the study by Gallagher (2007) found that some offenders were unemployed with low socio-economic positions while others were in high socio-economic positions. Some were divorced or separated and/or lived in reconstituted families while others had never been in a relationship. Offenders ranged in age from 20 to 60+ years, some had children, some were heterosexual while others were homosexual or bisexual. Findings from this study reflect the diversity of offenders throughout the review.

Age.

Data from the NJOV-1 reported that an offenders' age ranged from 19 to 69 with a median age of 35. Seventy-six percent of offenders were 26 years or older, and in 51% of cases there was more than 21 years difference between the offender and the victim (Walsh & Wolak, 2005; Wolak et al., 2004). The NJOV-1 was conducted in 2001. The NJOV-2 was conducted in 2005 and found the following: 38.9% of offenders were less than 30 years old comprising the biggest group and constituting a shift in data from the NJOV-1. Twenty-two percent were

between the ages of 30 and 39, 23.9% were between the ages of 40 and 49, and 14.3% were 50 years or older (Navarro & Jasinski, 2015). By 2011, the NJOV-3 identified that the majority of offenders were younger than 26 bringing it closer to results obtained from victim and youth surveys (Tener et al., 2015).

The first Youth Internet Safety Survey in 2000 found that 48% of respondents who had experienced an unwanted sexual solicitation stated that the offender was less than 18 years old. Twenty-four percent were reported to be older than 18, with the majority being between the ages of 18 and 25 and only 4% reported to be older than 25. Victims were unsure of the age of the offender in 27% of cases (Mitchell et al., 2004; Ybarra et al., 2004). Adults were reported to be responsible for 34% of aggressive solicitations and juveniles were reported to be responsible for 48% of aggressive solicitations (Mitchell et al., 2004).

This difference in reports of age are indicative of differences in methodology in which surveys of law enforcement cases differ significantly from youth surveys. In 97% of cases youths initially met the offender online and so it is possible that youth may not have accurately represented the age of the offender.

Data from a study in which newspaper articles were reviewed over six years, from 1996 to 2002 in which internet offenders were covered by the media, showed different demographic age characteristics. The age range of offenders was between 15 and 66 years with a median age of 37. Offenders under the age of 20 and older than 60 constituted less than 2% of the overall sample. The majority of offenders (35.6%) were between the ages of 30 to 39 years, 20% were between the ages 20 and 29, and 18.7% were between the ages of 40 and 49 (Alexy et al., 2005)

If taken all together the findings appear to support a predominant picture of offenders who are 26 years old or younger.

Gender.

Data from the NJOV-1 reports that 99% of offenders are male (Wolak et al., 2004). In contrast data from the YISS-1 found that slightly more than two-thirds of offenders were male, while a quarter of offenders were female (Mitchell et al., 2004). The YISS-2 and the NJOV-3 report that offenders are predominantly male (Mitchell et al., 2007c; Tener et al., 2015). Data from the Alexy et al. (2005) study on newspaper articles reported that the majority of offenders were male, with slightly less than 5% being female. A research study by Gallagher (2007) in which 13 cases were reviewed found that offenders were predominantly male, but a small proportion were female. In a study conducted by Schulz et al. (2015) in which 2828 general internet users from Germany, Sweden and Finland were anonymously surveyed 72.3% of participants who admitted to soliciting youth underage were male. Interestingly 30.6% of offenders soliciting adolescents and 17.2% of offenders soliciting children were female.

It is interesting to note that in this study as well as the YISS which were both surveys of the general population, females were significantly more represented than in surveys involving law enforcement or case data. This may represent the lack of reporting when female offenders are involved and that this data can only be assessed from victim reports or general surveys.

Race/ethnicity.

Very few studies included in this review referred to offender race or ethnicity. The NJOV-1 and the NJOV 3 identified that the majority of offenders are non-Hispanic white (Tener et al., 2015; Walsh & Wolak, 2005). Data from the NJOV-2 detailed the following: 96.6% of offenders were white, 2.9% were African American, 1.6% were Asian, and 1.6% were other or mixed race (Navarro & Jasinski, 2015).

Highest level of education.

The NJOV-1 reports that 36% of offenders were high school graduates and 35% had some form of college experience (Mitchell et al., 2005). On the whole it has been found that internet offenders tend to be more educated than contact offenders, specifically, 54% had high school education or less, 42% had college or technical education and 3.3% had post college education (Navarro & Jasinski, 2015).

Annual household income.

The NJOV-1 reports that 51% of offenders had an annual income of between \$20,000 and \$50,000 with 19% have an income of more than \$50,000 (Mitchell et al., 2005).

Marital status.

The NJOV-1 reports that 33% of offenders were single and never married, 17% were divorced. Thirty-five percent were married or cohabiting at the time of the offence (Mitchell et al., 2005; Walsh & Wolak, 2005). Data from the NJOV-3 detailed the following: 51.5% of offenders were single or never married, 26.6% were married, 6.1% were living with a partner, 15.8% were separated/divorced/widowed (Navarro & Jasinski, 2015).

Employment.

The NJOV-1 reports that 78% of offenders had full time employment, and 9% were unemployed. Thirty percent had jobs or were in voluntary positions which put them in positions of trust with minors, mostly as teacher or coaches (Mitchell et al., 2005; Walsh & Wolak, 2005). Data from the NJOV-3 recorded that 78.6% of offenders were employed in some capacity (Navarro & Jasinski, 2015).

In the Alexy et al. (2005) study, offender occupations were categorised as the following: 64% were professionals, 11.2% were labourers, 8.8% were unemployed, 5.6% were military, 7.2% were students, and 3.2% were clergy.

Geographical location.

The NJOV-1 reports that 24% of offenders lived in suburban areas and 47% lived in small towns or rural areas (Mitchell et al., 2005).

Criminal history.

The NJOV-1 reports that most offenders were first time offenders, a quarter of offenders had prior arrests for non-sexual offenses, and 9% had prior arrests for sexual offences against minors. Three percent were registered sex offenders (Walsh & Wolak, 2005).

Data from the NJOV-2 found that approximately 6.8% of offenders had been arrested previously for sexual offences and 23.9% for non-sexual offences (Navarro & Jasinski, 2015).

Most online offenders are generally not paedophiles, and they do not tend to be violent, impulsive, or have criminal histories (Tener et al., 2015).

Mental health and psychological variables.

In a study conducted by Merdian et al. (2016) on fantasy-driven and contact-driven offenders it was found that fantasy-driven offenders tend to deal with adversities by adopting an avoidant behavioural style, while contact-driven offenders have a greater tendency to act out.

Fantasy-driven offenders are more likely to report ongoing problems with intimacy while contact driven offenders were more likely to endorse cognitive distortions in favour of sexual relationships with children (Merdian et al., 2016).

Childhood sexual and physical abuse, early atypical sexual interests and early sexual experiences, as well as difficulties in relating to adults have all been cited as precursors to

developing deviant sexual fantasies and behaviours (Quayle & Taylor, 2003; Wurtele, Simons, & Moreno, 2014).

General Elements of Offender Characteristics

Distal and proximal factors.

Research conducted by Quayle and Taylor (2003) on 23 offenders who were convicted of online child sexual offences, identified distal and proximal factors that are thought to contribute to offending behaviour. Distal factors include early sexualisation, and sexual experiences, as well as poor adolescent and/or adult socialisation. These factors have the greatest impact on attachment styles and cognitive schemas, as well as consequent values and beliefs. Proximal factors that were identified included existing sexual interest in children, having committed a contact offence previously, and being dissatisfied with one's current perception of self and/or with a situation in one's current life.

Attachment style.

A study conducted by Simons, Wurtele, and Durham (2008) as cited in Wurtele et al. (2014) indicated that in a sample of 269 incarcerated male sex offenders, which included child sexual abusers and rapists; child sex abusers reported more frequent experiences of childhood sexual abuse, exposure to pornography before the age of 10, early onset of masturbation before the age of 11, and sexual activities with animals. Both groups reported insecure attachment styles with two thirds of child sex abusers reporting insecure, anxious attachments with parental figures. Multiple studies have indicated that individuals who sexually abuse children often report insecure attachment styles and are specifically anxious as opposed to avoidant (Wurtele et al., 2014).

The insecure attachment style can lead to loneliness, isolation, lack of empathy, impulsivity, and fear of rejection in an individual. Research suggests that insecure child-parent attachment styles can increase the risk of an individual becoming a child sexual offender by contributing to the conditions that can lead an individual to seek out a young person to meet their needs for intimacy and interpersonal closeness (Wurtele et al., 2014). This attachment style may also cause a potential offender to form the cognitive distortions discussed below, which justify and rationalise their behaviour and therefore facilitate offending.

The research cited above was confirmed by the Wurtele et al. (2014) study. Not only did the insecure, anxious attachment style feature as a characteristic of those individuals with a sexual interest in children, but so did the avoidant attachment style.

Cognitive distortions.

A study by Quayle et al. (2014) found that all their participants used the internet and various technologies to achieve tasks in their daily lives. They found that offenders created a private space within which to offend, ensuring that this was separate from the rest of their daily lives and activities. Offenders used this private space to access victims and commit offences that required the management of thoughts and feelings associated with these activities. It is argued that in order to achieve success in a sexual offence, the offender is required to manage their own emotions, arousal and cognitive mechanisms (Quayle et al., 2014). Cognitive distortions are therefore, a central component to facilitating offending.

Types of cognitive distortions.

Salient themes emerging from this review identify that offenders offer a host of rationalisations and justifications for their behaviour. Some appear to be based on the distal and proximal factors identified above, while others appear to be fantasies constructed to fit a

preconceived idea about children, and their interaction with them that would allow them to feel they were not doing anything wrong. Some cognitive distortions appear to be concrete, thought out rationalisations, while others appear to be genuine distortions born out of development issues.

The most common justification for offending behaviour was that sexual contact between adults and children does not cause harm. There appears to be a strong tendency, particularly in paedophilic subcultures, to not only romanticise the relationship between adults and children, but to romanticise the children themselves. These websites support the view that adults and children can have sexual relationships that are nurturing and loving (Alexy et al., 2005; Durkin & Bryant, 1999; Holt, Blevins, & Berkert, 2010; Malesky, 2007; Quayle et al., 2014; Quayle & Taylor, 2001).

In studies conducted by Quayle and Taylor in 2001 and 2003, offenders offered multiple rationalisations and justifications for their actions. Some offenders rationalised that it was 'more responsible' to engage with children online then attempt to deal with their feelings by abusing a 'real' child. Offenders offered justifications that their behaviour caused no harm because there was no direct physical contact (Quayle & Taylor, 2001, 2003).

Offenders also made reference to events in their recent and developmental years, as justifications and rationalisations for their online behaviour. These included having long standing difficulties with adult interactions and therefore using the internet for sexual exploration, which required no actual contact with people; using the internet as a way of dealing with current dissatisfaction in one's life; and using the internet to deal with ones' sexual interest in children without harming a 'real' child, or a child in one's immediate environment (Quayle & Taylor, 2001, 2003).

When an offender's use of the internet inevitably begins to increase and offending behaviour escalates, Quayle and Taylor (2003) identified that offenders often made reference to being addicted to the internet, using this as a justification for ongoing and escalating internet use, by stating that it was 'out of their control'.

When offenders began downloading and collecting child sexual exploitation material (CSEM) in order to masturbate, they rationalised that this was better than sexually abusing a 'real' child. Further justifications included that it was only fantasy, that it was somehow not 'real,' and that it did not hurt anyone.

When offenders engaged in the production of CSEM, the most common legitimisation was that they were merely copying what they had seen others do. A similar cognitive distortion was used to justify contact offences, in which offenders reported that the pictures they downloaded showed other individuals engaged in the same behaviour (Quayle & Taylor, 2001, 2003).

Offenders in the Quayle et al. (2014) study identified that the act of chatting to youth online served the additional function of normalising the action, as well as suspending any thoughts or feelings of it being wrong.

Quayle et al. (2014) also found that once the offender had disengaged from the internet and the intended victim, there appeared to be an emotional and cognitive shift for the offender, as if it was a separate life, one which only existed in a specific online context or 'space'.

Development of cognitive distortions and offending behaviour.

Cognitive distortions are used by offenders to deny, minimise and rationalise their offending behaviours. Beliefs and attitudes espoused by offenders are a reflection of cognitive distortions that enable and facilitate continued offending. These cognitive distortions may vary

on a continuum from being a part of an offenders' aetiology, meaning they relate to experiences in the offenders' development that have resulted in distorted cognitions, to being post hoc rationalisations that are created in relation to recent events (Quayle & Taylor, 2003).

It can be seen from the above justifications that offenders rationalise using the internet as a way of 'finding solutions' to current or long standing difficulties. Quayle and Taylor (2003) identified the following progression in cognitive distortions and related consequent offender behaviour: as offenders begin to engage with the internet, its use is reinforced by cognitive and social factors. The more time an offender spends online, the more they experience a sense of power in learning how to negotiate the internet, how to find material, and how to get around security measures. Being able to access images at will, also provided a sense of control, which offenders identified as often being lacking in their daily lives (Quayle & Taylor, 2003).

Increased access to CSEM creates more opportunity for exposure to deviant sexual content and the opportunity to download and collect CSEM. As the viewing, downloading, and collection of CSEM continues it becomes increasingly normalised, developing the cognitions that justify this activity. This results in a rapid increase in the amount of time spent online and a decrease in the amount of time spent in face-to-face social interactions, which was even more pronounced if offenders began to chat online with like-minded communities (Quayle & Taylor, 2003).

Collecting behaviour is driven by a multitude of factors. Firstly, is it driven by a need for new material, searching for images to complete a series, or to find pictures that fit a particular fantasy held by the offender (Quayle & Taylor, 2003). Secondly, CSEM takes on the form of a currency in online offender communities, and therefore to gain access, and to maintain power and status in these communities, offenders constantly require new material (Quayle & Taylor,

2003). The role of CSEM as a currency and its role in escalating online offending behaviour will be discussed below.

Thirdly, offenders verbalise a form of sexual tolerance or desensitisation in which current CSEM no longer satiates their sexual needs. This can lead an offender to seek out new material in order to achieve previous levels of sexual arousal (Quayle & Taylor, 2003). The collecting of pictures from the internet is associated with an increase in the creation of fantasies, and fantasising behaviour; a decrease in face-to-face sexual encounters, and social engagement; heightened sexual arousal with an increase in solitary sexual activity; and an increase in disinhibition (Quayle & Taylor, 2001).

The collecting of CSEM material has the effect of distancing the offender from the nature of the items being collected. An objectification of the content occurs and leaves the offender cognitively distanced from the fact that what is being viewed is a record of child sexual abuse. Online sexual offenders who have been interviewed referred to CSEM as both a precursor to online grooming as well as it being an essential part of the grooming process (Quayle et al., 2014).

When offenders move from the relatively isolated action of downloading CSEM to becoming part of a community, their cognitions change. These cognitive changes can include changes in beliefs, values and cognitive styles as they interact increasingly outside of a conventional system (Quayle & Taylor, 2003).

What Quayle and Taylor (2003) identified in this study is a process model of internet offending that is mediated by cognitive distortions. The model identifies stages that an offender could move through in using the internet, that is supported and maintained by cognitive distortions about, and collaboration with, like-minded individuals.

The role of communities in offending behaviour.

The advent of the internet has allowed for the formation of communities that support the sexual abuse of children. Through these communities offenders can find like-minded individuals with whom they are able to share and discuss their views and beliefs which support sexual and romantic relationships between children and adults. These communities may provide important support for people who might otherwise feel ostracised by society and may serve to introduce, validate, normalise, and reinforce these views and beliefs. Some child abuse networks are very small, while some of them are large, international, highly diversified, organised and secure. Virtual communities also facilitate access to online CSEM, the ability to collaborate concerning the sexual abuse of children to varying degrees, specialised skills, potential victims, abuse locations and psychological rewards (Alexy et al., 2005; Gallagher, 2007; Quayle et al., 2014; Quayle & Taylor, 2001; Schulz et al., 2015). For example, as discussed under cognitive distortions, offenders create accounts of their online behaviour that deny that any harm was caused to a child because there was no direct physical contact. These accounts are then shared within online communities serving to further entrench and validate these belief systems and cognitive distortions (Quayle et al., 2014; Quayle & Taylor, 2001).

The study conducted by Gallagher (2007) identified four ways in which online offending communities assist in the online sexual abuse of youth. Offenders state that they wish to abuse a child and are seeking access to a child; an offender may offer a child for sexual abuse to someone who is looking; a member of the online community may incite another member to abuse an unspecified child; and two or more individuals may conspire to offend against a child together.

Gallagher (2007) identified that child-sexual abuse promoting communications can take several forms. Some consisted of conversations between offenders within which they shared their interests and desires to sexually abuse children. Some of these conversations were lengthy and graphic, while some were extremely abusive, both physically and sexually. Some of these accounts took the form of narratives or stories of acts an offender wished to perpetrate, and would form a kind of currency on their own.

For those individuals who purposefully seek out relationships with like-minded individuals, these relationships are considered very important and highly selective (Quayle & Taylor, 2003). Some individuals go so far as to meet these individuals offline, and in these cases, the face-to-face nature of the relationship is important in legitimising and normalising their deviant sexual interests (Quayle & Taylor, 2003).

In order to sustain these relationship and online membership to offender communities, credibility and status is required, which is determined by the size of one's collection or through the ability to exchange new or 'rare' material. Entry into these communities requires some form of input or exchange in order to sustain the relationship (Quayle & Taylor, 2003). The objectification of CSEM is best seen here where the record of child sexual abuse is reduced to a social currency.

The role of the community appears to be vitally important to many online offenders. It fuels sexual fantasies, provides status, power and credibility, and allows for the normalisation and validation of deviant sexual interest in children (Gallagher, 2007; Quayle et al., 2014; Quayle & Taylor, 2001).

Escalation.

Cognitive distortions and the reinforcing role played by the online community interact with each other and lead to an escalation in the offenders' behaviour. Online actions fuel fantasy, sexual arousal and behaviour, which in turn can lead to an escalation in the desire to develop a relationship with a child in the real world (Alexy et al., 2005).

The level of escalation would appear to be mediated by the offenders' cognitive schemas such that if an offender does not endorse cognitions that allow for the physical abuse of a child, behaviour will not escalate to that degree. If, however, an offender has distortions that sexualise children or distortions in which they perceive themselves as entitled to sexual activity with children, then their behaviour may very well escalate from the use of CSEM to contact sexual offending.

Escalation can also be seen prominently in the maintenance of community membership. As discussed above, ongoing association with offender communities requires input and exchange. The ability to exchange new, or very rare images, especially those that form part of a set, are held in high regard and serve to further legitimise the individuals' presence in the community (Quayle & Taylor, 2003). Self-produced CSEM can 'buy' an individual increased status and credibility within the community, which may be highly motivating for offenders. Taken together, offending behaviour may escalate out of the need to maintain status and credibility by supplying new and salient material (Quayle & Taylor, 2003).

Another element in escalation is that when offenders initially become members of like-minded communities, they may be provided with highly salient and arousing material, which may or may not, depending on the motivations of the offender, be satiating for a time. A

tolerance or desensitisation may become another reason for the escalation of behaviour to find new material that meets their sexual needs (Quayle & Taylor, 2003).

Once the offender is online and downloading CSEM, this behaviour is reinforced by the community (Quayle & Taylor, 2003). These communities may also provide access to relationships with other members that then allow for the supply of information, which can further develop computer and software skills, enhance sexual proclivities, and lead to discussions of actual offline offending (Quayle & Taylor, 2001).

Specific Elements of Offender Characteristics

The one way in which offenders are similar is in that they are so vastly heterogeneous. There is no single typology that manages to accurately encapsulate the online child sexual offender, their motivations and methods are as varied as their demographic backgrounds and psychological make-up.

The offender who downloads CSEM as part of an array of pornographic material, but who does not communicate or collaborate with a community and does not share, trade or produce material may be qualitatively different from the offender who uses children either within their social environment or online to produce and trade images (Quayle & Taylor, 2003).

Some individuals are aware of their sexual proclivities for underage youth and use the internet in a conscious effort to express their preferences and meet their sexual and/or interpersonal needs (Quayle & Taylor, 2003). Other individuals may have had no prior knowledge that they might find these images sexually arousing, which raises the question of whether or not these dormant interests would ever have found expression if not for the internet (Quayle & Taylor, 2003).

Several studies included in this review looked at very specific elements of offender characteristics, with some articles drawing comparisons between certain types of offenders. For ease of reading, a brief summary of each study is provided below, which indicates the nature of the study and how it was conducted.

What is of great value in this review is that the studies identified below cover a range of data sources, providing a fuller picture of offender characteristics, as opposed to any one single study. Data was gathered from victim reports, offender reports, media sources, case files, and data from law enforcement agencies.

A study by Schulz et al. (2015) focused on adult internet users in Germany, Sweden and Finland. The study used an online survey on 126 different websites. Non-probability sampling of the general public was used to select a final sample of 2828 participants. Data from the study was then subjected to statistical analysis. The focus of this research was to question adults from the general population, and not offender or victim samples, on having solicited a minor online.

The study by Black et al. (2015) collected transcripts from the *Perverted Justice* website, on which volunteers go online as ‘decoys’ in an effort to catch sexual offenders. Forty-four transcripts were selected at random and were then subject to linguistic and content analysis, in order to determine the grooming strategies of online offenders.

The study done by Tener et al. (2015) used data from the third National Online Juvenile Victimization Study (NJOV-3), which involved a national sample of 2653 law enforcement agencies that collected data concerning arrests made in 2009 for internet-related child sexual exploitation crimes. Trained interviewers conducted detailed telephonic interviews with the investigators about specific cases. A qualitative analysis was done on a subsample of 75 cases.

A grounded theory approach was then used to build a typology of online child sex offenders and deconstruct online sexual solicitation into its basic components.

In a study by Quayle et al. (2014), 12 offenders were interviewed using a semi-structured interview, and case files were thoroughly reviewed. The interviews were transcribed and coded in order to establish how offenders adapt their offending behaviour and use the technology now available to facilitate offending.

Wolak et al. (2004) used data from the first National Online Juvenile Victimization Study (NJOV-1) which involved a national sample of 2574 law enforcement agencies that collected data concerning arrests made between July 1, 2000 and June 30, 2001 for internet-related child sexual exploitation crimes. Trained interviewers conducted detailed telephonic interviews with the investigators about specific cases. A quantitative analysis was conducted on a subsample of 129 cases in order to examine the characteristics of sex crime victims to provide a systematic and scientifically based description of internet-initiated sex offences.

In a study conducted by Alexy et al. (2005), a convenience sample was taken of 225 cases of traders, travellers and combination traders and travellers from 91 news sources in print and electronic media coverage, over the course of six years between 1996 and 2002. Descriptive statistical analysis was used to analyse the data and define the characteristics of traders and travellers.

A study by Malesky (2007) looked at 31 inmates from the Federal Bureau of Prison's Sex Offender Treatment Program (SOTP). Data was gathered by use of a questionnaire and subjected to statistical analysis in order to gather information on sex offenders' predatory online behaviours in order to inform parents and guardians on effective safety strategies.

Gallagher (2007) conducted interviews with police officers, each of whom had investigated cases of internet initiated incitement between August 2002 and 2004 in the United Kingdom. 14 officers were interviewed in relation to 13 cases, and police files were thoroughly reviewed. The interviewers used semi-structured interviews with police officers and designed an extraction form to gather information from case files. The final sample was subjected to thematic analysis, with the aim being to establish the typology, extent and nature of online child sexual abuse based on cases reported in the United Kingdom in order to inform policy and practice.

A study by Mitchell et al. (2005) that used data from the NJOV-1, looked specifically at family and acquaintance abuse. A total of 126 cases were included in the study in which offenders had prior relationships with the victim. Statistical analysis was used to analyse the data in order to explore the dynamics of cases that involved family members or acquaintances.

Say et al. (2015) interviewed the parents and victims of 662 sexual abuse cases referred to a court in Turkey between January 2012 and May 2013. Psychiatric diagnoses were made where applicable and cognitive testing was conducted. Data was analysed statistically in order to estimate the rate of use of digital devices by offenders and to examine the association of digital devices with the characteristics and psychological consequences of sexual abuse.

A study by Merdian et al. (2016) recruited offenders from community sex offender treatment programs in New Zealand. The final sample consisted of 68 participants who were assessed via an anonymous computer survey, the data from which was analysed statistically in order to provide a detailed profile of the fantasy-driven offender as separate and in comparison to the contact-driven offender.

What has been discussed above refers to elements that were found to be germane to all online child sex offenders. What will be discussed below, based on the research cited above, are specific offender characteristics and how these characteristics relate to particular aspects of offending. This will then be followed by a discussion of the different typologies identified in this review, where they overlap, and how they are different from one another.

Immediate vs gradual.

Some offenders are willing to spend a great deal of time and energy developing trust and compliance in a relationship with a potential victim. These offenders are likely to spend huge amounts of time in contact with the victim, use money and/or gifts to garner cooperation, and use a range of techniques in order to attract victims. Other offenders seek instant sexual gratification and quickly introduce sexual topics into the relationship (Malesky, 2007; Schulz et al., 2015; Tener et al., 2015). It is important to note that while offenders may spend a variable amount of time grooming their victim, the introduction of sexual content happens early in the relationship (Quayle et al., 2014).

Black et al. (2015) identified that the introduction of sexual content happens within the first 20% of the conversation, demonstrating how blunt and explicit offenders can be from the outset. The introduction of sexual material may also be used as a screening and assessment tool, in order to identify the most willing victims as quickly as possible.

Compared to offline offending, multiple studies, as cited in Black et al. (2015), have identified that the speed at which relationships develop, the sharing of personal and intimate information, and the early introduction of sexual content appear to be factors specific to the online context.

Multiple vs single victims.

In the Schulz et al. (2015) study it was found that online offenders had approached more than 20 minors in the past year. This appeared through statistical analysis to be more significant if offenders were targeting children (Schulz et al., 2015). Some offenders had one victim, while others had multiple victims with a minority having hundreds of offline and online victims (Black et al., 2015; Schulz et al., 2015; Tener et al., 2015).

As will be discussed under offender methodology, offenders have access to a large number of youth and are able to communicate with as many people at a single time as they are able to manage (Black et al., 2015; Quayle et al., 2014). Initially offenders appear largely indiscriminate, and will make contact with as many youths as possible in the hope that a few will respond positively to their advances, after which, depending on the offender's motive and modus operandi, a more selective grooming process will be engaged (Black et al., 2015; Lorenzo-Dus et al., 2016; Quayle et al., 2014).

Unilateral vs. reciprocal.

The relationship between the offender and the victim can be categorised as either unilateral or reciprocal. In unilateral relationships, a victim is forced or manipulated into the relationship through blackmail or some form of coercion. In reciprocal relationships, victims willingly comply with the offender (Tener et al., 2015).

Working alone vs. collaboration.

Most offenders were identified to work alone. Some offenders collaborate with others which may include committing the assault together, helping each other gain access to victims, and/or sharing access to CSEM (Tener et al., 2015).

Use of true or false identity.

The Tener et al. (2015) study found that offenders who were both looking to establish a real relationships, and those who were focused on sexual gratification, will use their true identity, albeit for different reasons. The relationship focused offender uses their true identity as they genuinely want to establish a relationship with a person online. The sex-focused offender uses their true identity as they have no intention to conceal themselves or their intentions; they want those with whom they converse to be aware of their sexual intentions from the start of the relationship (Tener et al., 2015).

The expression of sexual interest is facilitated by the ability of an offender to construct their identity and self-presentation online in any way they please. Online identities therefore become a resource or a tool in the process of online offending (Quayle & Taylor, 2001).

Awareness of an illegal act and victim deception.

Tener et al. (2015) found that some offenders were in fact deceived by victims who had created false profiles and appeared to be of consenting age. This has bearing on the offender typology by virtue of the actions of the offender when they realise that they are communicating with a minor. In other cases, offenders were aware that they were conversing with youth below the age of consent, but did not think that there would be legal repercussions (Tener et al., 2015).

Concealment and security strategy.

Some offenders used sophisticated technology to deceive both victims and law enforcement and were described as experts in concealment and deception (Quayle et al., 2014; Tener et al., 2015). Other offenders appeared to make no effort to conceal their actions, they were unsophisticated and easy to track (Tener et al., 2015).

Blackmail.

Some offenders may use blackmail in order to gain compliance and secrecy from their victims. Some offenders used blackmail to force victims into face-to-face meetings, while others used blackmail for the sole of purpose of gaining more access to sexual materials without ever initiating face-to-face contact (Kopecký, 2016b).

Nature of offender-victim contact.

One way of characterising offenders is by the nature of the relationship that an offender has with a victim. This specifically refers to how the offender meets the victim, how the relationship is maintained, and what the outcome of the relationship is. There are four possible variations to relationships that are maintained through the use of the online environment, the researcher created Table 1 to clearly show the different types of relationships.

Table 2

Type Offender Victim Contact

Where the Offender and Victim Met	How the Relationship was Maintained	Outcome of the Relationship
Met online	Maintained online	Relationships stays online
Met online	Maintained online	Moved offline
Knew face-to-face	Maintained online	Relationship stays online
Knew face-to-face	Maintained online	Moved offline

Table 2: Types of Offender Victim Contact

When a victim and an offender meet online for the first time they are necessarily stranger to each other. The relationship may be maintained online and the outcome could either be to remain online or move into face-to-face contact.

Relationships in which offenders and victims were known to each other prior to online engagement necessarily involve family members and/or acquaintances. These relationships are maintained online and can result in either online or face-to-face sexual abuse (Tener et al., 2015).

It is worth noting that from the study conducted by Say et al. (2015), in nearly half the cases, the relationship was initiated online. In a study by Walsh and Wolak (2005) utilising data from the NJOV-1, 62% of offenders met their victims online.

Online only

In some cases, an offence is committed solely online, sometimes an offence is only initiated online, and never progresses to an offline offence, as either the victim or an observant parent reports the offender.

Some offenders may confine their offending behaviour to the online environment, in which case, their sole motivation may be to get the victim to send the offender intimate materials, or engage in sexual acts online without ever meeting face-to-face (Kopecký, 2016b; Tener et al., 2015; Wolak et al., 2004).

The Gallagher (2007) study identified another perspective on the online only offender. This research identified instances where the sexual abuse of a child has been filmed and distributed online for offenders to view in real-time. Those who are viewing the abuse may play an active role, by requesting that certain actions be performed or that certain props be used. Online-only offending may also include the organising of sex tours, and the provision of advice on how best to groom or get access to a child.

Online instigation-offline outcome.

As opposed to the online-only offenders, this second group of offenders meet their victims online, engage in sexual interactions, and then move the offending offline (Tener et al., 2015).

The Wolak et al. (2004) study found that in most cases online contact evolves into face-to-face meetings, 93% of which involve illegal sexual contact. In the Malesky (2007) study, 45% of offenders visited chat rooms with the purpose of meeting children/adolescents in order to set up offline meetings. The act of going online and meeting people fuels the fantasy, which for some individuals is the prelude to meeting victims offline (Quayle et al., 2014). In the Say et al. (2015) study, 74% of victims met face-to-face, most of which involved illegal sexual contact.

Tener et al. (2015) found that most relationships that developed into offline ones were characterised by non-forcible sexual relationships. In other words, victims met offenders willingly, and offenders were most often charged with statutory rape, with victims claiming to have close relationships or even being in love with their offender.

Known to each other offline

A third group of offenders know their victims face-to-face before they initiate the relationship online and use computer or cell phone technology to maintain offline sexual contact (Tener et al., 2015). In these cases, the offenders are most often family members or acquaintances of the victim.

The family member or acquaintance who uses the online context to further sexual offending is seen as qualitatively different from the stranger who initiates a relationship with a victim online. The availability of the internet may have affected the dynamics of abuse that occurs at the hands of acquaintances and family members. The frequency of this type of abuse is

highly prevalent and accounts for approximately half of all internet crimes against identified victims (Mitchell et al., 2005).

In the Mitchell et al. (2005) study, 44% of offenders were family members, which could include grandparents, aunts, uncles, parents, step-parents or parent's intimate partners. The other 56% of offenders were acquaintances, who could include neighbours, relatives of adolescent friends, teachers, family friends, and leaders or members of youth organisations (Mitchell et al., 2005). These findings do not exist in isolation and were supported by Walsh and Wolak (2005), Gallagher (2007), and Say et al. (2015), as well as data from the second Youth Internet Safety Survey which found that in cases that involved aggressive solicitation, the offender was usually known to the victim offline (Mitchell et al., 2007c).

The Gallagher (2007) study identified that those offenders who provide victims to online offending communities are generally close to the victim, either by way of being a family member or a close acquaintance. Whereas those who are seeking youth to abuse will necessarily be a stranger to the victim.

Due to the stereotype of online sexual abuse, in cases of family or acquaintance abuse, the possibility that the relationship may have been maintained and/or facilitated by online communication may be overlooked (Mitchell et al., 2005).

Family offenders tended to be from small towns, whereas acquaintance offenders tended to be from urban locations. Acquaintance offenders tended to have jobs that provided them access to children. Family members were more likely to be married, whereas acquaintance offenders were more likely to be single or never married. Victims of family members were more likely to live with step-parents (Mitchell et al., 2005), and were often female (93%) and younger than 12 (82%). Nearly half of the victims of acquaintance offenders were male, and mostly

teenagers (71%). Forty-three percent of family and acquaintance offenders used the internet to store self-produced images of CSEM and/or to share them with other online offenders (Mitchell et al., 2005).

Typologies of Offenders.

In the study by Quayle et al. (2014), it was identified that several attempts were made to characterise and create typologies of the online child sex offender. Some of these typologies focus on the offender's motivation while others focus on the offender's modus operandi.

A qualitative study conducted by Webster et al. (2012), as cited in Quayle et al. (2014), identified three types of offenders: the intimacy-seeking, the adaptable, and the hyper-sexual. These offenders were differentiated on the basis of their motivation, their use of deception, and their use of CSEM.

An exploratory study by Briggs et al. (2011) identified two types of offenders: the fantasy-driven offenders, who are motivated to engage in online sexual activity but do not wish to make contact offline; and contact-driven offenders, who are motivated to engage in offline contact.

Research conducted by Merdian et al. (2016) looked at what they defined as the 'child sexual exploitation material offender' (CSEMO). Their research drew a conceptual difference between the fantasy drive CSEMO and the contact drive CSEMO, as well as a further distinction between two kinds of fantasy driven offenders. Merdian et al. (2016) suggest that these three groups present with distinct offending profiles and motivations, a result which draws support from salient themes emergent in this review.

In the typology created by Alexy et al. (2005), offenders are referred to by terms used in law enforcement namely: traders, travellers and combination offenders. Traders traffic and/or

collect CSEM, and may also be involved in the production of CSEM. Travellers initiate relationships with victims online and use manipulation and coercion to convince them to meet offline. Travelling can involve either going to the victim's location or having the victim moved to the offender's location. Combination trader-travellers participate in both the collecting and trading of CSEM, as well as engaging in contact sexual offending against a minor (Alexy et al., 2005).

Finally, a study conducted by Tener et al. (2015), using data from the NJOV-3 defined four types of offenders based on the offenders patterns of communication, offline and online identities, relationship dynamics with the victim, and level of sex crime expertise. The four types of offenders were defined as: the expert, the cynic, the affection focused, and the sex focused. Given that this typology is the most inclusive of the ones presented here, it will be used to draw out the similarities and differences of the typologies discussed in this section.

The fantasy-driven vs. contact-driven offender.

Out of the studies in this review, which either included a review of typologies, or the construction of typologies, the categorisation of offenders as fantasy-driven vs. contact-driven appeared to be prominent. Briggs et al. (2011) initially proposed the distinction between these two types of offenders, which was further supported by the 2014 study done by Quayle et.al., and the 2016 study done by Merdian et.al. It would appear that this distinction is a useful one in helping to understand the nature, motivation and method of these offenders.

The fantasy-driven offender.

For several offenders, the role of fantasy is highly salient. By utilising the technologies available through the internet, offenders are able to look for particular physical, psychological

and behavioural characteristics that enabled their fantasies, which include collecting digital forms of CSEM (Quayle et al., 2014; Quayle & Taylor, 2003).

For some offenders, the enabling of these fantasies was a precursor to offline sexual abuse, and studies found that the viewing of CSEM leads to an increase in both fantasy, and sexual activity (Quayle et al., 2014; Quayle & Taylor, 2003). This will be discussed under contact offending.

For other offenders, who are classified as fantasy-driven, the act of engaging online with CSEM, or discussing sexual content with underage youth, is sexually satiating (Gallagher, 2007). Fantasy-driven offenders' use of CSEM is confined to the digital. The use of this material is more frequent, diverse and severe than other offenders, and is used to satiate sexual fantasies and collecting behaviour (Meridian et al., 2016).

While this offender may not commit a contact offence, their offending behaviour varies along a continuum of severity. At the far end of the continuum, Quayle and Taylor (2003) identified an offender they described as more of a voyeur. This offender looks only at digital images of CSEM but makes no attempt to trade, does not engage with other offenders online, and does not seek to form relationships with others, online or otherwise.

Another online-only related activity that emerged from research by Quayle et al. (2014), was when victims were audience to an offenders' own sexual performance. Offenders would send pictures and videos to the victim as part of the grooming process, often depicting the offender engaged in various sexual activities. For some offenders this appeared to be the end in itself, and were therefore more akin to exhibitionism.

For yet another type of offender, the focus is on the collecting of stories, images and videos, which can then be viewed for personal use or be traded. In this instance, the fantasy

contained within the content is enough to meet their need and there is no escalation to a contact offence (Gallagher, 2007; Quayle et al., 2014). These individuals may best be defined in the Alexy et al. (2005) terminology as traders.

Representing the other end of the continuum, Gallagher (2007) identified a different aspect of the online-only offender who plays a much more active role in the online sexual abuse of a child. His research identified instances where the sexual abuse has been filmed and distributed online for offenders to view in real-time. Those who are viewing the abuse may play an active role, by requesting that certain actions be performed or that certain props be used. Online-only offending may also include the organising of sex tours, and the provision of advice on how best to groom or get access to a child.

For the fantasy-driven offender, the internet serves a more important function than for then contact-driven offender. It is a pathway to satisfying deviant sexual interests as well as establishing social connectedness at a distance (Merdian et al., 2016; Quayle & Taylor, 2003).

The exclusive CSEM user attempts to cope with life's stresses through an avoidant behavioural style (Merdian et al., 2016), which is why the internet provides a unique platform that is well suited to this individual's coping style. Merdian et al. (2016) identified two types of fantasy-driven offenders who were distinguished on the basis of either greater social networking with other CSEM users, or greater interest in fantasy-based material.

Both groups still show a preference for an indirect means of sexual satisfaction, high levels of intimacy deficits and more frequent use of sexually deviant material. Approximately half of the fantasy-driven group had contacted minors online, indicating that the satisfaction of sexual needs is not limited to the use of CSEM material but also included the engagement of minors online (Merdian et al., 2016).

Contact-driven offenders.

The contact driven offenders' use of CSEM material is functionally and directly geared toward contact offending, and is rarely used for sexual gratification or experimentation (Merdian et al., 2016). The contact-offender focuses on satisfying their sexual needs through direct contact with a victim, and all efforts are purposively focused on achieving this outcome (Quayle et al., 2014; Quayle & Taylor, 2001, 2003).

In the Quayle and Taylor (2003) study, some offenders committed a contact offence without engaging in the production of CSEM. This was conceptualised as an extension of online behaviour where then enacted through physical contact.

Merdian et al. (2016) speculated that contact-driven offenders may have a greater tendency to 'act out' when presented with adverse life experiences, which may account for their contact offending when compared to exclusive CSEM offenders.

Fantasy vs contact-driven offenders.

These two types of offenders are distinguished on the basis of their main source of sexual satisfaction, namely the direct sexual contact with a minor or the fantasies thereof (Merdian et al., 2016). The online context therefore, serves a function for the individual in terms of sexual gratification. In order to draw out the contrast between fantasy-driven and contact-driven offender their differences have been listed in point form below:

- Fantasy-driven offenders were more likely than contact-driven offenders to use and report sexual arousal to deviant sexual material.
- Fantasy-driven offenders were more likely than contact-driven offenders to report intimacy deficits.

- Fantasy-driven offenders were less likely than contact-driven offenders to report viewing children as competent sexual agents. They were less likely to provide justifications for their offending behaviour, and demonstrated less sexual entitlement than contact offenders. Merdian et al. (2016) hypothesises that a lack of endorsement of these cognitive distortions could be the reason why these offenders do not engage in contact offending.

Traders, travellers and combination offenders.

In the typology created by Alexy et al. (2005), offenders are referred to by terms used in law enforcement namely: traders, travellers and combination offenders. These offenders can also be seen to fit into the Briggs et al. (2011) typology of fantasy and contact driven offenders.

Traders traffic and/or collect CSEM, and may also be involved in the production thereof. For these individuals, the idea of CSEM as currency is highly salient (Quayle & Taylor, 2003). For the most part, these offenders could also be categorised as fantasy-driven offenders, provided they do not engage in contact offending when engaged in the production of CSEM (Briggs et al., 2011).

Travellers initiate relationships with victims online and use manipulation and coercion to convince the victim to meet offline. Travelling can involve either going to the victim's location, or having the victim moved to the offender's location (Alexy et al., 2005).

Combination trader-travellers participate in both the collecting and trading of CSEM, as well as engaging in contact sexual offending against a minor (Alexy et al., 2005).

Travellers and combination offenders could be categorised as contact-driven offenders, as their actions ultimately involve face-to-face sexual abuse of youth under the age of consent.

This highlights the difference between typologies that focus on motive as opposed to method. The Briggs et al. (2011) typology focuses on the ultimate motivation of the offender and divides offenders into those motivated by the need to fulfil a fantasy as compared to those who are motivated to commit a contact offence. The Alexy et al. (2005) typology focus on the actions or methods of the offender, referring to whether the offender is trading in CSEM or travelling to meet an intended victim.

Experts, cynics, affection-focused and sex-focused offenders.

As discussed above, the typology developed by Tener et al. (2015) defined four types of offenders based on the offender's patterns of communication, offline and online identities, relationship dynamics with the victim, and level of sex crime expertise. These will be described and discussed in light of the similarities and differences between the various typologies presented here.

Experts.

The expert offender had the largest number of victims of all offender types, they always had more than one victim and in rare cases had hundreds of victims simultaneously. Experts tended to pick their victims systematically, either according to specific characteristics particular to the offender, or according to characteristics that made the victim vulnerable.

The expert's main motivation is the satisfaction of their own needs, they do not become emotionally attached to their victims, and do not seek to establish relationships for social purposes. Their main focus is sexual gratification, they specifically target minors and will use manipulation, coercion or any other techniques that will ensure their outcome. Experts can therefore, be seen as hypersexual offenders in terms of the Webster et al. (2012) typology, by

virtue of being focused on sexual gratification. Experts can either be fantasy-driven or contact-driven, and could fall into either three of the Alexy et al. (2005) categories.

If experts only engaged with victims online, it would usually involve requests for sexual images or videos of themselves. If an expert did decide to move a relationship offline, they would most often use force and coercion to gain the victims' compliance. In this case, experts would most often record the abuse to use as CSEM.

Experts would spend time grooming their victims, and did so in a sophisticated fashion. They were also likely to possess large quantities of CSEM and use sophisticated technology to hide their activities and make it difficult for anyone to track them.

Cynic offenders.

The role of fantasy appears to be more prominent for the cynic offender. The cynic usually has a single victim, who was chosen on the basis of particular characteristics. If the cynic had more than one victim, it was usually due to convenience. The cynic specifically targets minors in order to satisfy their own sexual needs. They do not become attached to their victims and do not seek out social relationships. The focus is on sexual satisfaction through contact offending and according to the typologies of Webster et al. (2012) and Alexy et al. (2005), cynics can be classified as hypersexual and combination trader-traveller offenders.

Cynics usually worked alone and targeted victims they knew face-to-face. Initiating relationships online and then moving offline was however, also common among cynics. True or fabricated identities would be used, depending on what the cynic thought would achieve the best response. Most cynic offenders also had large amounts of CSEM but not as much as experts (Tener et al., 2015).

Sex-focused offender.

The Webster et al. (2012) hypersexual offender bears the most resemblance to the sex-focused offender. The sex-focused offender does not specifically seek out underage youth, they are instead looking for immediate sexual gratification and will engage with underage youth if they appear willing. They use their true identifies, and make their sexual intentions known from the outset of the relationship. These relationships did not include grooming, as offenders looked for an immediate response to set up face-to-face meetings, if the victim appeared uncertain or unwilling, the offender would move on to another victim.

Contact is usually initiated in sexually orientated websites, and when underage youth were involved, it was often due to them having created a fake profile, which presented them as above the age of consent. These offenders are focused on fulfilling a sexual need, and even when they became aware that they were dealing with an underage youth, they would continue the engagement. Occasionally this would result in the use of force, and in extreme cases rape if a youth attempted to withdraw (Tener et al., 2015).

In relation to the other typologies described above, the sex-focused offender is contact-driven and engaged in a combination of trading and travelling.

Affection-focused offender.

The main motivation of the affection-focused offender is the establishment of a genuine relationship. In most cases, offenders initiated their relationships online and focused on building a close romantic relationship. Offenders used their true identities and both parties were reciprocally interested in deepening the relationship by moving it offline, and would not involve the use of threat or coercion.

This offender is very similar to the Webster et al. (2012) intimacy seeking offender, and the role of fantasy would appear to be highly salient with this offender. In some cases, offenders were not aware that they were speaking with a minor, but by the time they learnt of the victim's true age, they felt too emotionally invested to stop the relationship.

Conclusion

This section has aimed to clearly articulate the profile of the online sex offender. What emerges from the factors discussed above is that there is no clear typology, but rather a heterogeneous group of offenders whose motives and methodology vary significantly. Two of the most prominent themes identified above concern how cognitive distortions and online community membership serve to normalise and reinforce offending behaviour.

While this section has focused on 'who' an offender may be, the next section will focus on 'how' and with 'what' an offender commits online sexual offences against children.

Offender Methodology

The methodology section details how offenders use the internet to facilitate offending, and has been divided into sections that reflect the process of offending as perceived by the researcher and identified by the review.

The internet, technology and the online environment make up the context and provide the tools that facilitate the online sexual abuse of children. Despite vast differences in the applications of these technologies, which are determined by offenders' motivation and modus operandi, the use of technology is germane to all online offending. It will therefore be outlined in general and then discussed specifically as it relates to different types of offenders.

In terms of the process of online offending it is necessary to first attempt to delineate where grooming begins and ends. In this research, once contact has been made with victims,

everything from that point until immediately prior to the offender achieving their intended goal is considered grooming. Grooming is the name given to the process by which offenders prepare themselves, their victims and the victims' environment in order to achieve their intended goal (Lorenzo-Dus et al., 2016). In many countries grooming itself is considered an offence.

The process of offending has therefore been divided into three phases. The first phase is the pre-offence phase, in which offenders seek out suitable targets. The second phase is the grooming phase which begins once contact has been made with the victim. This is an extensive process combining multiple actions and technologies which are used differently by different offenders. The third and final phase is referred to as the sexual offence phase, and refers to the outcome the offender set out to achieve when making contact with the victim. The actual sexual offence can be online or offline, it can be contact or non-contact, and it can involve a single incident or multiple incidents over a period of time.

How offenders use the internet.

The internet may be used in a multitude of ways to facilitate online offending. Offenders who use the internet to meet victims online take advantage of the anonymity and privacy afforded to them by the internet. Through email, instant messaging and chat, offenders are able to initiate relationships, introduce sexual topics, send and receive sexual images and arrange meetings (Malesky, 2007; Quayle et al., 2014; Walsh & Wolak, 2005).

The internet can be used to facilitate grooming, to assist in the production and dissemination of CSEM, to arrange meetings with other offenders and/or victims, and to advertise or sell victims into prostitution or to other offenders (Mitchell et al., 2005; Quayle et al., 2014).

In the facilitation of the grooming process, offenders use the internet to reward victims with gifts or money for compliance, secrecy and/or following instructions from the offender (Mitchell et al., 2005).

The internet can be used to traffic and share CSEM thereby facilitating collecting behaviour, and the use of CSEM as a form of currency among communities (Alexy et al., 2005; Mitchell et al., 2005; Quayle & Taylor, 2003).

Data from the NJOV-3 (Tener et al., 2015) found that offenders often used sophisticated technology to deceive both victims and law enforcements and were described as experts in concealment and deception (Quayle et al., 2014; Tener et al., 2015).

The role of online communities is of central importance to online offending. The internet is used to establish, find and join online communities which support an individual's sexual deviances and share similar views and beliefs (Quayle & Taylor, 2001).

The cognitive distortions identified under the offender typology are shared among online communities, which can then serve to further entrench, validate, and normalise cognitions that support sexual interactions between adults and children (Quayle & Taylor, 2001).

Pre-offence phase.

How and where victims are identified.

Data from the YISS, the NJOV and individual studies analysed as part of this review indicate the following forms of technology that are used to identify and contact potential victims: Chat rooms are significantly more popular than any other platform, followed by internet messenger, email, sexually orientated websites and bulletin boards, in order of popularity (Malesky, 2007; Mitchell et al., 2004; Quayle et al., 2014; Wolak et al., 2004).

In a study conducted by Tener et al. (2015) which utilised data from the NJOV-3, it was found that all online offenders use computers and/or cell phones to communicate with victims.

Tener et al. (2015) identified three variations in how technology was used to form relationship:

- Offender meets the victim online, has sexual interactions online and never meets the victim face-to-face
- Offenders meet the victim online, has sexual interactions online and then moves to offline sexual activity
- Offenders knew the victim face-to-face prior to the offence and used technology to establish or maintain contact with the victim

By trolling through the profiles of youth on the internet and postings on bulletin boards offenders are able to identify potential victims. Data from several studies indicate that more than 60% of victims and offenders met online (Mitchell et al., 2007d; Say et al., 2015; Walsh & Wolak, 2005). In a study done by Malesky (2007) in which 31 internet sex offenders were interviewed, they described the following specific characteristics that would be looked for when identifying a potential target:

- Offenders targeted minors who mentioned sex in any manner. This could include their screen name, and/or posts on their profiles or bulletin boards.
- Offenders targeted minors who appeared to be 'needy' or submissive in any way. Additionally, if minors spent long periods of time online it would indicate to the offender that there was low parental supervision.
- Offenders targeted youth who had young sounding screen names. Often youth put their age in their profile name such as 'Jennifer14'

Some offenders pick their victims systematically either by particular characteristics, like gender and age, or by factors that make the youth appear vulnerable. They would also pick those identified to have low self-esteem, children with problems at home or school, and those looking for attention (Malesky, 2007; Quayle et al., 2014; Tener et al., 2015).

Offenders may specifically seek out teenagers in order to take advantage of the adolescent stage of development and its consequent curiosity, increased impulsivity, and desire to explore sexuality. The formation of new relationships is a developmental imperative of adolescence and youth are therefore willing and desiring of meeting new people. The internet has removed barriers to meeting new people and allows youth to communicate with virtually anyone, anywhere. This consequently increases their vulnerability and risk of sexual abuse (Walsh & Wolak, 2005). In a study by Quayle et al. (2014), offenders explicitly stated that they believed they would get a response from an adolescent because they were curious or vulnerable.

Targeting minors.

Multiple studies have identified that offenders' specifically targeted youth under the age of consent (Malesky, 2007; Quayle et al., 2014; Schulz et al., 2015). Using the technologies and platforms identified above, offenders search through online profiles and postings on bulletin boards for the specific physical, psychological and behavioural characteristics that either fit their fantasy or make youth seem vulnerable, curious, or willing to engage in sexual contact. In a study conducted by Schulz et al. (2015) it was found that 65.7% of their sample solicited female minors, 52.6% solicited male minors, and 18.2% interacted with both male and female minors.

Multiple studies have indicated that offenders target adolescent victims rather than children (Briggs et al., 2011; Schulz et al., 2015).

In the Quayle et al. (2014) study, offenders stated that there was often no need to place pressure on young people to respond, victims were reported to respond willingly to sexual overtures from offenders.

Making contact and gaining access.

Offenders have access to a large number of youth and are able to communicate with as many people at a single time as they are able to manage (Black et al., 2015; Quayle et al., 2014). Analysed studies found that when offenders initially contact youth they are largely indiscriminate and will make contact with as many youths as possible in the hope that some of them will respond positively to their advances (Black et al., 2015; Lorenzo-Dus et al., 2016; Quayle et al., 2014).

An offender's use of technology to facilitate online sexual abuse was found to range from moderate (sending and receiving sexual texts and images to a single victim) to extensive (online communication with several victims simultaneously and possession and distribution of large collections of CSEM) (Tener et al., 2015).

A characteristic difference that was noted in several articles was whether the offender immediately broached sexual topics, making their intentions clear from the initial meeting, or if they engaged in a gradual process of building a relationship with the victim (Malesky, 2007; Schulz et al., 2015; Tener et al., 2015).

Once an offender has identified a potential victim, they may initiate interaction and the building of a relationship in a multitude of ways. An offenders' choice of actions will be decided by his ultimate motivation and his modus operandi. Some offenders are prepared to spend exorbitant amounts of time pursuing a potential victim (Malesky, 2007). These offenders will use extensive grooming strategies in order to establish trust and compliance with their victim, act

out some form of fantasy and pursue what they see as a 'mutual relationship' (Schulz et al., 2015; Tener et al., 2015). Some offenders seek instant gratification and will introduce a sexual topic immediately into the conversation and will make their sexual intentions fully known from the beginning (Schulz et al., 2015; Tener et al., 2015).

Data from the NJOV-1 (Wolak et al., 2004) found that 48% of offenders spend between 1 and 6 months communicating with the intended victim. Twenty-seven percent communicated for a month or less and 16% communicated for more than 6 months (Wolak et al., 2004).

Grooming phase.

There is no generally accepted definition of grooming, but it is understood to be an extensive process in which offenders prepare themselves, prepare the victim, and prepare the environment in order to achieve their intended goal. Grooming involves a specific set of steps, which are used with the intention of committing a sexual offence against a child. Specific strategies are used in order to gain compliance, to coerce victims into a sexual relationship, and to maintain secrecy (Black et al., 2015; Lorenzo-Dus et al., 2016; Walsh & Wolak, 2005).

The current review will attempt to integrate the findings of the studies which formed part of the analysis. It is important to note that grooming is not a discrete process that flows neatly from stage to stage, but instead depends on the offenders' motivation, the nature of the relationship between the offender and the victim, and includes moving backward and forward repeatedly through phases until either the offender achieves their goal, is reported, or abandons the relationship.

Lorenzo-Dus et al. (2016) identified three phases of grooming, namely, access, approach, and entrapment. His research was conducted from a linguistic perspective and focused on an analysis of the discourse used by offenders in the process of offending. From this, Lorenzo-Dus

et al. (2016) identified the three phases and multiple communication strategies used to move through each phase. What is of vital importance to note is that among all the communications strategies discussed below represent there is an iterative process the salience of each strategy which will vary depending on the offender's goal and the victim with whom they are engaged.

Research conducted by Kopecký (2016b) on 25 cases of the online blackmail of Czech children, identified that these offenders use very similar techniques. Based on these 25 cases, Kopecký (2016b) created a model, with five stages which bears multiple similarities to Lorenzo-Dus et al. (2016).

A linguistic analysis conducted by Black et al. (2015) also identified stages of grooming. It is interesting to note that both Lorenzo and Black indicate that while their stages did include elements that were present in the study by O'Connell (2003), they did not proceed in the linear fashion suggested by her research (Black et al., 2015).

Access.

The access phase starts with the initiation of contact and marks the start of the grooming process (Lorenzo-Dus et al., 2016). Once access has been gained, the actions of the offender become focused and purposive to achieve their intended goal (Quayle et al., 2014).

This stage correlates with Kopecký (2016b) first stage, which involves getting in touch with the child. The conversation may be initiated with a simple greeting, or in several instances offenders made contact as if it was accidental. If the child responds positively, then an initial exchange of information and possibly non-sexual photos may occur. After this initial contact is achieved with a positive response, the offender will then begin to groom the victim to share more personal and intimate information (Kopecký, 2016b). The rest of the Kopecký (2016b) stages articulate best with the entrapment phase described by Lorenzo-Dus et al. (2016).

Approach.

According to Lorenzo-Dus et al. (2016), the approach phase refers to the action of an offender who makes a request online to meet with the victim offline for sexual purposes.

Lorenzo-Dus et al. (2016) does not elaborate if this stage is defined as such because it only entails offenders who make this particular request, or if this stage could involve any request of a sexual nature.

Offenders can communicate with a large number of victims simultaneously. By making these sexual requests early on in the conversation, offenders would be able to separate those who are interested and/or more vulnerable from those that are not.

Entrapment.

The entrapment phase consists of four networked processes used by the offender to develop trust, gain sexual gratification, test the compliance of the child, and isolate the child. These strategies are not linear and represent an 'entrapment network,' within which the offender can move backwards and forwards between stages, in the hope to further strengthen the trust and compliance of the victim and achieve the end result (Lorenzo-Dus et al., 2016).

It should be noted that the entrapment stage in itself provides sexual gratification to the offender. While the offender may not yet have achieved the end goal, be that face-to-face contact, webcam sex, or an image or video, the offender is still gaining sexual gratification from the process of grooming the victim (Lorenzo-Dus et al., 2016).

The entrapment phase is made up of four processes, which in turn are made up of a number of communication strategies. The processes include deceptive trust development, sexual gratification, compliance testing, and isolation.

Deceptive trust development.

Deceptive trust development is a process by which the offender disguises their *main* intention (emphasis added to indicate that offenders do not hide their intention but merely make it less prominent in this phase) by cultivating a personal and friendly relationship.

Statistical analysis of chat logs indicated that once trust had been developed to the offenders satisfaction, they would then move on to the next stages of the process (Lorenzo-Dus et al., 2016).

Exchange of personal information: Offenders engage with the child through the reciprocal exchange of information.

Sociability/small talk: Small talk as the name suggests is dialogue between the offender and the victim that appears to serve no informational or functional purpose. The purpose of small talk is however, to manage the interpersonal distance between the offender and the victim, and to strengthen the bond between them. The offender will also encourage the victim to talk about what the victim and the offender are doing online, their past activities and future plans. The nature of the conversation is non-threatening and assists in building trust and rapport(Lorenzo-Dus et al., 2016).

Statistical analysis of the data in this study indicated that small talk is central to developing trust between the victim and offender. Small talk was used by offenders to soften the threat experienced by the victim when desensitisation and isolation strategies were introduced into the relationship (Lorenzo-Dus et al., 2016).

Praise: Offenders use praise to compliment victims on their physical appearance, both sexual and non-sexual; to compliment them on their personality, particularly their sexual or emotional maturity; offenders might also congratulate victims on a specific behaviour such as

keeping the relationship secret or advancing the offenders sexual needs (Lorenzo-Dus et al., 2016).

Statistical analysis revealed that praise is not only important in developing trust, but it also contributes to the offender's online sexual satisfaction and to the victim's isolation. When deceptive trust processes are used together with small talk and compliments, the end result is a positive appraisal of the offender by the victim as a caring and trustworthy individual (Lorenzo-Dus et al., 2016).

The study on the blackmail of Czech children also found the process of praise and compliments to be highly salient in their research (Kopecký, 2016b). They found that offenders would positively praise and compliment all the material sent to them by the victim, usually accompanied by a request for more. Kopecký (2016b) identified that manipulation via compliments was prevalent through all the studies identifying stages of grooming. The Black et al. (2015) study also identified the use of praise and flattery as a main technique used by 89% of offenders in his study. This was found to be most prominent in the beginning stages of the relationship.

An online offender is able to pick and choose their responses in an online environment, which was previously not possible. The offender has the space in which to tailor his response so as to create a particular impression and thereby manipulate the way the victim perceives them (Lorenzo-Dus et al., 2016). The offender is able to edit, plan, and reflect on responses so as to tailor an image they wish to project. Manipulations of perception may include creating an idealisation in the victim of the offender to whom they increasingly wish to reciprocate with greater self-disclosure across a range of personal domains (Lorenzo-Dus et al., 2016).

Sexual gratification.

Sexual gratification is the process through which offenders prepare the victim to either engage in online sexual activities and/or engage in offline contact. One of the significant themes that emerged in this review was the communication of sexual motives by offenders, and their consequent use of true or false identities. It was found that the majority of offenders are upfront about their sexual motives and intentions, and do not employ elaborate deception techniques. Correlated to this are offenders' use of true or fabricated identities, a theme which also appeared prominently throughout this review. These themes overlap with deceptive trust development, and highlight how these processes and strategies are iterative rather than linear. These themes will be discussed under sexual gratification.

Another significant theme that emerged was the role of CSEM in the offending and grooming process. As pornography forms a major part of desensitisation it too will be discussed under the sexual gratification process.

Explicit desensitisation: This strategy is used to make victims insensitive to sexual contact by using vulgar sexual language and images in order to desensitise the child. Offenders may make various suggestions, requests, commands or statements of a sexual or romantic nature (Lorenzo-Dus et al., 2016).

Implicit desensitisation: This strategy is used to make victims insensitive to sexual contact by using indirect sexual language or references to things of a sexual nature. For example, an offender may emphasise the romantic rather than the sexual nature of the relationship (Lorenzo-Dus et al., 2016).

Reframing: This strategy is used to convince the child about the benefits of engaging in sexual activities by describing sexual activities as learning experiences, games or skills.

Offenders may also emphasise the naturalness of sexual activities (Lorenzo-Dus et al., 2016).

Statistical analysis revealed that not only do online offenders make significant use of desensitisation strategies, but they also derive sexual gratification through the process of desensitisation and reframing. Offenders use these processes strategically to reinforce the victims' dependence on the offender and therefore increase their isolation (Lorenzo-Dus et al., 2016).

Communication of sexual motives: Emergent from the research by Lorenzo-Dus et al. (2016) are two factors which also, as discussed above, arose as prominent themes throughout the review. Lorenzo-Dus et al. (2016) found that offenders make significant use of desensitisation strategies, which includes ensuring the victim clearly understands the sexual intention behind the discourse and the use of pornography in desensitisation strategies. Deceptive trust development, sexual gratification, desensitisation, and reframing all include the communication of sexual motives and the use of pornography.

Multiple studies (Quayle et al., 2014; Tener et al., 2015; Wolak et al., 2004) have found that offenders do not often deceive their victims about their sexual intentions. In the NJOV-1 study (Quayle et al., 2014; Tener et al., 2015; Wolak et al., 2004) it was found that while offenders did misrepresent themselves in some way, they were not often misrepresentative of their motivations. Most often the deceptions involved promises of love and romance (Tener et al., 2015; Wolak et al., 2004). While victims might be deceived by promises of love or romance they usually anticipated that their meeting with the offender would be of a sexual nature (Tener et al., 2015).

Deception and manipulation should not be confused. While data from the YISS-1 (Wolak et al., 2004) indicated that in most cases victims knew the identity of the offender and knew of their sexual intention, this does not mean that victims were not manipulated or coerced into the interaction in some fashion (Wolak et al., 2004).

Offenders employ multiple strategies to manipulate the victims' perception of them. Part of this process is the gradual introduction of sexual content through verbalisations, images and/or videos in order to desensitise, normalise, and lower sexual inhibitions (Walsh & Wolak, 2005). The end result of this process, if successful, is a victim who willingly engages in sexual activity with the offender. This willingness may range from reluctant to enthusiastic (Mitchell et al., 2005, 2007b; Walsh & Wolak, 2005; Ybarra et al., 2004).

Black et al. (2015) also found that together with risk assessment, which is discussed below, offenders may introduce their sexual motivations and intentions early on in the conversation in order to vet potential targets and more efficiently identify those who are worth investing in. In contacting a large number of victims simultaneously, offenders need to quickly identify who is more amenable to approach. With Black et al. (2015) identifying that sexual topics are introduced within the first 20% of the conversation, they demonstrated how blunt and explicit offenders can be from the outset. The victims' response then determines whether the offender will continue to pursue the relationship.

Use of true or false identities: The internet offers a unique opportunity for multiple representations of identity that do not need to bear any resemblance to one's offline identity. The lack of visible social cues, anonymity, and the consequent inability to be able to establish the veracity of a person's identity means that one can represent aspects of oneself that might otherwise have remained hidden (Alexy et al., 2005; Malesky, 2007; Quayle & Taylor, 2001).

Online identities may become a resource used to achieve a particular goal. Identities may be adopted that are 'caring' and 'loving' in order to facilitate the relationship and bring about sexual contact. Offenders might use a fabricated identity or a real one depending on what the circumstances called for (Quayle et al., 2014; Quayle & Taylor, 2001; Tener et al., 2015).

According to data from the NJOV-1 only 5% of offenders presented themselves to victims as peers. In some cases, offenders introduced themselves as adolescents but later volunteered their real age (Quayle et al., 2014; Wolak et al., 2004). Offenders would often present themselves a few years younger than their actual age, but would still admit to being considerably older than their intended victim (Quayle et al., 2014; Wolak et al., 2004).

Twenty-six percent of offenders lied about their physical appearance or some aspect of their identity including their name, family status or employment, and a total of 52% of offenders were identified to have lied about something during the course of their relationship with the victim (Quayle et al., 2014; Wolak et al., 2004).

In a study done by Malesky (2007) in which 31 inmates from the Federal Bureau of Prison's Sex Offender Treatment Program were interviewed, 29% of offenders reported representing themselves as children while having conversations with children/adolescents.

Data from the NJOV-3 (Tener et al., 2015) found that both offenders who are looking to establish a true relationship and those who are focused on sexual gratification, will use their true identity, although for different reasons which were discussed under offender typology (Tener et al., 2015).

The role of pornography: The advent of the internet had a huge impact on pornography. Prior to its public availability, the possession, dissemination and production of CSEM was rare and happened mostly underground (Mitchell et al., 2005, 2007b). The internet

has made all forms of pornography more generally available as one is no longer required to obtain it through retailers. It has also however, made more illegal, extreme, sadistic and violent forms of pornography readily available, and easily accessible (Lorenzo-Dus et al., 2016; Mitchell et al., 2007a).

The use of pornography and the role it plays in online sexual offending is multifaceted and it fulfils a range of functions in the stages of offending, both for the offender and in the grooming process (Quayle & Taylor, 2001). Images and/or videos may be sent to victims in order to desensitise and normalise sexual behaviour as well as lower sexual inhibitions. Pornography may also be used to show victims how to perform certain sexual acts (Lorenzo-Dus et al., 2016; Mitchell et al., 2005, 2007b; Walsh & Wolak, 2005).

What emerged from the review is that most offenders who engage in online sexual abuse possess CSEM, whether for personal use or for distribution (Mitchell et al., 2005, 2007b; Tener et al., 2015; Walsh & Wolak, 2005). Some have larger collections than others, and some produced CSEM through the course of the sexual abuse of the victim (Alexy et al., 2005; Mitchell et al., 2007b; Tener et al., 2015; Walsh & Wolak, 2005). Data from the NJOV-1 (Walsh & Wolak, 2005) found that 45% of offenders possessed CSEM, 27% produced CSEM by taking pictures of their victims, 39% of offenders showed or gave adult or CSEM to the victim, and 34% gave victims illegal drugs and/or alcohol (Walsh & Wolak, 2005).

In a study conducted by Mitchell et al. (2007b) specifically concerning online requests for sexual pictures, it was determined that 1 in 25 youth internet users received a request for a sexual picture in a one-year period. It is not clear from the research if this was an isolated request or represented part of a grooming process, however, if even a small number of victims comply, this could make a huge contribution to the availability of CSEM. Offenders in the

Quayle et al. (2014) study also identified that in many instances victims initiated the production of sexual images that they were willing to exchange.

The Kopecký (2016b) study identified a fourth stage which is referred to as the intimacy intensifying stage. As identified above, and acknowledged by Lorenzo-Dus et al. (2016) and Kopecký (2016b), these stages are not linear, and represent an iterative process of increasing manipulation. In the Kopecký (2016b) study it was found that this stage represented an escalation in the intensity and intimacy of the photos exchanged between offenders and victims. The exchange of pictures is a common component of online grooming, which is used to lower inhibitions and normalise the behaviour. Offenders send CSEM to the victim as if they were reciprocating with an image of their own while encouraging the child to reciprocate (Kopecký, 2016b; Mitchell et al., 2007b).

The compliance testing phase.

The compliance testing phase is the process used by offenders to gauge if the child is in fact a minor, and will agree or be persuaded to engage in some form of sexual activity. Multiple communication strategies are used to achieve compliance.

Reverse psychology: involves challenging the victims' intentions or decisions to behave in ways that are inappropriate for their age (Lorenzo-Dus et al., 2016).

Role reversal: is used when offenders pretended to adopt low risk-taking behaviour that would be expected of a child communicating with an adult (Lorenzo-Dus et al., 2016).

Strategic withdrawal: is used to give the victim a false sense of control over the relationship by making them believe that they are being 'allowed' to make decisions (Lorenzo-Dus et al., 2016).

Online groomers assess and manage risk differently to offline groomers who have direct contact and can often oversee their victims. While O'Connell (2003) identified risk assessment as the third step in the model, and Williams et al. (2013) identified risk assessment as the third phase in the relationship, both Lorenzo-Dus et al. (2016) and Black et al. (2015) identified that it is more likely that risk assessment happens at the onset of the relationship and continues throughout.

The Black et al. (2015) linguistic analysis identified that offenders were likely to ask questions concerning the whereabouts of parents, the child's and parent's schedule, location, the child's living situation, the child's awareness of the dangers of online interactions, and blatantly asking if they were decoys planted by police. The questions were likely to be asked in the first 20% of the conversation. As identified by Lorenzo-Dus et al. (2016), Kopecký (2016b) and Black et al. (2015), these types of questions are asked for a number of reasons including validating that the child is indeed a child, whether the child is going to be easily accessible in terms of parental supervision and geographical proximity, and determining whether the child is worth the investment of time.

Geographical proximity, or lack thereof, was often not a deterrent for offenders. Black et al. (2015), identified that depending on the level of the offenders' motivation, some of them were prepared to travel long distances to gain access to the victim.

In offline grooming research, risk assessment is usually associated with efforts to establish and maintain the child's secrecy and isolation. Lorenzo-Dus et al. (2016) found that risk assessment is a bigger concept and therefore widened the definition to compliance testing. The gauging of a victim's compliance appeared not to be a discrete step but something that occurred throughout the entrapment phase rather than after trust had been fully developed.

Similar to the compliance testing phase of Lorenzo-Dus et al. (2016), the Kopecký (2016b) study identified a third stage in which offenders make overt attempts to validate the victims' age. This might be done for example, by having the victim take a photo with an image of the day's newspaper next to them. Offenders want to confirm they are communicating with a real child and that the material they are getting is authentic (Kopecký, 2016b). Getting a child to do this is also an indication to the offender that the child is willing to do what they are instructed to (Kopecký, 2016b).

Isolation.

Isolation is the process used by offenders to ensure that the relationship with the child remains a secret and does not risk discovery by people who are close to the child. It consists of the following communication strategies:

Physical isolation: is when offenders attempt to make arrangements to spend time with the child alone, either offline or online. This involves requesting assurances from the child that they are talking alone, and that there is no one else in the room, and instructing the child to delete chat logs and any form of evidence and identifying information (Lorenzo-Dus et al., 2016).

Mental isolation: is employed when offenders introduce psychological and emotional separation between the victim and their support network. Offenders try to increase the victims' dependence on them for forming friendships. Offenders will offer a great deal of interest in the victim's social life, and question the victim's parent's rules when they are upset (Lorenzo-Dus et al., 2016).

Black et al. (2015) found that communication concerning exclusivity of the relationship were introduced further into the relationship, and usually involved statements of affection and keeping the relationship a secret. This was however, only used by 13 of the 44 offenders in the

study. None of the offenders in the study used force or threats of force to keep their victims compliant and their relationship secret.

In offline offender methodology, the majority of offenders create exclusivity either by proclamations of love and affection or through threats to ensure that the victim does not expose the relationship. Black et al. (2015) hypothesises that the online environment and the experience of anonymity may provide offenders with a false sense of security in which they do not feel so compelled to ensure that their victims remain silent and compliant.

The fifth stage.

The Kopecký (2016b) study identified a fifth stage in which blackmail played the most significant role. It was identified that when the victim decides to leave the relationship, the offender proceeds to use blackmail in order to achieve compliance and secure continued involvement. This usually involved threats to tell parents or friends or to expose the victim on social networking sites (Kopecký, 2016b). This study found that if the victim acquiesces to a demand made with the threat of exposure, the likelihood that they would do so again drastically increases. The child could then subsequently be forced into personal meetings (Kopecký, 2016b). In extreme cases, blackmail can become prostitution when offenders offer victims money for sexual acts during face-to-face meetings. The victim may then return to the offender of their own free will (Kopecký, 2016b).

Previous models such as O'Connell (2003) and Olson et al. (2007) identified that deceptive trust strategies, sexual gratification, and isolation are linear, however, this study identified that they are all part of a complex entrapment network (Lorenzo-Dus et al., 2016). Black et al. (2015) found that when compared to offline models of grooming, much of the current research identifies similar strategies and techniques. The main difference however, lies

in the speed with which offenders approach and manage the online relationship. Offenders tend to assess risk immediately and use a number of strategies simultaneously and iteratively (Black et al., 2015; Lorenzo-Dus et al., 2016). Within a relatively short time frame, offenders are able to build up enough trust in order to introduce sexual topics, sexually explicit language and intimate information.

Additional techniques and tactics used by online groomers.

Blackmail, force, manipulation and coercion.

Blackmail can play a significant role in the process of grooming. In the study done by Kopecký (2016b), this is referred to as ‘sextortion’. In a small number of cases, offenders were found to have used sophisticated technology to gather information about a potential victim, which was then used to blackmail victims (Kopecký, 2016b). This was not the only study to identify blackmail as a factor in online sexual abuse. In a study on the use of Facebook among Czech children, it was found that 6.75% of children were blackmailed on Facebook (Kopecký, 2016a).

In a study analysing 662 cases of sexual abuse with a sexual component (Say et al., 2015), it was found that nearly half of the victims were threatened by the offender with distribution of digital images if they did not comply with the offender’s wishes (Say et al., 2015). An alarming feature of this study was the finding that 14% of children were abused by other offenders, who became aware of the victim through images produced by the original offender. Blackmail of this nature can facilitate initial and repeated sexual abuse, on top of ensuring compliance and silence on the part of the victim (Say et al., 2015).

Apart from blackmail, as an overt and direct strategy of gaining compliance, offenders may use other tactics to gain co-operation and compliance. One tactic includes the giving of

gifts and money, which can achieve several objectives. The salience of gifts or money peaks the victim's interest and builds trust, it may create a sense of obligation in the victim and may motivate the victim to continue the relationship. Rewards may be given to victims for maintaining compliance, secrecy and/or following an instruction from the offender (Mitchell et al., 2005; Tener et al., 2015; Walsh & Wolak, 2005; Ybarra et al., 2004). Data from the NJOV 1 (Wolak et al., 2004) found that 47% of offenders sent money or gifts.

Creating a space in which to offend.

According to a study by Quayle et al. (2014), chat rooms and instant messenger were the preferred platforms used to communicate with minors. In many cases there would be a migration from chat rooms to instant messenger as the relationship developed (Quayle et al., 2014). Following this, the relationship could and was often taken further on mobile phones (Quayle et al., 2014). The transfer of methods of communication was significant and was noted in other studies too (Quayle et al., 2014). The migration is important as it appears to be motivated by attempting to avoid detection and maintaining the secrecy of the relationship.

Forms of contact.

Results from the NJOV-1 (Wolak et al., 2004) indicate that most relationships between offenders and victims had multiple forms of contact. Seventy-nine percent included telephone conversations, 48% sent pictures online to victims, and 47% sent money or gifts, which could range from small tokens to very expensive gifts (Tener et al., 2015; Wolak et al., 2004). Six percent of youths received regular mail, 2% received phone calls and 1% received money or gifts (Mitchell et al., 2004; Tener et al., 2015). Data from the YISS-1 also indicated multiple forms of contact, which included receiving mail (6%), telephone calls (2%), money and gifts (1%) (Mitchell et al., 2004).

Collaboration and community membership.

Apart from fuelling the psychological and social mechanisms that contribute to offending behaviour, the online offending communities may serve an active role in the offending process.

In some instances, the sexual abuse of a child may be filmed and distributed through online groups, so that the abuse can be viewed in real-time. Gallagher (2007) identified online members of community groups who could direct the abuse of a child by making requests as to what the child should wear, and how the child should be abused. In other cases, the abuse was videoed and photographed and imported and exported through the post (Gallagher, 2007).

Online communities may be used to advertise sex tours and provide advice and information on how to sexually abuse children (Gallagher, 2007).

Some offenders were found to be using online communities in order to find a child to sexually abuse face-to face, or inciting others to commit sexual abuse (Gallagher, 2007). These groups of offenders discussed the sexual abuse of children, the filming thereof as well as encouraging and advising others in how to best commit these offences (Gallagher, 2007).

In terms of the active role that online communities can play in the online sexual abuse of children, the purpose then of contacting others in online communities can be seen as multidimensional. In some instances, individuals expressed a wish to procure a child for the purposes of sexual abuse. Some offenders have ready access to children while others do not; some offenders sought to collaborate with others in the abuse of a child, often attempting to participate in such activities with individuals who have access to children. Some offenders already had access to children, who they were abusing, but wished to identify individuals with whom they could organise an exchange (Gallagher, 2007).

Gallagher (2007) identified that before incitement or collaboration could occur, offenders would need to go through a series of steps. Firstly, an offender would need to identify another individual who appeared sexually interested in children. This could be done by joining and communing with the networks and groups discussed above.

Secondly, they would need to establish that this interest was genuine and that they were not being set up by undercover police. This was not achieved immediately through the establishment of the online relationship, some offenders requested CSEM as proof of the other person's credibility.

Thirdly, they would then need to develop a relationship with this individual. This appears to be done in the same way that most general relationships are established. Initially, there is an exchange of information, which then might progress to any combination of email, chat, and telephone conversations. Some individuals would broach their sexual interest in children relatively early in the conversation, and it was found that the need to share sexual proclivities was a strong motivating factor in establishing and maintaining these relationships.

Sexual offence phase.

The sexual offence phase can include both contact and non-contact sexual abuse. The studies identified in this review each give an indication of the outcome of the sexual offence process, which may be different depending on the focus of the research and the methodology used. Some articles looked at offences from the reports of victims, others from case files, and still others from offender reports. It is therefore impossible to provide an accurate account of the likelihood of any one particular outcome, but indications are provided below based on the results from the studies reviewed.

Geographical proximity.

Findings from the NJOV-1 indicate that half of the offenders who met a victim in person lived within approximately 80 kilometres, 40% of offenders cross state lines or international boundaries to attend their first meeting (Wolak et al., 2004). It should also be noted however, that even when the victim lived a significant distance away, offenders were still motivated to travel long distances. The willingness to travel appears mediated by an offender's motivation to offend (Black et al., 2015).

Abduction and kidnapping.

As noted and discussed in the victim typology section, abduction and kidnapping only occurred in 3% of cases. In 29% of cases, youth who were reported missing had usually either run away from home to be with the offender (24%), or lied about their whereabouts (5%) to their parents (Wolak et al., 2003). The stereotypical view therefore, of the kidnapping of youth is largely inaccurate as youth are only reported missing because they have run away or lied about their whereabouts, not because they have been kidnapped (Wolak et al., 2004). In research done by Mitchell et al. (2005) on family and acquaintance abuse, only 3% involved abduction and 5% involved illegal detention.

Meeting place.

As discussed under the victim profile, data from the NJOV-1 (Wolak et al., 2004) found that 39% of meetings took place in either the victim's or the offender's home, and 13% in hotels and motels. Eighty-three percent of the victims who met with offenders went willingly with them to another location. Most often victims would go with the offender in their vehicle to the offender's home, the mall, movies, or a restaurant, and 41% of victims spent at least one night with the offender (Wolak et al., 2004).

Types of offences committed.

The majority of this section has detailed the methods used by offenders to commit online and offline sexual offences against children. As noted, methodologies vary greatly among offenders which is informed by the offender's intended outcome. Consequently, the outcomes of online sexual abuse are diverse. It is beyond the scope of this review to discuss the outcomes of online sexual abuse methodologies, but what will be detailed here are the main components and their prevalence as identified by the studies included in this review.

The offences that are committed against children are often not discrete. For example, a child may be given alcohol or drugs to ensure compliance and lower inhibitions, while the sexual abuse is recorded to later be traded or sold as CSEM. While keeping in mind that these offences are not discrete the researcher identified six main groupings of offences that can be committed against children; (1) contact, face-to-face offences; (2) the use of physical force, blackmail or verbal coercion; (3) giving a child alcohol or drugs; (4) exposure to illegal adult and CSEM; (5) the production of CSEM during the course of the abuse; (6) non-contact, online offences.

These offences will be outlined below with prevalence statistics provided from the studies including in this review.

1. Online grooming can result in contact offences, which involve sexual activity including oral sex, inappropriate touching and various forms of penetrative sex:
 - a. Data from the NJOV-1 found that in 89% of cases that involved face-to-face meetings, there was some form of sexual interaction, with more than half involving sexual penetration (Wolak et al., 2004).
 - b. In the Mitchell et al. (2005) study on family and acquaintance online sexual abuse, 45% of face-to-face meetings involved sexual intercourse or some form of

penetration, 15% involved fondling, 8% involved oral sex, 7% involved inappropriate touch, and 2% involved having the victim touch the offender inappropriately.

- c. In a study on non-forcible internet related crimes (Walsh & Wolak, 2005), more than half of cases involved sexual penetration.
 - d. In a study of internet initiated sex crimes against minors reported to law enforcement, 74% of victims had face-to-face meetings with offenders, most of which involved some form of illegal sexual contact (Say et al., 2015).
2. Multiple studies identified coercion as having played a role in contact sexual offending:
- a. The NJOV-1 found that 16% of cases involved some form of coercion were victims were pressured into sexual interactions (Wolak et al., 2004).
 - b. In the Mitchell et al. (2005) study on family and acquaintance online sexual abuse, it was found that coercion occurred in almost half of cases. Some incidences involved violence or threats of violence.
 - c. According to the NJOV-1, only 5% of cases involved violent offences, usually rape or attempted rape (Wolak et al., 2004). Rape did not always happen at the first meeting and might only occur if the victim no longer wishes to continue the engagement (Wolak et al., 2004).
 - d. Say et al. (2015) found that 49.5% of victims reported have an image recorded of them, and 44% reported that this image was then used to threaten them.
3. Multiple studies identified that offenders gave illegal drugs and alcohol to victims during face-to-face contacts:

- a. According to the NJOV-1 in 40% of cases victims were given illegal drugs or alcohol (Wolak et al., 2004).
 - b. In the Mitchell et al. (2005) study on family and acquaintance online sexual abuse 28% of victims were given illegal drugs or alcohol.
 - c. When looking at nonforcible internet related crimes Walsh and Wolak (2005) identified that 34% of victims were given illegal drugs or alcohol.
4. Multiple studies identified that victims were exposed to illegal adult and CSEM during face-to-face contact:
- a. According to the NJOV-1, 23% were exposed to adult pornography and 15% were exposed to CSEM (Wolak et al., 2004).
 - b. In the Mitchell et al. (2005) study on family and acquaintance online sexual abuse more than half of victims were exposed to adult pornography.
 - c. When looking at nonforcible internet related crimes Walsh and Wolak (2005) identified that 39% of victims were shown adult or CSEM.
 - d. In a study on predatory online behaviour, 52% of participants admitted to sending CSEM to minors (Malesky, 2007).
5. Numerous studies identified the production of CSEM as part of the offending process:
- a. Hidden cameras were also used to take still or moving images of the sexual abuse to later use as CSEM (Wolak et al., 2004).
 - b. According to the NJOV-1, 21% of victims were photographed in sexual poses. The photographs could include nude pictures. In some cases, offenders convinced victims to take pictures of themselves or friends for the offender (Wolak et al., 2004).

- c. In the Mitchell et al. (2005) study on family and acquaintance online sexual abuse CSEM production was involved in 54% of cases.
 - d. When looking at nonforcible internet related crimes, Walsh and Wolak (2005) identified that 27% of offenders produced CSEM by taking pictures of their victims.
 - e. Say et al. (2015) found that 49.5% of victims reported have an image recorded of them, and 44% reported that this image was then used to threaten them.
6. Non-contact offences can include persuading a victim to send sexually explicit pictures or videos; or sending child or adult pornography to a victim (Mitchell et al., 2005; Wolak et al., 2004).
- a. According to the NJOV-1, 80% of offenders discussed sexual topics with victims online, 21% engaged in cybersex, and 18% sent sexual images to victims online (Wolak et al., 2004). Results from the first Youth Internet Safety Survey (Mitchell et al., 2004) found that most online sexual solicitations were for cybersex.
 - b. Ninety-four percent of unwanted sexual material consisted of people who were naked, 38% depicted people having sex, and 8% involved violence in addition to nudity or sex (Mitchell et al., 2004).
 - c. In a study on predatory online behaviour, 97% of participants admitted to engaging in sexual explicit online conversations with minors (Malesky, 2007).

In a study conducted by Say et al. (2015), it was found that when sexual abuse involved an online and/or technological component the abuse tended to be more severe. Victims of sexual abuse with a digital component were 2.18 times more likely to experience penetrative abuse, 2.63 time more likely to be exposed to recurrent sexual abuse, and 3.1 times more likely to be

abused by multiple offenders. This study also found that violence was more prominent in these forms of sexual abuse. As discussed above, victims were threatened in order to maintain silence and continuation of the sexual abuse (Say et al., 2015). The introduction of new forms of technology have given offenders new ways to threaten and control victims in order to initiate and possibly repeat the sexual abuse of these victims (Say et al., 2015).

Conclusion

This chapter has identified the complex array of behaviours that make up the methodologies of online sexual offenders. The methodology was divided into three sections to facilitate a discussion of the strategies and methods used by offenders to achieve their goals.

As was the case with the victim and offender profiles, the methodologies utilised by offenders vary greatly depending on their motives and modus operandi. Some offenders use sophisticated technology to lure their victims and avoid detection, while other offenders appear blasé in their online interactions, with no attempt made to conceal their activities. Some offenders look for particular characteristics in a victim, investing hours in grooming and establishing relationships, while others appear to be indiscriminate in their choice of victim, are immediately upfront with their intentions, and simply move on to the next victim if they encounter any resistance. Some offenders make extensive use of blackmail and forms of coercion, most often falsifying their identify in order to achieve the best effect with their intended victim, while others employ no forms of coercion and represent themselves as they truly are. Some are involved in the extensive production of pornography even while engaged in the abuse of a child, where others do not produce, trade or keep any form of CSEM, and if they do, it tends to be as a personal memoir of the event.

In conclusion, we can see that there is no single methodology, what is detailed here are a range of tools which may be utilised by an offender in any combination. Understanding these tools and how they are used is a vital part of understanding offenders, however, each crime may need to be considered in its own respect.

The following chapter will consider the recommendations and limitations of this current review, and will aim to identify potential questions that could be answered in future work of this nature, in order to improve our understanding of this diverse group of offenders.

Chapter 5: Conclusions, Limitations and Reflections

Introduction

This chapter encapsulates and concludes the findings presented in this review. Limitations of the study will be discussed together with recommendations for future research in this field. This chapter is concluded with a reflection by the researcher on the process of completing this review as a master's treatise.

Summary of Findings

The current rates of child abuse throughout the world in general, and in South Africa in particular, are staggering, and it would seem that this abuse continues unabated. Whilst South Africa has pledged its commitment to the prevention of offline and online victimisation of children, it lacks the national data in order to effectively implement prevention and apprehension protocols, ultimately being unable to meet its obligations (Mathews et al., 2013).

The aim of this review, therefore, was to synthesise current research, nationally and internationally, both qualitative and quantitative, that concerns online child sexual abuse in the form of a systematic review. The focus was specifically on crimes of a sexual nature perpetrated against children, with or without their consent, in an online environment, which either results in a contact or non-contact sexual offence. The review had four objectives, all of which are outlined below with a short summary of the most salient findings.

Objective 1: What factors place children at risk of online sexual abuse?

Millions of youth use the internet every day, but only a relatively small amount ever become a target of online sexual victimisation. What is it that makes some youth more vulnerable than others? This question is what this review has aimed to answer.

No child exists in isolation, and every youth is part of a complex web of interacting systems and people. Risk, therefore, needed to be considered from the perspective of multiple interacting independent and interdependent factors. The '5Ps Model' (Weerasekera, 1996) was integrated with the biopsychosocial model (Engel, 1979) in order to provide as comprehensive a picture as possible.

What this review has established is that there is no single profile of a vulnerable youth. Overwhelmingly, the data found that the majority of victims are between the ages of 13 and 15 and are predominantly female, but apart from these two factors, demographics varied significantly. What places youth most at risk is not a single factor or event, but rather a 'profile' of risk, which exists along a continuum and develops over time. The factors that create this risk profile are cumulative, iterative, and mutually reinforcing.

The sequelae of offline victimisation were identified as highly prominent in youth who fall victim to online sexual abuse, as was the stage of adolescent development in itself. Youth were found to be actively engaging in their online world and are, on the whole, not the naïve and innocent bystanders portrayed in the media.

All youth need to be educated about the realities of relationships online in an age appropriate way. Youth who are identified as high risk need to possibly be targeted for additional intervention.

Objective 2: What factors protect children from online sexual abuse?

Research into what factors protect children from online victimisation support the view that personal resilience is a more effective protective mechanism than avoidance. An adolescent's view of risk and danger is often very different from that of adults or law enforcement. Some youth may be exposed to online victimisation but experience no

consequences, purely because they do not interpret the experience as distressing. Online resilience is the ability to engage proactive coping strategies to deal with negative experiences. This is in turn linked to self-efficacy and online/technological literacy. In other words, the more confident and competent a youth feels, the better they are able to deal proactively with negative experiences.

Objective 3: What are the characteristics of online child sexual offenders?

It is the opinion of the researcher that what is clearly evident from this review, is that the term ‘online offender,’ or even the term ‘online sex offender,’ is a misnomer. Online sex offenders are a vastly heterogeneous group whose actions can only really be understood if one looks at the driving motivations behind the behaviour.

From a demographic perspective, offenders are found to be predominantly 26 years of age and older, mostly male, with approximately a third being female. Apart from these findings, offenders differ significantly in demographic factors and characteristics.

Two of the most prominent themes identified in the offender typology were the cognitive distortions of offenders and how they interact with online communities to normalise and reinforce their offending behaviour. The advent of the internet has allowed for a degree of collaboration, which did not previously exist. Anonymity, affordability, and accessibility have allowed for known sexual deviances to be explored unhindered, and unrestrained. The internet appears to have also allowed for dormant proclivities to arise in individuals who would possibly have never acted upon them had it not been for the anonymity offered by the internet.

Objective 4: What are the methodologies used by online child sex offenders?

As was the case with the victim and offender profiles, the methodologies utilised by offenders vary greatly depending on their motives and modus operandi. What has been

described under the methodology section is a range of tools that may be utilised by an offender in any combination. Understanding these tools and how they are used is a vital part of understanding offenders, however, each crime may need to be considered in its own respect.

Concluding statement.

What I believe I have stressed repeatedly throughout this review is the need to consider anything and everything related to online child sexual abuse from a multidimensional perspective. If we are to get a handle on and hope to curb online child sexual abuse, we must move away from a tradition of reductionism. We need to embrace the current empirical evidence we have available to us and start having frank and open discussions with youth, concerning relationships, sexuality, and what is appropriate and inappropriate in terms of relationships in general, as well as online relationship specifically.

While society might not be ready to, or want to, admit that a 12-year-old child is already beginning to ask sexual questions, the data shows that this is the case. Many adults struggle to negotiate the minefield that is love, relationships and sexuality. If we fail our youth by not providing them with the information they so desperately need and want, they are left to seek it out themselves, leaving them to stumble around in the dark, which is now the internet, then we too must take some responsibility for the risk that they now face.

Limitations of the Study

Throughout the course of this review, a number of limitations have been identified. The first limitation that must be considered is the purpose for which the review was conducted. This review was conducted as part of the requirements to complete a master's degree in clinical psychology. As such, the research was limited by time, financial constraints, and the need to complete the research relatively independently. The time limit necessarily narrows down the

potential scope of the research, and in the case of this particular review, no research funds were available.

Identification of bias.

Due to the financial and academic constraints identified, the researcher limited the search of articles to peer-reviewed journals, that could be accessed through the Nelson Mandela Metropolitan Library system. This may have introduced a number of biases into the research which are discussed below.

A publication bias is certainly present; only peer-reviewed journals were considered. Not all research is published in journals, and not all journals are indexed, resulting in potentially valuable data being excluded from this sample(Petticrew & Roberts, 2006).

A positivity bias may have been introduced as there is a tendency for positive results to be reported in academic journals, while negative or negligible results are rejected or not published at all; a positivity bias may lead to an overrepresentation of supporting data(Petticrew & Roberts, 2006).

A language bias may have been introduced as there is a tendency for positive results to be published in English journals(Petticrew & Roberts, 2006). There was an overrepresentation of American and English data, but that which could be included from Spain, the Czech Republic, Germany, and Norway, also showed interesting trends. If data could be included from more European, African and Middle Eastern countries, it would possible provide a more complete and dynamic review of this phenomena.

To this end, it is acknowledged that the sample of articles consisted of what could reasonably be accessed through the university library and the researcher recognises that such a sample may not be representative of the entire corpus of data.

Exclusion of relevant articles.

A large number of highly pertinent and relevant articles for this review had to be excluded owing to the exclusion criteria. The researcher limited the sample to peer-reviewed journals only. This was done to limit the sample size to make it manageable for a master's treatise. The result, however, was that valuable grey literature was excluded. Not all literature is published in journals, and not all journals are indexed on library databases. Inclusion of this data could potentially change the conclusions made in this review.

If findings were published as a report and not as an article in a peer reviewed journal, then the document was rejected based on the inclusion/exclusion criteria limiting the research to peer reviewed journals. This again meant that valuable data could have been missed.

The researcher's limited access to articles, to only those that could be accessed through the Nelson Mandela Metropolitan University resulted in potentially losing results listed on other databases.

Lastly, once a final sample of articles had been extracted, the researcher was still left with too big a sample that could be manageably completed as a master's treatise. Owing to this, the decision was made to organise the articles according to date from oldest to newest, divide these articles into quartile ranges, and then select the top and bottom interquartile range for inclusion as the final sample to be coded. This provided a sample of 36 articles, which still provided sufficiently rich and detailed data. The limitation of this approach, however, was that if an article, valuable or not, fell out of the interquartile range it was excluded.

As an example two models of grooming were excluded, one developed by O'Connell (2003) and another by Williams et al. (2013), both of which could have offered valuable insight for this review.

Availability of a second reviewer.

It is standard practice in systematic review methodology to have a secondary reviewer independently review the title and abstract screening stage, as well as the full text review phase (Petticrew & Roberts, 2006). This is done typically to establish inter-rater reliability. It is also recognised, however, that at a master's level this is not always possible or feasible to do so (Petticrew & Roberts, 2006). To mitigate this limitation as much as possible, the researcher had multiple detailed supervision sessions with both primary and co-supervisors in order to keep them abreast of the researcher's progress, as well as provide the rationale for including or excluding articles.

The same limitation applied to the coding of the data. It is standard practice to have a secondary coder work through the data independently so as to ensure that research questions are operationalised appropriately, allowing for both researchers to arrive at a similar conclusion (Saldana, 2009). This was also not feasible. In the case of this research, however, the data was not interpreted by the researcher. The data was systematically coded, article by article, extracting any data that related to the typologies of victims and offenders as well as the offender methodologies. The researcher had multiple supervision sessions to indicate to both supervisors how the coding was progressing as well as the thought processes that were informing the coding.

Recommendations**Extension and expansion of current research.**

Due to the limitations mentioned above the researcher recommends that an expanded and more thorough version of this research be conducted. By extending the study to include more international data, grey literature and hand searches, more information could be included, possibly changing the landscape of the findings presented here.

This research has yielded valuable information that could save an immense amount of time in being able to provide, in one complete document, the nuances of this phenomena of which so little is known about in South Africa. The profiles extracted from this review can be built upon in the South African context so as not to waste time on ‘reinventing the wheel.’

Psychoeducational programmes for children and parents.

The findings indicate that there is a dire need for psychoeducation in all spheres of society. Parents, teachers, children, adolescents, and health care professional could all benefit from having clear, empirically based facts, presented objectively and without sensationalism, concerning offenders of online sexual abuse, who their victims are, and how they are targeted.

This psychoeducation needs to be provided to all, as it is not only youth at risk who fall victim to online offenders. It is vital that age and developmentally appropriate psychoeducation programmes be implemented in schools, and not just for online sexual abuse. Youth need frank, clear and useful information about sexuality and relationships so that they are empowered to distinguish for themselves if an encounter is appropriate or inappropriate. This type of psychoeducation will be valuable online as well as offline, and may be particularly useful to those youths who are identified as being at risk. These youths require particular attention, and need to be monitored for increasing signs of risk.

Parents and teachers should also be included in this psychoeducation training. Vandoninck et al. (2013), identified that part of youths’ resilience to negative online experiences is modelled from their parents, teachers and peers. Adults need to invest in digital literacy and develop an online competence and confidence so that they may pass this on to their children. Parents need assistance with the daunting task of talking to their children about sex and

relationships. Psychoeducation needs to teach adults why this is important and how to go about it at different stages of their children's development.

The elephant in the room.

As was identified in the introductory chapter, the role that the media has played in reporting on sexual offenders has often led to misrepresentations of who they are and what their intentions may be. While the media emphasised the 'stranger-danger,' and created of the internet a haven in which paedophiles lurked, it took emphasis away from the role of family members and acquaintances in the sexual abuse of children in general, and online sexual abuse specifically. Attention needs to return to this arena, as findings from this review indicate that more than half of offenders are known to their victims in some capacity prior to online sexual abuse.

Recommendations for psychology.

A clear gap in the research available concerning online sex offenders is the lack of developmental and psychological information. The focus has mainly been on creating typologies based on an offender's current actions, but perhaps more could be gleaned by looking for what motivated them to commit the particular offence they committed. Why is the fantasy-driven offender content to keep the engagement online, while the contact-driven offender is primarily focused on eventually establishing a face-to-face contact? Why do some offenders use force and coercion, while others are prepared to spend so much time invested in a single victim? What developmental factors fuel online offending in its particular scope?

Psychology can and does have a major role to play here. While attention has focused on profiling offenders in the present, with their current methodologies, few studies have looked at how the offender came to be and what were the sequelae that led to the offending behaviour. If

these questions can be answered, perhaps deeper insight can be gained into online sexual offenders that could possibly facilitate the development of methods to help prevent further abuse.

Recommendations for future research.

Central to the majority of the articles included in this review was the Youth Internet Safety Survey (YISS), and the National Juvenile Online Victimization Survey (NJOV). The data that was reported on from these studies appeared to have incredible breadth and scope, such that multiple researchers from many different disciplines could use it to gain insight into the various elements of online victimisation. To the researcher's knowledge, nothing like these studies have been done in South Africa, and it is highly recommended that these two studies be replicated in the South African context. Not only would this provide invaluable information to South African researchers, establishing the prevalence of online sexual abuse in South Africa, it would allow us to be able to compare findings of a South African Study to those of the NJOV and the YISS to gain further understanding of the dynamics of online sexual offending.

Personal Reflection on the Research Process

“One does not learn to ride a bicycle by reading a book”

[Unknown]

I initially began the planning for this research almost 10 years ago. I had just finished my honours degree in criminology at the University of Pretoria, and was eager to complete a master's degree in the same field. I had the honour of meeting with Dr. Gerard Labuschagne, who at that time was the head of the Serious and Violent Crimes unit of the South African Police Force. The purpose of this meeting was to ascertain where he felt the greatest need was, and where I should focus my attention. Ten years ago he told me to focus on the online sexual abuse of children, as it was becoming a more frequent occurrence in South Africa, and very little was

known about it. It has taken me nearly ten years, with numerous and interesting detours along the way, to finally see the fruit of that seed planted so long ago.

The learning curve to complete this research was a steep one. By the time it came to start this process, so much time had passed since my undergraduate years that I had forgotten most of my research methodology. I read ferociously before starting this review, devouring anything I could find online and almost everything available in the library. I felt prepared and ready to take on the challenge, but as the quote states above, one does not learn to ride a bicycle by reading a book.

The first challenge I encountered being one of my major frustrations throughout this review, is that the books teach the concepts, they tell you what needs to be done, and in what way it needs to be done but they do not tell you *how*. The practicality of actually conducting the search, using reference management software, how to code the results, and what to do with the codes once complete. All of this I had to learn whilst doing my research, and making plenty mistakes along the way.

The second challenge I encountered was constructing the search, and again, no one actually tells you how to do this. Initially my searches would return 10, 000 results, which of course were too much to work with. I realised that the problem was with the search terms. The term 'internet' and 'online' is used extensively through the majority of articles, and so this was no longer an effective search term. When I included 'internet' and/or 'online' and 'child,' I retrieved better results but still they still numbered in the thousands.

Over time I began to realise that there was another set of problems with my search terms. What I had not taken into account was that while I knew specifically what I was looking for, and not looking for, the writers of these articles were using their own terms. I began to realise that

researchers and authors collapse what I had come to understand as a heterogeneous group of offenders, into one term: 'online sex offender.' So if I searched for 'online child sex offender,' I retrieved results with everything concerning child pornography, commercial trafficking of children, and sex-tourism, none of which were being included in this review. To make matters worse, if researchers were discussing typologies of online offenders they could discuss a range of offenders in a single article and therefore I could not exclude articles on the basis of the presence of these key words.

Initially I thought this was my lot, as I could think of no other way to narrow down the search terms. I began to scan through the results, at one stage managing to narrow 10,000 results to 1000, thinking I had done a great job.

I had at this stage fully intended on coding these 1000 results. Having yet again read all the available literature, I thought, 'how hard could it be,' after all I was coding for a typology, not for an interpretation. Yet again, the books prepared me for what to do, but not how to do it. As fate would have it, in April of 2016, I received an email quite by chance offering a three-day coding course at the university. Upon contacting the research department, they informed me that the course was already full and there would not be another one until August, which was way beyond my time line. I begged and pleaded, promising to sit on the floor in the corner if they would just let me attend. I arrived on the morning of the course, hoping that someone would not show. As it turned out we were welcomed into the class anyway, and it was the best possible thing to have happened.

The amazing Dr. Charmaine Williamson, who conducted the course was actually not there to teach coding per se, but was there to teach how to use Atlas.ti programme, which is software designed to assist in projects that require coding. What she provided, however, was so

much more than that. I began to see a picture of how all these pieces fitted together. It became clear to me why my search terms were not working and why I was ending up with so many results. Not only that, now I knew how to code my data.

I returned home, newly enthused and ready to have another go. I redid the searches in all the databases and copied the results into Endnote in a fraction of the time it took me to do it the first time. The first time I conducted my searches I returned over 10,000 results, and these were limited because the various electronic database platforms will not let you export more than a 1000 articles at a time (I now know that there is a good reason for that). The second time round, all the searches resulted in 3812 results, a reduction in irrelevant article return of 62%.

Having learnt from the Atlas.ti course that Endnote had a powerful search function I created search criteria. I reasoned that even if the articles that were originally sampled contained information on child pornography or human trafficking, they must contain the term 'child' with its synonyms, 'abuse' with its synonyms, and 'online' with its synonyms. I constructed the search string and told Endnote to eliminate any article that did not contain at least one combination of each term or its synonym. This was incredibly efficient and within a few clicks I had reduced my sample from 3694 to 892. The rest of the process proceeded smoothly as is outlined in the methodology chapter.

Then came my third challenge. What I should have learnt by now is that when I thought something was easy, it usually was not. I also realised that my predictions of time lines were grossly underestimated, something I will need to be aware of in future research endeavours. The coding was not as easy and straightforward as I had originally thought, and I quickly became overwhelmed by the number of codes and the amount of data. I then realised, that what I thought would be a shortcut in my process, had turned out to cost me a great deal. I was advised at the

Atlas course, that when one codes, one usually reads through the texts several times before beginning actual coding. This is referred to as the pre-coding phase. In my very limited understanding I had decided to skip this stage as it was going to take me too long. The consequence was that my codes had no coherence. There was no structure holding it together as I had not allowed that structure to emerge through the pre-coding.

In retrospect, I should have realised that those who have done far more systematic reviews than I might have very good reasons for making the recommendations that they do. So I went back and pre-coded. The final pre-coding sample consisted of 73 results. After having pre-coded all of the articles, and begun again to code in Atlas, I realised yet again, that this task was too big, there was no way I would finish this by the end of 2016. I had dreams of doing a solidly systematic and empirical study, sticking to the letter of the methodology every step of the way, but I had come to realise that sometimes less is more, and sometimes the task needs to be completed. I approached my supervisor with my dilemma and he offered a most creative solution, which was to take the interquartile range of the sample.

From this point onward I was able to code the rest of the data, extract the themes and complete this review, and with it complete the final piece of the master's psychology academic programme.

It has taken me over a year of solid and dedicated work every day since December 2015 to water that seed, and help it grow into the tree that is now this treatise. I have learnt invaluable lessons along the way: about the nature of research, about the importance of thorough planning and time management. I have learnt that one is required to be flexible as every research project comes with unforeseen challenges.

The learning curve has been steep, but it has been incredibly worthwhile. Instead of being daunted by the task of taking up another research project, I look forward to honing the skills that I feel I have only just begun to blossom through this research. I hope that in the future I will be able to take this study, build on it and complete it as a PhD.

I believe that this work is valuable and needed, particularly in South Africa with our unique internet landscape. I trust that I will be able to provide something of value to the youth of South Africa, and help to prevent some of the child abuse that has become so rampant in our society.

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Appendix A: Search records

Search No.	1
Date	2 May 2016
Platform	EBSCO
Indexes	Academic Search Complete
	CINAHL
	Communications and Mass Media
	E-Journals
	ERIC
	Health Source: Nursing Academic Edition
	Humanities International Complete
	Masterfile Premier
	Medline
	Psych Info
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	858
Number of Duplicates in Search	265
Number of Results already found	74
Final Total	519
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
Limited to peer reviewed journals	
Exclude dissertations	
Can only export 50 at a time	

Search No.	2
Date	2 May 2016
Platform	Emerald
Indexes	
Keywords	Child* AND "Sexual Abuse" AND Online OR internet OR Cyber
Date parameters	2000-2016
Number of Results	231
Number of Duplicates in Search	0
Number of Results already found	9
Final Total	222
Type of search	<input type="checkbox"/> Subject/Index Search <input checked="" type="checkbox"/> Keyword Search <input type="checkbox"/> All fields
Results/Notes	
None	

Search No.	3
Date	2 May 2016
Platform	JSTOR
Indexes	
Keywords	((Child* AND "Sexual Abuse") AND Online) AND internet)AND Cyber)
Date parameters	2000-2016
Number of Results	98
Number of Duplicates in Search	0
Number of Results already found	6
Final Total	96
Type of search	<input type="checkbox"/> Subject/Index Search <input checked="" type="checkbox"/> Keyword Search <input type="checkbox"/> All fields
Results/Notes	
Show only journals	
Limit to English	

Search No.	4
Date	2 May 2016
Platform	Pubmed
Indexes	
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	1261
Number of Duplicates in Search	12
Number of Results already found	11
Final Total	1238
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
None	

Search No.	5
Date	5 May 2016
Platform	SABINET
Indexes	SA ePublications
	ISAP
	African Journal Archive
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	290
Number of Duplicates in Search	0
Number of Results already found	1
Final Total	289
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
None	

Search No.	6
Date	5 May 2016
Platform	Sage
Indexes	
Keywords	Child* AND "Sexual Abuse" AND Online OR internet OR Cyber
Date parameters	2000-2016
Number of Results	20
Number of Duplicates in Search	10
Number of Results already found	2
Final Total	8
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input type="checkbox"/> All fields <input checked="" type="checkbox"/> Abstracts
Results/Notes	
When the search was run on all fields the results was 3561. Many were irrelevant	
When done with abstract 20 results were found that were highly relevant	

Search No.	7
Date	5 May 2016
Platform	Science Direct
Indexes	
Keywords	(((((Child* AND "Sexual Abuse") AND Online) AND internet) AND Cyber)
Date parameters	2000-2016
Number of Results	53
Number of Duplicates in Search	0
Number of Results already found	5
Final Total	48
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
When the search was run on all fields the results was 3561. Many were irrelevant	
When done with abstract 20 results were found that were highly relevant	

Search No.	8
Date	6 May 2016
Platform	CORDIS
Indexes	
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	2
Number of Duplicates in Search	
Number of Results already found	2
Final Total	0
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
European Online Grooming Project – Read through for literature review	

Search No.	9
Date	7 May 2016
Platform	Campbell Collaboration Library of Systematic Reviews
Indexes	
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	26
Number of Duplicates in Search	0
Number of Results already found	0
Final Total	26
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
None	

Search No.	10
Date	7 May 2016
Platform	Taylor and Francis
Indexes	
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	367
Number of Duplicates in Search	0
Number of Results already found	68
Final Total	299
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
Can only export 50 at a time.	

Search No.	11
Date	7 May 2016
Platform	Springer
Indexes	
Keywords	(((((Child* AND “Sexual Abuse”) AND Online) AND internet) AND Cyber)
Date parameters	2000-2016
Number of Results	1018
Number of Duplicates in Search	0
Number of Results already found	37
Final Total	981
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
None	

Search No.	12
Date	7 May 2016
Platform	COPAC
Indexes	
Keywords	(Child* AND “Sexual Abuse”) AND (Online OR internet OR Cyber)
Date parameters	2000-2016
Number of Results	7
Number of Duplicates in Search	0
Number of Results already found	0
Final Total	7
Type of search	<input type="checkbox"/> Subject/Index Search <input type="checkbox"/> Keyword Search <input checked="" type="checkbox"/> All fields
Results/Notes	
None	

Appendix B: Full Text Review Results

Title	2000 2016	Type of Source	Qual	Quan	Keywords								Action			
					Sexual Abuse	Child Teen Adol	Internet Online Cyber	Pedophilia	Sex Tourism	Cyberbull	Online CSEM	Child Trafficking	Inc	Exc	Reason	
Online blackmail of Czech children focused on so-called “sextortion” (analysis of culprit and victim behaviours)	2016	Journal Article		X	X	X	X							X		
Social and Psychological Effects of the Internet Use	2016	Article													X	Does not focus on the relationship between offender and victim
Czech Children and Facebook – A quantitative survey	2016	Journal Article			X	X	X							X		
What Features Make Online Harassment Incidents Upsetting to Youth?	2016	Article	X		X	X	X	X			X				X	Does not focus on the relationship between offender and victim
Fantasy-Driven Versus Contact-Driven Users of Child Sexual Exploitation Material: Offender Classification and Implications for Their Risk Assessment	2016	Journal Article		X	X	X	X					X		X		

Multiple online victimization of Spanish adolescents: Results from a community sample	2016	Journal Article		X	X	X	X						X		
"Grooming" and the sexual abuse of children, institutional, Internet and familial dimensions	2015	Journal Article												X	Book Review
Prevalence of Sexting, Online Solicitations, and Offline Meetings Among Adolescents of a Large Child Advocacy Centre With Suspected Sexual Abuse	2015	Journal Article												X	Conference Proceedings
Rape Threats and Revenge Porn Defining Sexual Violence in the Digital Age	2015	Book Chapter												X	Book
Sexting Cyberchildren: Gender, Sexuality, and Childhood in Social Media and Law	2015	Article	X		X	X	X							X	Secondary Source
A Consideration of the Social Impact of Cybercrime: Examples from Hacking, Piracy, and Child Abuse Material Online	2015	Journal Article				X	X				X			X	Secondary source

<p>A Linguistic Analysis of grooming strategies of online child sex offenders: Implications for our understanding of predatory sexual behaviour in an increasingly computer mediated world</p>	<p>2015</p>	<p>Journal Article</p>		<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>											<p>X</p>	
<p>A Typology of Offenders Who Use Online Communications to Commit Sex Crimes Against Minors</p>	<p>2015</p>	<p>Journal Article</p>	<p>X</p>		<p>X</p>	<p>X</p>	<p>X</p>											<p>X</p>	
<p>Abuse Characteristics and Psychiatric Consequences Associated with Online Sexual Abuse</p>	<p>2015</p>	<p>Journal Article</p>		<p>X</p>	<p>x</p>	<p>x</p>	<p>x</p>											<p>X</p>	
<p>Constructing an inter-post similarity measure to differentiate the psychological stages in offensive chats</p>	<p>2015</p>	<p>Journal Article</p>		<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>											<p>X</p>	<p>Focus of article is on constructing software that could detect grooming. Does not give information on the dynamics of offender/victim interaction</p>

Online investigations: protection for child victims by raising awareness	2015	Journal Article			X	X	X							x	Secondary Source
Online Sexual Solicitation of Minors: How Often and Between Whom Does it Occur	2015	Journal Article		X	X	X	X							X	
Online social support as a buffer against online and offline peer and sexual victimization among U.S. LGBT and non-LGBT youth	2015	Journal Article		X	X	X	X							X	
Safeguarding children from becoming victims of online sexual abuse facilitated by virtual worlds	2015	Article			X	X	X							X	Secondary Source
Strengthening Canadian law enforcement and academic partnerships in the area of online child sexual exploitation: The identification of shared research directions	2015	Article			X	X	X							x	Secondary Source

The role of child sexual abuse images in coercive and non-coercive relationships with adolescents	2015	Article	X		X	X	X							X	Secondary Source
The Role of Sexual Images in Online and Offline Sexual Behaviour with Minors	2015	Article	x		X	X	X				X			X	Secondary Source
Understanding grooming discourse in computer-mediated environments	2016	Article		X	X	X	X						X		
Young women selling sex online – narratives on regulating feelings	2015	Article			X	X	X							X	Does not focus on the relationship between offender and victim
Protecting Children From The Risk of Harm?	2014	Book Chapter												x	Book
Child Sexual Abuse Revisited: A Population-Based Cross-Sectional Study Among Swiss Adolescents	2014	Journal Article		X	X	X	X							X	Article focus is on prevalence of CSA in general and offers no insight into the relationship between the offender and the victim

Demographic and offence characteristics: A comparison of sex offenders convicted of possessing indecent images of children, committing contact sex offences or both offences	2014	Journal Article		X	X	X	X							X		
Annual Research Review: Harms experienced by child users of online and mobile technologies: the nature, prevalence and management of sexual and aggressive risks in the digital age	2014	Journal Article		X	X	X	X								X	Secondary Source
In their own words: Young peoples' vulnerabilities to being groomed and sexually abused online	2014	Journal Article		X	X	X	X							X		
Online Child Sexual Exploitation: Prevalence, process, and offender characteristics	2014	Journal Article	X		X	X	X								X	Secondary Source
Regulating Online Sexual Solicitation	2014	Book Chapter													X	Chapter in a book

Report of the Commonwealth Working Group of Experts on Cybercrime	2014	Report											X	Article does not look at the relationship between victim and offender
Online Sexual Behaviours among Swedish Youth: Associations to Background factors, behaviours, and abuse	2015	Journal Article		X	X	X	X						x	This article focuses on the online sexual experiences of senior high school students who are above the age of consent. Therefore it is not relevant to this study
Risk factors in victims of sexual assaults who acquainted, and met with their perpetrators via social networking services	2014	Article											X	Not English
Patterns of Internet use and risk of online victimization for youth with and without disabilities	2014	Journal Article		X	X	X	X						X	
Safety by Literacy? Rethinking the Role of Digital Skills in Improving Online Safety	2014	Book Chapter											X	Chapter in a book
Rapid Skill Acquisition and Online Sexual Grooming of Children	2014	Journal Article	X		X	X	x						X	

The Need for a Comprehensive Public Health Approach to Preventing Child Sexual Abuse	2014	Article			X	X	X						X	Article removed based on it being a secondary source
Voluntary Sexual Exposure Online Among Swedish Youth-Social Background, Internet Behaviour and Psychosocial Health	2014	Article	X		X	X	X						x	
Stumbling into Sexual Crime: The Passive Perpetrator in Accounts by Male Internet Sex Offenders	2014	Article			x	X	X			X			x	Online child pornography
Too Sexual Too Soon Why Believe the Hype?	2014	Book											X	Book
What is Risky About Online Self-Disclosure and Who is at Risk	2014	Book			X	X	X						X	Book
A Review of Online Grooming: Characteristics and Concerns	2013	Journal Article	X		X	X	X						X	Secondary Source
A Review of Young People's Vulnerabilities to Online Grooming	2013	Journal Article			X	X	X						X	Secondary Source
Association of Maltreatment with High-Risk Internet Behaviours and Offline Encounters	2013	Journal Article	X		X	X	X						X	

Child Pornography and Likelihood of Contact Abuse: A Comparison Between Contact Child Sexual Offenders and Noncontact Offenders	2013	Journal Article		X	X	X	X							X		
Child pornography possessors: Comparisons and contrasts with contact- and non-contact sex offenders	2013	Journal Article	X		X	X	X	X				X		X		Excellent Statistics for motivation in lit review
Children's Meeting Offline with People Met Online	2013	Journal Article	X		X	X	X							X		
Identifying Sexual Grooming Themes Used by Internet Sex Offenders	2013	Journal Article	X		X	X	X							X		
Internet-Initiated Sexual Assault Among U.S. Adolescents Reported in Newspapers, 1996–2007	2013	Journal Article		X	X	X	X							X		
Internet-related child sexual abuse: What children tell us in their testimonies	2013	Journal Article	X		X	X	X							X		
Online Child Sex Offenders: Challenges and Counter-Measures	2013	Journal Article	X		X	X	X								X	Secondary Source

Online Grooming Legislation: Knee-Jerk Reaction?	2013	Journal Article			X	X	X							X	
Online Risks	2013	Journal Article	X		X	X	X							X	
Public perceptions of internet, familial and localised sexual grooming: Predicting perceived prevalence and safety	2013	Journal Article		X	X	X	X							X	Good Definitions. Very Quantitative. Looks at perceptions. Perhaps good for literature review.
Preventive psychiatry is public health	2013	Journal Article												x	Editorial
Sexual Interest in Children Among an Online Sample of Men and Women: Prevalence and Correlates	2014	Article		X	X	X	X							X	
Understanding the Decline in Unwanted Sexual Solicitations for U.S. youth 2000-2010: Findings from Three Youth Internet Safety Surveys	2013	Article			X	X	X							X	
The three dimensions of online child pornography offending	2013	Article		X	X	X	X	X				X		X	Online child pornography

Obsessive-Compulsive Disorder, Social Phobia, and Loneliness in Incarcerated Internet Child Pornography Offenders	2012	Journal Article											X	Child Pornography	
How Often Are Teens Arrested for Sexting? Data from a National Sample of Police Cases	2012	Journal Article		X	X	X	X							X	
Mobile phone technology and sexual abuse	2012	Journal Article			X	X	X							X	Secondary Source
Online Solicitation Offenders Are Different from Child Pornography Offenders and Lower Risk Contact Sexual Offenders	2012	Journal Article	X		X	X	X							X	
Reconstructing the Sexual Abuse of Children: 'Cyber-paeds', Panic and Power	2012	Article	X		X	X	X							X	Not English
The Risks of Internet Communication 3	2012	Article		X	X	X	X							X	
Online security and cyberbystander relations in mobilizing sex abuse intervention	2012	Journal Article		X										X	Article does not focus on grooming relationship but rather intervention

Online Sexual Grooming of Children, Obscene Content and Peer Victimization: Legal and Evidentiary Issues	2012	Journal Article											X	Chapter in a Book	
The Council of Europe Convention on Cybercrime: Defining 'Crime' in a Digital World	2012	Article				X	X							X	Conference Proceedings
The Roles of Monitoring and Cyberbystanders in Reducing Sexual Abuse	2012	Article	X		X	X	X							X	Focus is on the effect of bystanders and does not describe the relationship or the factors between offender and victim
What's the motive: Guilt or goodness?	2012	Article			X	X								X	Does not focus on online child sexual abuse
A Global Perspective on Child Sexual Abuse: Meta-Analysis of Prevalence Around the World	2011	Journal Article		X	X	X								X	Print. Use this article for literature review to establish global prevalence of CSA.
Are Internet Offenders Emotionally Avoidant?	2011	Journal Article		X	X	X	X							X	

Characteristics of the Internet for criminal child sexual abuse by online groomers	2011	Journal Article	X		X	X	X							x	Secondary Source
e-Youth Before its Judges - Legal Protection of Minors in Cyberspace	2011	Journal Article			X	X	X							x	Secondary Source
Introduction to special issue on Internet-facilitated sexual offending	2011	Journal Article			X	X	X							x	Secondary Source
Online or Off-line Victimization and Psychological Well-being: A comparison of sexual-minority and heterosexual Youth	2011	Journal Article			X	X	X						X		
Prevention by All Means? A Legal Comparison of the Criminalization of Online Grooming and its Enforcement	2011	Journal Article	X		X	X	X						X		
Social networking as a nexus for engagement and exploitation of young people	2011	Article			X	X	X							x	Secondary Source
The Characteristics of Online Sex Offenders: A Meta-analysis	2011	Article		X	X	X	X						X		

The use of online technology in the modus operandi of female sex offenders	2011	Article		X	X	X	X							x	Secondary Source
Youth Internet Victimization in a Broader Victimization Context	2011	Article	X		X	X	X							X	
Risky internet behaviours of middle-school students: communication with online strangers and offline contact	2011	Article												X	Cannot access article
The Darker Sides of the Internet: Violence, Cyber Bullying, and Victimization	2011	Book chapter												X	Book
Considering the pedophile subculture online	2010	Journal Article	X				X	X						X	Focus is on paedophilic websites, and not on the relationship between the victim and the offender.
" I did what I was directed to do but he didn't touch me": The Impact of Being a Victim of Internet Offending	2010	Journal Article			X	X	X							X	Focus is on treatment of victims of sexual abuse with an online component.

An exploratory analysis of the cognitive distortions of a sample of men arrested in internet sex stings	2010	Journal Article	X		X	X	X						X		
An Exploratory Study of Internet-Initiated Offenses and the Chat Room Sex Offender: Has the Internet Enabled a New Typology of Sex Offender	2010	Journal Article		X	X	X	X						X		
Cybersex offender risk assessment. An explorative study	2010	Journal Article		X	X	X	X	X			X		X		
Internet sexual activity: A comparison between contact and non-contact child pornography offenders	2010	Journal Article		X	X	X	X						X		
Much ado about nothing? Representations and realities of online soliciting of children	2010	Journal Article			X	X	X							x	Secondary Source
Online behaviours of adolescents: Victims, perpetrators and Web 2.0	2010	Journal Article			X	X	X							x	Secondary Source

Online 'predators' and their victims: Myths, realities, and implications for prevention and treatment	2010	Journal Article			X	X	X						X		
Preventing online sexual victimization of youth	2010	Journal Article	X		X	x	X							X	Secondary Source
PW01-117 - Recidivism of internet sex offenders - an epidemiologic study on more than 4600 offenders in Switzerland	2010	Journal Article		X										X	Focus is on recidivism
Exploring the relationship between erotic disruption during the latency period and the use of sexually explicit material, online sexual behaviors, and sexual dysfunctions in young adulthood	2009	Journal Article												X	Irrelevant
An Empirical Study of the Personality Characteristics of Internet Sex Offenders	2009	Journal Article		X	X	X	X							X	

Cybering, Online Grooming and Ageplay	2008	Journal Article			X	X	X								Secondary Source
Deductive thematic analysis of a female paedophilia website	2008	Journal Article		X	X	X	X	X						X	
How Do High-Risk Youth Use the Internet? Characteristics and Implications for Prevention	2008	Journal Article		X	X	X	X							X	
Online Sexual Grooming in Sweden—Online and Offline Sex Offences against Children as Described in Swedish Police Data	2008	Journal Article	X		X	X	X							X	
Dangerous worlds? The problems of international and internet child sexual abuse	2008	Journal Article	X		X	X	X		X		X	X		X	Irrelevant
Protecting vulnerable young people in cyberspace from sexual abuse: Raising awareness and responding globally	2008	Journal Article	X		X	X	X							X	
Sexual fantasy in paedophile offenders	2008	Article	X		X	X	X							X	Secondary Source

The Internet and Child Sexual Offending: A Criminological Overview	2008	Article	X		X	X	X							X	Secondary Source
The Sexual Exploitation of Children and Young People in Northern Ireland: Overview from the Barnardo's beyond the Shadows Service	2008	Article	X		X	X	X							X	Secondary Source
Organised Crime Groups in Cyberspace: A Typology	2008	Journal Article	X											X	Focus is on commercial cyber crime
A Psychometric Comparison of Internet and Non-Internet Sex Offenders from a Community Treatment Sample	2007	Journal Article		X	X	X	X							X	Internet child pornography
An Investigation into Maladaptive Personality Functioning in Internet Sex Offenders	2007	Journal Article		X	X	X	X							X	Internet child pornography
An Investigation into the Applicability of the Ward and Siegert Pathways Model of Child Sexual Abuse with Internet Offenders	2007	Journal Article		X	X	X	X							X	Internet child pornography

Predatory online behavior: Modus operandi of convicted sex offenders in identifying potential victims and contacting minors over the Internet	2007	Journal Article	X		X	X	X						X		
The Relative Importance of Online Victimization in Understanding Depression, Delinquency, and Substance Use	2007	Article			X	X	X						X		
The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared	2007	Article	X		X	X	X				X			X	Focuses on comparison of cognitive distortions of contact offenders vs. Internet pornography offenders
The role of the mental health professional in cases of online sexual activity	2007	Article	X		X	X	X								Secondary Source
Youth Internet Users at Risk for the Most Serious Online Sexual Solicitations	2007	Article	X		X	X	X						X		

Nonforcible Internet-Related Sex Crimes with Adolescent Victims: Prosecution Issues and Outcomes	2005	Journal Article		X	X	X	X						X		
Police Posing as Juveniles Online to Catch Sex Offenders: Is It Working?	2005	Journal Article		X	X	X	X						X		
The Internet and family acquaintance sexual abuse	2005	Article		X	X	X	X						X		
New technology: helping or harming children?	2005	Journal Article			X	X	X							X	Editorial
Sex Differences in Youth-Reported Depressive Symptomatology and Unwanted Internet Sexual Solicitation	2004	Article		X	X	X	X						X		
Protecting Children from Online Sexual Predators	2004	Journal Article												X	Secondary Source
Victimization of Youth on the Internet	2004	Journal Article		X	X	X	X						X		
Grooming Cyber victims: The Psychosocial Effects of Online Exploitation for Youth	2003	Journal Article			X	X	X	X			X				Secondary Source

Appendix C: Final Sample of Articles for Analysis

No.	Year	Title of Article	Author/s
1	2001	Risk Factors for and Impact of Online Sexual Solicitation of Youth	Mitchell, K. J., Finkelhor, D., & Wolak, J.
2	2001	Child Seduction and Self-Representation on the Internet	Quayle, E., & Taylor, M.
3	2002	Close online relationships in a national sample of adolescents	Wolak, J., Mitchell, K. J., & Finkelhor, D.
4	2003	Escaping or Connecting Characteristics of youth who form close online relationships	Wolak, J., Mitchell, K. J., & Finkelhor, D.
5	2003	Model of problematic internet use in people with an interest in children	Quayle, E., & Taylor, M.
6	2004	Internet Initiated Sex Crimes Against Minors	Wolak, J., Finkelhor, D., & Mitchell, K. J.
7	2004	Sex Differences in Youth-Reported Depressive Symptomatology and Unwanted Internet Sexual Solicitation	Ybarra, M. L., Leaf, P. J., & Diener-West, M.
8	2004	Victimizations of Youth on the Internet	Mitchell, K. J., Finkelhor, D., & Wolak, J.
9	2005	Internet Offenders Traders, Travelers, and Combination Trader-Travelers	Alexy, E. M., Burgess, A. W., Baker, T.
10	2005	The Internet and family acquaintance sexual abuse	Mitchell, K. J., Finkelhor, D., & Wolak, J.
11	2005	Nonforcible Internet-Related Sex Crimes with Adolescent Victims	Walsh, W. A., & Wolak, J.
12	2007	Internet-initiated incitement and conspiracy to commit child sexual abuse	Gallagher, Bernard
13	2007	Predatory online behaviour	Malesky, L. A.
14	2007	Linking Youth Internet and Conventional Problems	Mitchell, K. J., Finkelhor, D., & Becker-Blease, K. A.
15	2007	Online requests for sexual pictures from youth risk factors and incident characteristics	Mitchell, K. J., Finkelhor, D., & Wolak, J.
16	2007	Youth Internet Users at Risk for the Most Serious Online Sexual Solicitations	Mitchell, K. J., Finkelhor, D., & Wolak, J.
17	2007	The Relative Importance of Online Victimization in Understanding Depression, Delinquency, and Substance Use	Mitchell, K. J., Ybarra, M., & Finkelhor, D.
18	2007	Youth Sexual Exploitation on the	Wells, M., & Mitchell, K. J.

		Internet DSM-IV Diagnoses and Gender Differences in Co-occurring Mental Health Issues	
19	2013	Association of Maltreatment with High Risk Internet Behaviours and Offline Encounters	Noll, J. G., Shenk, C. E., Barnes, J. E., &Haralson, K. J.
20	2013	Online Risks	Vandoninck, S., d'Haenens, L., &Roe, K.
21	2014	Voluntary Sexual Exposure Online Among Swedish Youth	Jonsson, L. S., Priebe, G., Bladh, M., &Svedin, C. G.
22	2014	Rapid Skill Acquisition and Online Sexual Grooming of Children.pdf	Quayle, E., Allegro, S., Hutton, L., Sheath, M., &Löf, L.
23	2014	Patterns of Internet use and risk of online victimization for youth with and without disabilities	Wells, M., &Mitchell, K. J.
24	2014	In their own words Young peoples' vulnerabilities to being groomed and sexually abused online	Whittle, H. C., Hamilton-Giachritsis, C. E., &Beech, A. R.
25	2014	Sexual Interest in Children Among an Online Sample of Men and Women	Wurtele, Sandy K., Simons, Dominique A., &Moreno, Tasha
26	2015	Online Sexual Solicitation of Minors	Schulz, A., Bergen, E., Schuhmann, P., Hoyer, J., &Santtila, P.
27	2015	Online social support as a buffer against online and offline peer and sexual victimization among U.S. LGBT and non-LGBT youth	Ybarra, M. L., Mitchell, K. J., Palmer, N. A., &Reisner, S. L.
28	2015	A Typology of Offenders who use Online Communications to Commit Sex Crimes Against Minors	Tener, D., Wolak, J., &Finkelhor, D.
29	2015	Abuse Characteristics and Psychiatric Consequences Associated with Online Sexual Abuse	Say, G. N., Babadağı, Z., Karabekiroğlu, K., Yüce, M., &Akbaş, S.
30	2015	Demographic and motivation differences among online sex offenders by type of offense an exploration of routine activities theories	Navarro, J. N., &Jasinski, J. L.
31	2015	A linguistic analysis of grooming strategies of online	Black, Pamela J., Wollis, Melissa, Woodworth, Michael, &Hancock, Jeffrey T.
32	2016	Online blackmail of Czech children focused on so-called "sextortion" (analysis of culprit and victim behaviors)	Kopecký, K.
33	2016	Multiple online victimization of Spanish Adolescents Results from a community sample.pdf	Montiel, I., Carbonell, E., &Pereda, N.

34	2016	Fantasy-Driven Versus Contact-Driven Users of Child Sexual Exploitation Material	Merdian, H. L., Moghaddam, N., Boer, D. P., Wilson, N., Thakker, J., Curtis, C., & Dawson, D.
35	2016	Czech Children and Facebook – A quantitative survey	Kopecký, K.
36	2016	Understanding grooming discourse in computer-mediated environments	Lorenzo-Dus, Nuria Izura, Cristina Pérez-Tattam, & Rocío