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**OFFENDERS WHO USE
CHILD SEXUAL EXPLOITATION MATERIAL:
DEVELOPMENT OF AN INTEGRATED MODEL FOR
THEIR CLASSIFICATION, ASSESSMENT,
AND TREATMENT**

A thesis
submitted in fulfilment
of the requirements for the degree
of
Doctor of Philosophy
at
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HANNAH LENA MERDIAN



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Abstract

Since the advent of the internet, convictions for the possession, display, trading and distribution of child sexual exploitation material (CSEM) have risen steadily. Professionals working in sex offender assessment and treatment have seen an influx in individuals who engage in this type of child sexual abuse without any direct contact with the victim. Despite an increase in recent research activities, there is still a lack of knowledge regarding this “new type” of sex offenders, in terms of appropriate assessment, treatment and management strategies.

A comprehensive review was undertaken, establishing the knowledge basis regarding CSEM offending and the offenders who engage in it. The identified differences between CSEM offenders (CSEMOs) and contact sex offenders (CSOs) and the nature of their offending led to the development of a theoretical model of CSEM offending, suggesting a classification of CSEM users on three dimensions: CSEM offending with or without direct sexual contact to a minor (fantasy-driven versus contact-driven offending), the individual’s motivation to offend, and the level of networking with other offenders. The question of risk of reoffending in CSEMOs, especially concerning cross-over to contact sex offending with a minor, was examined in terms of actual reoffending data and in the context of behavioural consequences resulting from general pornography consumption. The findings further confirmed the value of the two-fold distinction of CSEMOs, with contact-driven offenders presenting higher risk of direct sex offending based on a greater inclination for sexual violence. A review of existing risk assessment tools and established risk factors for sexual reoffending pointed to the value of structured professional guidelines when assessing CSEM offenders.

Sixty-eight offenders were assessed via an anonymous computer survey including a variety of clinical and risk-related variables; the sample included 22 CSEMOs, 29 CSOs, and 17 offenders with both offence types (mixed offenders, MOs). The findings confirmed differing profiles between CSEM users and CSOs, most notably in the high emotional, time-related and financial cost involved in CSEMOs’ internet behaviour and MOs’

apparent disregard for their emotional ties to others. As a heterogeneous nature of CSEM users became apparent, numerical and graphical methods were employed to identify subgroups of CSEM users: Contact-driven Users ($n = 15$), Fantasy-driven Users ($n = 12$), and three smaller subgroups (each $n = 2$): Users with a preference for material with extreme content (Extreme Material Users), users who enacted high caution in their CSEM offending (Cautious Users), and users with high social connectedness (Social Users). While the focus of Contact-driven Users was pointed to direct sexual contact with minors, Fantasy-driven Users showed higher involvement in their CSEM usage, for example regarding their social or emotional investment online. The spatial representation of participants identified three dimensions as crucial in the classification of these subgroups: direct sexual contact with a minor, possession of fantasy-generating material, and social contact with other users with a sexual interest in minors. Exploring the subgroups' profile on these variables and on conventional predictors of sex offending led to the development of an empirical model of CSEM users, differentiating a contact-driven pathway (Cautious Users, Contact-driven Users) from a fantasy-driven pathway (Extreme Material Users, Fantasy-driven Users, and Social Users), with offenders on the contact-driven pathway appearing more similar to CSOs.

The theoretical and empirical models were then combined into an Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU), leading to the development of structured professional guidelines for their assessment and risk evaluation according to the five prototypes of CSEM offending.

Acknowledgements

This is a quantitative study. It is carefully worded to avoid personal input and to extract information about “CSEMOs” rather than individuals.

Nevertheless, each offender in this study is a person who was willing to share his unique story, and I am grateful for your courage to participate, and your trust in me.

Each of these men had at least one victim. The voice of the victims is unheard in this study but is instead portrayed as one of many variables of research interest. The victims’ experience is certainly not a variable but an encounter with sexual abuse as a child. I would like to acknowledge the experience of too many children and express my aspiration for this study to contribute to the exploration and future prevention of the sexual exploitation of children, online and elsewhere.

There are many people I owe my gratitude.

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*Hannah Merdian
6 November 2011*

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Part I: Introduction

The introduction consists of five chapters. In the first chapter, a general outline of the thesis is provided, introducing the topic of CSEM and the general positioning of the thesis.

In the second chapter, the concept of CSEM is explored in more detail. Legal and psychological definitions are discussed as well as the role of the internet as the principal medium for CSEM purposes. Content and functions of CSEM offending are also presented.

In the third chapter, a typology of CSEMOs and their offence behaviour is developed. A review of characteristics of CSEMOs and offence characteristics is undertaken and leads into a comparison of different typologies of CSEMOs. These considerations are integrated into one combined model of CSEM offender types. Lastly, the offending process is analysed, including features on the seemingly addictive power of the internet for some CSEMOs.

In Chapter Four, the relationship between CSEM offending and contact sex offending is examined by analysing criminal history and recidivism rates of CSEMOs. Theories and research with regards to mainstream pornography and its effects on attitudes and behaviours are debated, and a theoretical model is presented. The chapter closes with initial conclusions on the effects of CSEM consumption, suggesting two distinct offender types, fantasy-driven and contact-driven.

In the last chapter, conventional risk assessment for sexual recidivism is reviewed. Different stages and types of risk assessment are introduced, including expert opinion, actuarial risk measures, and structured professional judgement. In addition, common risk factors are examined with regards to their empirical evidence. The chapter ends with a critical evaluation regarding the applicability of conventional sex offender risk measures for CSEMOs.

Chapter 1:

Outline and Aim of the Thesis

With the advent of the internet, a new category of sex offenders has emerged, namely, those who use the internet in some manner to sexually offend. For instance, some offenders sell sexually deviant material online while others use the internet to engage in cybersex with minors or to initiate offline meetings with potential victims. Webb, Crassati, and Keen (2007) described the difficulties occurring for professionals working with this new offender group:

Internet sex offending has sparked off a new wave of arrests, charges, and convictions. As a result, the courts, prison, and probation services have an influx of internet sex offenders, and questions are raised about their management and risk. Are they child molesters or are they a new type of offender? If an individual views child pornography on the internet, is he/she likely to progress to contact sex offences? (p. 449-450)

These questions are on the agenda of a growing professional body researching the characteristics and modus operandi of internet sex offenders. Above all, it has to be established if conventional assessment methods and treatment programs, developed and validated for sex offenders with a contact victim, can also be successfully applied to online sex offenders. If not, more suitable methods of assessment and treatment need to be introduced.

Statement of the Research Topic

Central to the work with any sex offender population is the question of risk of reoffending. Standardised measures have been developed that allow for the classification of an offender according to the likelihood that he or she will recidivate. A high risk score can have serious implications for an offender, for example with regards to type or severity of his or her sentence. Consequently, it needs to be carefully examined what factors are critical for the reoffending risk of a particular offender group, and what

scores are understood as indicative of a higher (or lower) risk of recidivism. A comprehensive overview of sex offender risk assessment is provided in Chapter Five of the literature review.

In this thesis, the focus is on individuals who engage in the possession, distribution, or trading of online child sexual exploitation material (CSEM), commonly referred to as child pornography. Conceptualising CSEM offences as sex offending is challenging given that the offenders have no direct contact with their victim and some may not even be sexually aroused by the material. On the other hand, considering that CSEM clearly depicts children in a sexual context, questions need to be asked about users' sexual interest in children and their proclivity to commit a sexual crime.

Available sex offender risk assessment tools can only be used for CSEM offenders (CSEMOs) if this group is empirically found to be similar to contact sex offenders in the qualitative and quantitative understanding of risk. However, when describing the risk of CSEMOs, the focus is not only on their likelihood to reoffend with similar offences, such as additional CSEM offences, but also on the possible escalation to the direct sexual abuse of a child. Hence, it appears that not only different but also more inclusive risk assessment tools might be needed for CSEMOs.

Indeed, the research available to date has shown that there are some differences between CSEMOs and contact sex offenders against children (CSOs). Additionally, some researchers, such as McLaughlin (2000) and Taylor (1999), have proposed typologies of CSEMOs suggesting that individuals who engage in CSEM offending can be classified into different subgroups. Both aspects are discussed in Chapter Three of the introduction.

This thesis is focused on enhancing knowledge about the different types of CSEMOs in order to develop an understanding of the risks and needs presented by this subtype of sex offenders. The former goal may inform treatment of such offenders, and the latter may inform risk assessments and the management of these offender groups. Additionally, such a typology may act as a starting point for directing further research in this area.

Based on the above considerations, in this thesis it is hypothesised that:

- (1) CSEMOs have an offender profile distinct to CSOs. This limits the applicability of conventional assessment and treatment methods currently used by correctional service agencies, including the New Zealand Department of Corrections
- (2) CSEMOs are a heterogeneous group. Different subtypes of CSEMOs may be identified that require a distinctive approach in their correctional management.
- (3) The diverse subgroups of CSEMOs have unique clinical and/or risk characteristics related to their particular recidivism risk probability, the harmfulness of their potentially recidivistic behaviour, and the imminence of their reoffending when at risk.

Overall, the aim of the thesis is to develop assessment guidelines that can be used by correctional professionals in order to (a) define the subtype of CSEMOs they are dealing with and (b) assess recidivism risk of this particular offender. Therefore, the placement of an individual within the proposed typology may provide information on the particular recidivism risk probability, the harmfulness of his potential recidivistic behaviour, and the imminence of reoffending when at risk.

Outline of the Thesis

The thesis is divided into three parts. The first part consists of a theoretical introduction, providing background information on the topic of CSEM offending, the current state of knowledge regarding offender characteristics, as well as an introduction into conventional risk assessment for sex offenders.

The second part contains the empirical research carried out for this thesis. Its main body consists of a comparison study of a sample of convicted child sex offenders and individuals with a history of CSEM offending, analysing the three research aims described above. The results are summarised in a classification model for CSEM users.

In the last part, the theoretical and empirical findings are combined into an Integrated Model for the Classification, Assessment, and

Treatment of CSEM Users, which leads to the development of a structured assessment tool for CSEMOs. A critical evaluation of the contribution to the research environment regarding CSEMOs concludes this thesis.

Final Introductory Remarks

In this thesis, the CSEMOs discussed are men. While it is acknowledged that there are female sex offenders, the number of female CSEMOs in New Zealand is very small: In 2007, the Department of Internal Affairs noted one female CSMO (0.46%) in the report update on CSEMOs in New Zealand (C. Sullivan, 2007). No female offender was identified for the most recent update in 2009, comprising 318 offenders (C. Sullivan, 2009; C. Sullivan, personal communication, November 23, 2010). In a meta-analysis of studies about CSEMOs, Babchishin, Hanson, and Herrman (2010) identified that from the 27 samples included in their research, only five studies reported female offenders, who still made up less than 3% in these samples. Even though it is acknowledged that some studies draw their subjects from environments where a gender bias can be assumed, for instance in prison, it appears there are a considerably smaller number of female CSEMOs. Not much is known about female online sex offenders. In A. Carr's (2004) analysis of New Zealand's CSEMOs, the sole female offender differed from her male counterparts as she distributed abusive images mainly for financial gains instead of sexual pleasure. Given the low numbers of female offenders and the potentially differing crime pathways, the focus in this thesis is on male CSEMOs only and this is reflected in terms of language.

A person that consumes or has consumed CSEM is referred to as an *offender*, regardless of their conviction status. This terminology will be specified in situations where conviction status is of importance.

Chapter 2:

Child Sexual Exploitation Material—an Overview

This chapter provides an outline of the nature of CSEM offending based on terminological, legal, and psychological considerations, and explores the role of the internet as the primary means for CSEM consumption and distribution. Features of the internet are reviewed in general and in terms of their relationship to CSEM offending. The chapter concludes with two main features of CSEM, the content of the material and the function it fulfils for its users.

Definition of Child Sexual Exploitation Material

The first section provides a definition of CSEM, drawn from three different perspectives: related terminology, legal, and psychological considerations. As part of the psychological aspects, the COPINE Scale is introduced, a measure for the assessment of CSEM content.

Terminology

Child sexual exploitation material is more commonly known as child pornography. However, some authors, such as Beech, Elliott, Birgden, and Findlater (2008), have argued that the label *pornography* trivialises the depicted material as it linguistically plays down the fact that each publication is a permanent recording of a child being sexually abused (see also Dionne, 2001; Taylor & Quayle, 2003). In addition, Malamuth, Addison, and Koss (2000) described the difficulties in finding an adequate definition of pornography and in reaching a consensus across different contexts.

Several alternatives have been suggested, such as “visual representation of sexual abuse committed against the person of a child” (Fournier de Saint Maur, 2001), or “images of child sexual abuse” (G8 Lyon/Roma Anti-Crime and Terrorism Group, 2008). However, child pornography does not only refer to visual representations of child sexual

abuse; as described by Gillespie (2009), Interpol defines child pornography as “any means of depicting or promoting the sexual exploitation of a child, including written or audio material, which focus on the child’s sexual behaviour or genitals” (p. 6). Hence, despite the common perception of child pornography as images or videos, child pornography can also occur in the form of audio representations, text (such as narrative stories), and more uncommon visual representations such as manipulated photographs, drawings, or cartoons.

It is acknowledged that the term *child pornography* currently has international media recognition and has been used in national and international legislation (G8 Lyon/Roma Law Enforcement Project Subgroup, 2008; Taylor & Quayle, 2003, 2005); it is also recognised by the United Nations Children’s Fund (UNICEF, previously known as the United Nations International Children’s Emergency Fund). However, in order to linguistically emphasise the abusive nature of child pornography as well as to use a term that includes all means of communication, the alternative expression “child sexual exploitation material” will be used in this thesis. This terminology has been employed previously, for example by A. Carr (2009).

Legal Definition

In New Zealand, relevant legislation for CSEM material is the Films, Videos and Publications Classification Act 1993 and its Amendment 2005¹. According to these legislations, “a publication shall be deemed to be objectionable (...) if [it] promotes or supports, or tends to promote or support,

- The exploitation of children, or young persons, or both for sexual purposes; or
- The use of violence or coercion to compel any person to participate in, or submit to, sexual conduct; or
- Sexual conduct with or upon the body of a dead person; or

¹ Related legislations are the Crimes Act 1961, Section 124; the Video Recordings Act 1987, Section 51(1); and the Indecent Publications Act 1963, Section 14 and 21.

- The use of urine or excrement in association with degrading or dehumanising or sexual conduct; or
- Bestiality; or
- Acts of torture or the infliction of extreme violence and extreme cruelty.” (Films, Videos and Publications Classification Act, 1993, Section 3[2]; Department of Internal Affairs, 2006).

With regards to sexual material including minors, the Films, Videos and Publications Classification Amendment Act 2005, Section 3(1A), specifies that “a publication deals with a matter such as sex (...) if

- a) the publication contains 1 or more visual images of 1 or more children or young persons who are nude or partially nude; and
- b) those 1 or more visual images are, alone or together with any other contents of the publication, reasonably capable of being regarded as sexual in nature.”

Furthermore, the term *publication* was explicitly extended to include “a paper or other thing (...) (including, but not limited to, a disc, or an electronic or computer file) (...) [that] is capable of being reproduced” (Part 1, 3[2][d]). Therefore, this definition also accounts for material processed and received via internet.

The International Centre for Missing and Exploited Children (2006) proposed a model legislation to combat child pornography on an international level. In comparison, New Zealand’s legislation contains all aspects of this draft legislation: It clearly defines what is regarded as objectionable material, which undoubtedly includes any form of online CSEM. Furthermore, it does not require the material to depict a real victim for breach of the Act, and contains all forms of objectionable publications, including drawings, 3D animations, and text (written stories). Finally, the legal definition uses the terms *promote or support* rather than merely *depict* objectionable actions. Consequently, any possession, display, trading, and distribution of offline and online objectionable material depicting children and young persons in a sexual context is prohibited and can be prosecuted. In many countries, legislation around CSEM offending

has just emerged or is just emerging², and some changes are likely to occur in the future. Two potentially problematic issues will be raised here regarding New Zealand's legislation: As suggested by UNICEF (2000) in the *Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography*, the New Zealand Act understands child or young person as "a person who is or appears to be under 18 years of age" (Part 8, 145A). However, the age of consent for having sexual contact in New Zealand is 16 years (New Zealand Crimes Act, 1961, Part 7, Section 134). Gillespie (2009) pointed out that difficulties can occur when the legal age of consent to having sexual contact is lower than the age limit for CSEM: "How should the law react if someone under the age of 18 but above the age of consent wishes to take a photograph of his boyfriend or girlfriend?" (p. 4).³ The second limitation of New Zealand's legislation refers to contextual matters. Sections 3(3) and 3(4) of the Films, Videos and Publications Classification Act allow classification of objectionable material under consideration of the context and the main message; for example, a sex education movie may contain nudity and sexually explicit material without being labelled *objectionable*. However, New Zealand's as well as other legal definitions of CSEM (see Interpol, 2008) fail to recognise seemingly innocent publications whose sexual connotation is merely based on the mind of the viewer. This may include scenes of naked children playing on the beach, or commercial pictures to advertise children's swimwear. Even though not of overt value for legal prosecution, such images are often part of an offender's image collection (as discussed in Taylor & Quayle, 2003) and, as Krone (2005b) stated, these sexualised images constitute a distinct category of abuse images.

Hence, the legal definition seems to be insufficient when dealing with CSEMOs. A more psychological approach to image content would provide valuable insights assessing an individual and may promote

² Interpol provides an overview and updates on legislation of member states on sex offences against children: <http://www.interpol.int/Public/Children/SexualAbuse/NationalLaws/>.

³ See Gillespie (2010) for a more detailed discussion about the implications of the age limit for CSEM.

understanding about the nature and etiological determinants of CSEM offending in both the individual and the general case.

Psychological Definition: The COPINE Scale

The most widely accepted psychological measure on CSEM is the COPINE scale, produced by the *Combating Paedophile Information Networks in Europe* (COPINE) Project⁴. The COPINE Project was founded in 1997 in order to research internet offending against children, and is characterised by a clear action and child-centred focus (Taylor & Quayle, 2005). A major part of the COPINE research group's activities was the establishment of an archive of child sexual abuse images for victim identification purposes which was updated daily from monitored newsgroups; this has been integrated into the Interpol Abuse Image Database (Beech et al., 2008; Taylor, Quayle, & Holland, 2001). Another of the research activities of the COPINE group was the examination of the function of CSEM in the offending process, and the relationship between the collector and his collected material (Taylor, Quayle, et al., 2001). Based on an analysis of images collected for research purposes, Taylor, Holland, and Quayle (2001) developed the COPINE scale as a typology of paedophilic picture collections in order to allow standardised assessment of the detected material while taking into account contextual considerations. As can be seen in Table 1, the scale consists of ten levels, from *indicative* (non-erotic images, such as family photos) to *sadistic or bestiality material*, with each ascending level depicting “increased deliberate sexual victimisation” and an increasing impact on the victim (Taylor, Holland, et al., 2001, p. 4).

According to Taylor and Quayle (2003), “Conceptualising picture collections and child pornography in terms of this continuum emphasises the sense in which sexualisation of pictures is a psychological process” (p. 34). A psychological rating system like the COPINE scale acknowledges

⁴ This is part of an electronic version of an article published: Merdian, H. L., Thakker, J., Wilson, N., & Boer, D. (2011). Assessing the internal structure of the COPINE scale. *Psychology, Crime and Law*. [OnlineFirst Publication] doi: 10.1080/1068316X.2011.598158 *Psychology, Crime and Law* is available online at: www.tandfonline.com.

the fact that, for some viewers, arousing images are not restricted to pictures legally defined as objectionable, but that the context also contributes to how an image is perceived.

Table 1: Level Descriptions of the COPINE Scale

Level	Name	Description
1	<i>Indicative</i>	Non-erotic and non-sexualised pictures showing children in their underwear, swimming costumes, etc. from either commercial sources or family albums; pictures of children playing in normal settings, in which the context or organisation of pictures by the collector indicates inappropriateness.
2	<i>Nudist</i>	Pictures of naked or semi-naked children in appropriate nudist settings, and from legitimate sources.
3	<i>Erotica</i>	Surreptitiously taken photographs of children in play areas or other safe environments showing either underwear or varying degrees of nakedness.
4	<i>Posing</i>	Deliberately posed pictures of children fully, partially clothed or naked (where the amount, context and organisation suggest sexual interest).
5	<i>Erotic posing</i>	Deliberately posed pictures of fully, partially clothed or naked children in sexualised or provocative poses.
6	<i>Explicit erotic posing</i>	Emphasising genital areas where the child is either naked, partially or fully clothed.
7	<i>Explicit sexual activity</i>	Involves touching, mutual and self-masturbation, oral sex and intercourse by child, not involving an adult.
8	<i>Assault</i>	Pictures of children being subject to a sexual assault, involving digital touching, involving an adult.
9	<i>Gross assault</i>	Grossly obscene pictures of sexual assault, involving penetrative sex, masturbation or oral sex involving an adult.
10	<i>Sadistic/bestiality</i>	a. Pictures showing a child being tied, bound, beaten, whipped or otherwise subject to something that implies pain. b. Pictures where an animal is involved in some form of sexual behaviour with a child.

Note. Adapted from: Taylor, M., Holland, G., & Quayle, E. (2001). Typology of paedophile picture collections. *The Police Journal*, 74(2), p. 5.

As Taylor and Quayle (2003) stated, “It is the *context* to those photographs, and the way in which they are organised, or stored, or the principal themes illustrated, which may give rise to concern” (p. 33). Although most legal conceptualisations do not set in before Level 6 (*Explicit erotic posing*) in the COPINE scale, Taylor and Quayle point out that images at lower levels also need to be regarded as sexual exploitation

as they sexualise situations for children that are supposed to be safe for them (Taylor, Quayle, et al., 2001; Taylor & Quayle, 2003). Additionally, material with objectively non-sexual content can potentially be sexualised by an inappropriate context. For instance, Gillespie (2009) described the scenario where a non-sexual image of a girl was underwritten with the words “Little [name] shortly before I raped her” (p. 10). Even though the image itself will not be classified obscene in most jurisdictions, a context-oriented approach allows considering both the image content as well as the message sent with the caption. Consequently, even if it will not substitute a legal approach, the proposed scale is a useful amendment when dealing with image collections.

The COPINE scale has gained extensive professional recognition, and is now frequently used as a typology in studies on child abuse material (e.g., see Wortley & Smallbone, 2006). For some years now, an adjusted version of the COPINE scale has been used to inform legal decisions about CSEMOs in the United Kingdom (see Sentencing Advisory Panel, 2006; Sentencing Guidelines Council, 2007). Nearly a decade after the introduction of the COPINE scale, Quayle (2009a) critically reflected on this change in usage:

One consequence of this has been that there has been a possible confusion between image Level and either the badness or dangerousness of the offender, but another consequence has been that it provides a means of communication about the images without, for most people, the images having been seen. (...) [This] may allow us to talk about them, but in ways that distances us from their content. (p. 6-7)

Nevertheless, it would make good sense that a typology of an offender’s collection would be a useful addendum to develop an offender’s subjective profile, for example, to identify his material preferences or his preferred search locations. Such information would be helpful for research and treatment purposes.

The process of adapting the COPINE scale for sentencing purposes is based on the unchallenged assumption that higher image levels are indeed linked to a higher seriousness of the offence. However, there is no

empirically established reliability regarding the categories of the COPINE scale. Also, despite frequent usage of the scale, to the knowledge of the writer, no study has been conducted on the construct validity of the scale. Hence, it is currently unknown if the ten categories of the COPINE scale reflect all number of categories of available CSEM, if they are replicable, mutually exclusive, and do indeed depict a cumulative scale in terms of *increased deliberate sexual victimisation*. Another issue is that the COPINE scale has only been applied to pictures and does not cover the whole range of CSEM. Despite these limitations, many professionals in the area endorse the COPINE scale in their research, and to the knowledge of the writer, no alternative typologies have been developed to date.

The Internet and Child Sexual Exploitation Material

In this section, the role of the internet as a medium for child sexual abuse is explored, including an overview of the legal structure of the cyber world. CSEM offending is examined in relation to features of the internet, such as its anonymity and the social connectedness offenders can experience online.

The Internet and its Legal Organisation

Since its inception approximately 30 years ago, the internet has become the most influential medium for information and communication internationally. For the year 2009, results from the *World Internet Project New Zealand* identified that from the 1250 New Zealanders surveyed, 83% reported using the internet, with one fifth of users indicating that they were online at home for at least 20 hours per week (P. Smith et al., 2009). Everyday-life has been enriched with internet-related conveniences such as emailing, online-shopping, or online-banking; on the other hand, the internet is also used as a new gateway for illegal activities.

Barak and King (2000) stated that the internet is “considered to be a ‘paradise’ for sex offenders who want to hook victims” (p. 518). Sexual abuse of children on the internet has become a focus of professional and public attention over the last two decades (Beech et al., 2008). According to Griffiths (2000), online sex crimes can be divided into two categories:

Firstly, use of the internet to sexually procure and/or intimidate an individual in some way, and, secondly, for the display, downloading, and/or distribution of illegal sexual material.

In addition, there are many related activities for which individuals with a sexual interest in minors utilise the internet (Beech et al., 2008; Burke, Sowerbutts, Blundell, & Sherry, 2002; Durkin, 1997; Lanning, 2001; Stanley, 2001; Taylor & Quayle, 2003)⁵:

- To establish and engage in contact to other individuals with a sexual interest in children;
- To engage in inappropriate online sexual communication with children;
- To harass children online with sexual threats or sexually explicit material;
- To locate children as potential victims for contact abuse;
- To promote sexual tourism and/or child trafficking;
- To distribute child sexual exploitation material for personal and/or commercial reasons.

Sexual behaviour that involves the internet can only be considered an offence if it is legally defined as such. The global structure of the internet and the lack of a representative and judiciary instance have led to a perception of the cyberworld as “anarchic”; a seemingly lawless space (King, 1999, p. 175). In addition, the internet is a dynamic environment; as Calder (2004) described, it is impossible to determine the exact size of the internet at any point due to its constantly changing nature. However, even though no authority holds responsibility for the internet as a whole, it is controlled on a national level. Most national legislation had to be adapted to include the online space, as evidenced in the 2005 Amendment for the Films, Videos and Publications Classification Act 1993 in New Zealand. Furthermore, several Western governments have established dedicated

⁵ This summary is part of an electronic version of an article published: Merdian, H. L., Curtis, C., Thakker, J., Wilson, N. & Boer, D. P. (2011). The three dimensions of online child pornography offending. *Journal of Sexual Aggression* [OnlineFirst Publication] doi:10.1080/13552600.2011.611898. *Journal of Sexual Aggression* is available online at: www.tandfonline.com

units within law enforcement agencies to combat CSEM offending within their respective countries; for example, the *Censorship Compliance Unit* in New Zealand or the FBI team *Innocent Images* in the USA.

Nevertheless, given that the worldwide interconnectedness of cyberspace exceeds national legislations, Wells, Finkelhor, Wolak, and Mitchell (2007) noted some legal and practical concerns when dealing with online sex offending. Because investigation and policing of online sex offenders at times requires national and international cooperation, a major issue is internationally differing criteria and definitions for child sex offences. For instance, the age limit for a young person to be legally defined as a *child* differs between countries (Interpol, 2008). Hence, as Klain, Davies, and Hicks (2001) reported, countries which display a more lenient approach to CSEM offending have turned into source countries for production and distribution of such material.

In addition to differing legal definitions, another problem is that policing of online crimes requires a high technological standard and knowledge base on the part of police or other policing agencies. Offenders can use technological security measures, such as encryption or anonymous remailing, which refers to an emailing service that eliminates any identifying information (McGrath & Casey, 2002), to disguise their online activities. Adjustment to these constant technological changes requires national laws to be revised and also necessitates enhanced budget and specialised training for policing forces—resources that are limited in most countries.

As a consequence of available funding and similarities in their jurisdiction, most international collaboration efforts have occurred in the Western world (Gallwitz & Paulus, 2001). However, international collaboration needs to be extended beyond the Western world as well as become a systematic, not case-dependent response. An example is set by the *Virtual Global Taskforce* against online child abuse, a collaboration between the *Child Exploitation and Online Protection Centre* (UK), Interpol, the Australian Federal Police, the US Department of Homeland Security and US Immigrations and Customs Enforcement, the Royal

Canadian Mounted Police, and the Italian Postal and Communication Police Service (M'jid Maalla, 2009).

Overall, active control and censorship of the internet with regards to inappropriate sexual content is needed, both on a national and international level. Examples of the latter include the *European Convention on Cybercrime* which was established to harmonise national laws and improve cooperation among nations. This agreement also included the observer states of Canada, Japan, and the USA (Council of Europe, 2001; Taylor, 2001). In the international *Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography*, UNICEF (2000) released recommendations for a universal legislation on CSEM offending. The successful control as well as international collaboration in policing online crimes without compromising freedom of expression is one of the biggest challenges of the internet. Pre-conditions for successful investigation, policing, and prevention efforts towards online sex crimes are reliable data about the nature of the offences, and the offenders who commit them.

The Role of the Internet in CSEM Offending

Consumption and distribution of pornographic material depicting minors had existed long before the advent of the internet (Seto, 2009b); however, the internet has now become the principal medium for CSEM purposes and online CSEM is subject of a constantly increasing demand (Laulik, Allam, & Sheridan, 2007; Taylor, 1999). Hence, as Taylor and Quayle (2005) concluded, a related finding from the introduction of the internet was the acknowledgement that it was previously underestimated how many adults have a sexual interest in children.

A well-adapted and much-cited concept to help explain the attraction of the internet for sex offenders is Cooper's (1998) Triple-A-engine which refers to the perceived Affordability, Accessibility, and Anonymity of the internet. Affordability and accessibility refer to the physical and financial availability of both internet access and the wide array of online content. The last aspect of the Triple-A-Engine is anonymity—which Branscomb (1995) more accurately referred to as

“pseudonymity” (p. 1645), a play on words to indicate a false sense of security. The notion of pseudonymity is based on the fact that online users do leave some identifying traces online (albeit unknown to most users and requiring technological expertise to be ascertained; see also Alexy, Burgess, & Baker, 2005). As Branwyn (1993) has shown, perceived anonymity when online increases individuals’ willingness to engage in sexual activities at a much faster pace than in the physical world, and also to sexually experiment more openly. DiMarco (2003) based this impression of personal freedom on the perception of a protective “electronic cloak” (p. 53) which allows users to distance themselves from their actions online, as a form of self-disguise. In a study of public online paedophile behaviour, Fisher and Barak (2001) found that the notion of anonymity is crucial for internet users to express themselves openly on deviant topics.

The experience of anonymity might also affect people’s perception of the risk of detection when engaging in criminal behaviour online. Demetriou and Silke (2003) have demonstrated that the mere presence and availability of online links to illegal material encourages users to engage in unlawful actions. They created a website that provided visitors with fake-links to hacked games, pirate software, and stolen passwords alongside links to freely available material. Even though less than 8% of their sample was initially searching for illegal material (as identified via their search history), most users attempted to download hacked games (81% of users), pirate software (41% of users), and stolen passwords (37% of users). This acceptance and ignorance towards breaking laws online might further contribute to the occurrence of internet sex crimes.

It is noted that perceived online anonymity can lead to “a loss of normal social inhibitions and constraints” (McGrath & Casey, 2002, p. 85), generating two opposing outcomes: As described by Bargh, McKenna, and Fitzsimons (2002) and Kuhnen (2007), a person might be more inclined to express his or her inner self on the internet for lack of social sanctions and social control. On the other hand, Barak (2005) described the *Social Identity Explanation of De-individuation Effect*, which postulates that a person online is more likely to be guided by group standards of

behaviour rather than individual ones. Barak further observed the interaction between both aspects: Although group standards might lower a person's inhibitions to engage in illegal actions, they will only influence an individual who is already inclined to engage in objectionable activities. This may explain in what way the internet facilitates the expression of components of one's sexuality that are usually suppressed in the offline world. These considerations clarify why the internet has turned into a popular environment for individuals with a sexual interest in minors. Given that supply and access to CSEM is provided on the internet, its growing popularity fuels further demand and has led to increased production (J. Carr, 2003; Quayle, 2009a). The constant availability of quantity as well as variety of CSEM online provides for instant gratification for each consumer—an immediacy that could not have been met with conventional offline media.

But how can users find objectionable material online? As D. Wilson (2003) stated, images of child sexual abuse are rarely found by chance. In her comprehensive analysis of convicted censorship offenders in New Zealand, A. Carr (2004) reported that most offenders used chat forums (78%), the world wide web⁶ (www; 42%), newsgroups (39%), or email (30%) to obtain illegal images. Wortley and Smallbone (2006) described how some image providers open short-term sites that allow unrestricted downloading for a previously-informed user group just before the website is closed down again to avoid detection with screening software. In an online observation study, Forde and Patterson (1998) followed paedophile activity on the internet. They provide no detailed information on their methodology but seemed to integrate all forms of online media, such as emails, the www, internet chat, and newsgroups. While according to their findings, most paedophile web pages were originally located in Western Europe, enhanced risk awareness by internet service providers initiated first a move to Canada and later Eastern Europe. Pages in the open web were rarely used for the distribution of explicit material or information, but encouraged users to seek internal communication, advertised newsletters,

⁶ Even though a name, *www* is commonly spelled lower key.

and provided information on anonymity and privacy techniques. The more anonymity the media offered, the more explicit information and images became.

Clearly, the information flow within the community of CSEM users plays a significant role in the exchange and trading of the desired material. Online newsgroups have established themselves as an important community for CSEM seekers (Quayle & Taylor, 2002b). A newsgroup is like an online blackboard (or a collection of them) or an interest group, where users with the same interests can exchange relevant information, often shielded from other users via password protection. There are some paedophile online organisations such as the *North American Man-Boy Love Association* (www.nambla.org) who advocate legalising sexual relationships with youth and the liberalisation of existing child protection laws. Even though their websites contain ambiguous material, such as boy-man love stories and poems, objectionable material is usually not available in open newsgroups (O'Connell, 2001). However, these communities play an important role in normalising and validating paedophile intentions, and they facilitate the establishment of contacts to other users with deviant sexual interests (Beech et al., 2008). As Taylor and Quayle (2005) pointed out, for many of their offending subjects, these online relationships often replace unsatisfactory relationships in the offline world and provide important social support.

Within newsgroups, members may be assigned different roles, such as “literature reviewers” or “fantasy generators” (O'Connell, 2001). As Tate (1990) described, many paedophile groups present themselves as suppressed minorities, which serves as a sustainable coherence factor for their participants. Hence, members often express a strong group sense, fostered by the common notion of being disregarded by society due to their shared interest, and the constant fear of being detected in their online activities. In a case study of a 33 year old online sex offender, Quayle and Taylor (2001) described how important, nearly therapeutic, the notion of kinship in his newsgroup was for this particular offender—but also the significant role the paedophile community played in aggravating his offending behaviour. Indeed, these communities offer a platform for

information exchange that is not available elsewhere, cautioning members about security measures, informing about sources of objectionable material, or sharing “successful” molestation strategies (Malesky & Ennis, 2004; Quayle & Taylor, 2003). Hence, as O’Connell (2001) pointed out, this type of newsgroups maintain and foster a sense of deviant behaviour, which further secures a constant supply of illegal material in a sympathetic environment. In addition, as Beech et al. (2008) observed, there are strong regulations for online trading of CSEM within these newsgroups. Trading of CSEM is used as a self-organised mechanism for determining group membership; hence, CSEM is the currency employed to “pay” for entrance to a newsgroup, declare an individual’s credibility, and define one’s status within the online community. Therefore, as described by Taylor (1999), a notion of “mutually assured destruction” (p. 5) is established where every member is dependent on the others for security. These processes allow group members to enact control and to decide about exclusion and inclusion of members within their communities (Taylor & Quayle, 2003).

Consequently, many users collect and trade objectionable material that does not meet their own interests (Kuhnen, 2007). This seemingly altruistic behaviour ensures their membership as well as access to desired material from other users following the *quid pro quo* principle (O’Connell, 2001). Quayle (2004) noted that many users reduce their trading activities once their membership is secured and use newsgroups for social networking. However, image trading is an essential activity to maintain a wide range of deviant material for the whole group (A. Carr, 2006). As A. Carr explains, status within the group is defined according to rarity of the provided material. For example, some images are linked to each other, such as the steps of undressing a child. It is not uncommon for producers to deliberately withhold some pictures of a thematic series to increase its value (Hesselbarth & Haag, 2004). Reportedly, some offenders in A. Carr’s (2006) sample became “specialists” in completing collections with missing pictures, while other traders felt encouraged to self-produce highly sought-after material.

Besides these social aspects, the internet has some practical advantages for collectors of CSEM. In comparison to conventional paper

or video material, digital material is of high quality and does not deteriorate over time. Since digital files can easily be changed in format and size, digital CSEM can be stored in small spaces both offline or online.

Computer design programmes allow consumers to produce their own material by altering existing material, for example copying children's heads on legally available adult pornography or morphing several images into one; again, this may assist the user to produce highly desired material for trading purposes as well as to create images to meet his specific deviant interests. New technological developments now also allow for real time experiences where live sexual abuse of a child can be broadcasted online (e.g., Beech et al., 2008; Burke et al., 2002).

Features of Child Sexual Exploitation Material

In the last section of the chapter, two dominant features of CSEM are discussed, the content of CSEM and the function it fulfils for its users.

Content of Online CSEM

While some of the CSEM found online are 30-40 years old, consisting of digitalised pictures from CSEM magazines and videos (Taylor, 1999), there are estimates of more than 1000 new pictures per week being posted into online servers (e.g., Taylor, Quayle et al., 2001). These figures may underestimate the true amount when the hidden trading activities described above are taken into account. Since the introduction of the internet, policing agencies have established image databases, foremost ICAID, Interpol/ Child Abuse Image Database, and IINI, the Innocent Images National Initiative (Federal Bureau of Investigation, 1997; M'jid Maalla, 2009). This allows recording and analysis of the stored material to assist with victim identification and investigation purposes but also to describe and monitor the content of CSEM.

Many professionals have noted a change in image content. Newer pictures mostly depict younger children (a move toward prepubescent age groups), especially with regards to female victims, and up to 20% of all images involve very young children (younger than 5 years) or infants (J.

Carr, 2003; Taylor, Holland, et al., 2001; G8 Lyon/Roma Law Enforcement Project Subgroup, 2008). According to Taylor and Quayle (2003), most identified victims are female. Production has moved from commercial to more domestic making, likely reflecting technological developments, and more recent images contain a much higher degree of violence and graphic abuse (Stanley, 2001; Taylor, Holland, et al., 2001). Content analyses conducted by the COPINE project revealed that most pictures depict children of Asian or Caucasian descent, with nearly a complete absence of black children; especially more recent images mainly originated from Eastern European countries and Asia (J. Carr, 2003; Taylor, Holland, et al., 2001; Taylor & Quayle, 2003). These content classifications are an important source to define production countries, and further underline the need for international collaboration.

Taylor and Quayle (2005) also observed a significant increase of children involved in higher level images of the COPINE scale (i.e., more explicit and/or more violent sexual abuse). As outlined above, this development may be a consequence of increased internet activities which enhance greater variety in the supplied material. Also, given the available mass and immediate gratification with CSEM offered online, frequent exposure is likely to lead to habituation and satiation, driving the consumer to seek more extreme material. For example, Quayle, Holland, Linehan, and Taylor (2000) described the case of a CSEM user who started with adult pornography, and over a short period of time progressed to CSEM with increasingly extreme content. The processes involved in pornography viewing are described in more detail in the next chapter.

According to Taylor and his colleagues, the primary source of online CSEM is still conventional video productions that are distributed online, often after they have been separated into still picture series (Taylor, Holland, et al., 2001; Taylor, Quayle, et al., 2001). Consequently, many pictures constitute part of a coherent storied theme. Taylor, Quayle, et al. (2001) explained that the last image of a series is specifically indicative of the deviancy, and hence was used to define the seriousness of the material. A. Carr (2006) further added that collectors are usually consistent in terms of the highest level of their collections, a potential sign of the

sexual interests of the particular offender. Another characteristic of CSEM is that the victim is often depicted as smiling and enjoying themselves (Burke et al., 2002; Taylor & Quayle, 2003); this is a critical aspect as it supports pro-offending attitudes and masks the abusive component of these pictures. This aspect will be attended to more closely in Chapter Three.

Besides images depicting real children, there are other types of CSEM. Lanning (2001) differentiated between so-called *technical* (“real”) and *simulated* CSEM, where victims of legal age are made to look like children. CSEM can also be digitally produced, either by compositing them from different image sources or by morphing visual material. There are also cartoon and *manga* (Japanese comic art), clearly depicting child victims (e.g., age indicated by lack of pubic hair; Powell Dahlquist & Vigilant, 2004). Fictional CSEM, or so-called “pseudo-images” (e.g., Taylor & Quayle, 2003, p. 27), are controversially regarded and are a challenge in many legal systems. For example, McLelland (2001) described cultural differences in the perception of “boy love” websites as art versus pornography. While objectionable pseudo-images as well as the sexual image of a person that appears to be a minor can be prosecuted within New Zealand, US law requires the presence of an identifiable victim and proof of the real age of the victim (Wells et al., 2007; Wortley & Smallbone, 2006).

Function of CSEM

CSEM can have a different meaning for each offender, reflecting the need that he is meeting with his offending. Taylor and Quayle (2003) have referred to this as *functions* of CSEM. In a series of interviews with convicted consumers of online CSEM, Taylor and Quayle identified six principal functions that the interviewees had used their material for. Whereas the majority of offenders had consumed these images for sexual arousal, some users had gained satisfaction from the collection process rather than the actual content of the images. Others reported that they had used the images mainly to foster online social contacts. Some participants stated that these activities were a means of escaping real-life problems for

them. Finally, a few users conceptualised CSEM as a form of “therapy” that had reportedly prevented them from progressing to contact child sexual abuse, but which had allowed them to explore their sexual preferences.

The six functions originally identified by Taylor and Quayle have also guided other research projects (e.g., Caple, 2008; Sheldon & Howitt, 2007; Surjadi, Bullens, Van Horn, & Bogaerts, 2010), and other potential motives have been identified. In a recent study, Seto, Reeves, and Jung (2010) screened transcripts from police and clinical interviews conducted with a congregated sample of 84 CSEMOs, examining the explanations they had provided for their offending. Again, they found a variety of motives: While most people in both samples reported being motivated by a sexual interest in children (46% in the police-sourced and 38% in the clinical sample), the offenders also named accidental access, curiosity, or pornography addiction as explanations for their behaviour and, less frequently, indiscriminate sexual interests, internet addiction, or their general interest in collecting “as a hobby”. Six percent in each sample reported that they had used CSEM as a substitute for contact offending. It is noted that 36% in the police-sourced sample and 68% in the clinical sample provided three or more motives for their behaviour. Seto et al. acknowledged the offenders’ situation and the interviewers influence as potential biases to the study. Nevertheless, based on the outcomes of these studies, it seems valid to conclude that offenders act out of different motivations or a combination of these.

In summary, about 15 different functions of CSEM have been identified so far (see Table 2):

Table 2: Functions of CSEM

Child Sexual Exploitation Material

- serves as collectible
- has commercial value
- functions as online currency (for credibility as well as trading material)
- facilitates social relationships
- is a means of escaping from the real world

- is expression of a risk-taking lifestyle
- is expression of a general criminal lifestyle
- desensitises society in general
- serves sexual gratification
- serves sexual exploration and experimentation
- serves as therapy
- is an interactive tool in the victim grooming process
- serves as a template for real-life sexual abuse
- functions as means for blackmailing a victim
- to keep as trophy/memento of the abuse

Some users portray CSEM as mainly a collectible; hence pleasure is mostly gained from sorting, and completing their material or comparing the collection with other collectors. As Quayle, Erooga, Wright, Taylor, and Harbinson (2006) pointed out, some collectors differentiate themselves from “real paedophiles” by being “only collectors”. Taylor and Quayle (2003) described their impressions: “Comparisons between baseball cards and stamps also served to normalise the activity, and made it appear innocent in its intent. When talking about the pictures, invariably no reference was made to the content as being child pornography” (p. 83). It is not clear why the subject of interest is CSEM if the collectors are indeed so distanced from the content. Taylor and Quayle pointed out how most of their interviewees progressed to viewing CSEM from viewing other forms of pornography where the illegality of the child material “almost acted as a prompt” (p. 85). Jenkins (2003) and Kuhnen (2007) discussed how sorting and cataloguing of these images can be used to satisfy a need for power and domination of the child, compensating the lack of real life sexual experiences with children.

Additionally, as described previously, CSEM is a valuable good that can be sold online or used as trading material; it also functions as currency to “buy” social relationships online or get access to more (and more deviant) material from other users. Taylor and Quayle (2003) and A. Carr (2009) reported that some offenders would even prioritise the social aspect over the actual material. Indeed, the internet has allowed previously marginalised groups to connect with each other, which has

important functions for normalising and validating of the behaviour in question (e.g., see Durkin & Bryant, 1999; Holt, Blevins, & Burkert, 2010). Based on her analysis of social behaviours of CSEMOs, A. Carr (2009) hypothesised that “in some cases contact offending may be a by-product of an individuals [sic] desire to produce [CSEM]” (para. 8) to serve the community with new images. She also found that offenders who produced and distributed CSEM were more socially active than individuals who viewed or collected CSEM, further underlining the important role of the online community as market place for child material.

On the other hand, some users view objectionable material as a means of escaping from the real world. This aspect may refer to the controversial debate about *Internet Addiction* (Warden, Phillips, & Ogloff, 2001) or *Pathological Internet Use* (R. Davis, 2001), which will be discussed in a later section. Others may derive pleasure from the risk aspect, that is, the constant fear of being detected or the feeling of superiority towards policing agencies for not being caught (Kuhnen, 2007). Therefore, CSEM viewing can also be a symptom of a general criminal lifestyle, wherein the offender engages in a variety of law-breaking activities. Taylor and Quayle (Quayle & Taylor, 2002a; Taylor & Quayle, 2003) had originally identified the internet as facilitating CSEM behaviour as a distinct function. However, it has been argued elsewhere (see Sheldon & Howitt, 2007; Surjadi et al., 2010) that the internet itself is not a genuine incentive for CSEM consumption but that situational aspects of the internet may contribute to perpetuate the behaviour.

On a larger scale, as Calcetas-Santos (2001) explained, the existence of these images can act to desensitise society in general and to legitimise sexual contact with children. As Sheldon and Howitt (2007) pointed out, in today’s society children are sexualised from an early age, given both the media content they are exposed to and how they are depicted in the media. One example is the infamous Calvin Klein advertisement for a children’s underwear line from 1999 that created a public uproar due to the apparent sexual explicitness of the images⁷.

⁷ http://www.media-awareness.ca/english/resources/educational/handouts/ethics/calvin_klein_case_study.cfm

Finally, the apparent main function of CSEM is sexual gratification for the consumer. According to Taylor and Quayle (2003, 2005), some people might be highly selective in their choice of images (e.g., regarding age groups, physical features) in order to meet their needs. In that respect, CSEM can also be part of an individual's sexual self-exploration that includes but is not limited to material involving children. Some consumers of CSEM have claimed to use the material to deal with their own early sexual experiences (e.g., in Foley, 2002), as a form of self-therapy (Kuhnen, 2007) or to examine the "dark side of one's personality" (Taylor & Quayle, 2003, p. 90). Viewers have also reasoned to use CSEM to prevent themselves from acting on their sexual interest, hence as a form to avoid contact child sexual abuse; this has been found in studies by Carter, Prentky, Knight, Vanderveer, and Boucher (1987) and Riegel (2004).

For users with a sexual interest in minors, CSEM can also be used as an interactive tool for the grooming of potential victims. Grooming refers to the process by which a potential abuser prepares a child for future sexual activities by slowly building up his or her trust. Aftab (2000) described how exposing a child to child sexual material may normalise sexual activities and assist the offender in increasing a child's willingness to engage in these activities. Indeed, the internet offers access to and information about potential victims who can easily be monitored; in fact, someone could be in contact with several minors at the same time at different stages of the grooming process. Given the possibilities to misrepresent one's age, gender, and physical looks when online, offenders also have new opportunities to lure potential victims into making contact (a more detailed account of online grooming can be found in Choo, 2009, or Ost, 2009). Furthermore, Hill, Briken, and Berner (2006) found that up to 36% of convicted child molesters reported having used CSEM as self-stimulation prior to their offence. These images can normalise a sexual interest in children, and the depicted scenes may function as a fantasy generator or as templates for real-life sexual abuse (Taylor, Quayle, et al., 2001). A case study by Itzin (1997) illustrated how family members used CSEM to first desensitise a young girl, then to make

her imitate sexual poses until the images were used as a blueprint for her own sexual abuse. The self-produced images may also be used to blackmail the child afterwards to not disclose the offence (Langevin & Curnoe, 2004). According to Rettinger (2000), some offenders also use the self-produced material as a memoir of the abuse or as a way of preserving the victim's youth permanently.

Given that CSEM is used for a variety of reasons, Seto et al. (2010) pointed out that individuals require specific offender management strategies according to the functions they assign to the material. In addition, it is acknowledged that an offender may have multiple explanations for his offending and that these functions may change for the individual over time (Seto et al., 2010; Surjadi et al., 2010).

There have been initial attempts to structure the assessment of functions when dealing with a CSEMO. For example, Caple (2008) developed a coding form that allows assessing functions of CSEM according to offender statements based on the original research by Taylor and Quayle (2003). In addition, Surjadi et al. (2010) constructed the Internet Offender Function Questionnaire, which incorporates the following functions: sexual interest in children, collecting, social relationships, non-exclusive paraphilic interest, and avoidance. However, both questionnaires are recent developments and resulted in assessment tools that captured only one aspect of the offending.

Chapter Summary

This chapter provided insight into CSEM and its function for the consumer. In the first part, terminology and legal and psychological definitions of CSEM were discussed. CSEM was defined as any objectionable sexual material depicting a real or simulated minor younger than 18 years, including all forms of publications and considering the broader context of their presentation. In a psychological approach, additional material was to be considered whose sexual connotation is mostly based on the mind of the viewer, including seemingly innocent images of children in an offender's possession.

The second part of the chapter described the role of the internet as the principal medium for CSEM consumption and distribution. The attraction of the internet for CSEM offenders can be explained by Cooper's (1998) Triple-A-engine which refers to the perceived Affordability, Accessibility, and Anonymity of the internet. In addition, constant technological improvements have made it easy to self-produce and distribute pornographic material, further reinforcing the status of the internet as a critical component of the CSEM market. Finally, the internet allows information exchange between people with similar interests, therefore reorganising previously isolated individuals into groups, such as online newsgroups.

Two features of CSEM were discussed in the last part of the chapter. CSEM can be assessed according to its content and according to the function it fulfils for its user. A variety of functions were identified, such as usage for sexual satisfaction or a tool in the victim grooming process.

Chapter 3:

Consumers of Child Sexual Exploitation Material

The first part of this chapter entails a comprehensive review of characteristics of CSEMOs and their offending. A theoretical model for the assessment and treatment of CSEMOs, based on existing typologies, is introduced in the second part of the chapter. Finally, situational aspects of CSEM offending are explored in more detail.

Characteristics of CSEMOs

Consumers and producers of CSEM have been described as “one of the fastest growing groups in the criminal justice system” (Hernandez, 2009, p. 2). The increase in CSEM concerns has resulted in ad-hoc responses from correctional institutions and treatment providers, such as the establishment of sentencing guidelines for CSEMOs (e.g., Sentencing Guidelines Council, 2007) or specific treatment programmes for online sex offenders, offered in New Zealand by community treatment providers like SAFE and STOP⁸, or by UK correctional services who use the Internet Sexual Offending Treatment Programme (i-SOTP; Hayes & Middleton, 2006). Central to these movements is the question of whether conventional assessment and treatment programmes, developed and validated for contact sex offenders, can be successfully applied to CSEMOs or if, in Sheldon and Howitt’s (2007) words, “[the internet] has created, in effect, a new category of sex offender” (p. 2), which emphasises the need for a different approach to assessment and treatment. Systematic empirical research is crucial to identify potential differences and similarities between contact and non-contact sex offenders. Furthermore, if these offender groups are found to be

⁸ SAFE (<http://www.safenz.org>) is a community-based professional treatment programme for both adult and adolescent sex offenders. STOP (<http://www.stop.org.nz>) provides community-based assessment and treatment services to adolescents and adults who have sexually abused/sexually offended and to children who have engaged in sexually harmful behaviour.

substantially different, assessment and treatment components that were considered clinically relevant for CSEMOs require empirical validation.

Of further interest is the question of potential subgroups of CSEMOs. For example, common differentiations for CSOs are based on victim age (paedophiles vs. hebephiles), victim gender, or the offender's relationship to their victim (intrafamilial vs. extrafamilial offenders; e.g., see classifications used by Barbaree & Marshall, 1989; Blanchard & Barbaree, 2005; Hanson & Harris, 2001). For CSEMOs, it has been suggested in the previous chapter that individuals may require distinct offender management strategies based on the functions CSEM fulfils for them (Seto et al., 2010). If subgroups of CSEMOs can be empirically distinguished, then they may require a differentiated approach regarding their assessment and treatment; for instance, they may form different levels of risk regarding reoffending.

An initial step to answer these research questions is to establish the existing knowledge base about characteristics of CSEMOs and compare them with CSOs. Research regarding CSEMOs is still relatively new and initially consisted of merely descriptive studies. In 2010, Babchishin et al. published a comprehensive meta-analysis, including 27 distinct samples of online sex offenders and CSOs (to whom they refer as *offline offenders*). Their findings are based on Cohen's *d* with both fixed-effect and random-effect meta-analyses; a detailed description of their methodology can be found in Babchishin et al. (2010) as well as Hanson and Morton-Bourgon (2004). For the purpose of this review, it is only noteworthy that random-effect meta-analysis is preferred to fixed-effect models due to greater accuracy.

The group of online sex offenders in Babchishin and colleagues' (2010) study is not limited to CSEMOs; about half of the samples also included men who used the internet to groom child victims rather than CSEM offending. Therefore, studies providing specific information about CSEMOs were reviewed additionally⁹ and relevant outcomes are reported

⁹ Incorporating both samples included in Babchishin et al. (2010) and additional publications; all the studies that were subject to a qualitative analysis for this thesis are indicated by * in the reference list.

alongside Babchishin and colleagues' (2010) findings. Following legislative differences between countries, some studies do not differentiate between *possession* and *making of CSEM* (e.g., Seto & Eke, 2005). Producers of CSEM are arguably closer to CSOs given that their offence includes direct sexual contact to a victim. Consequently, if differences between CSEMOs and CSOs exist, the results presented will be conservative.

Most study samples were drawn from forensic or prison populations and hence may be skewed towards the more serious end of CSEMOs. For the additional review on CSEMOs, a qualitative approach was utilised and studies were analysed according to emerging categories. Data gathering, data presentation (e.g., raw scores, percentage rates), and extent of information differed considerably between studies and contribute to varying depth and information bias in the present data pool. At a possible expense of information loss, it was decided to use percentage rates to facilitate between-group comparisons. Again, given the low number of female offenders (see p. 6), only male offenders were included in this review.

Demographic Variables

Studies presenting age, ethnicity, and relationship status of CSEMOs are summarised in Table 3. Samples that included CSEMOs with an additional index offence of contact sex offending (and who are presented as such in their source study) are marked with grey shading; these offenders are referred to as *mixed offenders* (MOs) in this thesis. Overall, 24 samples from 21 independent studies were reviewed in addition to Babchishin and colleagues' (2010) meta-analysis.

Age. Babchishin et al. (2010) reported a mean age of 38.6 years for online offenders; they were found to be significantly younger than offline offenders ($M = 43.6$ years; fixed-effect model) and both samples were significantly younger than a non-offending control group ($M = 46.6$ years; fixed-effect model). All 24 samples were included in the additional review, resulting in a mean age of 38.7 years for both CSEMOs and MOs and a mean age of 38.6 years for CSEMOs (range: 12-76 years), using an aggregated sample of 2454 (CSEMOs and MOs) resp. 2376 offenders

(CSEMOs). Overall, the nearly ten-year difference between CSEMOs and CSOs appears to be a stable finding. There are two potential explanations for the age gap: CSEM offending may be a “younger offence” based on the higher computer literacy in younger generations (for New Zealand data, see P. Smith et al., 2010), and the age gap might diminish over time. On the other hand, this could reflect recruitment issues for prison populations, where CSOs are confined on longer sentences with computer access, once released, on probation oversight controlled by release conditions. A potentially more comparable alternative for age assessment is age at time of offending rather than at data collection.

Ethnicity. As publications are from different Western nations, ethnicities, especially regarding minority populations, differed between studies. Babchishin et al. (2010) thus examined *membership to a racial minority* and found that online offenders were significantly less likely to belong to an ethnic minority in comparison to offline offenders (8.16% vs. 35.4%; fixed-effect model) or normal controls¹⁰ (21.6%; fixed-effect model). Offline offenders were also significantly more likely to be of a racial minority than normal controls (fixed-effect model). Thirteen studies of the additional review were included in this analysis; in the total sample, about 93% were identified as Caucasians (93.3% CSEMOs and MOs, $n = 1280$; 93.3% CSEMOs, $n = 1229$).

Using New Zealand as an example, the offender population is an unrepresentative reflection of the ethnic distribution in the general populace. According to the *2010 Social Report*, NZ Europeans formed about three quarters of the general population in 2006 while Maori, the indigenous population of New Zealand, made up 15% (the remainder consisted of Asian, Pacific Islanders, Middle Eastern, Latin American, and African; Ministry of Social Development, 2010). However, the conviction rates for Maori and NZ Europeans were nearly equal (43% vs. 45% based on data from 2006; Morrison, Soboleva, & Chong, 2008). In early 2010, more than half of the prison population were of Maori descent while

¹⁰ Babchishin et al. (2010) selected normative samples that were “representative, unbiased and appropriate (e.g., the normative sample is from the same country as offender group)” (p. 100).

Table 3: Demographic Variables of CSEMOs

	Bourke & Hernandez (2009)	Buschman & Bogaerts (2009, study 2)	Buschman, Bogaerts, et al. (2010), Buschman & Bogaerts (2009, std. 1)	Caple (2008) – CSEMOs	Caple (2008) – mixed	Elliott et al. (2009)	Endrass et al. (2009)	Foley (2002)	Frei et al. (2005)	Howitt & Sheldon (2007), Sheldon & Howitt (2007) - CSEMOs	Howitt & Sheldon (2007), Sheldon & Howitt (2007) - mixed	Laulik et al. (2007)	McCarthy (2010) - CSEMOs
N	155	38	25	40	17	505	231	22	33	16	10	30	56
Age ^a (yrs)													
mean	40.7	41	41	38.1	35.06	40.1 ^b	36	39.68	39.8	46.5	46.5	40.7 ₃	38
min	21	26	24	18	18	17.7	18	26	25	24.1	29.1	24	12
max	71	64	65	61	48	62.4	65	55	69	68.9	63.9	62	64
Ethnicity (%)													
Σ													
white	95	100	100				94 ^c	95.5	100			100	75
other	5	0	0				6	4.5	0			0	20
Relationship status (%)													
Σ(single)													
single				62.5	35.4		58		33			50	50
Σ(partner)													
partner				32.5	41.2	23.4 ^d	33	56	54			46.7	17
Σ(divorce)													
divorced ^e				5	23.6		9		12				19
Σ(children)													
children				30	47.1	25			40			26.7 ^f	

	McCarthy (2010) – mixed	Middleton et al. (2005)	Middleton et al. (2006)	Middleton et al. (2009)	O'Brien & Webster (2007)	O'Connor (2005)	Reijnen et al. (2009)	Seto & Eke (2005)	C. Sullivan (2009), incl. A. Carr (2006)	Webb et al. (2007)	J. Wood et al. (2009)	Σ(n)/ mean (all)	Σ(n)/ mean (CSEMOs)
N	51	43	72	264	123	76	22	201	307	90	27	2454	2376
Age ^a (yrs)													
mean	41	42.06	43.17	41.5	40.1	33.68	37	38.3	33.01	38	41.4	38.69	38.63
min	15	13.2	18.41	19	19	15	n/a	19	12	18	18.4	12	12
max	67	70.92	67.93	73	61	65.5	n/a	76	65	58	64.4	76	76
Ethnicity (%)													
Σ												1280	1229
white	90	100			95	97.4			73	91		93.28	93.53
other	10	0			2.6	2.6			10	9		4.98	4.59
Relationship status (%)													
Σ(single)												1148	1080
single	62	32	48 ^g (24)	52	44.4	77.1	59.1			56		51.39 (49.68)	51.84 (49.84)
Σ(partner)												1635	1567
partner	16	60	48	25	27.4	22.3				38		36.03	37.18
Σ(divorce)												1020	952
divorced ^e	12	8	4 (28)	33	28.2					6		14.53 (16.71)	13.8 (16.47)
Σ(children)												625	608
children												33.76	30.42

Note. Samples consisting of mixed offenders are indicated in grey shading. Mean/ average percentages are weighted by sample size.

^aIf no age range was noted, intervals were estimated using $M \pm SD$; equal length of intervals were assumed. ^bBased on $n = 489$. ^cDescribed as “Swiss nationals”. ^dBased on $n = 487$. ^eIncludes *separated* and *widowed*. ^fIncludes *divorced*; number in brackets show even distribution between categories.

^gDescribed as *living with children*.

NZ Europeans formed only about one third of the inmates (Department of Corrections, 2010). Given the overrepresentation of ethnic minorities, and Maori in particular, in New Zealand's correctional system, the large proportion of Caucasian CSEMOs is noteworthy. Nevertheless, it is acknowledged that white ethnicity may be related to higher education and higher income; data from the 2010 Social Report indicated that between 1988 and 2009, New Zealand European households earned considerably more than any other ethnic group in New Zealand (Ministry of Social Development, 2010). Hence, available computer and internet access as well as computer literacy could be mediating variables for ethnicity.

Relationship Status. There were considerable differences regarding the categorisation of relationship status between the studies. Babchishin et al. (2010) found that online offenders were significantly more likely to be unmarried than normal controls (69.6% vs. 44.8%) but had no comparison data for offline offenders. They further reported that more than half of the online offenders had never been married (in contrast to 30.9% of normal controls). A more detailed categorisation was employed for the additional review: single, with partner, and divorced/ widowed/ separated. About half of CSEMOs were reported being single (51.4% CSEMOs and MOs, $n = 1148$; 51.8% CSEMOs, $n = 1080$) while less than 40% were with a partner (36% CSEMOs and MOs, $n = 1635$; 37.2% CSEMOs, $n = 1567$) and about 14% had had a partnership in the past (14.5% CSEMOs and MOs, $n = 1020$; 13.8% CSEMOs, $n = 952$). There are some limitations inherent to the assessment of relationship status. For instance, many offenders might have been left by their partner after their criminal behaviour had been detected. Hence, a more suitable assessment of the relationship status prior to detection is needed, such as relationship status at time of offending; for example, Wollert, Waggoner, and Smith (2009) assessed their subjects according to "never been in a committed relationship".

Only four studies provided information on fatherhood: Just about 30% of offenders had children (33.8% CSEMOs and MOs, $n = 625$; 30.4% CSEMOs, $n = 608$). Again, a finer distinction would be more informative, for instance how many offenders live with or have access to their children

or have other children in their care; such a categorisation was employed by O'Connor (2005) and Laulik et al. (2007).

The high proportion of singles amongst CSEMOs can either be the result of a lack of interest in a romantic relationship with an adult, or a lack of ability to initiate and sustain these relationships. Wollert et al. (2009) pointed out that the low number of committed relationships in their sample “suggests that withdrawal, social isolation, or disrupted social relationships may be significantly related to the commission of child pornography” (p. 8). An examination of related psychosocial variables, such as relationship history, loneliness, social isolation or poor social skills, could provide more information. From the 27 studies included in Babchishin and colleagues' meta-analysis, *marital status* (but not relationship history) was analysed by 12 studies, *loneliness* by three, and *self-esteem* by two studies. No other psychosocial variables were identified.

Two interesting aspects were discussed in the more detailed offender analysis by Sheldon and Howitt (2007), who compared 16 CSEMOs, 25 CSOs and 10 MOs on a number of historical, behavioural and psychological variables. Even though nearly 70% of all three offender groups reportedly were in a sexual relationship with an adult at the time of their offending, nearly half of them were also promiscuous and/ or visited prostitutes (44% CPOs, 40% MOs, and 48% CSOs). Furthermore, using the Experiences in Close Relationships (Brennan, Clark, & Shaver, 1998), a self-report assessment of adult attachment, they found that only 12% of CSOs and 30% of MOs reported secure attachments with adults, while this applied to 50% of CSEMOs. Caple (2008) also compared attachment styles in her sample of 40 CSEMOs and 17 MOs, using the Relationship Styles Questionnaire*¹¹. She found that most offenders reported a secure or dismissive attachment style, and identified no difference between the offender groups. Caple further described that both offender groups revealed normal scores on the Fear of Intimacy Scale*. Hence, even though CSEMOs appear to be able to build stable social bonds, a more

¹¹ Caple (2008) did not provide a reference for the Relationship Styles Questionnaire. Instruments where no citation was provided in the original source document are marked with an asterisk; their common citations can be found in Appendix A.

distinguishing aspect between CSEMOs and CSOs may be the nature of adult relationships of the individual offender.

Education and Employment. Babchishin et al. (2010) found that online offenders were more likely to be unemployed than normal controls (14.7% vs. 5.82%); however, these figures were mostly based on assessments conducted during or after arrest. With regards to education, no differences were found between the two groups. As only few studies that were not included by Babchishin et al. had included relevant information on education and employment (and if present, had considerable differences in their categories), it was omitted from a comparative analysis. However, three comparison studies provided some more detailed information: Howitt and Sheldon (2007) found that CSEMOs had completed more years of education than CSOs or MOs (14 years, 11 years, 13 years respectively). Albeit not significant, Caple (2008) reported similar findings, stating that in her sample CSEMOs had higher educational qualifications, higher employment status, and were more likely to be working in service-oriented employment while MOs were more likely to work in trades or labour-oriented jobs. Lastly, Reijnen, Buten, and Nijman (2009) compared 22 CSEMOs, 47 CSOs (some with victims older than 16 years), and 65 non-sex offenders and found no differences with regards to their educational level. It was argued in earlier works, for example by Burke et al. (2002), that CSEMOs “tend to be better educated [and] have higher intelligence (...) than are individuals who commit hands-on offences against children” (p. 81); however, this claim may not be maintained considering more recent studies. Nevertheless, there may be a qualitative difference in their employment.

Summary. Overall, differences between MOs and CSEMOs in particular were negligible. However, some stable differences were apparent in comparison to CSOs, especially with regards to age and ethnicity. The research at this point described CSEMOs as typically in their late thirties and of Caucasian descent. They appear to be more likely to be single than CSOs or the general population but, when in a relationship, seem more capable of building stable adult social bonds. More research is needed with regards to education or employment status but there seems

to be little difference with regards to educational levels between the offender groups. While Babchishin et al. (2010) reported a significantly higher unemployment rate than in the normal population, this could also be a consequence of the offender's arrest experience.

Psychosocial Variables

This section includes developmental, psychological, and psychopathological characteristics of the offenders; for most of these aspects, there are only a limited number of studies and further research is needed to validate these findings.

Childhood Experiences. Babchishin et al. (2010) found that offline offenders had suffered significantly more childhood physical abuse than online offenders (40.8% vs. 24.4%; fixed-effect model) but there were no differences regarding sexual abuse experiences (33.5% vs. 21.1%). However, both offender types had more physical and sexual abuse experiences than the normal male population (8.4% for physical abuse and 8.5% for sexual abuse). In his study of 22 CSEMOs, Foley (2002) found that approximately half of the offenders had experienced sexual victimisation in their childhood. In a recent study, McCarthy (2010) compared file information from 56 CSEMOs and 51 MOs from a private sex offender treatment practice; she found no significant differences between the two samples with regards to physical abuse (9% vs. 18%) or sexual abuse (11% vs. 24%). More detailed findings are available from Sheldon and Howitt (2007): Seventy-five percent of their entire sample experienced either physical or sexual abuse but CSOs had higher rates of childhood physical abuse (72% vs. 60% MOs and 44% CSEMOs) and sexual abuse (56% vs. 50% MOs and 19% CSEMOs). On the other hand, their subsample of CSEMOs had the highest likelihood of growing up without at least one significant adult (absence of caregivers: 37% CSEMOs, 28% CSOs, 40% MOs; death of significant other: 37% CSEMOs, 16% CSOs, 10% MOs). All three samples had the similar occurrences of two or more emotional and behavioural problems during childhood (37-40%). Sheldon and Howitt further reported that all three offender subgroups experienced a highly sexualised childhood; in that

respect, CSEMOs recalled the highest rate of consensual peer sex play, especially before age 12, while CSOs had the lowest rates. On the other hand, CSOs had more childhood experience with regards to homosexual experimentation.

Overall, it appears that all offender groups had experienced more childhood victimisation than normal male controls, and that CSOs appear to have higher rates of physical abuse. CSEMOs may have had more sexual experimentation in their childhood in comparison to CSOs.

Mental Health Issues. Within this variable category, Babchishin et al. (2010) compared only substance abuse data and found that online offenders were significantly more likely to report substance abuse than normal controls (16% vs. 13%; fixed-effect model). McCarthy (2010) found no difference in the alcohol abuse rates of her study samples but a higher drug abuse rate for CSOs (alcohol abuse: 18% CSEMOs vs. 24% CSOs; drug abuse: 16% CSEMOs vs. 40% CSOs).

With regards to general mental health issues, Sheldon and Howitt (2007) reported an occurrence of mental health problems mainly for their subsample of CSOs (36% vs. 19% CSEMOs and 20% MOs). Similar results are reported by Graf and Dittmann (2009) who compared the Symptom Checklist scores (Franke, 1995, German version) of a Swiss sample of CSEMOs with CSOs, with only the latter group reaching elevated scores. On the other hand, Webb et al. (2007) found in their comparison study that CSEMOs had significantly more life-time contact with mental health services than CSOs (41% vs. 21%). Concerning the nature of these mental health diagnoses, most offenders in McCarthy's (2010) sample reported depression (30% CSEMOs, 28% CSOs) and anxiety (27% CSEMOs, 43% CSOs). More detailed information is available from Laulik et al. (2007). Their sample of 30 CSEMOs had an abnormal psychological profile on the Personality Assessment Inventory (Morey, 1991), consisting of significantly high scores on the scales for depression, schizophrenia, borderline features, antisocial features, suicidal ideation, and stress. On the other hand, they had significantly lower scores on the scales measuring mania, aggression, dominance, warmth, and treatment rejection. A high proportion of their sample reported clinically

significant scores on depression (29.9%), schizophrenia (13.2%), and borderline features (16.5%). Nearly 40% reported a significant lack of support in their life. There was a moderate correlation between amount of time spent online and evidence of psychological problems and somatic complaints.

A common tool to assess “personality characteristics and degree of emotional disturbance” (Tomak, Weschler, Ghahramanlou-Holloway, Virden, & Nademin, 2009, p. 142) is the Minnesota Multiphasic Personality Inventory-2 (MMPI-2*), which contains a number of clinical scales, such as for depression or paranoia. Reijnen et al. (2009) examined the MMPI-2 profiles of their CSEMO sample in comparison to other offender groups. All offender groups had a clinical elevation on *Psychopathic deviate* [Pd] and showed little differences over the other scales. There were no significant differences between CSEMOs and contact sex offenders but CSEMOs had significantly lower scores on *Hypomania* [Ma] than non-sex offenders. Tomak et al. (2009) also asked their 48 subjects (CSEMOs and other online sex offenders with minor victims) to complete the MMPI-2. None of the scale means in their sample reached clinical relevance but the score patterns underlined that online sex offenders have a heterogeneous profile. In comparison to a group of non-sex offenders, online sex offenders scored significantly lower on *Psychopathic deviate* [Pd] and *Schizophrenia* [Sc].

Overall, CSEMOs were found to have troubled mental health but less so than CSOs; however, most of the offenders were assessed after their arrest, hence the negative mood states could be a reaction to the arrest and to the ensuing loss of self esteem and experience of shame. CSEMOs were found to have had more contact with mental health professionals in their lifetime than CSOs, which could also be a sign of higher self-awareness or finances available to this subgroup. In contrast, it appears that intoxication is not a contributor to CSEM offending. Instead, Laulik et al. (2007) suggested that the correlation between psychological troubles and time spent online may indicate that the internet itself is used as escape from negative mood states, one of the CSEM functions described in Chapter Two.

Psychological variables. Not many variables allowed for statistical comparison in the meta-analysis by Babchishin et al. (2010). They found that online offenders were significantly less likely to respond in a socially desirable manner than offline offenders on the Impression Management Scale by Paulhus (1991) but identified no significant differences with regards to self-esteem or loneliness.

More psychological constructs have been examined in other studies; these will be discussed individually, however, a study-by-study analysis does not equate to the statistical significance of a meta-analysis. Caple (2008) compared her samples of CSEMOs and MOs on a range of psychological measures. About one third of her participants scored abnormally highly on social anxiety, measured with the Social Avoidance and Distress Scale* and Fear of Negative Evaluation Scale*. Albeit not significant, MOs appeared less assertive than CSEMOs. In a larger study, Elliott, Beech, Mandelville-Norden, and Hayes (2009) compared their sample of 505 CSEMOs and 526 CSOs on several psychometric scales, including psychological, offence-specific, and validity scales. With regards to psychological variables, CSOs were found to be significantly more likely to have an external locus of control (Nowicki-Strickland Locus of Control; Nowicki, 1976), were more prone to overassertive reactions (Social Response Inventory; Keltner, P. Marshall, & Marshall, 1981), and more likely to make quick cognitive decisions (Barratt Impulsivity Scale 11; Barratt, 1994) while CSEMOs were more able to identify with a fictional character (Interpersonal Reactivity Index; M. Davis, 1980). None of the other measures, including scales of self-esteem, emotional loneliness, perspective taking, ability for empathy, or personal distress, obtained discrepancies of statistical significance. Differences from a normal population were not reported in this study.

Seigfried, Lovely, and Rogers (2008) conducted an online survey on the psychological characteristics of self-reported online CSEM consumers. Their study design was different in terms of the recruitment of respondents (i.e., online advertising), the anonymity of the survey and the self-selection of participants. This is also reflected in a demographic profile different from the ones previously reported; for example, of the 30 self-

identified CSEMOs, one third were female and nearly half were of non-Caucasian descent. Participants were asked to complete adjusted versions of the Big Five questionnaire (Goldberg, 1992), the Moral Decision Making Scale (M. Rogers, Smoak, & Liu, 2006) and the Exploitative-Manipulative Amoral Dishonesty Scale (Altemeyer, 1998). On the latter scale, CSEMOs were found to have a significantly higher total score (63.14 vs. 80.73), an expression of “social dominance in the areas of exploitation, manipulation, and dishonest behaviour” (para. 17). They were also significantly less likely to hold moral values (Moral Choice, IV Total; scores: 28.9 vs. 25.7).

In summary, it appears that some tentative statements can be made about characteristics of CSEMOs. As a group, CSEMOs appear to respond more honestly than CSOs, and to have higher self-awareness and better reflective skills than CSOs. These features may be based on a rather internal locus of control and less impulsive decision-making. On the other hand, they might be more immoral and exploitative in their decision making. They also seem to be more prone to a fantasy life, expressed in a higher ability to relate to a fictional character in comparison to CSOs or the normal population. These behaviours might have a relation to their education or employment status, requiring more abstract/reflective skills. However, as mentioned above, this psychological profile may reflect a consequence of the arrest experience. In general, CSEMOs seem to be not inherently different from the normal population.

Summary. Information on psychosocial variables of CSEMOs is rather sparse, based on only a few studies, and assessed with many different measures. Even though CSEMOs were more likely than the general population to have experienced physical and/or sexual abuse as a child, it appears that CSEMOs typically have experienced less physical abuse but similar levels of sexual abuse than CSOs in their childhood. Nevertheless, CSEMOs report a highly sexualised childhood, often characterised by early consensual peer sex play. They further seem to have higher self-awareness and more reflective skills than CSOs, but do share a troubled mental health and a tendency to withdraw in fantasy, possibly using it as a means of escape from negative experiences.

Overall, these psychological and psychopathological difficulties can also be a consequence of the potentially traumatising experience of being arrested or convicted for CSEM offending rather than a genuine personality difference between offenders and non-offenders. All these findings support the notion of a heterogeneous profile of CSEMOs.

Offence-related Variables

There are a number of offence-related variables that are commonly assessed in child sex offenders, such as offence-supportive cognitions or a potential diagnosis of paedophilia. Some studies provide information on these markers with regards to CSEMO samples. As in previous sections, the majority of these variables are based on a limited number of studies and do not provide conclusive information.

Sexual Deviancy. Babchishin et al. (2010) found that offline offenders appeared to be less sexually deviant than online offenders, as measured with penile plethysmography, the Sexual Fantasy Questionnaire (SFQ; G. Wilson, 1978), and the sexual deviancy item of the Stable-2007 (Hanson, Harris, Scott, & Helmus, 2007). In a plethysmographic assessment, an offender's arousal profile is measured while he views images on a screen and/or listens to sexual narratives. It should therefore be acknowledged that the assessment has more similarity to the offence experience of CSEMOs in contrast to CSOs and hence may lead to higher arousal profiles.

Only three studies included information on sexual paraphilias of their sample. Caple (2008) compared her samples of CSEMOs and MOs on the MSI Atypical Sexual Outlet Scale, the SFQ, and the Sex Fantasy Scale* and found a heterogeneous distribution of sexual interests, with the highest scores on bondage and voyeurism. Two studies examined the rate of paedophilia amongst CSEMOs. Seto, Cantor, and Blanchard (2006) compared 100 CSEMOs, 178 CSOs, 216 sex offenders with adult victims, and 191 non-offenders in terms of their paedophilic presentation, retrieved from clinical interviews and the outcomes of a plethysmographic assessment. Diagnostic criteria for paedophilia using a paedophile index were met by 61% of CSEMOs, 35% of CSOs, 13% of adult sex offenders,

and 22% of non-offenders. Seto et al. concluded from these findings that CSEM offending “is a valid diagnostic indicator of pedophilia” (p. 613), stronger than contact sexual behaviour towards a child. However, these authors did not consider the situational similarity of the assessment to the offending of CSEMOs. In contrast, McCarthy (2010) used assessment criteria other than plethysmographic assessment and found that CSEMOs were significantly less likely to be diagnosed with paedophilia than CSs (37.5% vs. 66.7%).

Sexual Fantasies. Two studies analysed the content of CSEMOs’ sexual fantasies. Caple (2008) examined the age and gender of those her sample sexually fantasised about, using the Sex Fantasy Scale*. Most offenders stated that they sexually fantasised about adult females (80% CSEMOs vs. 82.4% MOs) while one fifth admitted fantasies about female children (20% CSEMOs vs. 17.6% MOs) and only 10% about male children (10% CSEMOs vs. 11.8% MOs). Similarly, Sheldon and Howitt (2007, 2008) discovered that all three offender subsamples in their study (CSEMOs, CSOs, and MOs) most commonly fantasised about adult females, while child-related thoughts were less common, and the least likely were fantasies more deviant in terms of content, such as portraying highly violent or sadistic scenes. If child fantasies were present, most offenders had specific gender preferences. As with Caple (2008), Sheldon and Howitt (2007) identified only slight differences between the offender groups. However, CSOs reported more confrontational/non-contact fantasies, such as observing a woman undressing. Hence, imagining contact with a victim could be an important differentiation between fantasies in offline and online offenders. Lastly, they found that the gender with whom early consensual peer sex play was experienced determined the gender that was later fantasised about. However, the sexual fantasies were not influenced by the gender of the person by whom the offenders were sexually abused themselves. Sheldon and Howitt further asked their sample of CSEMOs about the reasons why they did not progress to a contact sex offence with a child. Fifty-six percent of CSEMOs felt that fantasy alone was more rewarding to them; generally, 81% rated fantasy to have a high importance in their life (versus 50% in MOs, and 40% in

CSOs). Similar results were found by Riegel (2004) who recruited nearly 300 self-identified boy-attracted adult males to fill in an anonymous online questionnaire about their consumption of boy erotica, a less explicit form of CSEM. About 84% of participants stated that they used the material as an outlet for their sexual desires but only about 64% admitted to frequently masturbating to the material. Once again, the majority (85%) denied that it encouraged them to proceed to contact sex offending. Indeed, 78.6% of the sample reportedly had never been involved with law enforcement “as a result of either true or false accusations of sexual contact with boys” (p. 321).

It therefore appears that the role of fantasy may play a crucial part in the distinction between abusive and non-abusive CSEMOs. Briggs, Simon, and Simonson (2009) conducted a study of internet users who were apprehended following inappropriate sexual online contact with an undercover police officer presenting as a minor. Based on file information, Briggs et al. suggested a two-fold distinction of these internet chat users: Those who only briefly conversed with the “minor”, seeking a physical meeting (*contact-driven*), and those who maintained the relationship exclusively on an online level by engaging in sexually explicit conversation (*fantasy-driven*). The fantasy-driven group in this sample was characterised by conducting the sexual relationship with a minor devoid of any physical contact. Admittedly, some offenders may have withheld contact relationships for reasons other than personal interest, for example fear of detection by policing agencies, or may have moved on to contact offending over time. Nevertheless, Briggs et al. reported successful application of their contact vs. fantasy-driven typology in the treatment and assessment of online sex offenders.

Even though the distinction between these two phenomenologically different offender types is conceptually attractive, it is also acknowledged that a person’s fantasy can have a crucial role in his contact offending. For example, D. Wilson and Jones (2008) conducted an interview study with an online sex offender with contact victims and identified a dynamic relationship between his fantasy and his offending: “In a cyclical relationship, his fantasies fuelled his offending behaviour and his offending

behaviour helped to update, re-define and shape his fantasies” (p. 114). Consequently, an alternative explanation may be that fantasy-driven offending could be a pre-stage to contact offending.

Psychological Constructs Supportive of the Offending Process. The available literature suggests a number of psychological variables related to child sex offending (e.g., low self-esteem), with three main areas directly contributing to pro-offending attitudes in child sex offenders (Babchishin et al, 2011; Bates & Metcalf, 2007; Neutze, Seto, Schaefer, Mundt, & Beier, 2011): Lack of victim empathy, emotional congruence with children, and cognitive distortions. Lack of victim empathy describes the offender’s inability to understand the victim’s experience of the sexual offence. Emotional congruence, or emotional identification with children, refers to the emotional significance of children for the offender as a potential intimate partner. Finally, sexual thoughts whose content is highly unlikely and would be considered as untrue by a “normal” population are labelled cognitive distortions; these include references to the child as being sexually consensual or initiative of the sexual contact to an adult. These three aspects were also examined in Babchishin and her colleagues’ (2010) meta-analysis: Offline offenders were found to display slightly more emotional identification with children ($d = 0.282$; fixed-effect model) and more cognitive distortions ($d = 0.653$; fixed-effect model). There was no difference identified regarding victim empathy between the offender types.

For CSEMOs, most studies extracted pro-offending attitudes from material not originally intended for respective research, such as online chat protocols of an adult with a minor (DeLong, Durkin, & Hundersmarck, 2010), online postings on paedophile-supportive websites (Durkin & Bryant, 1999; D’Ovidio, Mitman, El-Burki, & Shumar, 2009; Holt et al., 2010; O’Halloran & Quayle, 2010) or police interviews (DeLong et al., 2010). While the benefits of such real-world research are apparent, they arguably lack the methodology and comparability of scientific research projects. However, there are a few, more in-depth projects that extend the scope of Babchishin and her colleagues’ (2010) findings.

In order to research distorted beliefs in child sex offenders, Gene Abel and Judith Becker developed the Abel and Becker Cognition Scale

(ABCS; Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984). Caple's (2008) sample of CSEMOs and MOs did not reveal any elevated scores on the ABCS but showed some elevation on the MSI*, exposing the presence of distortions indicating immaturity and externalisation of blame in both offender groups. More notably, MOs obtained significantly higher scores on the justification scale.

Beech, Fisher and Beckett (1999) developed the Sex Offender Treatment Evaluation Project test battery (STEP) to assess treatment requirements of sex offenders in the UK correctional system. The STEP battery consists of eight measures: Victim Empathy Distortion Scale (Beckett & Fisher, 1994), the sections on cognitive distortions and emotional congruence with children from the Children and Sex Questionnaire (Beckett, 1987), and seven socio-affective measures, including the Short Self-Esteem Scale (Thornton, 1989), The UCLA Emotional Loneliness Scale (Russell, Peplau, & Cutrona, 1980), the Nowicki-Strickland Locus of Control scale (Nowicki, 1976), a measure of personal distress (M. Davis, 1980) and assertiveness (Keltner et al., 1981), the Balanced Inventory of Desirable Responding (Paulhus, 1999), and the Barratt-Impulsiveness Scale (Patton, Stanford, & Barratt, 1995). Using these scales, Henry, Mandelville-Norden, Hayes, and Egan (2010) conducted a cluster analysis of the scores of 422 online sex offenders (including CSEMOs, producers of CSEM, and online groomers with minor victims) and identified three clusters of offender groups: (1) offenders with scores in the normal range ($n = 166$), (2) offenders with low socio-affective measures ($n = 108$), and (3) offenders with mixed deficits across socio-affective and pro-offending measures ($n = 148$). This finding confirms the heterogeneous nature of online sex offenders with only a subgroup (35%) holding pro-offending attitudes. There are two potential explanations for these findings: (1) CSEMOs endorse less offence-supportive attitudes than CSOs. (2) CSEMOs endorse offence-supportive attitudes of a different quality than those endorsed by CSOs, which are not included in current standardised questionnaires. If the latter was true, specific scales for CSEMOs are needed.

In that respect, O'Brien and Webster (2007) developed a questionnaire on Internet Behaviours and Attitudes (IBAQ), which includes two subscales: (1) Behavioural items: Items regarding different online behaviours, for example which online facilities were visited by the offender or which methods were used to obtain CSEM from the internet. (2) Attitudinal items: Items referring to the offender's attitudes about the internet in general and his CSEM offending. Amongst the 123 CSEMOs tested, it was found that the more behaviours a person admitted to, the higher the attitudinal score obtained by the subject. People with higher scores showed generally more online social activities with regards to CSEM, were more organised and engaged in their CSEM offending, used the material in a sexual manner, and had less regrets about their offensive behaviour. However, no follow-up research was identified using IBAQ for further validation.

Howitt and Sheldon (2007) developed the Children and Sexual Activities Inventory (C&SA), derived from existing cognitive distortion scales (MOLEST, Bumby, 1996; ABCS, Abel, Becker, Cunningham-Rathner et al., 1984; and Hanson Sex Attitude Question, Hanson, Gizzarelli, & Scott, 1994). The 39 items of the C&SA allowed for classification according to Ward and Keenan's (1999) five implicit core theories for cognitive distortions of CSOs: Children as Sexual Objects, Entitlement, Dangerous World, Uncontrollability, and Nature of Harm. Howitt and Sheldon (2007) tested the scale on their sample of 16 CSEMOs, 25 CSOs, and 10 MOs. When testing for Ward and Keenan's taxonomy, only one significant difference was found between the offender groups: CSEMOs scored significantly higher than CSOs on items relating to Children as Sexual Objects. Secondly, Howitt and Sheldon conducted a Principal Axis Factor Analysis over all items, resulting in two factors: Children as Sexual Objects and Justifications for Offending. Again, CSEMOs scored higher on the first factor. However, on the second factor, only a history of previous child sex offences was significantly related to higher scores across all offender groups. These findings are noteworthy as they again question the validity of cognitive distortion scales for CSEMOs; this topic will be revisited in Chapter Seven and Eight.

Pro-offending attitudes, especially regarding cognitive distortions, are a controversial topic in the professional literature. For example, while some believe that cognitive distortions play a substantial part in the offender's initial decision to sexually abuse (Abel, Becker, & Cunningham-Rathner, 1984), others emphasise the role of cognitive distortions as post-offence justifications for one's actions (see Gannon & Polaschek, 2005; Maruna & Mann, 2006). In addition, some researchers suggest that distorted cognitions might be subject to change as the offender progresses in his offending stages (A. Carr, 2006; Quayle & Taylor, 2003). For example, Quayle and Taylor (2001) reported the case of a 33 year old online sex offender who while progressing from CSEM viewing to engaging with victims online, also changed his behaviour and language from initially presenting himself as a child to that of a sexually aggressive adult, potentially indicating a shift in his cognitive processes. Cognitions might also be influenced by the activity itself, as can be seen in the research by O'Brien and Webster (2007). Hence, it appears that as offending is a dynamic process and offending behaviour and context change during the criminal process, cognitive distortions will reflect those changes (Quayle et al., 2006).

In summary, the findings reveal that pro-offending variables may be less pronounced in CSEMOs as opposed to CSOs. However, as can be seen on the more detailed research conducted regarding cognitive distortions, one explanation is that CSEMOs are likely to have different cognitive distortions than CSOs, and hence appear as less distorted on conventional measures (that are not validated for online offenders). Nevertheless, a stable finding appears to be that CSEMOs are less likely to hold justifications or excuses for their offending. This could either be an indication of accountability for one's offences; alternatively, justifications may be more likely to be formed as a consequence of contact offending, for instance because of immediate exposure to the reaction of one's victim. Then again, it may be easier for CSEMOs to believe they did not do anything wrong and thus have no need of justification, which refers to the cognitive distortion of denial.

Motivation to Offend. In order to explain the motivation of sex offenders to sexually offend, Ward and Siegert (2002) developed a Pathway Model that differentiates five pathways leading to sex offending: (1) Intimacy and social skill deficits, (2) Deviant sexual scripts, (3) Emotional dysregulation, (4) Cognitive distortions, and (5) Mixed pathways, a combination of all pathways. As this model is well-validated in regards to contact sex offenders, Middleton and his colleagues tested its application on CSEMOs. In 2005, Middleton, Beech, and Mandelville-Norden examined 43 CSEMOs, using the STEP test battery to define the clustering of CSEMOs on these pathways. Sixty percent of their sample could be classified into one of the pathways: Thirty-eight percent displayed intimacy deficits, 16% distorted sexual scripts, 35% emotional dysregulation, 4% antisocial cognitions, and 8% had multiple pathways. Similar results were found a year later, where the sample was extended to 72 CSEMOs (Middleton, Elliott, Mandelville-Norden, & Beech, 2006): Most offenders displayed intimacy deficits (35%) and emotional dysregulation (33%), followed by distorted sexual scripts (5%), antisocial cognitions (2%), and multiple pathways (2%). However, in both studies, 40% of the samples did not fit into a pathway. Even though Pathway 1, Intimacy deficits, and Pathway 3, Emotional dysregulation, appear to be prominent for CSEMOs, the high number of unclassifiable CSEMOs reveals some difference to CSOs and indicates the presence of one or more internet-specific pathways.

In three studies, subjects were asked about their initial motivation to view CSEM. Frei, Ereny, Dittman, and Graf (2005) found that about half of their CSEMO sample stated that they were “curious”, while only 6% admitted a sexual interest in the material and 3% an interest in violence. Other motives named were boredom, “coincidence”, fascination, and “personal investigation”. Sheldon and Howitt (2007) also asked their three offender samples about self-identified triggers for their offensive behaviours. The most-reported trigger, interpersonal problems, was less frequently named by CSEMOs (56%) than other offender types (76% CSOs, 70% MOs). Instead, more CSEMOs referred to health issues as a reason for offending (50% vs. 40% CSOs and 40% MOs) or work

problems (44% vs. 12% CSOs and 50% MOs). They were also more likely to attribute their behaviour to self-esteem issues (19% vs. 8% CSOs and 10% MOs) and less likely to act out of sexual frustration (13% vs. 32% CSOs and 40% offending). Lastly, Sheehan and Sullivan (2010) conducted semi-structured interviews with four producers of CSEM. They identified three main triggers for their interest in children: childhood sexual experiences, social isolation, and early use of sexual images (mostly adult material).

Overall, it appears that CSEMOs might have distinct motivations to offend that differentiate them from CSOs; however, not much is known about the nature of these motivations. It appeared that psychosocial issues, such as intimacy problems, emotional issues, health concerns, or problems at work, seem to initiate the offending for most CSEMOs while CSOs showed more sexual motivations. Again, it appeared that CSEM is a way of coping with negative experiences for some individuals. The results again confirmed the heterogeneous composition of CSEMOs.

Summary. Some differences between CSEMOs and CSOs were evident when examining offence-related variables. For example, CSEMOs may be sexually more deviant than CSOs but it has to be established if this could be an effect of the higher similarity between their offending and the stimuli used in plethysmographic assessment. Distinct features for CSEMOs became apparent with regards to the importance and quality of sexual fantasies and motivations for offending, suggesting that most CSEMOs are egocentrically motivated instead of interpersonally motivated. With regards to offence-supportive constructs, most research has explored cognitive distortions of CSEMOs. It appeared that conventional distortion scales may not be applicable for CSEMOs, especially with regards to justifications for the offending. Specific scales for CSEMOs have been developed but require a better empirical foundation. Finally, CSEMOs have been found to have less emotional congruence with children, which is further indicative of a view supportive of children as sexual objects. Analysis of the offence variables revealed a mixed profile of CSEMOs, an indication for different subgroups of this offender type.

Variables Specific to CSEM Offending

Some studies provided details of the characteristics of CSEM offending, for instance an analysis of victim gender, victim age, or COPINE level of the pornographic material. These factors describe aspects that are unique to CSEM offending and are ways to discriminate potential subgroups of CSEMOs.

Content of CSEM Collection. As outlined in Chapter Two, the majority of CSEMOs possess a collection of child pornographic material, which is a likely source of information about the offenders' sexual preference. In the reviewed studies, it was found that most offenders preferred material depicting female victims (47.4-83.3%) followed by both genders (25 – 36.6%); only a minority of offenders preferred male gender portrayals (5 – 23.7%; Elliott et al., 2009; Laulik et al., 2007; Middleton, Beech, & Mandelville-Norden, 2005; Middleton, Mandelville-Norden, & Hayes, 2009; O'Connor, 2005; Wolak, Finkelhor & Mitchell, 2005a). Where the information was provided, the majority of images depicted pre-pubescent children (83-93.3%), followed by pubescent children; with regards to infants, about 20% had images of children under three years of age (Laulik et al., 2007; O'Brien & Webster, 2007; Wolak et al., 2005a).

In some studies, the collected CSEM was classified according to the level on the COPINE scale (see Table 1). Most of the images were found to be located on Level 8 and 9, depicting sexual assault by adults, followed by sadistic and bestiality material including children on Level 10 (Webb et al., 2007; Wolak et al., 2005a; O'Brien & Webster, 2007). Caple (2008) reported that her sample of MOs possessed material exclusively from Level 9 while CSEMOs displayed a wider variety of material content. Where collection analyses were undertaken, it was found that a large proportion of the offenders (40-60%) also had other types of material in addition to CSEM. For example, Caple (2008) and McCarthy (2010) discovered that about 20% of their samples of CSEMOs had child erotica or erotic stories in their possession in contrast to about half of MOs. MOs were also more likely to possess adult pornography in McCarthy's (2010) sample. Other illegal pornography found in the collections of CSEMOs

included mostly sadistic or bestiality material, followed by pornography involving excrement (Endrass et al., 2009; Frei et al., 2005; Graf & Dittmann, 2009; C. Sullivan, 2009). In her study of CSEMOs in New Zealand, A. Carr (2004) found that the majority of images in an offender's collection were CSEM-only (57.55%), followed by additional coprophilic (35.38%) or bestiality material (29.84%). Her detailed analysis revealed that pictures with extreme content are normally part of a large and well-organised collection, which could be an indication for more enduring and persistent CSEM offending. This is further confirmed by her finding that the selection of urination, defecation and bestiality material in combination with either violent or nudity material seems to define higher-risk offenders (defined as prior conviction for a sexual offence).

Buschman and Bogaerts (2009) and Buschman, Bogaerts, Foulger, Wilcox, Sosnowski, and Cushman (2010) administered the Sexual Behaviour Checklist (SBC*) to a number of CSEMOs from a Dutch treatment facility to obtain self-report information about their sexual history. Their responses were then double-checked with the results of a polygraph assessment (Sexual History Disclosure Polygraph Examination; Holden, 2000). In both studies, offenders' self-report changed markedly during the polygraph assessment. For example, while offenders initially self-reported preferring material at an average COPINE Level of 3-6 (with genital depiction as the most severe cases), average preference levels changed to Level 7-10 following polygraph assessment (explicit sexual activity to sadistic material). Buschman, Bogaerts, et al. (2010) especially noted a change with regards to the presence of abusive adults depicted in the material, which was frequently denied in the self-report assessment. In addition, the offenders admitted to possession of material portraying younger victims than originally stated in the SBC. Overall, these findings clearly question the veracity of self-reports, which needs to be considered in an assessment situation.

Overall, it appears that the collection of an offender contains some important information with regards to victim gender or age preferences. It was found that a high number of CSEMOs possessed material not readily classified as CSEM (e.g., child erotica) and also contained other forms of

illegal material, such as sadistic or bestiality material. However, some caution is needed when analysing these findings as many offenders download material in bulk or maintain material that they are not sexually interested in but keep for trading purposes. There is some indication of differences between CSEMOs and MOs with regards to their collection content, for example possession of child erotica. Nevertheless, research by Buschman, Bogaerts, et al. revealed that self-report information might underestimate the true account of sexual preference.

Involvement in CSEM Offending. This aspect concerns an individual's activities related to his offending beyond viewing CSEM. For example, Laulik et al. (2007) and McCarthy (2010) found that their samples of CSEMOs spent about 10-12 hours per week viewing CSEM; on the other hand, O'Brien and Webster's (2007) sample reported only one hour per week. Some studies examined the offenders' activities related to their CSEM offending: Sheldon and Howitt (2007) stated that the majority of CSEMOs and MOs in their sample masturbated while viewing CSEM and about half of the offenders spent time cataloguing their material. Approximately 20% were involved in online trading. Less frequent activities involved role-playing with others, "perhaps another adult" (p. 105), or downloading and writing of erotic narratives involving children. In McCarthy's (2010) study, about half of CSEMOs but 91% of MOs masturbated to the material (difference significant). About one third of CSEMOs and half of MOs engaged in trading activities, such as organising their collection and selling or buying material. In addition, MOs were significantly more likely than CSEMOs to communicate with other adults online regarding their sexual interest in children.

Two studies further examined the organisation of the CSEM collection; Wolak et al. (2005a) analysed the information provided from policing services on 429 CSEM cases which was estimated to represent a national total of 1723 cases. The large majority (96%) of cases saved their CSEM on removable media rather than their computers and 20% of offenders were found to employ sophisticated methods to hide the images, such as password protection (12%) or encryption (6%). In McCarthy's (2010) study, 28% CSEMOs and 41% of MOs concealed their material;

significantly more MOs than CSEMOs saved their material on external media (44% vs. 76%).

Another issue is the provenance of CSEM. For Sheldon and Howitt's (2007) sample, CSEM was mostly obtained from websites, newsgroups, and chat rooms, while emails and file-sharing were the least frequent online locations for CSEMOs and MOs. Caple (2008) found that CSEMOs most likely used websites (with or without a subscription) and file sharing programs with only a small proportion utilising newsgroups and chat rooms. In contrast, chat rooms and newsgroups were the main locations for MOs. In A. Carr's (2006) analysis of 149 censorship cases in New Zealand (about 6% did not refer to CSEM), offenders who used open online fora (such as chat rooms) were found to be less involved in the offending process than those offenders with more exclusive forms of contact (such as email); hence, engagement in the offending process appeared to be related to the social ties a person had on the internet. Indeed, A. Carr found that the "social group" who used direct forms of contact (e.g., email) was more likely to produce and sell objectionable material, to possess material that they did not receive on the internet, to have large amounts of material, to spend more time online, and to have more sophisticated storing systems. In addition, they were likely to have legitimate contact with children and higher rates of prior physical offending and censorship convictions. Hence, it may be the case that usage of certain internet facilities is related to social contacts to other offenders and engagement in the offending process.

In summary, CSEMOs appear to engage with CSEM in different ways, for example by organising their material or by trading images. However, it appeared that only a small group of offenders employ sophisticated methods to disguise their offending. Offenders with contact victims seemed to be more involved with regards to activities beyond viewing and collecting CSEM. It further became apparent that direct social contact with other offenders might be related to more serious offending, such as the presence of contact victims in McCarthy's (2010) study and more serious trading involvement or previous censorship offences in A. Carr's (2006) analysis.

Function of CSEM. As discussed in the previous chapter, CSEM can have several functions. A detailed analysis was conducted by Caple (2008) who examined the functions of CSEM from the statements given by the offenders in her sample. Most offenders reported several functions for the collected material. Overall, sexual arousal was the main usage (mostly related to a specific fantasy; 67.5% CSEMOs, 76.5% MOs), followed by sexual exploration (72.5% CSEMOs, 52.9% MOs), as a tool “to avoid real life” (62.5% CSEMOs, 47.1% MOs), and as “therapy” to deal with one’s own abuse (42.5% CSEMOs; 23.5% MOs). Less frequent functions were usage as replacements for actual abuse, tools to relieve negative mood states, and a source of good feelings. Some admitted a loss of control to stop collecting the material. MOs and CSEMOs listed similar functions with the exception of facilitating social relationships which was named by 70.6% of MOs in contrast to 12.5% CSEMOs.

In a second study referring to functions, Sheehan and Sullivan (2010) enquired of their sample of CSEM producers what functions their behaviour fulfilled. All four offenders were also CSEM consumers and only two of them shared the self-produced images with other users. The main function of their CSEM production was to satisfy their own sexual arousal, followed by the experience of power and control through their actions. However, the two offenders who shared their self-produced material also named the social aspect of their CSEM production (e.g., to prove their integrity to other online contacts) and as a way to boost their self-esteem (e.g., increased popularity with online contacts). Overall, it appeared that the different functions of CSEM have differentiating quality amongst CSEM users, as can be seen in the comparison between CSEMOs with or without contact victims, or sharing and non-sharing CSEM producers.

Online Activities Involving Minors. Some CSEMOs engage in behaviours that add an interpersonal component to their offending, such as chatting with a minor online. In Sheldon and Howitt’s (2007) study, about 20% of their MOs had invested time to groom or seduce children online. While 40% had taken photos of their own victims, only about 10% distributed their self-made material online. About 18% of MOs in Caple’s study (2008) exposed their victim to CSEM and 41.2% photographed their

victim. Of these offenders, 41.2% reported they had accessed CSEM prior their first contact offence while about 30% had accessed CSEM afterwards. In the study by Tomak et al. (2009), 12.5% of their CSEMOs initiated sexual online chats with minors and another 12.5% tried to organise offline meetings with minors. In McCarthy's (2010) analysis, MOs were significantly more likely to engage in these behaviours, such as chatting with minors (74% vs. 28%), sending CSEM or adult pornography to minors (28%/22% vs. 0%/5%) and attempting to meet a minor (35% vs. 16%).

A more detailed insight is provided by the National Juvenile Online Victimization Study (N-JOV), an examination of a nationally representative sample of US cases of online sex offending with minor victims, accessed via court and probation services. In a specific subsample of 77 cases that did not entail any forced coercion, Walsh and Wolak (2005) found that 45% of offenders also possessed CSEM, 39% exposed their victim to adult pornography or CSEM, and 27% self-produced CSEM. Wolak, Finkelhor and Mitchell (2005b) had a closer look at these N-JOV cases that involved CSEM production. Most of the offenders acted alone (91%), 8% offended together with friends or family members, and only 1% produced CSEM as part of an organised sex ring. In the majority of cases (73%), the abuser was previously known to the victim; in case of a stranger abuser, victims were usually older, which might be based on their increased risk-taking and decreased supervision online and offline. About one third of CSEM production occurred in groups of victims; in many cases, the victim was encouraged to recruit their friends and introduce new victims to the sexual abuse. In most cases, victims were rewarded for their involvement, mainly with attention and alcohol/drugs. According to Wolak et al., most offenders (71%) took the pictures openly without disguising their recording devices. The produced images vary in content; judged from the most serious level in each picture collection, 26% were found to be labelled as sexually explicit and 27% portrayed genitals in a non-abusive manner while 47% clearly depicted sexual abuse (6% of which contained sexual violence). Interestingly, only three out of ten

offenders distributed the images, and only a few did so in a commercial manner.

It appeared that for many offenders in the reviewed studies, CSEM offending is not an isolated occurrence. Approximately half of the offenders had some involvement with minors online, such as online chats, with MOs doing so more frequently. Analysis from the N-JOV cases revealed that CSEM is also used in the grooming process of children. Hence, it is evident that there is some variety in how CSEM is related to contact offending; these offences might be directly related (e.g., production of CSEM as a result of the abuse) or describe two independent processes (e.g., offender offends online as well as offline). It is further noteworthy that only a subgroup of CSEM producers distributes self-made material.

Summary. There appear to be some features idiosyncratic to CSEM offending that are potential sources of information about their crimes as well as likely markers to differentiate subgroups. An offender's collection is a main source of information that is already part of sentencing decision making in UK courts (Sentencing Guidelines Council, 2007), such as victim gender or content preferences. It appeared that the existence of objectionable pornography other than CSEM might have a relationship to risk. Of further interest is the time spent with the collection and the activities surrounding CSEM offending. For example, only a subgroup of CSEMOs was found to hide their activities, which might be related to their living arrangements. In addition, the online sources of CSEM as well as the social engagement of the individual with other CSEMOs could be related to his risk profile. CSEM can also have different functions for the user which informs about the needs of this particular offender. For example, it appears that a number of non-sexual reasons, even though less frequent, play a role in CSEM offending, such as the need to belong to an online newsgroup. Finally, CSEMOs have been found to seek online contact with minors or to self-produce images for online trading purposes, hence at least for a subgroup of these offenders, CSEM offending has a relationship to contact offending. This was further emphasised by the

larger group of MOs, who had had contact offences with minor victims, engaging in these activities.

Summary of CSEMO Characteristics and Offence Variables

The review presented above summarised the current state of knowledge regarding CSEMOs and their offending, as well as differences to CSOs. As stated, some of the findings refer to the whole group of online sex offenders and thus may not be specific for all CSEMOs. In general, CSEMOs were found to be male and of Caucasian origin. They were slightly younger than CSOs but, as opposed to earlier claims, appeared to have equal education and employment status to CSOs. However, they were found more likely to be unemployed than the normal population, which might also reflect the effects of their arrest.

Given that CSEMOs were more inclined to fantasy and internal locus of control, they might have more reflective and abstractive skills than CSOs. However, there was also some selective research that suggested that CSEMOs are more inclined to exploitative decision making. Online offenders were found to be highly sexualised, in both their current lifestyle as well as childhood experiences. They seemed to be less aggressive and impulsive in their actions but emotionally troubled with some social intimacy problems. Even though it may be that this is a reaction to their arrest, CSEMOs also had higher lifetime contact with mental health professionals in comparison to contact sex offenders. As a group, they appeared more antisocially oriented than the normal population and have a high occurrence of sexual deviance, including paedophilia.

Most research regarding offence variables focused on cognitive distortions. Even though CSEMOs were found to share fewer cognitive distortions than their contact counterparts on conventional assessment measures, it is possible that they have different sorts of cognitive distortions. For example, online sex offenders were found to be more inclined to report sexual objectification of children. On the other hand, they were described as having less distorted victim empathy and less emotional congruence with children, as well as less cognitions regarding justification of their offence. Their offending seemed characterised by

pathways of intimacy deficits and emotional dysregulation, but current ways of classification might not grasp the extent of their offending.

There were some variables that differentiated CSEM offending from other sex offences, such as the presence and content of their CSEM collection, the online location it was retrieved from, or their wider involvement in CSEM offending. Another aspect was the function CSEM has for its user—according to Caple (2008), most consumers used CSEM for sexual exploration, sexual arousal, and avoidance of real life.

Returning to the question of establishing differences between CSOs and CSEMOs, it has become apparent that CSEMOs share more similarities than differences with CSOs. However, they might differ in a few areas, for example with regards to some demographic markers (e.g., age, ethnicity), the quality of their cognitive distortions, or the importance of sexual fantasies.

Nevertheless, all of this information is based on studies that included CSEMOs who have come to the attention of police or have sought treatment, perhaps forcibly, for their behaviour. There are attempts to get a better “real-life picture” of CSEMOs, for example in the anonymous survey study by Seigfried et al. (2008) or in the distortion analyses extracted from online posts on paedophile websites (e.g., Durkin & Bryant, 1999). One approach has been reported by Neutze, Mundt, Schaefer, and Beier (2009) from the *Projekt Dunkelfeld*, an anonymous assessment and treatment programme for individuals with a sexual interest in children that live undetected in the community. This service is offered to both CSEMOs and CSOs in the Charité – Universitätsmedizin Berlin in Germany. Neutze et al. found that undetected offenders were younger, better educated, and more often employed than detected offenders. Undetected CSEMOs reported more risk awareness and less coping self-efficacy while undetected CSOs had a stronger sexual drive than their detected counterparts. Hence, it should be considered that our current knowledge of CSEMOs is based on a subgroup of these offenders and that undetected CSEMOs may have a different profile, such as higher risk awareness. In addition, their higher education may reflect greater intellectual skills, which may see them more adept as avoidance of

detection. More such research is needed in order to fully understand the whole group of CSEMOs and to employ more sophisticated policing methods.

In summary, this review supports the need for specific assessment and treatment components for CSEMOs. This review further showed that CSEMOs are not a homogeneous group with respect to the considered variables. It has been stated throughout the text that some variables may differentiate subgroups of CSEMOs. It has further been suggested, for example by McCarthy (2010), that characteristics of MOs that are significantly different from CSEMOs might be “potential risk factors associated with [CSEMOs] who had a history of child sexual abuse” (p. 192). With the current knowledge, this cannot be confirmed; a variable may be more typologically important than risk-relevant (or possibly both). The risk level of CSEMOs will be discussed later in this thesis. In the following section, the heterogeneity of CSEMOs is considered in more detail: It is examined what typologies of CSEMOs already exist to differentiate subgroups of CSEMOs.

The Three Dimensions of CSEM Offending: A Draft Typology

If CSEMOs are different from CSOs, conventional typologies (such as the distinction of extrafamilial and intrafamilial offenders) cannot be successfully applied to this offender group¹². In addition, as outlined above, the identified heterogeneity of CSEMOs suggests that several subgroups of CSEM users exist. For example, Briggs et al. (2009, 2011) have introduced a broad distinction of fantasy-driven and contact-driven offenders. This conceptualisation is further underlined by the research finding that fantasy plays a crucial role in online sex offending (see Sheldon & Howitt, 2007, 2008). It is thus argued that the fantasy-driven/contact-driven distinction can be successfully applied to CSEMOs. It is further argued that contact-driven offenders can be assumed to share

¹² “The Three Dimension of CSEM Offending” is the core of an article whose final and definitive form has been published: Merdian, H. L., Curtis, C., Thakker, J., Wilson, N. & Boer, D. P. (2011). The three dimensions of online child pornography offending. *Journal of Sexual Aggression* [OnlineFirst Publication] doi:10.1080/13552600.2011.611898. *Journal of Sexual Aggression* is available online at: www.tandfonline.com

more similarities with CSOs than fantasy-driven offenders while the latter have unique criminogenic needs. Hence, at least for the subgroup of fantasy-driven CSEMOs, new assessment and treatment models need to be identified based on the differences in their offending and the offender characteristics outlined above. Even though this theoretical distinction is deduced from the studies presented previously, empirical validation is required.

There are several models that have presented classifications of CSEMOs into different subgroups, which are discussed below. An initial comparison of the existing models suggests that CSEM offending occurs on three dimensions. Different combinations of these dimensions will define subgroups of CSEMOs and aid in describing different risk groups.

Dimension One: Relationship to Contact Sex Offending

The above discussion has shown that a valuable differentiation can be made between CSEM offending as a form of fantasy-driven offending and CSEM as part of contact sexual abuse (contact-driven). For the latter aspect, CSEM can either be the result of a contact sex offence (for instance, where an abuser produces his own child sexual abuse images) or it can be employed in the victim-grooming process to desensitise the child for future contact sexual abuse, for example when images of other children are shown to the victim. This taxonomy is supported by the above review of offender characteristics that suggests some stable differences between CSEMOs and CSOs as well as between CSEMOs with and without contact victims. This differentiation has been identified before. Research by J. Sullivan and Beech (2004), and (in more detail) by McLaughlin (2000), empirically separated samples of online sex offenders into *collectors/traders* without any record of contact sexual abuse, *travellers* who also engage online to recruit victims for future sexual meetings, and *manufacturers* that is, producers of CSEM. These authors also mentioned a fourth group, so-called *chatters*, who engage in online sexual discussion and activities with minors, presenting themselves as “mentors” (this group does not usually progress to abusive behaviours but operates on the verge of legality by having “sex-education” talks with

minors). In an examination of 200 cases from a police investigation on CSEMOs, McLaughlin found that a clear majority (71.5%) could be categorised as collectors, while 24% were travellers, and only 4% manufacturers; only one subject was found to be a chatter. Alexy, Burgess, and Baker (2006) reviewed 225 cases from public news sources and found that 59.1% qualified as traders, 21.8% were classified as travellers, and 19% displayed a combination of both trading and travelling behaviour. Overall, it appears that the majority of detected cases are confined to CSEM, with only one quarter additionally engaging in contact offending.

The above studies confirm that the suggested differentiation of two functions of CSEM (fantasy-driven versus contact-driven) fits the empirical literature and allows classification of all online sex offender types that have been identified in these studies. Nevertheless, it does not reveal the underlying motivations of child molesters who employ the internet for their offending.

Dimension Two: Motivation behind CSEM Offending

Knowledge of the psychological basis of an individual's behaviour is vital to develop appropriate risk assessment and treatment strategies (see discussion in Andrews & Bonta, 2006). Hence, the second dimension focuses on the motivation underlying a CSEMO's behaviour.

One of the first approaches to separate different motivational types of CSEMOs was undertaken by Lanning (2001). He adjusted his original categorisation of CSOs to online sex offenders, where an individual is placed on a continuum from situational to preferential offending. A situational offender is described as seeking to access the abusive material in a one-off approach, based on curiosity or thoughts of easy money with trading, or an impulsive need for sexual gratification. On the other hand, a preferential offender consciously and repeatedly looks for objectionable material involving minors. According to Lanning, the sexual preference of this group of offenders for children and adolescents is either based on paedophilia or a general interest in deviant sexual practices. While situational offenders act rather opportunistically, preferential offenders are

more deliberate in their sex offending. (Lanning further labels a third group of CSEMOs as *miscellaneous*, a group that includes primarily non-sexual encounters with objectionable material, such as media reporters who are researching the topic for a journal article.) Consequentially, it is the group of preferential sex offenders who are the “primary sexual exploiters of children” (Lanning, 2001, p. 210). According to Lanning’s analysis, they are characterised by a long-term and persistent pattern of sexually deviant, fantasy-driven behaviour, and have well-developed offending techniques.

A similar distinction was suggested by Wortley and Smallbone (2006) who separated *recreational users* (occasional, infrequent use), *at-risk users* (users with a developing sexual interest in children), and *sexually compulsive users* of CSEM. While the first group clearly reflects Lanning’s (2001) situational user, the latter two groups fit into his definition of a preferential offender. Finally, built on his experiences from the COPINE project, Taylor (1999) developed another motivation-based typology, including six types of CSEMOs: the *confirmed collector*, the *confirmed producer*, the *sexually omnivorous user*, the *sexually curious user*, the *libertarian* who accesses objectionable material as a form of protest against online censorship, and the *entrepreneur*.

Comparing these three models, four different motivational types CSEMOs become apparent:

- 1) Paedophilic motivation: These offenders have a sexual preference for children, either in fantasy (*confirmed collector*) or real-life (*confirmed producer*).
- 2) General deviant sexual interest: These offenders access CSEM as part of a general sexual deviance, not necessarily restricted to children. They may also have interest in other forms of deviant pornography, such as extreme violence or bestiality (e.g., the *sexually omnivorous user*).
- 3) Financial motivation: Those offenders are not primarily motivated by their sexual interest but consider CSEM as a market for commercial exploitation (*entrepreneur*). CSEM is considered a valuable

commodity that can be sold online or function as currency to get access to more (and more deviant) material.

- 4) Other: This category includes users whose motivation to access CSEM is based on other reasons, such as curiosity (*sexually-testing user*) or moral considerations (*libertarian*). As described previously, for some users, CSEM is mainly a collectible, not a sexual tool; here, pleasure is mostly gained from sorting and completing their material or comparing the collection with other collectors. As Quayle et al. (2006) pointed out some collectors differentiate themselves from paedophiles by being “only collectors”.

A closer look reveals that the first three subgroups can be considered as a more detailed description of Lanning’s (2001) preferential offender while the last subgroup is rather opportunistically driven.

Beech et al. (2008) suggested a similar typology of CSEMOs, separating four basic motivations: curiosity, sexual interest in children, non-sexual reasons (e.g., financial incentives), and involvement in contact sex offending. However, the last aspect is not a genuine impetus for CSEM offending but is itself based on either a general sexual deviancy or a specific sexual preference for children. Nevertheless, an individual’s engagement in contact sexual abuse certainly needs to be regarded as an indication of a more serious abuse process, as reflected in the first dimension of this draft typology. Hence, Beech and his colleagues’ analysis also fits in the categories outlined above. It appears that identification of the underlying motivation reveals a second dimension that will help to classify these offender types.

Dimension Three: The Social Component of CSEM Offending

Hartmann, Burgess, and Lanning (1984) offered the earliest categorisation of (offline) CSEMOs, based on an examination of members of 55 sex rings. They identified four types of CSEMOs: The *closet collector* was defined as a secretive collector without a history of contact abuse or communication with other collectors. The *paedophile collector* is described as having a general sexual preference for children, which is also

expressed in the contact sexual abuse of a victim. The *cottage collector* collects and sexually abuses as a form of group behaviour, in a desire to establish and maintain relationships with other collectors; and the last subtype, the *commercial collector*, belongs to an organised ring of for-profit traders of pornography. Hence, it becomes evident that the increasing sexual exploitation of children in this typology is related to an increased social involvement with other offending individuals. This approach adds the last dimension to this typology. The following section will have a closer look at the social aspect of CSEM offending.

One of the most comprehensive typologies of online sex offending has been proposed by Krone (2004, 2005a). The original aspect of his work is that he defined seriousness of offending according to three aspects: (1) types of involvement, (2) level of networking with other offenders, and (3) the security level employed by each subgroup. In his typology, Krone separated nine distinct forms of CSEMOs. The first five types (*browser, private fantasy, trawler, non-secure collector, and secure collector*) are exclusively involved in non-contact CSEM offending (which Krone refers to as *indirect abusers*). Increased involvement in the offending process, as indicated by more active searching for CSEM, is understood to lead to enhanced networking with other offenders, which is assumed to result in a change in the received material (such as more extreme material) as well as an initiating of trading activities. Consequently, a higher level of involvement is also related to an increased need for security (Krone's last aspect). The *groomer, physical abuser, and producer* describe the second group, the *direct abusers*. For these subgroups, CSEM has a function in a broader offending process (involving both non-contact and contact offences), and according to Krone, their networking with other offenders can vary. The last level is the *distributor* who can occur on any of the levels above (i.e., level of social networking and security can vary).

What again becomes apparent is that there are two distinct forms of CSEMOs—those involved in downloading, displaying and trading of CSEM and those whose CSEM offending is part of their contact sexual abuse of children. At least within the first group, increased networking with

other offenders is representative of an increased seriousness of the offending. This is expressed in trading activity instead of purely collecting, possession of images with more deviant content, as well as enhanced knowledge about security measures to protect oneself. McLaughlin (2000) had already reported that in his sample of collectors, a proceeding from static to more dynamic online locations¹³ (which again represents a shift in increased networking activities) had been related to a move from collecting to distribution CSEM.

A similar approach was undertaken by A. Carr (2006). Her comprehensive analysis of CSEMOs resulted in five different groups that she separated according to the internet application used to access CSEM. The two subgroups who preferred Internet Relay Chat (IRC) or File Transfer Protocols through IRC to download their material were found to spend less than 30 hours online per week, had no previous convictions, did not have an organised collection, and did not seem to be involved in any trading or networking activities. IRCs are open chat locations based in the www, where many different people can interact with each other. Hence, any involvement with individuals of similar interests and the exchange of objectionable material is initiated in a broader social forum. The third group preferred to engage in newsgroups, which implies a closer networking with other online offenders as well as increased knowledge about internet dynamics. Offenders who preferred newsgroups were more involved in the offending process, having had previous convictions, and often have very diverse and extensive picture collections. The most serious offender group favoured email and instant messengers, wherein the exchange of objectionable material is based on a one-to-one interaction with other offenders. Amongst other variables, this group, in A. Carr's analysis, was characterised by a regular networking with other offenders, by engagement in commercial trading and/or CSEM production, by an organised image collection, by a prior criminal record, and by having access to children, thus presenting a higher risk group than previous

¹³ Static online locations have no interactive component, such as websites. Dynamic resources rely on interactions with other users, such as internet chat or messaging boards.

subtypes. The last group in A. Carr's study showed no preference in their internet application. These offenders often had previous convictions for a sex offence, used the internet to initiate contact with potential victims, were engaged in offline networking with other offenders, and were also involved in commercial trading of the objectionable material.

A. Carr's analysis confirms the impression that a serious engagement in CSEM offending is related to increased networking with other offenders, a tendency for more secure internet applications, and a reduction in opportunistic behaviour, such as chatting in a broader social forum. The last offender group, who were found to have no preference in their internet application, was the only group involved in online victim grooming. Similar to Krone's (2004, 2005a) typology, this can be explained by the existence of two profoundly distinct groups (CSEM in isolation or as part of a broader sexual offending context). So far, an increase in seriousness of the offensive behaviour based on their level of social engagement with other offenders has been demonstrated for the first group only.

In a pilot study of CSEMOs in New Zealand, A. Carr (2004) had already observed that a progression in the offending behaviour was related to a change of preferred internet applications; second-time offenders had an increase in email usage, and an enhanced networking with other offenders was related to highly specific or unusual material in their collection, which was often associated with previous convictions for sex offences. A. Carr then suggested commitment to collecting behaviour as well as a specific preference in image content as indicators of the seriousness of an individual's involvement. Nevertheless, both aspects, collecting behaviour as well as image specificity, are inevitably linked to social networking with other offenders as a source of access to highly deviant and specific material.

In summary, the above considerations are the theoretical basis for a CSEMO categorisation, based on three distinct dimensions: focus of CSEM offending, motivation behind CSEM offending, and social engagement in the offending behaviour.

Pathways of CSEM Offending

Figure 1 provides a graphical depiction of the proposed typology for CSEMOs in order to aid assessment and treatment planning of a CSEMO. On the first dimension, offenders can be divided into fantasy-driven and contact-driven offenders. The latter requires traditional sex offender assessment and treatment elements in addition to the fantasy-based approach. Secondly, an assessment of the underlying motivation of the offender is conducted. As derived above, four distinct motivations are differentiated. Purely financial and other non-sexual motivations (for example, a misguided journalist who has to research the topic) refer to a non-sexual motivation on part of the offender, and do not indicate a need for specialised sex offender assessment and treatment. Lastly, increased seriousness of the offensive behaviour is indicated by high networking with other CSEMOs, for example by using interactive communication tools, being a member of a relevant newsgroup or engaging in trading with other users. In previous samples, these subgroups have displayed more intense engagement in the offending process, for example in terms of time, contacts, or deviancy of material (e.g., A. Carr, 2006). High social networking therefore expresses higher severity in their offending and possibly an enhanced risk of reoffending.

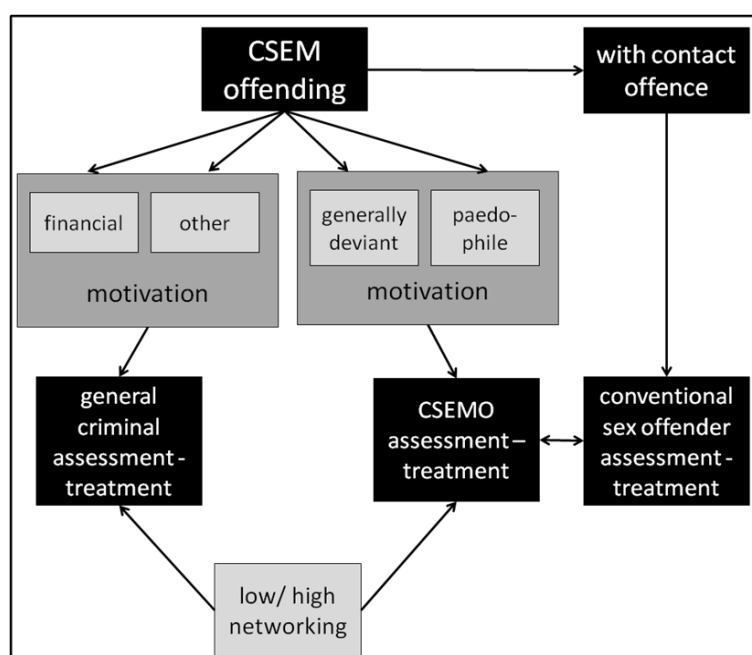


Figure 1: The three dimensions of CSEM offending

The main subgroups of the fantasy-driven offender profile are based on generally deviant and paedophilic motivation. As before, higher social networking is considered indicative of higher severity of the offending behaviour. Also, deeper engagement in CSEM offending can make it more difficult for the offender to disrupt established behavioural patterns in the future. Overall, this is a conceptual model based on previous theories and typologies of CSEM offending without empirical validation. It is thought to aid in the categorisation of CSEMOs, and may be useful for professionals in categorising an offending individual and selecting appropriate assessment and treatment measures accordingly. Understanding the individual's offending process is a valuable tool in identifying the level of involvement in his offending and in defining offender needs and motivations for each stage of the offending process.

Nevertheless, CSEM offending is not only different from contact sex offending in terms of the offenders but also in terms of where and how the offending occurs. In the following section, it is argued that CSEM offending needs to be conceptualised not only from a person-centred but a contextual perspective in order to understand (and influence) offender pathways.

Situational Determinants of CSEM Offending

It has been mentioned in the introduction that some CSEMOs describe a compulsive or addictive component of their offending that makes it difficult to desist from offending (Taylor & Quayle, 2003). The notion of CSEM offending as a result of "internet addiction" has been referred to by some professionals, mainly by Young (2007, 2008) and within the German literature, for example by Frei et al. (2005), Seikowski (2005), and Kuhnen (2007). Although terms like *internet addiction* have been used to describe excessive internet use (Warden et al., 2004), some consider online sexual offences part of a more general problematic use of the internet. R. Davis (2001) distinguished general Pathological Internet Use (PIU), which may include wider, multidimensional overuse of the internet, from specific PIU, which may involve problematic overuse of the internet for a specific purpose, such as gambling, gaming, or online sex.

Hence, the object of online addiction can vary for each user, like information seeking, chatting, or cybersex (Shaffer, Hall, & Bilt, 2000). Furthermore, excessive internet usage has been suggested to form an independent disorder, similar to impulse control disorders such as pathological gambling, or be the consequence of an existing pathology, such as paedophilia. In that respect, R. Davis (2001) proposed that specific PIU is generally the result of an antecedent psychopathology that becomes linked with internet usage, indicating that this is likely a new form of an existing problematic or deviant behaviour. A survey by Pratarelli and Browne (2002) confirmed a causal relationship between existing addictive tendencies and an overuse of the internet, specifically for sexual purposes.

With regards to an independent disorder, some researchers have now developed diagnostic criteria for so-called *internet addiction* (R. Davis, 2001; Griffiths, 2000; Hecht Orzack, Voluse, Wolf, & Hennen, 2006; Kandell, 1998; Morahan-Martin, 2005; Young, 2007); key criteria are use of the internet to modulate negative moods or to escape reality, preoccupation with the internet, increasing usage of the internet, symptoms of tolerance and withdrawal, denial of internet usage and serious disturbances in offline activities as well as unsuccessful attempts to cut down internet exposure. As Shaffer et al. (2000) stated, given the variety of online activities, internet addiction is unlikely to be an isolated phenomenon. Comorbid disorders have been found to include personality disorders, mood and anxiety disorders, substance abuse and depression (Galbreath, Berlin, & Sawyer, 2002; Putnam, 2000). China was the first country to officially recognise internet addiction as a clinical disorder ("China issues", 2008), and similar attempts are proposed in the Western world (see Young, 2007). However, many researchers question the value of current research to identify a group of internet addicts distinct from non-pathological users, one of the requirements for inclusion into the Diagnostic and Statistical Manual of Clinical Disorders (Griffiths, 1998, 2000; Warden et al., 2001). At the moment, internet addiction is regarded a specific form of already existing disorders, mostly impulse control disorder (ICD-NOS; Shapira, Goldsmith, Keck, Khoshla, & McElroy, 2000;

Treuer, Fábíán, & Füredi, 2001). An elaborate discussion of the issue is provided by Quayle (2008). At this time, without conceptual clarifications and rigorous empirical research, the existence of internet addiction as a clinical disorder cannot be established.

Whether or not internet addiction exists as an independent disorder, there is professional recognition that the internet can hold what appears to be an addictive component for some CSEMOs, as suggested by R. Davis' (2001) specific PIU, potentially creating difficulties as outlined in the proposed diagnostic criteria. An empirical example is described in Stein, Black, Shapira, and Spitzer (2001), reporting on the case of a 42 year old man who spent increasing amounts of time online looking for pornography, which led to offline sexual, marital, and financial troubles that he felt unable to control. Furthermore, in their studies on six "cybersex addicts", Bingham and Piotrowski (1996) identified inadequate social skills, engagement in sexually explicit fantasies, and an inability to control their sexual urges as common characteristics of such addicts. Young (2008) conducted clinical interviews with 22 clients from her Centre for Online Addiction, who had tried to arrange offline meetings following chats with a minor. In all these cases, Young recognised the five stages of development of her addiction model (Young, 2001): Discovery of the behaviour, exploration, escalation, compulsion, and finally hopelessness or regret, which can be expressed in attempts to stop the behaviour.

For these people, the internet might be perceived as the only way to successfully gratify one's sexual needs, which, once established, may be difficult, if not impossible, to change without professional support. Hence, the concept of an addictive attraction to the internet may form a problematic issue for at least a subgroup of CSEMOs. It can be compared to eating disorders in that the client needs to learn a responsible way of dealing with their excessive behaviour since it is not possible and probably not feasible to completely cut the internet from one's life. Therefore, an assessment of CSEMOs should include the function of the internet in general alongside the function of CSEM in specific for the particular offender.

Internet addiction is an extreme example of the negative contextual influences of the internet. It has already been explored in the first chapter how qualities of the internet environment may facilitate online offending, summarised in Cooper's (1998) Triple-A-engine (i.e., affordability, accessibility, and anonymity). Taylor and Quayle (2006, 2008) have explored the application of Rational Choice Theory (RCT) on online sex offending. As Taylor and Quayle (2008) proposed, "Rational choice theory emphasises the importance of the situational context facing the offender in the period immediately before and at the time of offending, in terms of the factors that might influence decision processes" (p. 120). In an application of RCT, Taylor and Quayle (2006) explored the online environment following Cusson's (1993) three-fold analysis of crime patterns: search, pre-criminal crime situation, and criminal tactics. With regards to CSEM offending, Taylor and Quayle (2006) stated that the search for an opportunity to offend will inevitably lead to a pre-criminal situation, such as the entry to a website that provides CSEM. The search is an immediate predecessor to the criminal act, for example providing one's credit card details to pay for the provided material. The third aspect, criminal tactics, refers to the choices and actions taken by the individual to commit the actual offence, including the conscious decision to overcome protective factors. According to Taylor and Quayle, a person will repeat successful strategies if perceived as gratifying, or will imitate actions that were communicated as successful by other offenders. This feedback-loop is further influenced by physiological states, such as heightened sexual arousal that contribute to the decision process by narrowing the individual's focus on immediate, egocentric gratification. Consequently, this will make it more likely for the same behaviour to occur in a state of similar visceral reaction. Taylor and Quayle (2008, p. 124) summarised the four main situational factors that influence CSEM offending on the internet:

- The nature of the situational context in which criminal opportunities arise, especially the ecological significance of high affordance cues giving access to images.
- Immediate and highly salient reinforcement on access to images.

- Perceived (if not necessarily real) absence of capable guardianship and surveillance (in a general sense as far as the internet is concerned, and in a specific sense in terms of the privacy associated with internet use).
- Insensitivity to immediate negative qualities resulting from both motivational factors and the strong affordance qualities of screen based cues.

In their Model of Potentially Problematic Internet Use, Taylor and Quayle (2003) developed an interactive model of the behavioural, psychological, and environmental factors involved in the CSEM offending of a particular offender. Setting events set the predisposition for an offender to engage in the search stage. These events can be distal, for example, childhood sexual peer play, or proximal, such as a current arousal state or thought. The offender will then engage with the internet in order to gratify his needs. His online engagement will further condition his perceived gratification, and trigger problematic, offence-supportive cognitions, which will inevitably intensify his offending behaviour, for instance as a consequence of escalated problematic internet usage, increased and rewarded online fantasies and sexual behaviours, and normalisation by other offenders. As a result of their qualitative analysis of interviews with CSEMOs, Quayle and Taylor (2003) identified the perceived anonymity of the internet and the ready accessibility of objectionable material as situational reinforcers for CSEMOs. On an emotional level, the subjects reported a feeling of control due to mastery of the internet and bypassing security measures, as well as a sense of belonging and credibility by other users in the community. In a constant interactive process, these situational, cognitive, and emotional factors reinforce each other, further escalating the time spent online and reducing offline activities. Some of the offenders in Quayle and Taylor's (2003) sample explained that their online activity had an addictive quality which became increasingly more difficult to control.

Overall, this means that CSEM offending is not only influenced by the person but the person is also influenced by their offending. Wortley (2009) described: "In some cases, environmental pressures can induce people to

perform behaviours which are out of character and which they would not have otherwise contemplated” (p. 3). Offender-specific situations, thoughts, and feelings initiate early offending strategies that are readily reinforced by the cognitions and emotions triggered online, increasing the likelihood of a person’s future involvement in online offending (and possibly having an addiction-like quality). Within an RCT framework, it is acknowledged that these situational factors—both virtual and physical— influence the decision processes before and at the time of offending (Quayle, 2009a; Wortley, 2009). According to Taylor and Quayle (2006), their models can be used to develop therapeutic interventions for CSEMOs. Comprehension of an offender’s criminal pathways therefore includes situational factors and the understanding that crime prevention may also be achieved by focusing on the context of the crime. “Situational crime prevention” (Wortley, 2009, p. 3) for online crime is centred on increasing the risk of detection and reducing the rewards perceived from one’s behaviour. The concept of situational crime prevention for CSEMOs has also been recognised by global policing institutions, such as the *Law Enforcement Projects Subgroup* (Oosterbaan & Ibrahim, 2009).

Chapter Summary

In this chapter, a conceptualisation of CSEMOs and the process of CSEM offending were outlined. A detailed review of previous research on CSEMOs and their offence characteristics was conducted. Overall, CSEMOs were found to be Caucasians and in their mid-thirties. They were reportedly younger than CSOs. CSEMOs appeared to have experienced a less violent but rather sexualised childhood and to have an emotionally troubled psychological presentation. In comparison to CSOs, CSEMOs might have better reflective skills and a higher interest in fantasies but might be more immoral and exploitative in their decision making. With regards to pro-offending attitudes, they were found to be more sexually deviant than CSOs but to have a less distorted sense of victim empathy. However, they were also characterised as having a higher sexual objectification of children. Concerning offence variables, there might be qualitative differences to CSOs, for example considering their offence

pathways or their cognitive distortions. In addition, CSEM offending has some unique variables, such as the content of the collected CSEM, the online location this material was accessed from, the relationship to contact offending, and the function this material had for its consumer. Overall, while the current review suggested stable differences between CSOs and CSEMOs, as well as between abusing and non-abusing CSEMOs, it also reflected an image of CSEMOs as a heterogeneous offender type, emphasising the existence of different subgroups. These findings further underlined the need for more appropriate assessment tools.

In order to develop a typology of CSEMOs, existing taxonomies of CSEMOs were compared and integrated into a draft model. CSEMOs were differentiated according to three dimensions of their CSEM offending: fantasy-driven versus contact-driven offending, the underlying motivation of the offender, and the social component in the offending process. This led to a differentiation of eight subgroups of CSEMOs.

Finally, the context of CSEM offending was discussed. CSEM offending is best understood as interplay of situational, cognitive, and emotional components that are reinforced by a person's online activities, hence increase the likelihood for future offending. As a consequence, the user might experience a functional dependency to the internet. Two models were presented to implement situational aspects into an offender's assessment.

Chapter 4:

The Relationship between CSEM and Contact Sex Offending

In this chapter, the relationship between CSEM consumption and direct sexual contact with a minor is explored. In the first section, correspondent behavioural indicators, criminal history and recidivistic offending in CSEMOs, are examined. The core of this chapter explores the theoretical and empirical basis of the relationship between general pornography consumption and its effects on sexual aggression. The chapter concludes with some reflections on the effects of CSEM consumption, further underlining the two-fold distinction between contact-driven and fantasy-driven offenders.

CSEM and Contact Sex Offending

The previous chapter provided an overview of the individuals who view CSEM and concluded with the notion that CSEMOs are different from CSOs and hence require specialised assessment and treatment. The assessment of risk is a central aspect of the work with any offender population and standardised risk measures to assess general, violent and sexual recidivism have been developed. Given the differences revealed between the offender groups, new risk measures likely need to be developed for CSEMOs. It has been outlined that there are offenders who combine CSEM and contact sex offending (i.e., mixed offenders) or progress from one offence type to another. Therefore, when assessing the risk of reoffending in CSEMOs, two aspects of risk need to be considered: reoffending with CSEM, and the risk of contact sexual abuse with a child. As proposed in Chapter Three, it is likely that different subtypes of CSEMOs are further differentiated in terms of risk of reoffending. The multidimensional concept of risk is discussed in more detail in Chapter Five.

Most legal penalty systems reflect a severity continuum of sex offending, placing viewing of CSEM at lower severity than contact sex offending (Interpol, 2008). However, there is likely a relationship between CSEM, fantasy, and contact sex offending. This chapter examines the role of CSEM in contact sex offending other than CSEM production, in that the relationship between CSEM and contact sexual abuse may be linked by the offender's past and future behaviours.

Previous research has mostly focused on the behavioural effects of legal pornography, or its role in contact sex offending. Little research has been conducted so far on the effects of CSEM given the only recent increase in empirical studies on CSEM as well as ethical limitations regarding CSEM usage in experimental designs. In this chapter, studies of legal pornography and the theoretical models of it will be reviewed, concluding with a reference from these explorations back to CSEM in its relationship to contact sex offending.

Behavioural Indicators of CSEMOs

In the *Global Symposium for Examining the Relationship between Online and Offline Offenses and Preventing the Sexual Exploitation of Children* (Oosterbaan & Ibrahim, 2009), it was stated:

Participants (...) agreed that there is sufficient evidence of a relationship between possession of child pornography and the commission of contact sex offences (...) [because] a significant portion of those who possess child pornography have committed a contact sexual offence against a child (p. 10).

Therefore, one way to explore the relationship between CSEM offending and contact sex offending is an analysis of behavioural indicators, both a CSEMO's criminal history and recidivism after his index offending.

The Criminal History of CSEMOs

The criminal history of CSEMOs has been explored in two meta-analyses. Overall, it appeared that the majority of CSEMOs had no criminal record. With regards to contact sex offending, Hanson and Babchishin (2009) conducted a meta-analysis which included 15 studies of

online offenders with a total sample of $n = 3,536$. They found that 18.5% of offenders had a history of contact sex offending, “mostly against a child” (n. p.), which reduced to 13.3% when self-report data was excluded. These findings suggest that many offenders have engaged in undetected offending insofar as the inclusion of self-reports increased the number of online offenders with contact offences. A year later, with an increased sample of 4,697 online offenders, Seto, Hanson, and Babchishin (2011) identified 17.3% of offenders with a historic contact sex offence, “mostly against a child” (p. 9), or 12.2% when only official information was included.

Even though online offenders still have higher rates of sex offences than the general population (A. Carr, 2004), they thus appear less criminally active than CSOs. Webb et al. (2007) found significantly less prior sexual convictions in their samples of CSEMOs than CSOs. Elliott et al. (2009) reported that their sample of CSEMOs had conducted significantly less previous offences than their sample of CSOs (CSOs were 2.73 times more likely to have a previous known sex offence; 10.9% in CSEMOs vs. 23.8% in CSOs).

However, these findings might underestimate the true account of offence histories. Both meta-analyses on the offenders’ criminal history (Hanson & Babchishin, 2009; Seto et al., 2011) made apparent the difference between official crime information (e.g., arrest or conviction rates) and self-report data. They found that, considering official records, about 4.8% to 11.2% of online offenders had prior contact sex offences; however, studies including only self-report data reported rates between 51.4% and 60%. The empirical research on this topic confirms some discrepancy between official and self-reported data on criminal history: In their study of 155 treated CSEMOs, Bourke and Hernandez (2009) found that the number of offenders reporting a history of contact child molestation rose from 26% prior to treatment to 85% after treatment, with an increase from 1.88 to 13.56 victims per offender. Many offenders had reported that their contact offences had occurred prior to CSEM consumption. Even though these findings were reportedly confirmed by polygraph assessment, the outcome was challenged by Wollert (2008) as

“researcher demand effect” and their study was identified as an outlier in Seto et al. (2011). Nevertheless, Bourke and Hernandez (2009) raised the important issue of the underestimation by using official crime data that has also become apparent in studies on undiscovered child abusers (see Neutze et al., 2009).

J. Wood et al. (2009) further reported an increase in CSEMOs’ historic sex offence disclosures after using polygraph testing. Buschman and his colleagues (Buschman & Bogaerts, 2009; Buschman, Bogaerts, et al., 2010; Buschman, Wilcox, Krapohl, Oelrich, & Hackett, 2010) systematically measured the difference between self-report and polygraph information in an agglomerated sample of 63 CSEMOs, comparing the outcomes of the initially administered self-report SBC with information retrieved during polygraph examination. While no offender had reported any sexual contact with a minor in the SBC, polygraph assessment revealed that all of the offenders had engaged in “delinquent behaviours towards children”, such as touching a child for sexual reasons. Twenty-one offenders even disclosed contact sex offences with a child.

Overall, based on official accounts there are a number of CSEMOs with a history of child contact sex abuse, even more so when self-report data or polygraph information is considered. It is of further interest how these contact sex offences are causally related to one’s CSEM offending. For example in McCarthy’s (2010) sample, 84% of MOs declared that they had conducted their sex offences prior to viewing CSEM. In a follow-up analysis of the data used in Bourke and Hernandez (2009), Hernandez (2009) found that of 42 CSEMOs with contact sex offences, 41 had conducted their hands-on crimes prior to their CSEM offending. Therefore, based on these findings, a direct developmental relationship between CSEM offending and contact sex offending cannot be identified. The second line of interest is the future behaviour of CSEMOs, which is examined in the next section.

Recidivism Rates of CSEMOs

A relationship between CSEM consumption and contact sex offending may also be indicated if CSEMOs were found to consistently

recidivate with contact sex offences. Seto et al. (2011) examined the recidivism rates of a combined sample of 2,630 online offenders. Less than 5% reoffended with a sex offence during the follow-up period of up to 6 years; two of the nine studies even reported no recidivists. Summarising their studies with more detailed information on recidivism, 2% of online offenders were found to reoffend with a contact sex offence, 3.4% with a CSEM offence, and 4.2% for a violent offence. According to this meta-analysis, it thus appears that CSEMOs reoffend with a much smaller rate than other sex offenders.

There may be specific factors that increase risk of reoffending for some CSEMOs. For example, Seto and Eke (2006) found that a history of contact sex offending increased the likelihood for sexual recidivism with a contact offence. The question of risk-related variables will be examined in more detail in Chapter Five. However, there are not many studies on recidivism of CSEMOs and few systematic explorations, such as the meta-analysis conducted by Seto et al. (2011); further, studies vary considerably in the severity of their population and length of follow-up period. Overall, it appears that CSEMOs have very low reoffence rates, especially with regards to contact sex offending.

Recidivism studies focus on re-arrest and re-conviction rates; on a psychological level, though, a person may express a tendency to reoffend, for example by breaking parole conditions. Webb et al. (2007) found that their sample of CSEMOs had significantly higher cooperation with supervision conditions than CSOs, for example regarding treatment attendance. Eighteen percent of CSEMOs in their study displayed sexually risky behaviours (which also included charges and allegations for new offences)—again, CSOs had significantly higher figures. Further, the polygraph studies by Buschman and colleagues (Buschman & Bogaerts, 2009; Buschman, Bogaerts, et al., 2010; Buschman, Wilcox, et al., 2010) revealed a much larger number of CSEMOs engaging in risky behaviours, such as masturbating to child fantasies or planning to have sex with children, than indicated by self-report. On a broader scale, Eke, Seto and Williams (2011) reviewed studies for a total sample of 541 CSEMOs, 24% of whom had been charged with “failures on conditional release”

(excluding new offences). They found that offenders with a violent history were more likely to fail their conditions. Qualitative information regarding the nature of these failures revealed that about half of the offenders violated their conditions by seeking contact with children or accessing the internet to download CSEM.

In summary, CSEMOs appear to be a relatively well-adjusted and less deviant group of sex offenders, based on their official criminal history and reoffending rate. Nevertheless, CSEMOs seem to constitute a heterogeneous group, with a subsample engaging in more risky behaviours, indicating that at least for a subgroup of CSEMOs, a relationship between CSEM consumption and sexually abusive actions towards children might exist. It has to be established if, at least for this subgroup, CSEM consumption triggers sexual interest in children and consequently contact sex offences towards children.

Even though CSEM offending has previously not had much professional attention, legal and violent adult pornography has been extensively researched with regards to their emotional effects and behavioural consequences. The following section will explore theoretical considerations on the relationship between pornography and sexual behaviour before presenting the current research on this topic.

The Question of Causality Part I

Theoretical Explanations on the Relationship between Pornography Consumption and Sexual Behaviour

The effects of pornography on human behaviour have received considerable professional attention, often in line with social developments. One of the first examples is Kutchinsky's study of crime rates in Denmark after the legalisation of hardcore pornography in the early 1970s (see Kutchinsky, 1999). Summarising the literature (Allen, D'Alessio, & Emmers-Sommer, 1999; Hill et al., 2006; Kuhnen, 2007; Selg, 2003), four paths are differentiated to explain the relationship between pornography and sexual violence:

- *Catharsis thesis*: Pornography may provide an outlet for sexual aggression, hence preventing contact sexual offending.

- *Causality thesis*: Pornography serves a causal role in contact sex offending, for example by establishing sexually aggressive attitudes.
- *Reinforcement thesis*: Pornography is the consequence or expression of an existing inclination to sexual violence, hence both pornography and contact offending are outcomes of the same process.
- *Thesis of ineffectiveness*: There is no relationship between pornography and sexual violence.

While the theses of catharsis and causality promote a direct link between pornography and sex offending, specific mechanisms of the relationship are still unclear and a number of competing theoretical frameworks exist. One of the main theories in the context of pornography is based on evolutionary psychology. Within the understanding of evolutionary psychology, human behaviour is formed by strategies that originally developed to ensure survival and procreation of one's genes. For Selg (n. d.), pornography then is a tool to foster sexual interest, thus a consequence of the centrality of sexuality in human behaviour. Mating differences between the sexes occur given their differing cost in parental investment (Malamuth, 1996a; Selg, n. d.): While females seek long-term relations to ensure safety for them and their offspring, males endeavour frequent partner changes to spread their genes. This makes men more responsive towards visual stimuli, as an indication of fertility in potential mating partners.

While evolutionary psychology may explain gender differences with regards to the attraction and effects of pornography, it still lacks specificity about the processes involved in pornography consumption. Four other frameworks will be discussed below: the Theory of Excitation-Transfer, Psychodynamic Theory, Conditioning Theory, and the Theory of Social Learning.

The Theory of Excitation-Transfer

According to the *Two-Factor Theory of Emotion*, Schachter and Singer (1962) conceptualised emotional experiences as the result of an

interplay between cognitive and physiological components. A typical example is the often-replicated *high bridge study*: In one version, Dutton and Aron (1974) measured the impact of male subjects' physical arousal (high bridge – high arousal vs. low bridge – low arousal) on sexual imagery and perceived attractiveness of a female interviewer. After the subjects had crossed a bridge (high vs. low), they were asked by the same interviewer to fill in a questionnaire and to write a short story; afterwards, they received the interviewer's phone number "for further questions". Those subjects with higher physical arousal (i.e., higher bridge) were significantly more likely to call the interviewer and to write short stories with sexual content than the subjects experiencing low physical arousal. However, no differences between the two subject groups occurred with a male interviewer. Thus, according to the Two-Factor Theory of Emotion, the physical arousal, triggered by the height of the bridge, was cognitively interpreted as sexual, apparently elicited by the presence of a female interviewer.

Correspondingly, Zillmann's (1971) *Theory of Excitation-Transfer theory* applies this theory to pornography and arousal: Consumption of pornography is understood to elicit general bodily excitation that can be transferred into any emotional experience, such as sexual arousal or aggression, dependent on the context. According to this model, sexual aggression is the outcome of unspecific sexual arousal paired with a negative stimulus (such as provocation or visual presentation of violent stimuli), which triggers cognitive interpretation of one's physical stimulation as aggression and makes subjects more prone to act in an aggressive way (Allen, D'Alessio, & Brezgel, 1995). As outlined in Seto, Maric and Barbaree (2001), the level of anger with pornography consumption predicts the anger experience following future consumption. In addition, Kingston, Malamuth, Fedoroff, and Marshall (2009) employed Berkowitz' (1997) *Cognitive Neo-Associationistic Model* to explain the behavioural effect of violent pornography. Viewing violent material triggers aggression-related cognitive schemata and makes them temporarily more accessible, which influences the interpretation of ambiguous arousal.

To summarise the Theory of Excitation-Transfer, interpretation of sexual images is determined by a psychological framework, based on cognitive and affective states of their viewers. It also requires a mediating variable, such as provocation, to receive a measurable effect from pornography.

Psychodynamic Theory

In Psychodynamic theory, as outlined by Epstein (1994), information processing is understood as a combination of rational thinking and subconscious processes with the latter representing a person's primary needs and desires. These unconscious tendencies reflect *intra-psychic conflicts*, resulting from previous (primarily childhood-related) traumatic experiences that do not conform to one's desires. In a general introduction to psychodynamic theory, Prochaska and Norcross (2007) described that individuals develop defence mechanisms in need to overcome these conflicts, or the negative emotions they create. These developments, however, may contribute to conflicts between people.

As Malamuth and Dean (1991) explained, the motivation for sexual aggression is psychodynamically understood as based on childhood conflict with a mother figure presenting as overly strict, critical, and rejecting. These experiences are understood to foster a dislike of women in general and desires to have power and control ("striving for superiority"; Prochaska & Norcross, 2007, p. 65), and may also lead to an inability to express sexual and aggressive impulses appropriately. Therefore, the psychodynamic approach suggests that pornography is used to overcome one's perception of powerlessness as a defence mechanism towards anxiety of female suppression (Hill et al., 2006).

Allen et al. (1999) applied this theory to the relationship skills of sex offenders: They suggested that sex offenders, whose social skills have been shown to be lower than the normal population, may be frustrated with their inability to maintain social or romantic relationships. Such a person may then be more amenable to the pornographic messages of male power and sexual aggression to overcome their inferiority complex;

as Allen et al. (1999) stated: “the paedophile, incestuous male, or rapist seeks a sense of control or mastery over his victim” (p. 146).

Conditioning Theory

Conditioning theory is a classical model used to explain the development of sexual deviation and effective attributes of treatment methods, such as “orgasmic reconditioning” (Schaefer & Colgan, 1977). There are two aspects of conditioning theories, classical and operant conditioning. Gormezano, Prokasy, and Thompson (1987) described the typical set-up of the Pavlovian conditioning situation: A stimulus that elicits a desired response is combined with an unrelated stimulus whose presentation, after an appropriate training period, is then conditioned to trigger the target reaction (i.e., the conditioned response). Following this theory of classical conditioning, sexual arousal that occurs to child material or in the presence of children is consequently linked to the child as a sexual trigger. Secondly, in operant conditioning, behavioural processes are based on the quality of subsequent reinforcers that either increase or decrease behaviour frequency (Bierbaumer & Schmidt, 2003). Applying operant mechanisms to pornography consumption, the experience of sexual gratification after pornography consumption is understood as reinforcing viewing behaviours and increasing the likelihood of further viewing. Given the Triple-A-characteristics of the internet (affordability, availability, and anonymity; Cooper, 1998), negative reinforcements following the pornography behaviour are limited (as compared, for example, to the embarrassment of buying a magazine in real life). In addition, the avoidance of a negative consequence may further act as a reinforcer for pornography consumption by means of the internet. As with any conditioning process, habituation may occur after repeated exposure and lead to an upward shift in explicitness and deviant content of the desired material (Seto et al., 2001; Hill et al., 2006). Consequently, a contact sexual offence could be the “extreme solution” for a pornographically satiated viewer.

Theory of Social Learning

Bandura's (1977) *Social learning theory* described the influence of observational learning on an individual's behaviour: Behaviour observed as rewarding will be adopted by viewers under the assumption of achieving similar gains as the observed actor (Bauserman, 1996). As Hogben and Byrne (1998) outlined, in contrast to Conditioning theories, this process can also occur in the absence of an immediate, observable reward; the crucial aspect is the perception of one's increased self-efficacy on a merely cognitive basis, influenced by developed "success expectancies" due to frequency and intensity of the observation. Also, observational learning can be more influential than direct learning, as the content is presented in a compact and less ambiguous manner (Allen, D'Alessio, et al., 1995). According to this framework, a viewer of violent pornography is prompted to display such behaviour if it is perceived as rewarding.

Social learning theory has some similarities with *Feminist theory* of pornography consumption. Here, pornography is understood to promote a male dominant culture that legitimises violence and sexual exploitation towards women and children (Evans, 2005). As Selg (n. d.) summarised: "The feminist approach can be reduced to a single formula: Pornography is the theory and rape is its application" (para. 3; translated by the author). Indeed, Fisher and Barak (1989) framed violence and degradation in terms of sexual "normativeness and utility" (p. 290), Allen, Emmers, Gebhardt, and Giery (1995) stated that "pornography itself is the violence done against women" (p. 9). Consequently, individuals who view misogynistic material are considered more likely to adopt degrading and anti-female attitudes, especially as usually no negative consequences of sexual aggression are depicted and women are even portrayed as if they are enjoying receiving sexual aggression (Brown & Bryant, 1989; Malamuth & Dean, 1991).

A Critical Review of the Theory

At this stage, none of the theoretical models described above appear to fully explain the relationship between pornography and its

cognitive, emotional and physiological effects on viewers. The Excitation-transfer theory proposes a general state of unspecific physiological arousal that may turn into sexual aggression if corresponding stimuli are presented. However, the existence of such unspecific arousal is questionable, given the sexual connotation of the viewed material and the biological processes preceding genital reaction. A further point of criticism is that it does not account for any habituation processes to occur. Finally, if the negative interpretation of the viewed material is based on temporary activation of aggressive schemata, the effects of this activation should be rather short-term and may not be lasting enough to explain occurrence of a contact sex offence.

The psychodynamic explanation understands sexual aggression as a defence mechanism towards anxiety of female suppression. This conceptualisation of the occurring processes seems too specific to grasp the number and heterogeneity of both the consumers and the available material of pornography. It also provides no information on the processes that occur from viewing to progress to contact sex offending.

In conditioning theory, sexual aggression is described as behaviour that is learned and strengthened due to gratification following sexual arousal to pornographic material. In social learning theory, viewers of pornography are motivated to act out the depicted scenes if the behaviour is portrayed as rewarding, mediated by the development of congruent, anti-women attitudes. While both these theories have found favourable professional reception (see Quayle et al., 2006), Fisher and Barak (1989) pointed out that the aggressive and misogynistic messages contained in pornographic material are only one of many influences on viewers' perceptions. Cognitions are based on life-time experience, cultural and social norms, conceptualised in so-called *scripts* of what is considered normal in a certain situation (Selg, 2003). For example, a person's heterosexual script is based on the experience of many and repeated observations of male-female interactions, hence it is questionable if viewing pornography can profoundly change the script. In addition, pornography is often perceived as "dirty" and viewed secretly. Consequently, the consumer—aware that he is moving outside of socially

acceptable boundaries—would assign less weight to these messages (based on success expectancies), which should counteract its behavioural impact.

A related question is what kind of message is proposed in pornographic material. Barron and Kimmel (2000) examined 50 cases from three pornographic media (magazines, videos, online newsgroups), and found that both sexes are equally depicted in dominant and submissive roles. In addition, pornography in traditional media, magazines and videos, more often portrays women as perpetrators of violence than men, and the depicted violence is usually portrayed to occur within consensual relationships. It is then questionable if these messages can be accounted for as being misogynistic or sexually aggressive, and by extension, if such messages can actually cause the claimed effects on behaviour.

Hence, the main question remains unanswered: What thesis (catharsis, causality, reinforcement, or ineffectiveness) in which theoretical framework best accounts for the effects of pornography exposure on its viewers? The competing models need to be evaluated in light of the research outcomes considering the effects of pornography. The following section examines the empirical information to develop a causal model of pornography and behaviour.

The Question of Causality Part II

Research Outcomes on the Relationship between Pornography Consumption and Sexual Behaviour

There are three broad classes of research designs that have been used to evaluate the connection of sexual material and social outcomes: (1) the relationship between social indicators (e.g., availability of explicit material), (2) survey and interview designs, and (3) experimental designs using individual accounts. Even though the former two designs might provide important real life observations (e.g., the relationship between availability of porn and figures of criminal assault in certain area), these research strategies can only provide correlational results. Structured experiments on the other hand allow a controlled investigation of the

involved variables, albeit at the expense of ecological validity and generalisability. When examining experimental research on the effects of pornography, two main research designs can be identified: (1) attitudinal and behavioural changes in normal subjects after exposure to sexually explicit material, and (2) usage of pornography in a sexually deviant population. The following will provide a critical evaluation of the research conducted in this area.

Exposure to Pornography in Normal Subjects

The typical set-up of experimental studies on the effects of pornography involves two stages: exposure to various kinds of erotica and pornography with subsequent measure of attitudinal or behavioural changes in the subjects, often by usage of a questionnaire. Following that design, many researchers have found pornography to increase male callousness, anti-woman attitudes, trivialisation of rape, and enhanced desire for forceful sex (e.g., Check & Guloien, 1989; Zillmann & Weaver, 1989). Zillmann (1989, 1994) reported that subjects tended to turn away from traditional values after pornography exposure, leading to less personal sexual satisfaction, an overestimation of popularity of sexual practices, higher acceptance of promiscuity and unfaithfulness, and lowered interest in marriage and children. In another review, Weaver (1994) examined studies which reported behavioural changes in subjects, and found increased sexually inappropriate behaviour following pornography consumption.

Zillmann (1989) further examined the effect of prolonged exposure to pornographic material. Besides the attitudinal changes reported above, long-term exposure initially increased sexual activity in men but this effect quickly habituated, motivating subjects to move to more extreme material. With regards to behaviour change, sexual activity of subjects increased, however only regarding previously learned sexual practices, and did not lead to more deviant acts (see also Kelley, Dawson, & Musialowski, 1989).

In addition to the duration of consumption, the content of the material was the subject of experimental investigation. Even though Zillmann and Weaver (1989) found no difference in the impact of

aggressive and non-aggressive material, other researchers reported a heightened change in negative sexual attitudes and behaviours with sexually aggressive material, especially after prior provocation (Lyons, Anderson, & Larson, 1994; Malamuth et al., 2000; Seto et al., 2001). On the contrary, erotica was found to elicit the opposite reaction, having an aggression-reducing impact on its viewers (Malamuth et al., 2000; Seto et al., 2001).

Overall, these research outcomes seem to point to a direct impact of sexually explicit material on misogynist and promiscuous attitudes, even though not necessarily on a behavioural level. However, this apparent causal link has not remained unchallenged. Marshall (2000) referred to the ignorance of some researchers towards contrary data on the effects of pornography; additionally, studies could not be replicated (see Fisher & Barak, 1989). Another point of criticism is the methodology of the conducted studies. In general, Marshall (2000) questioned whether causal attributions could be drawn with such high-base rate behaviour as the viewing of pornography. As Fisher and Grenier (1994) pointed out, most experiments are methodologically inadequate to prove cause and effect. This again refers to the conceptual weakness inherent to experimental research: human behaviour is the result of life-time experience, suggesting that proxy-measures of sexual aggression, such as attitudes or anger-induced reactions, may not be adequate to be seen as the equivalents of sexual assault in real life (see a more detailed discussion in Carter et al., 1987). Besides the problem of ecological validity, many studies have specific methodological shortcomings. Most experiments on pornography are very transparent (hence, expectations of subjects might bias the outcome) and often conducted on male college students—a group of subjects that Langevin, Lang, Wright, Handy, Frenzel, and Black (1988) described as “test-wise population who have a very low probability of ever raping anyone” (p. 345). In addition, most studies have differing definitions of pornography, use different media and contain a number of confounding variables, such as degree of depicted violence. Stimuli vary in content and length of exposure, and some researchers have used commercially available material that may combine both sexually aggressive and non-

aggressive scenes, hence blurring causal conclusions (Check & Guloien, 1989). Finally, Seto et al. (2001) questioned the generalisability of study outcomes by drawing on a study by Malamuth and Check (1983) suggesting that people who volunteer for pornographic research might be biased towards more unconventional sexual activities. Many studies have selective attrition effects (up to 14% in an experimental group; see Fisher & Grenier, 1994), which may eliminate those subjects more sensitive to sexual explicitness and violence during the course of the experiment.

To obviate methodological shortcomings, Fisher and Grenier (1994) set up two structured studies that controlled for subject awareness as well as contained manipulation checks. In their first study, they exposed 63 undergraduate students to erotica or violent pornography (with either victim distress or pleasure). None of the study participants in any test condition were found to be affected in terms of their anti-woman fantasies or attitudes (measured across multiple scales). In a second, anger-related experiment, male students were provoked by a female person; afterwards, they were exposed to violent pornography, and could then choose to either ignore the provoker, talk to her, or apply electric shocks to her. Eighty-six percent of the 14 participants chose a non-aggressive option. Only two participants (14%) chose to use electric punishment but, according to Fisher and Grenier, both had reportedly expressed initial interest in the device before they were angered. Hence, in this strictly controlled setting, none of the previously described attitudinal or behavioural effects were observed. However, it is acknowledged that attitudinal changes may require prolonged exposure for such effects to be measurable.

Nevertheless, while these outcomes question the validity of a direct causal relationship between pornography and attitudinal or behavioural markers, two meta-analyses by Allen et al. (Allen, D'Alessio, et al., 1995; Allen, Emmers, et al., 1995) indicated the influence of mediating variables in the process. For instance, Zillmann (1989) as well as Check and Guloien (1989) reported that the highest effects of pornography occurred for those subjects with psychotic features and with a history of pornography consumption.

Studies on mediating variables demarcate the direction in more recent pornography research. In a survey study, Weinberg, Williams, Kleiner and Irizarry (2010) identified the influence of gender and sexual preference identity that defined the effects of pornography consumption. Overall, men generally viewed more pornography than women. High consumers of pornography were found to be more sexually active and considered a wider range of sexual acts as appealing, the quality of which was defined by one's sexual identity. In other research, people with more sexually permissive attitudes and psychopathic features were found to be more likely to respond to unsolicited sexually explicit online material (Shim, Lee, & Paul, 2007) and self-reported hypermasculinity, sensation seeking, and high life-time exposure to pornographic material positively influenced acceptance of rape-myth and anti-women attitudes (Barak, Fisher, Belfry, & Lashambe, 1999).

Examining the content of pornography, Bogaert (2001) identified individual differences that predicted preference for sexually violent media. In his study, 50% of the variance of the choice for violent sexual material was explained by self-reported low intelligence, high aggressive/ antisocial tendencies as well as self-reported arousal to the material. In a more detailed study, Paul (2009) examined 337 students in an anonymous online questionnaire that explored general internet usage, sensation-seeking, sexual attitudes, psychopathy, and previous exposure to 15 different types of pornography. For both genders separately, it was established what types of pornography are considered normal or acceptable and what is considered to be extreme pornography. Hierarchical regression analysis revealed that for both genders, consumption of legal pornography and related arousal are best predicted by Dispositional Sexual Affection (DSA; an individual's openness and reactivity towards sex and sexuality). On the other hand, preference for extreme pornography was predicted by higher scores on sensation seeking and psychopathy. As Paul concluded, media choice and reaction to media content are therefore influenced by gender, DSA general sensation seeking, DSA, and antisocial personality disposition, with the latter two being related to more extreme sexual content.

While the previous studies examined markers that predict a preference for violent pornography, the relationship between these markers and the likelihood of displaying behavioural sexual aggression is still to be identified. In one study, Vega and Malamuth (2007) administered a variety of personality scales to 102 college students, including measures of hostile masculinity (such as attitudes against women or in favour of interpersonal violence) and attitudes to impersonal sex (includes sex drive and delinquency), general hostility (impulsive irritability, negative masculinity, empathetic concern), history of sexual aggression and sexual experiences, and pornography consumption. Amongst these measures, pornography consumption was only significantly correlated to sexual aggression ($r = .477$). All factors combined explained more than half of the variance of sexual aggression, with hostile masculinity and pornography consumption as the main predictors (as well as a significant interaction effect between the two). Finally, Vega and Malamuth then calculated how these variables can be ideally combined to predict sexual aggression, resulting in their *Hierarchical-meditational confluence model*. Following this model, a “risk score” for sexual aggression was assigned to every individual, based on their level on each measure. For individuals with lower scores, pornography consumption revealed no influence on sexual aggression; however, for higher-scores individuals, the risk of acting sexually aggressively increased with greater pornography consumption. Overall, the Confluence model showed that only a personality set-up prone to hostile masculinity increases the likelihood for pornography, and both contribute to sexual aggression.

Williams, Cooper, Howell, Yuille, and Paulhus (2009) conducted two survey studies to examine the role of personality differences in pornography consumption and their effects. In their first study, 103 male undergraduate students were asked to complete the Multidimensional Assessment of Sex and Aggression (MASA; Knight, Prentky, & Cerce, 1994). Overall, it was found that deviant fantasies were reported with a higher frequency than deviant behaviours (95% reported at least one deviant fantasy vs. 63% with least one deviant behaviour). Also, whereas nearly all of those who reported deviant behaviours also reported deviant

fantasies, only 38% of fantasisers reported deviant behaviours. Subjects with current pornography usage (63%) were more likely to report deviant fantasies and behaviours than the non-users. In summary, Williams et al. found that (1) deviant behaviour is related to deviant fantasies but deviant fantasies do not necessarily cause deviant behaviours, and (2) pornography consumption is related to higher prevalence of deviant fantasy and behaviour.

To identify the relationship between pornography usage and deviant sexual interest, Williams et al. asked another group of 88 male undergraduate students to complete the MASA and some other personality measures (Big Five Inventory, John & Srivastava, 1999; Narcissistic Personality Inventory, Raskin & Hall, 1979; 20-item Match-IV, Christie & Geis, 1970; and a self-report Psychopathy Scale, Paulhus, Hemphill, & Hare, 2009). They found a significant correlation between deviant sexual fantasies and neuroticism as well as psychopathy scores. However, high deviant fantasy was only reflected in abnormal behaviours when the person was found to have a high psychopathy score, especially for those with a tendency to extreme pornography types such as sadism and sexual assault.

Overall, mediating variables appear to define the effect of pornography on someone's cognitions and behaviours. In general, gender, sexual identity, and one's attitude towards sex seem related to sexual thoughts and activity, including pornography consumption. However, pornography was found to mostly reinforce already existing sexual scripts; for example, even though Weinberg et al. (2010) reported an increase in sexual activity for heterosexual women with high pornography consumption, the change remained within their sexual script of long-term relationships. The reviewed studies also showed consistently that individuals with antisocial features, hostile masculinity, and elevated sensation seeking appear most likely to consume violent pornography and act on their deviant fantasies (see also King, 1999; Whitty & Fisher, 2008). Consequently, the effect of pornographic material on fantasy and behaviour is understood to be shaped by two factors: cognitions (i.e., sexually open and permissive standards as well as anti-women attitudes)

and personality characteristics (i.e., features of psychopathy and sensation seeking).

Exposure to Pornography in Deviant Populations

The second group of studies examined the usage of pornography by sex offenders in contrast to non-offending populations to determine the potential risk value of pornography. In addition to the methodological difficulties described above, further issues for research studies on sex offenders exist given their heterogeneity. Hence, Marshall (2000) suggested that each study needs to clearly define the type of offender and material employed to avoid confusion. Moreover, as with any sex offender research, most studies rely on incarcerated, volunteer subjects who might not be representative of the group of sex offenders in general. A question of specific importance for research on sex offender samples is the value of self-report measures. Self-report information may be biased (e.g., admitting usage of illegal material), out of fear of punitive consequences. On the other hand, usage of pornography might be seen as an option to blame or justify offending behaviour, which may increase their reported usage. Thus, an increase or a decrease in disclosure may be idiosyncratically determined and may be of little explanatory significance in the general case.

There are strong advocates for a causal link between contact sex offending and pornography consumption, specifically regarding deviant material. However, the evidence suggests a rather expectation-based than empirically-based argumentation. For instance, Cline (1994) concluded this supposition from his clinical experiences with sex offenders, stating a consistent causal relationship between violent pornography and sexually inappropriate conduct as result of a learning process. All his clients reportedly followed a four-stage-model, starting with pornography addiction, escalation, and desensitisation, which inevitably led to contact sex offending. However, this model has not been empirically tested.

Reed (1994) further confirmed the causal thesis in his review of the literature, affirming "clear evidence" (p. 266) that pornography causes deviant beliefs in its viewers and is related to chronic offending in later life,

with specifically pre-pubertal exposure to pornography as a predictor of later offending. Tate (1990) based his conclusions merely on logical grounds, stating that paedophiles will “in time” (p. 175) crossover from viewing to acting.

A more sophisticated approach is provided by comparative studies between sex offenders and non-offender populations. Marshall (1988) matched his sample of 89 rapists and CSOs with community subjects. Even though these groups were not found to differ in their historical exposure to pornography, sex offenders were more likely to report usage of sexually explicit material than the control group, and they were also more likely to entertain deviant fantasies to the material. Unfortunately, Marshall did not specify how fantasy was measured, or if the results reached levels of significance.

In a more rigorous study, Langevin et al. (1988) compared different groups of sex offenders (charged with child molestation, sexual assault, and incest) and non-offender community volunteers in their responses to a self-report questionnaire, plethysmographic assessment, and their sexual history. Even though the self-report measure contained questions contrary to social desirability (e.g., usage of CSEM), the non-offending sample reported significantly higher and more regular life-time consumption of pornography in general. Albeit not significant, there was a trend for non-offenders to have a higher usage of deviant material than sex offenders, including CSEM. Admittedly, this may be the result of a higher need to present in a socially acceptable manner on the part of the offenders; nevertheless, this finding questions a direct causal relationship between pornography consumption and sexual aggression.

The review by Allen et al. (1999) also proved only a limited association between pornography consumption and conduct of sex crimes. Their meta-analysis of 13 studies revealed only a non-significant trend of higher pornography usage by sex offenders than non-offenders. Other reviewers, including Bauserman (1996), Langevin and Curnoe (2004), and Taylor and Quayle (2003), also did not identify a causal relationship between pornography usage and sex offending.

In a more recent study, Kingston, Fedoroff, Firestone, Curry, and Bradford (2008) examined pornography usage of 341 CSOs. According to their findings, frequency of pornography usage did not predict general criminal, violent or sexual recidivism. However, they ascertained a significant interaction between frequency of pornography usage and risk level on the Static-99 (a measure to predict sexual recidivism; Hanson & Thornton, 1999), suggesting that for low risk-level offenders, there was little relationship between criminal, violent and sexual recidivism, and frequency of pornography use. On the other hand, high-risk offenders had moderate to large effect sizes between pornography use and any type of recidivism. In addition, even though the use of deviant pornography was unrelated to level of risk, it was the second strongest predictor of recidivism after risk level. Kingston et al. concluded that “for individuals who viewed deviant pornography, the predicted odds of violent (including sexual) recidivism increased by 185% (...) [and] the predicted odds of sexual recidivism increased by 233%” (p. 8). Hence, according to this study, frequency of pornography usage was related to reoffending when considered concordant to other risk factors. In addition, deviant content of pornography was a crucial predictor of recidivism regardless of level of risk.

Overall, it seems that, even after inclusion of deviant populations, the seemingly intuition-based association between pornography and sex offending cannot be supported. Empirical studies revealed trends in both directions, higher usage by offenders as well as non-offenders. However, even though pornography consumption might not be predictive of crime initiation, it does impact on the maintenance of risk. The study by Kingston et al. identified two interesting aspects with regards to crime recidivism: (1) Consumption of deviant pornography is related to a higher risk to reoffend, and (2) established risk factors determine the impact of pornography usage on risk for recidivism. As it has become apparent that higher risk offenders differ from their lower-risk counterparts on several variables, such as antisocial attitudes and sexual deviances, it may be these individual differences that influence the observed effects.

Furthermore, Reed (1994) and Allen et al. (1999) both suggested that despite their lower or normal consumption rate of pornography in comparison to non-offending populations, sex offenders are thought to have a higher masturbation rate to sexually explicit material. Thus, the outcome of viewing pornography may be perceived as sexually more gratifying for the offender populations. There is empirical evidence for this hypothesis. Studies by Langevin et al. (1988) and Marshall (1988, 1989) confirmed that, despite similar viewing rates, sex offenders appear more likely to associate deviant fantasies with pornography in contrast to non-offender populations. Marshall (2000) further reported that sex offenders use pornography as a means for coping with stress, another potential difference to pornography viewers of the normal population.

The last aspect to consider is whether different types of sex offenders vary in their rate or content of pornography consumption. For instance, it seems plausible to assume a preference for child abuse material for CSOs. However, studies by Langevin et al. (1988), Marshall (1988, 1989), as well as Sheldon and Howitt (2007) ascertained that pornography depicting adult females is most commonly used amongst all sex offender groups, and none of the studies identified a relationship between a preference for CSEM and sexual offending against a child.

With regards to usage of pornography, Carter et al. (1987) compared self-reported pornography consumption of 38 rapists and 26 CSOs. In comparison to rapists, CSOs were found to have significantly higher usage of (any) pornography in adulthood, were more likely to use pornography prior to and during criminal offences, and were more likely to consume it to relieve an urge to offend. CSOs further reported significantly higher importance of pornography in their life than rapists. These findings were confirmed in Reed's (1994) review, with CSOs stating a higher consumption of pornography than other sex offender types. Marshall (1988) found that about 1/3 of his offender sample had felt incited to commit an offence after exposure to pornography, but a closer analysis revealed that only 33% of rapists used pornography during the offence in comparison to 53% of CSOs. Finally, in Langevin and Curnoe's (2004) study approximately one fifth of the 561 sex offenders employed sexually

explicit material during the offence, amongst them significantly more offenders against children than adult victims.

In summary, no aspect of pornography (life-time exposure, consumption rate, content) appears to clearly differentiate between sex offenders and non-offending subjects. Nevertheless, sex offenders may differ in their usage of pornography: They were found to have a higher masturbation rate to pornographic material, to be more likely to entertain deviant fantasies to consenting material, as well as use sexual material as a coping mechanism with stress. Hence, it stands to reason that an important difference between sex offenders and non-offender subjects in their pornography usage is *how* the material is used. CSOs seem to display a more offence-specific usage, consuming more pornography than other sex offender types, and also using it in a closer temporal relationship to their contact offence. The findings by Kingston et al. (2008) again pointed to a certain set-up of attitudes and personality features that interact with the impact of pornography consumption. The following section will combine the reviewed research findings into one model.

Making Sense of the Empirical Outcomes—An Individualised Approach

The above considerations revealed that the impact of pornography is dependent on features of its consumer. Researchers have previously pointed to a more individualised view on the role of pornography in sex offenders (see Taylor & Quayle, 2003). This demand is consistent with current media theories where not the method itself but the consuming individual is understood to define the effect the media have. For example, Greenberg and Hofschiere (2000) pointed to the influence of personality types for the effect of media. To elaborate, Kelley et al. (1989) described how the perception of sexually explicit media is impacted by existing sexual attitudes, sexual experience, and cultural features, such as religiosity. Thus, the assumption stands to reason that a specific personality and cognitive set-up increases the likelihood for a person to seek out pornography and be more responsive to pornographic messages.

What are the details of this vulnerability? In all reviewed studies, men reported a higher consumption rate than females. Stack, Wasserman and Kern (2004) explored this finding in more detail, analysing data from the General Social Survey with regards to online pornography consumption in adult users. They assigned the gender difference in pornography usage to three different variables: Higher testosterone levels in men (which are also related to hypersexual disorders), less religious activity in men (as religion was found to be a consumption-reducing factor), and more approving and sexually open attitudes amongst men. With regards to the latter aspect, Kelley et al. (1989) explained that men are culturally socialised to respond more aggressively in general. Zillmann and Weaver (1989) concluded “pornography thus can be seen as the primary social institution that fosters sexual callousness by promoting self-serving male beliefs about female sexuality” (p. 105).

This point was raised by Barron and Kimmel (2000) who examined three pornographic media (videos, magazines, online newsgroups) in terms of their content. As described, they found that the internet material significantly differed from the traditional media forms: Online material generally displayed more coercive and less consensual sex, and depicted violence as more frequently inflicted by men towards female victims (in contrast to equal female perpetrators in the other media types). Barron and Kimmel concluded that, contrary to traditional media, the internet has merged the role of consumer and producer, as everyone can produce domestic material and contribute in an online newsgroup. Hence, they suggested the resulting material is not necessarily sexually-motivated but further a way of proving one’s manhood to other men. The conceptualisation of the relationship between men is called *homosociality*; features of homosociality have been described as emotional detachment, competitiveness, and sexual objectification of women (e.g., see Bird, 1996). The concept of homosociality, therefore, may not only explain the development of more sexually permissive standards in men, but may also account for the limited effect of pornography on male sexual behaviour given that pornography is not only sexually but rather socially motivated.

It thus appeared, concordant with the empirical findings, that high pornography usage alone is not indicative of sexual aggression, but rather in combination with certain attitudes or scripts. Marshall (2000) summarised his theory that sex offending is the result of an offender's vulnerability that has developed since childhood and is expressed in a sexualised focus and increased reception towards messages of male entitlement (amongst other things). Marshall concluded that pornography does not play a crucial part in the development of sexual offending behaviour; "exposure to pornography may simply accelerate a process that is already underway or may further justify an already established set of antisocial beliefs" (p. 73). According to Daniel Kahneman's theory of cognitive heuristics (e.g., see Gilovich, Griffin, & Kahneman, 2002), the ready availability of certain cognitions guides the active thought processes in a certain situation. This effect is confirmed in most experimental studies on pornography exposure: An immediate attitude change after pornography exposure can be understood as a consequence of currently activated cognitions that are consequently more likely to be picked up in one's heuristic system, however, this temporary activation invalidates once cognitive stimulation has become weaker (as noted in Lyons et al., 1994). Unless such cognitions convert into stable pathways (*scripts*; Selg, 2003), pornography does not seem to substantially impact sexual aggressive attitudes or behaviour. As outlined in the empirical section, besides these attitudes supportive of male entitlement and hostility towards women, certain personality traits have been found to increase the impact of pornography on sexual aggression, including antisocial tendencies, an individual's inclination towards sensation-seeking, and psychotic tendencies.

Summarising these considerations, pornography appears to be neither a necessary nor sufficient cause of sexual aggression but those individuals who are already predisposed to offending are most likely to show an effect of pornography exposure, and also have the strongest effects (e.g., Seto et al., 2001; Hill et al., 2006). Hence, a bidirectional relationship can be identified: Men with sexually aggressive tendencies are more attracted to violent media and more likely to be influenced by

them in that they reinforce coercive tendencies and behaviours and create corresponding scripts (Malamuth et al., 2000; Beech et al., 2008).

At the beginning of this chapter, four theoretical pathways were suggested shaping the relationship between pornography consumption and sexual violence. The reviewed findings do not support the *thesis of ineffectiveness*, as experiments show attitudinal and behavioural changes following exposure to pornography. On the other hand, they do not support the *causality thesis* either given the heterogeneity of responses to pornography exposure. Further, the *catharsis theory* cannot be upheld given the equal consumption rates between sex offenders and non-offenders, and the variability in pornography usage by sex offenders. Instead, the third pathway (*reinforcement thesis*) appears to be the most plausible, defining both pornography consumption and sexual aggression as the outcome of an already existing inclination for sexual violence. Pornography consumption and sexual aggression thus equally influence and further reinforce each other (see Figure 2).

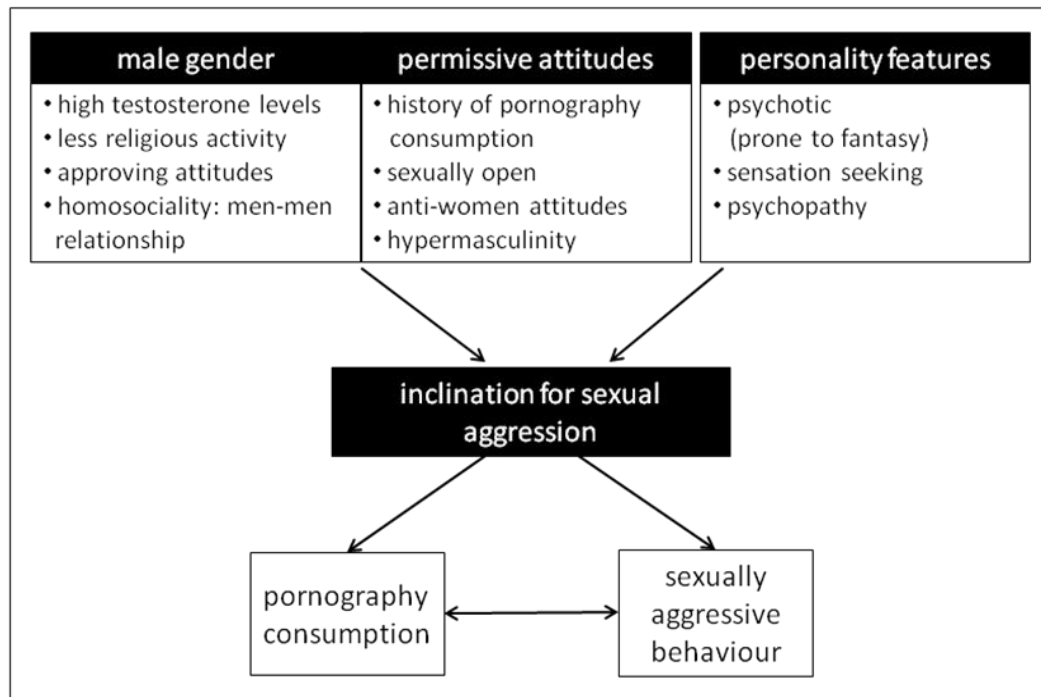


Figure 2: Model of pornography consumption

This model contains features from all of the introduced theoretical models: Evolutionary theory has predicted the increased pornography

usage by men in contrast to women. However, as suggested by the Theory of excitation-transfer, the cognitive and affective predispositions of the individual determine the interpretation of the viewed material, based on one's personal history and the scripts a person consequently developed. The latter aspect may contain elements of the psychodynamic approach, especially when scripts are based on previous trauma. According to conditioning theory, existing sexually aggressive tendencies are then confirmed and reinforced by the viewed material, especially if sexual gratification is experienced. Depicted acts and behaviours are perceived as normal and integrated in one's sexual scripts, based on both the consumer's personal inclinations as well as a result of desensitising processes (theory of social learning). Overall, this model summarises the theoretical and empirical knowledge regarding the effects of pornography consumption. It is now to be established if, and how, this model applies to viewing of CSEM.

The Question of Causality Part III

Conclusions on CSEM Offending

The above model suggests an individualised approach when assessing the relationship between pornography consumption and its behavioural and attitudinal consequences. With regards to CSEM, Kuhnen (2007) also supported the reinforcement thesis, assuming that by viewing CSEM, existing proclivities are confirmed and reinforced but will only result in action if in conjunction with other factors. Hernandez (2009) concluded that "the use of child pornography may be an adjunctive behavioural manifestation of their pre-existing paraphilic orientation" (p. 10). This further confirms the concept of heterogeneity amongst CSEMOs. Accordingly, only a subgroup of CSEMOs might also engage in contact sex offending, based on a specific cognitive and personality set-up. Further support is found in the above finding that most CSEMOs with a history of contact sex offending conducted this sort of behaviour prior to their CSEM offending, disputing a direct causal effect.

The study by Seto et al. (2006) has been described previously. In short, they examined 685 sex offenders (CSEMOs, CSOs, sex offenders

with adult victims, and non-offenders) by means of phallometric assessment, a semi-structured interview, and file analysis. A paedophile index, indicating a sexual preference for children, was established for each offender. Amongst all offender types, CSEMOs were found to have high paedophile deviancy, that is, as a group, they displayed higher arousal to child than adult material in comparison to other types of sex offenders. Similar results were only found in those CSOs with more than two victims. Hence, according to this study, it appears that CSEM offending is a stronger indicator for paedophile inclinations than actual child molestation cases.

A possible explanation for these findings is that there are at least two types of CSEMOs: one group consisting of individuals who live their sexual deviancy mainly in their fantasy, stimulated by CSEM, though with a low likelihood to commit a contact sex offence. The second group may comply with the pornography model described above, for example, a person with a general inclination towards violent sexuality. This group may be more likely to progress on a continuum of sexual offending, eventually leading up to a contact sex offence. This second group may also account for the findings (e.g., by Zillmann, 1989; Taylor & Quayle, 2003) that subjects habituated to legal pornography were seeking for increasingly deviant material, including CSEM. Based on this initial group approach, an investigation of individual factors, such as existing scripts and personality features, will likely inform about the effects of CSEM consumption.

Future research needs to ascertain what defines the proclivity to sexually offend with a contact victim, as well as the timing of the cross-over. For instance, Calder (2004) described how the normalisation and validation processes in paedophile newsgroups have the potential to change an individual's beliefs and values. Similarly, Blundell, Sherry, Burke, and Sowerbutts (2002) declared that the longer a deviant fantasy is maintained and elaborated on, the greater the chances that the behaviour will be acted on in real life. Overall, these findings again confirm an individual approach that seeks to define what function the material has for each particular offender. Referring back to the three-dimensional model of CSEM offending, developed in Chapter Three, the above considerations

further support the fantasy-driven vs. contact-driven duality of CSEMOs on the first dimension.

Chapter Summary

This chapter examined the relationship between CSEM consumption and contact sex offending. Initially, behavioural indicators of such a relationship were analysed by examining the criminal history and reoffending rate of CSEMOs. While a small subgroup of CSEMOs had a history of contact sex offences, in most cases they occurred prior to their CSEM offending. It appears that prior criminal history, lack of sexual self-regulation, and sexually risky behaviours increase the likelihood of an individual with CSEM offences committing a contact sex offence in the future. These results indicate heterogeneity amongst CSEMOs, with only certain subtypes being likely to have previous offences and future criminal convictions.

The next section discussed the theory and research regarding effects of legal pornography, including deviant sexual behaviour. Four different theories were compared, theory of excitation-transfer, psychodynamic theory, conditioning theory, and social learning theory. The theoretical background was then considered in light of empirical research, based on behavioural change in normal population after exposure to pornography and pornography consumption in sex offenders. It was identified that only for a certain type of viewers, pornography leads to internal (attitudes) and external (behaviour) change; these people were found to have more sexually open and permissive standards, sensation-seeking features, and psychotic and antisocial tendencies. With regards to offending populations, it was suggested that sex offenders use the material differently from non-offenders in that they have more deviant fantasies to consenting material as well as use pornography consumption as a coping mechanism for stress. In addition, CSOs seem to integrate pornography in their offending pathway. In summary, it appears that pornography consumption can have an effect on attitudes and behaviour for individuals with a pre-existing inclination for sexual violence.

Initial thoughts on the effect of CSEM consumption are discussed in the last part of the chapter. The above findings further detail the first dimension of CSEM offending in the developed model. One group describes fantasy-driven CSEMOs who live their sexual deviancy mainly in their fantasy, stimulated by CSEM, though with a low likelihood to commit a contact sexual offence. In comparison, the second group is assumed to have a general inclination to sexual violence, possibly complying with the pornography model identified above, that is, a male person with psychotic and psychopathic features who fosters misogynistic attitudes. Future research is needed on the specific set-up of contact-driven offenders and the timing of their offending to inform risk assessment of contact-driven CSEMOs.

Chapter 5:

Traditional Risk Assessment of Sex Offenders

In this chapter, the topic of risk assessment for sexual recidivism is explored in more detail. Following a broad introduction to risk assessment in sex offending and the ethical challenges related to it, conventional risk assessment instruments are reviewed with regards to their format and content. The chapter concludes with a concept of risk for CSEMOs and a framework for their risk assessment.

Conceptualisation of Risk and its Assessment

The preceding chapters examined the characteristics of CSEMOs, the nature of their offending, and considerations regarding the relationship between consumption of deviant pornography and their behavioural implementations. Central to the work with any sex offender population is the question of risk of reoffending. Risk is a multi-faceted concept; within a sex offending context, risk definitions can vary and include the likelihood of a new offence, the severity of an offence should one occur, the imminence of an offence given the opportunity, and its escalation (regarding severity or frequency; Boer, Hart, Kropp & Webster, 1997).

Andrews and Bonta (2006) defined risk factors for criminal activity as “characteristics of people and their circumstances that are associated with an increased chance of future criminal activity” (p. 47). Risk assessments are considered an integral part of the work in correctional institutions and sex offender treatment centres, and are critical in determining an appropriate response to the offender, for example with regards to determining security levels and treatment needs (see Boer et al., 1997). A number of standardised measures have been developed that allow for a quantitative risk classification of sex offenders based on such risk factors. To date, it is unclear if such traditional risk measures can be applied for CSEMOs, or if, as suggested by the typology developed in Chapter Three, more specialised assessment and treatment is needed, at least for the fantasy-driven subgroup of CSEMOs.

It should further be noted that the majority of the conventional literature on sexual recidivism focuses solely on the likelihood aspect of risk. However, it was outlined in the previous chapter that for CSEMOs it is also important to assess the risk of escalation from viewing to conducting a contact offence. The differential determination of issues related to escalation is somewhat speculative, and Chapter Eight and Nine are dedicated to a closer examination of risk-related factors in CSEMOs.

In summary, given the fairly new occurrence of online sex offending, risk assessment strategies for these offender types are yet to be conceptualised. Three major questions need to be decided: what kind of risk has to be considered; what are the risk factors relevant for this offender type; and, what kind of risk assessment is appropriate. In this chapter, these issues will be approached by examining established risk instruments for prediction of sexual recidivism in sex offenders.

In its essence, risk assessment involves prediction of an offender's future behaviour based on past behaviour, which is inevitably linked to questions of personal and professional ethics. An exploration of ethical considerations will thus precede a more detailed analysis of the status quo in sex offender risk assessment.

Ethical Considerations Relating to Risk Assessment

The assessment of sexual recidivism plays an important role in correctional decision making and criticism has been raised about a lack of usage of risk measures in sex offender policies (e.g., Blasko, Jeglic, & Mercado, 2011). Nevertheless, it is acknowledged that risk assessment can have severe consequences for the offender in question, for example with regards to recommendations of extended supervision (Watson & Vess, 2007), and this conflict between the need for protecting the community while upholding the rights of the individual offender can provide ethical challenges for professionals working in this area. In addition, given the probabilistic nature of risk assessment tools, it is further questionable how much weight should be assigned to the resulting scores.

According to standards of professional conduct (e.g., *Professional Code of Ethics*, Association for the Treatment of Sexual Abusers, 2001;

Code of Ethics for Psychologists Working in Aotearoa/New Zealand, New Zealand Psychological Society, 2002; *Ethical Principles of Psychologists and Code of Conduct*, American Psychological Association, 2010), psychologists are obligated to select assessment methods that are intended for the purpose of the assessment and have a scientifically established value, and to express any limitation to the assessment appropriately¹⁴. These standards define the current understanding of the “best practice” approach for sex offender risk assessment. Consequently, any shortcomings of current risk assessment measures need to be communicated when using quantitative measures of risk prediction; as Vess (2011) stated, “Understanding and effectively conveying the strengths and limitations of our current assessment methods are essential to ethical practice in this area” (p. 2). However, in a critical review of usage of risk assessment measures in evaluative reports of sex offenders, Amenta, Guy and Edens (2003) found that some evaluators included violent risk measures instead of specific risk measures for sexual recidivism, did not outline the shortcomings of their assessment, and frequently draw unsupported conclusions from their findings.

With regards to methodological problems inherent in risk assessment, two main issues stand out: prediction of behaviour with a low base rate and influence of offender type. In general, it is difficult to predict behaviour that occurs with a low base rate, as rare behaviour increases the risk of false positive prediction (Doren, 2002). This is further aggravated given the low report rate of sex offences (A. Harris & Hanson, 2004). According to R. Rogers (2000), this may lead to base rates being artificially enhanced for publications, for example by employing extremely long follow-up periods or by using less stringent outcome criteria. Furthermore, as Craig and Beech (2009) pointed out, sex offence base

¹⁴ For example. The New Zealand Code of Ethics for Psychologists (2002) states: “Any reservations concerning the validity or reliability of an assessment procedure, arising from its administration, norms, or domain-reference, should be made explicit in any report. (...) Psychologists provide appropriate explanations of findings, interpretations and limitations.” (p. 9). The regulations of the American Psychological Association (2010) say with regards to use of assessments: “Psychologists use assessment instruments whose validity and reliability have been established for use with members of the population testes. When such validity or reliability has not been established, psychologists describe the strengths and limitations of test results and interpretation.” (para.9.02)

rates are affected by changes in the general crime rates, as well as changes in the official recording of these crimes.

In addition, base rates of recidivism vary depending on offender type (e.g., rapists are more likely to reoffend with a non-sexual offence than child molesters; Hanson, 2000b) and seriousness of index offence (e.g., accuracy of risk prediction is inversely related to seriousness of the index offence; Rettenberger & Eher, 2007). This contributes to the second methodological problem of group membership. Despite common misperceptions (see Amenta et al., 2003), risk assessment does not predict the actual probability for an individual to commit a crime in the future but merely describes group-derived measures of recidivism. As Vess (2011) summarised, “the more an offender differs from those whose outcomes have been studied with a particular measure, the less confidence we can have using the measure with such an individual” (p. 5).

A similar issue is the problem of cultural competence in risk assessment. According to the *Ethical Principles of Psychologists and Code of Conduct* (American Psychological Association, 2010) psychological assessments are required to be conducted in the language desired by the individual to be assessed, and preferably validated for use on members of the population tested. In a Swedish study on cultural differences regarding sexual recidivism, Långström (2004) found that conventional risk assessment measures (RRASOR, Hanson, 1997; and Static-99, Hanson & Thornton, 1999, 2000) varied across offender ethnicity and immigration status, which suggested a need for differing risk factors for non-Swedish offenders.

The current approach to sex offender risk assessment has also been criticized for its lack of consideration of moderator and mediator effects (R. Rogers, 2000) and protective factors (Campbell, 2004; R. Rogers, 2000) as well as its focus on high risk offenders. In that respect, Campbell (2004) pointed out: “Because the majority of sex offenders do not reoffend, identifying low-risk offenders is a high priority. (...) Accurately identifying the greater number of offenders who do not reoffend would increase overall classification accuracy” (p. 221). However, Campbell acknowledged, that the “tragedies of sex offenders reoffending are more

emotionally compelling than the tragedies of mistakenly committing them” (p. 222).

The latter aspect has raised the ethical conflict of prioritizing between community and offender protection. While Ward and Salmon (2011) recognised the need for efficient risk assessment, for community protection and efficient and targeted delivery of correctional services, they also acknowledged the role of the offenders as “rights holders as well as rights violators” (Ward & Birgden, 2009, p. 227), and need to be treated accordingly. Ward, Gannon, and Vess (2009) suggested some ethical guidelines for psychologists assessing sex offenders, including a clear stance by the assessor who he or she is representing (e.g., prison services vs. court), avoidance of conflict of interest, and maintenance of boundaries and the limits of confidentiality. Ethical guidelines are strongly needed in risk assessment, not only for the offenders’ but also the assessor’s sake, who often has to take on the dual roles of evaluator and therapist (Campbell, 2004). Ward and his colleagues’ argument regarding ethical consideration in sex offender issues therefore extends beyond risk assessment to treatment (Ward et al., 2009; Ward & Salmon, 2011; Birgden & Cucolo, 2011) and forensic and correctional research (Ward & Willis, 2011).

The above thoughts outline the pitfalls involved in sex offender risk assessment and caution regarding the usage of measures not validated for this purpose. The following section is aimed to examine the format and content of these conventional methods of risk assessment.

Conventional Assessment of Sexual Recidivism

This section will outline the different methods of risk assessment and provide an overview of the research dedicated to identify their value.

Development of Strategic Risk Assessment for Sex Offenders

The development of strategic measures for sexual recidivism has taken place in four stages: Expert opinion, static risk measures, risk/need scales, and Structured Professional Judgement.

Originally, the likelihood for an individual to sexually reoffend was based on the subjective opinion of an *expert*. According to Andrews and Bonta (2006), this method, that is, *unstructured professional judgement*, appeared unreliable and created a need for more objective risk assessment. The first generation of scientifically based risk assessment tools started with the development of actuarial risk measures. With these research-based risk measures, reoffending risk is predicted based on a combination of certain variables which are found to be empirically related to sexual recidivism. An individual's outcome is compared to norms established with large groups of sex offenders, and empirically deduced cut-off scores determine their classification into risk categories (usually three, that is, low, medium, and high risk). The actuarial approach allowed for improved and more controlled risk prediction than expert opinion, both due to its empirical validation and its standardisation.

There are many actuarial instruments used for the prediction of sexual reoffending, and the following discussion provides details of four of the most commonly used tests. The Rapid Risk Assessment for Sex Offender Recidivism (RRASOR; Hanson, 1997) was one of the first actuarial risk measure to be developed for sex offenders. Based on several development and replication samples of sex offenders (approximately 2,500 subjects overall), Hanson identified four variables with moderate predictive accuracy ($r = .27$, $AUC = .71$ for sexual recidivism, measured as new conviction for a sex offence)¹⁵: (1) previous sex offences, (2) age < 25 years at release, (3) presence of male victims, and (4) presence of an unrelated victim.

All these items are also included in the Static-99 (Hanson & Thornton, 1999, 2000), which resulted from a combination of the RRASOR and the Structured Anchored Clinical Judgement (Thornton, 1997; see Grubin, 1998), and thus further includes the items unstable history of relationships (never lived with a partner for more than 2 years), presence

¹⁵ ROC (receiver operating characteristic) refers to the graphical analysis of false positives (no recidivism) against true positives (actual recidivists). With regards to risk assessment, the curve is defined by the "hits" to the items, which describes a higher percentage of recidivists than non-recidivists. The area under the curve (AUC) describes the predictive accuracy of the risk measure; an AUC of .5 describes chance level, an AUC of 1.0 is perfect prediction (adapted from Andrews & Bonta, 2006).

of a stranger victim, a history of past non-contact sex offences, current and previous non-sexual violence offences, and prior sentencing periods. The Static-99 was validated on four independent samples of about 1,200 sex offenders in total and also had moderate predictive accuracy for sexual recidivism ($r = 0.33$; $AUC = .71$). An updated version of the Static-99 has been released in 2002 (Static-2002; Hanson & Thornton, 2003). The following items have been added: juvenile arrest for sex offence; rate of sex offending; presence of young, unrelated victims; any community supervision violation; offence-free years prior to index offence. First outcomes regarding the value of the Static-2002 were promising (e.g., see Helmus & Hanson, 2007) but more comparative studies are needed before it can replace its widely researched predecessor. In 2009, Helmus, Babchishin, Hanson, and Thornton provided age-weighted tables to determine an offender's risk level, introducing the Static-99R.

In New Zealand's correctional system, the initial assessment of a sex offender is routinely completed using a computerised criminal history risk assessment, based on seven of the original items of the Static-99. The Automated Sexual Recidivism Scale (ASRS; Skelton, Riley, Wales, & Vess, 2006) includes the following items: previous sex offences, age < 25 years at release, presence of male victims, a history of past non-contact sex offences, current and previous non-sexual violence offences, and prior sentencing periods. The ASRS has been validated in an aggregated sample of 1,133 individuals, comprised all New Zealand sex offenders released in 1987, 1992, and 1997 (15, 10, and 5 years follow-up to study date), and resulted in an AUC of 0.78 for the 5 year cohort, 0.75 for the 10 year cohort and 0.70 for the 15 year cohort.

The Sex Offender Risk Appraisal Guide (SORAG; Quinsey, Harris, Rice, & Cormier, 1998) is based on the Violence Risk Appraisal Guide (VRAG; G. Harris, Rice, & Quinsey, 1993), hence is intended to assess violent and sexual recidivism. In contrast to its predecessors, the SORAG has been piloted in a high secure psychiatric hospital, hence has a broader, psychopathological approach to risk (Kemshall & McIvor, 2004). Besides historical variables (instability of caregivers, childhood behaviour misconduct, history of alcohol problems), age and relationship status at

index offence, presence of any past offences, presence of male victims, and failure on conditional release, it also includes psychological markers, such as presence of a personality disorder, schizophrenia, psychopathy, and deviant sexual preference (usually as indicated in phallometric test results). The SORAG allows a classification of an individual into one of nine risk groups of escalating likelihood to commit a new sexual offence. Finally, the Risk Matrix 2000 (RM2000; Thornton et al., 2003) can be used to predict sexual recidivism, non-sexual assault and overall violent offending. In a first step, the individual is assessed according to his age at index offence, and presence of past sexual and general criminal offences. The second step considers aggravating factors, including male victim, stranger victim, relationship problems and past non-contact sexual offences. Thornton et al. reported that the validation of the RM2000 on two independent sample resulted in AUC scores of .7 - .8.

The first generation of actuarial risk measures only focused on static risk variables, that is, variables that cannot change over time. It has been questioned if these instruments can account for a comprehensive assessment of an individual's risk of reoffending since variables such as treatment needs and treatment success, personal change, physical enfeeblement, or timing of reoffending are arguably crucial to estimate the risk of a person to commit another sex offence (Hanson, 2000a).

As a consequence, the need for integration of these dynamic risk factors instigated the development of the second generation of actuarial risk assessment tools, the so-called *risk/need scales* (see Andrews & Bonta, 2006). Dynamic risk factors are, at least in theory, changeable over time and disclose treatment needs of an offender, for example his intimacy deficits or cognitions supportive of offending behaviour. Examples of this type of risk instruments are the Minnesota Sex Offender Screening Tool Revised (MnSOST-R; Epperson, Kaul, & Hesselton, 1998), the Initial Deviance Assessment (IDA; Thornton, 2002) and the Sex Offender Need Assessment Rating (SONAR; Hanson & Harris, 2001).

The MnSOST-R consists of a combination of static variables (adolescent antisocial behaviour, past sex offences, number of age groups victimised, length of sex offending history, use of force/threat in offences,

stranger victims, 13-15 year old victims and an age difference of more than 5 years to victim, commission of sex offence in a public place, multiple sex acts in one event, breach of supervision, unstable employment history, and history of substance abuse) with dynamic factors, namely age at release, discipline history, status of sex offender treatment and chemical dependency treatment. The specificity of these items might be difficult as other locations might not have the same availability and nature of sex offender treatment like Minnesota; however, acceptable AUC scores between .7 and .8 have been reported (Beech, Fisher, & Thornton, 2003; Kemshall & McIvor, 2004).

In contrast, the IDA solely focuses on dynamic risk factors and contains four risk domains, (1) (deviant) sexual interests (offence-related sexual fantasy, offence-related sexual preference, sexual preoccupation), (2) distorted attitudes, (3) socio-affective functioning (negative affect, inadequacy and lack of emotionally important relationships with adults, emotional congruence with children, and aggressive thinking), and (4) self-management problems (problems to adequately plan, problem-solve or regulate impulses). A domain is marked as deviant when two or more scales appear dysfunctional; high deviancy of an offender is classified if two or more dysfunctional domains are present. According to Thornton (2002), the IDA has been validated on a total of 270 child molesters and has been found to be a moderate predictor of sexual recidivism. Use of the IDA is problematic since each of these domains is measured with additional scales, which leads to an extensive and time-consuming test administration.

Lastly, the SONAR allows for measure of both stable and acute risk. Five of its items describe stable dynamic risk factors, that is, dynamic factors that are changeable over time but show no day-to-day fluctuations. These items are the presence of intimacy deficits, negative social influences, attitudes tolerant of sex offending, inappropriate sexual self-regulation, and general inefficient self-regulation. The remaining factors are acute risk factors which are more imminent risk markers. These include victim access, substance abuse, negative mood, and anger. Hanson and Harris later refined the SONAR into what is now known as

Stable and Acute; both scales were revised in 2007 (Hanson et al., 2007; A. Harris & Hanson, 2003). The Stable-2007 involves six areas of deficits (negative social influences, intimacy deficits, sexual self-regulation, attitudes supportive of sexual assault, co-operation with supervision, and general self-regulation), while the Acute-2007 measures for the following areas of concern: victim access, hostility, sexual pre-occupations, and rejections of supervision. According to Beech et al. (2003), the assessment can be individualised, for example by considering unique risk factors such as an anniversary that creates emotional pain.

The last stage of strategic risk assessment is labelled Structured Professional Judgment (SPJ). In SPJ assessments, empirically derived risk variables are considered in addition to change factors and individualised risk factors without providing probabilistic risk estimations (Mercado & Ogloff, 2007). Even though more time consuming, this approach is an attempt to increase the accuracy of risk prediction by integrating case management factors in an acknowledgement of the individuality of each offender. There are not many SPJ measures available for the assessment of sex offenders. One example is the Sexual Violence Risk-20 (SVR-20) developed by Boer et al. (1997), which allows for an idiosyncratic case assessment including the following variables: sexual deviation, victim of child abuse, psychopathy, major mental illness, substance abuse, suicidal/ homicidal ideation, relationship problems, employment problems, past non-sexual offences, past supervision failures, high density sex offences, multiple sex offence types, physical harm to abuse victim, use of weapon or death threats during abuse, escalation in frequency and severity of sex offences, extreme minimization/ denial of sex offences, attitudes tolerant of sex offending, lack of realistic plans and negative attitudes towards intervention. According to Beech et al. (2003), three extra items can be added that can increase an offender's current risk: acute mental disorder, recent loss of social support network, and frequent contact with potential victims. De Vogel, De Ruiter, Van Beek, and Mead (2004) tested the predictive validity of the SVR-20 on a retrospective study of 122 Dutch sex offenders and reported good measures ($r = .50$, $AUC = .80$).

Based on the SVR-20, Hart, Kropp, Laws, Klaver, Logan, and Watt (2003) introduced the Risk for Sexual Violence Protocol (RSVP) that, in addition to a comprehensive assessment of the offender, also allows for the development of case-specific risk scenarios and thus suitable case management strategies. Whilst a promising approach, so far there has only been one empirical study including the RSVP (see Kropp, 2000).

As can be seen, there are several types of risk assessment instruments which all assess different sets of risk factors. Without providing a review approximating a meta-analysis it would be difficult to conclude which approach is the best method of risk assessment. In their meta-analyses, Hanson and Bussière (1998), and Hanson and Morton-Bourgon (2004, 2005, 2007) have regularly re-assessed what is recommended as best practice. It is beyond the extent of this thesis to critique those meta-analyses, but suffice to say that the literature is not without controversy. In closing, the following section will describe an overview of the state of the research on strategic risk assessment to provide an evidence-base for further decision making.

Research Review on Risk Assessment for Sex Offenders

There is a plethora of studies that have examined the value of the different types of risk assessment. As a detailed analysis of these studies would extend the scope of this chapter, only summarising reviews and meta-analyses are considered. Barbaree, Seto, Langton, and Peacock (2001) compared the predictive value of the PCL-R (Psychopathy Checklist – Revised; Hare, 1991), the VRAG, the SORAG, the RRASOR, the Static-99 and the MnSOST-R as well as unstructured clinical judgement, scored from prison files of 215 sex offenders (approximately 50% had child victims; only 76% had complete information in their files). In total, all subjects had a reoffence rate of 38%, 9% of which were related to sexual reoffending. All instruments were identified to have a significant but weak predictive validity for sexual recidivism (AUC was .61 for the PCL-R and the VRAG, .65 for the MnSOST-R, .70 for the SORAG and the Static-99, and .77 for the RRASOR, overall participants), with the exception of the PCL-R, the MnSOST-R and unstructured clinical judgement. Hanson

and his colleagues have conducted systematic meta-analyses on sex offender risk assessment; they introduced a specific measure d as an index of predictive accuracy¹⁶. In 2004, Hanson and Morton-Bourgon examined 96 different studies which included 31,216 sex offenders. In general, they reported a rate of 36.9% for any reoffence, specifically 13.7% for sexual reoffending, 14% for violent non-sexual reoffending, and 25% violent (including sexual and non-sexual) recidivism. From the risk scales named above, actuarial risk scales provided significantly better risk prediction than unstructured clinical judgement (unstructured clinical assessment: $d = .40$; actuarial risk scales: $d = .61$), while empirically guided approaches to risk assessment, here labelled SPJ, ranged from $d = .41$ to $d = .51$. The average predictive accuracy of all the individual risk scales was at least moderate, with the SORAG being the least accurate ($d = .48$) and the SVR-20 the highest ($d = .77$).

Bengtson and Långström (2007) compared the risk estimates obtained from unstructured clinical judgement (in prison reports), the Static-99 and the Static-2002 with the actual reconviction data of 121 mixed sex offenders from Denmark with a mean follow-up of 16.4 years. In general, a rate of 31% for sexual recidivism was found, with 15% engaging in severe sexual recidivism. Actuarial and clinical risk estimates were significantly correlated in their risk prediction. However, while both initially predicted risk only at chance level, the accuracy of actuarial measures increased with length of the follow-up period.

Hanson and Morton-Bourgon (2007) included 79 different studies in their review, including the Static-99 and the Static-2002, the RRASOR, the MnSOST-R, the RM2000, the SVR-20 and four other risk tests. All subjects from all studies had a reoffence rate of 12.4% for sexual recidivism, 17.5% for violent recidivism and 30.1% for general criminal recidivism (with an average follow-up of 68 months). Again, they found that actuarial measures outperformed structured clinical judgement which both provided better results than unstructured clinical judgement (actuarial

¹⁶ $d = \frac{M_1 - M_2}{S_w}$; M_1 : mean of the deviant group; M_2 : mean of the non-deviant group; S_w : pooled within standard deviation

measures: $d = .70$; unstructured professional judgement: $d = .43$). The SVR-20 as the only example of SPJ measures had maintained its predictive power and showed the largest association with sexual recidivism; however, Hanson and Morton-Bourgon caution that this result was based on only three studies and would need further empirical support.

In summary, it can be seen that there is no empirical support for unstructured clinical judgement. On the contrary, actuarial risk instruments such as the Static-99 or the RRASOR have been widely established and are well-researched, and have proven their superiority in risk prediction (see figures above) in comparison to other risk assessment types. However, structured clinical judgement with an empirically guided, individualised approach has won some professional recognition and may become an important part of risk assessment if further empirical support is provided. These results show that there is some value in expert opinion but it should be regarded as an endorsement for evidence-based risk assessment.

Nevertheless, not only the format but also the content of these measures varies widely. The following section provides a closer look into the risk factors established so far.

Risk Factors for Sexual Recidivism

The different risk instruments presented above have some commonalities and some differences in their choice of risk variables. A summary of these variables is provided in Table 4¹⁷, separated in static and dynamic risk factors. The following text will describe the most commonly examined risk variables and the empirical foundation of these factors, regardless of their value for risk prediction.

¹⁷ The MnSOST-R is not included given the generalisation difficulties reported above.

Table 4: Conventional Risk Factors for Sexual Recidivism

Category	Variable	RRASOR	Static-99	SORAG	RM2000	IDA	SVR-20	Stable
Static factors								
Criminal history	Previous sex offences	✓	✓	✓	✓		✓	
	Past non-contact sex offence		✓	✓	✓		✓	
	Past non-sexual violent offence		✓	✓		✓	✓	
	Past non-sexual, non-violent offence						✓	
	Current non-sexual violent offence			✓			✓	
Nature of sex offences	Male victims	✓	✓	✓	✓			
	Extrafamilial victim	✓	✓					
	Stranger victim		✓		✓			
	Physical harm to victim						✓	
	Use of weapon/death threat						✓	
	High density sex offences						✓	
	Multiple sex offence types						✓	
	Escalation in frequency and severity of sex offences						✓	
Personal and clinical factors (historic)	Failure after release/ breach of supervision conditions			✓			✓	✓
	Unstable relationship history/single		✓	✓	✓		✓	
	Major mental illness						✓	
	Personality disorder			✓			✓	
	Schizophrenia			✓			✓	
	Unstable employment history						✓	
	Psychopathy			✓			✓	
Developmental factors	Instability of caregivers			✓				
	Adverse childhood behaviours			✓				
	History of substance abuse problems			✓			✓	
	Young age at first offence			✓	✓			
	Personal experience of child abuse						✓	

Dynamic factors

Distorted cognitive attitudes	Positive attitude towards offending			✓	✓
	Denial/minimisation			✓	
	Distorted cognitive attitudes			✓	✓
Deviant sexual interest	Deviant sexual preferences	✓			
	Deviant sexual interests (fantasy, preference, sexual preoccupation)	(✓)		✓	✓
Socio-affective functioning				✓	✓
Self-management problems	Lack of realistic plan			✓	
	Self management problems (lack of adequate planning, problem-solve or regulate impulses)			✓	✓
	Problems with sexual self-regulation				✓
	Suicidal/homicidal ideation			✓	
Negative social influences					✓
Age <25 yrs at release		✓	✓		

Static Risk Factors

As outlined above, static risk factors describe historical factors that cannot be changed in the future. Most risk assessments consider previous criminal offences as an important predictor of future risk of reoffending. Above all, previous sex offences (RRASOR, Static-99, SORAG, SVR-20), explicitly including non-contact sex offences (Static-99, SORAG, RM2000), and past non-sexual violent offences (Static-99, SORAG, SVR-20), are the most frequent. Only the SVR-20 includes general criminal history. The second group of static risk factors considers the nature of the sexual offence history. Most risk assessment instruments explicitly include the presence of a male victim (RRASOR, Static-99, SORAG, RM2000) as a predictor for sexual offending, as well as extrafamilial victim (RRASOR, Static-99) and stranger victim (Static-99, RM2000). Victim variability is also an aspect of the *Multiple sex offence types* item in the SVR-20. Threat of or actual physical violence inflicted to the victim of the offender's sexual offence is assessed only by the SORAG and the SVR-20. In addition, only these instruments more explicitly assess for a sexually deviant history, for example if there have been multiple sex offence types or a change in the offender's offence pattern.

The third group of risk variables can be labelled as personal or clinical factors. Four instruments name lack of or an unstable history of adult relationships as important predictor of sexual recidivism (Static-99, SORAG, RM2000, SVR-20); the SVR-20 also includes unstable employment history. Mental illness (sometimes specified in schizophrenia and personality disorders) is accounted for by the SORAG and the SVR-20; both instruments also consider psychopathy (as defined by scores on a version of Hare's Psychopathy Checklist) in their risk assessment. Craig, Browne, Stringer, and Beech (2005) argued that these factors can also be considered as dynamic risk variables. Another factor is breach of supervision conditions and failure after release which is accounted for by the SORAG, the SVR-20 and the Stable-2007.

The last group of risk variables comprised developmental factors, including personal experience of any child abuse (SVR-20), instability of caregivers and adverse childhood behaviours (SORAG), young age at first

offence (SORAG, RM2000) and history of substance abuse problems (SORAG, SVR-20). The relevance of developmental factors for risk assessment is only moderately supported by current research. First of all, there is a lack of definition of what can be considered a juvenile sex offence, given the often small age difference between offender and victim. Additionally, as Nunes, Hanson, Firestone, Moulden, Greenberg, and Bradford (2007) noted, childhood experiences are often solely dependent on the offender's self report and might be over-reported in hindsight. In a meta-analysis, Hanson (2000b) found no relationship between personal experience of sexual abuse and sexual recidivism. In contrast, Lee, Jackson, Pattison, and Ward (2002) examined influencing factors that resulted in a criminal career in 64 sex offenders and 33 property offenders. In general, a principal component analysis resulted in three underlying factors for criminality, accounting for 76% of the overall variance: childhood emotional abuse and a dysfunctional family, childhood behavioural problems and childhood physical or sexual abuse. Regression analyses identified child sexual abuse as the only risk factor for paedophilia (29 offenders were identified as paedophiles). Considering these results, it seems more likely that developmental variables play a role in the original choice for a criminal career but only have a weak direct relationship with sexual reoffending. Indeed, a sexualised childhood might prime the offender to sexual coping strategies and also support the establishment of sexual schemes that are dissimilar to common perception (see also W. Marshall & Marshall, 2000).

In summary, four groups of static risk factors are commonly considered when assessing recidivism with traditional assessment methods: criminal history, nature of sexual offending, personal/clinical variables, and developmental variables; however, the latter might rather account for initiating variables of a criminal career instead of continued criminal offending.

Dynamic Risk Factors

Dynamic risk variables include two types of risk factors: Stable risk factors are enduring characteristics related to increased criminal activity,

such as cognitions supportive of child sex. These variables can change over time but remain relatively stable over short time periods (6-12 months) whereas acute risk factors show day-to-day fluctuations. Consequently, stable risk factors describe the needs of an offender that can be targeted in treatment while acute risk factors define imminent risk flags, and are related to timing of the offence and thus community supervision. Dynamic risk factors are also more logically related to escalation in risk in terms of frequency and severity—such escalation itself being a dynamic process.

Stable Dynamic Risk Factors

The most common stable dynamic risk factor is that of cognitive distortions and offence-supportive attitudes (IDA, SVR-20, Stable), more specifically including positive attitudes towards offending (SVR-20), and denial or minimisation of offending (IDA, SVR-20, Stable). However, there is still some doubt if sex offenders actually hold sexual attitudes differing from other offenders or the normal population (e.g., see Keown, Gannon, & Ward, 2008) or if assessment tools are actually designed to capture deviant attitudes (e.g., see Gannon, Keown, & Rose, 2009). As described in Chapter Three, this is especially worth considering given that Ward and Keenan's (1999) much-cited implicit schemes in child sex offenders is based on merely a review of existing scales to measure cognitive distortions. It is also noted that deviant cognitive attitudes can be expressed in behaviour, such as a general criminal lifestyle (Hanson, 2000b).

Another important factor is ongoing deviant sexual interests, as can be seen in deviant sexual fantasies, paraphilias, or sexual preoccupation (IDA, SVR-20). Deviant sexual interest can be measured by phallometry or with scales that are developed for this purpose, such as the Screening Scale for Pedophilic Interests (SSPI; Seto, Harris, Rice, & Barbaree, 2004). The IDA and the Stable further consider negative socio-affective functioning, which is expressed in negative affect, inadequacy, lack of emotionally important relationship with adults, emotional congruence with children, aggressive thinking and intimacy problems. Howells, Day, and

Wright (2004) pointed out that it is known that affective states (or their absence) are antecedents to sex offending but it is still not understood how affect influences sex offending.

Both the IDA and Stable also consider self-management problems (lack of adequate planning, problem-solving or impulse regulation), which the SVR-20 picks up as a lack of realistic post-release planning and suicidal or homicidal ideation. Only the Stable includes problems with sexual self-regulation and negative social influences as risk factors.

There are some variables that can be considered both dynamic and static risk factors, such as personality disorders or substance abuse. Age can be considered as static when referred to as dichotomised (younger than 25 years, 25 years and older); however, it is strictly spoken a dynamic risk factor, which can also be considered in relation to time spent in custody (see Craig et al., 2005). There are some studies in which the interaction between age and sex offending has been examined. In 2002, Hanson conducted secondary analyses on the results of 4,673 sex offenders from ten different samples (including 1,133 rapists; 1,411 child molesters with stranger victims; and 1,207 incest offenders). He found an overall sexual recidivism rate¹⁸ of 17.5% but reported an age-dependent decline in offence rates. In addition, there were differences in reoffence rates based on sex offender type; while incest offenders reportedly had the lowest reoffence rate, child molesters were found to have the highest rate of sexual recidivism. With regards to age, rapists showed a steady decline with increasing age, whereas child molesters' reoffence rate rose for offenders between 25-35 years and then remained stable for all age groups until declining in 50 year old and older offenders. In summary, Hanson not only found an overall age-dependent decrease in the offence-rate of sex offender but also reported an interaction between age and sex offender type that leads to different reoffence-curves for each offender type (incest offender, child molester, rapist). This observation was also confirmed by Prentky and Lee (2007) who examined 136 convicted rapists and 115 convicted CSOs in their consequent charges for sex offences

¹⁸ Unfortunately, the included studies differed in their definitions of recidivism, namely charges, reconviction or rearrest.

between 1959 and 1985, depending on their age at release. While rapists displayed a constant recidivism rate of 28% for individuals aged between 18 and 39 years, charges dropped to 22% for 40-49 year olds, and then further dropped up to zero for the oldest age group (60+ years). In comparison, CSOs had a reoffence rate of 21.1% for 18-29 years old offenders, then an increase to 41.5% reoffence for individuals between 30 and 40 years of age, individuals aged 40-49 years had a recidivism rate of 35.75%, 23.15% for 50-59 years old offenders, and 16.7% for the last age group of 60+ years. It thus becomes apparent that the cut-off of 25 years as an indicator of risk might not be appropriate for each offender type.

For New Zealand, Skelton and Vess (2008) examined all 5880 sex offenders released in NZ between 1999 and 2004 (including 31% CSOs, 54% rapists, and 15% both) regarding age at release, their ASRS risk score at release and sexual recidivism. In general, they found a sexual reoffending rate of 9%, with higher rates for people with higher ASRS score. However, risk scores showed some interaction effect with age. The offenders who were categorized as low risk on the ASRS displayed low recidivism overall. With regards to medium risk, recidivism risk was constant up to 40 years (at release) and then declined steadily, while high risk offenders had a constant risk to 50 years, from which on risk rapidly declined. Overall, offenders who had started at a young age were found to be more likely to be classified as higher risk and more likely to reoffend (except for offenders with their first offence at a very young age). Therefore, age has been found to interact with offender type and overall risk presentation. These factors need to be respected when considering age as a risk variable, and research by Wollert, Cramer, Waggoner, Skelton, and Vess (2010) has shown the advantage of using age-stratified risk tables. Another aspect of age is its influence on other risk variables. Older age may increase the seeming seriousness of a history of substance abuse or criminal history because it naturally increases the time-span considered (for a more extensive discussion, see Langevin, 2006). The SVR-20 responds to this issue by considering high density and escalation of sex crimes in addition to pure length or number of sex offences in criminal history. A study by Barbaree, Langton, Blanchard, and

Boer (2008) found that the SVR-20 total scores are not affected by age-at-release but identified an increased predictive ability when age-at-release was considered (AUC = .63 vs. AUC = .72).

In summary, there are four groups of dynamic risk factors that are commonly considered in conventional risk instruments: distorted cognitive attitudes, deviant sexual interests, negative inter- and intrapersonal functioning, and self-management problems. There are some “borderline” variables, such as age or personality disorders, that can be considered as either static or dynamic variables.

Acute Dynamic Risk Factors

Only two of the named risk instruments accounts for acute dynamic risk factors: The Acute and the unspecific item in the SVR-20 that can be used for an acute risk aspect of the individual in question. In general, it is difficult to define what constitutes an acute danger to increase reoffending risk of an individual, and it requires in-depth knowledge of the offender and his situation. In their review on risk predictors, Craig et al. (2005) pointed to the imminence aspect of the following factors: a sudden increase in frequency of sexual fantasies, a traumatic event (loss of employment, an episode of a personality disorder, substance abuse), deviant social influences, and treatment behaviour factors (delinquent behaviour during treatment, deterioration in any dynamic risk factors, poor cooperation with treatment and supervision).

Empirical studies on acute risk factors are sparse. Proulx, Perreault, and Ouimet (1999) examined the files of 44 CSOs with a focus on their reports of the last 12 hours prior to their offending in order to determine immediate offence predictors. According to the official reports, most offenders expressed feelings of loneliness and anxiety, while anger was much less frequent; some offenders also described positive emotions. While most offenders reported pleasure and sexual arousal during the actual crime, guilt was a dominant emotion after the offence had occurred. Offenders with positive emotions and a non-coercive pathway to sex offending had a higher occurrence of cognitive distortions. Whereas these reports might be biased in hindsight, or offenders might try to justify or

excuse their actions once under arrest, the study by Proulx et al. pointed out the importance of research on acute risk predictors, and underlines the value of measures like the Acute.

Research Review on Risk Factors for Sex Offenders

As pointed out previously, some intrinsic difficulties occur when examining research on sexual reoffending. One problem is the differing definitions of recidivism (another charge/ conviction/ arrest for another sex offence in general or specifically another contact sex offence). Secondly, studies differ in the samples, in terms of age, recruitment, sex offender type and classification criteria, and the variables included for risk assessment. Finally, most research on sexual recidivism is based on post-diction studies, where offenders are retrospectively classified according to their recidivism status. This describes a maybe more feasible but rather lopsided approach to such a broad research area. The following section will provide a short overview of the empirical data on risk factors, mostly based on Hanson's well-regarded meta-analyses.

In 1998, Hanson and Bussière examined studies on an aggregated sample of 28,972 sex offender subjects, compiled from 61 different studies. They identified the following predictor variables for sexual recidivism: sexual deviance, young age of the offender, single status, criminal lifestyle, stranger and male victims, early age at first-time offending, diverse sexual crimes, and failure to complete treatment (listed in order of decreasing influence). According to Hanson and Bussière (though there has been some criticism of their work, e.g., see Lund 2000), factors unrelated to sexual reoffending were degree of sexual contact, force used during the offence, and injury to victim resulting from the assault.

Hanson and Harris (2000) examined 409 sex offenders on community supervision (208 of whom had sexually reoffended). They compared the offenders' data from 6 months and 1 month before their sexual reoffence. Data were collected via interviews with supervision officers and file reviews, and included information on the PCL-R, the VRAG, and the RRASOR scores, sexual offence history, sexual deviance

treatment history, anti-social personality disorder, experience of physical, sexual or emotional abuse, negative social influences, mental health problems, victim access, substance abuse and other problematic behaviours. Recidivists were found to be younger, more sexually deviant (more and multiple victims, sexual paraphilia), were reported as having higher treatment failures and were more likely to have used sex-drive reducing medication. They had more negative childhood experiences (such as personal abuse, long-term separation from parents, negative relationship with mother), more antisocial personality, peers and lifestyle (including higher occurrence of substance abuse, less personal grooming), lower intelligence and more intimacy problems, and also a trend to more distorted attitudes (e.g., less remorse). Stepwise regression resulted in the following risk predictors (decreasing importance): VRAG score, IQ and sexual deviance; regarding dynamic factors: considered self as no risk, poor social influences and sexual entitlement. Acute risk factors reported in this study were an increase in substance abuse, anger, and victim access, as well as a decrease in mood and treatment compliance. A stepwise regression reported that victim access, non-cooperation with supervision, and anger played the most important role. (It needs to be cautioned that in this study, recidivism rate was artificially set to 50%, and such a study design is prone to retrospective recall bias.)

A. Harris and Hanson (2004) examined 4724 sex offenders comprised from ten individual subsamples. In their analysis, they reported cumulative reoffence rates for CSOs with 13% after 5 years, 18% after 10 years and 23% after 15 years follow-up. Offenders with prior offences were found to have twice the reoffence rate than first-time offenders, and offenders older than 50 years were found to have lower risk of reoffending. In summary, they also found risk factors for sexual recidivism to be male victims, prior sex offences and young age. According to the updated version by Hanson and Morton-Bourgon (2004), the most significant predictors for sexual reoffending were sexual deviancy (which, in this study, did not include a sexual interest in rape or violence) and antisocial orientation (including psychopathy), and to a lesser degree, sexual attitudes and intimacy deficits, inappropriate self-regulation, impulsivity,

lifestyle instability, and rule violation (especially with regards to supervision and conditional release). On the other hand, adverse childhood experiences, general psychological problems, and clinical presentation showed no relationship to sexual reoffending. Offenders with non-contact sex offences were more likely to reoffend, potentially because they could pursue emotional identification with children.

As the last meta-analysis had identified some dynamic risk factors, Hanson and Morton-Bourgon (2005) conducted another meta-analysis, solely targeted at dynamic variables. They compiled the outcomes of 82 different studies which in total reported 13.7% sexual recidivism, 14.3% violent recidivism and 36.2% general recidivism. The strongest dynamic predictors of sexual recidivism were sexual deviancy, antisocial orientation, sexual attitudes and intimacy deficits. Unrelated factors were adverse childhood environment, general psychological problems and poor clinical presentation.

Craissati, Webb, and Keen (2008) examined 241 sex offenders (162 CSOs, 79 rapists) based on their file review and interviews with parole officers. Their assessment included the RM2000, the Static-99, the PCL-R, and selected scales to assess emotional and psychological well-being. Emotional and physical neglect was associated with an increase in risk scores as well as psychological instability. Interestingly, an occurrence of two or more childhood disturbances made a significant contribution to risk status, including persistent truancy or school refusal, being bullied or bullying others, suspension from school for aggression, stealing, running away from home, deliberate self-harm, prolonged difficulties with peer relationships, and marked feelings of misery.

For New Zealand, Hudson, Wales, Bakker, and Ward (2002) followed all 219 CSOs who completed treatment at Kia Marama, a Special Treatment Unit for child sex offenders. Within their follow-up period of two years, 19 subjects reoffended with a sexual offence. In examining their files, it was found that recidivists had significantly more previous convictions, presence of male victims, lower intellectual functioning, a history of sex offending before the age of 20 years, literacy problems, and a higher score on the RRASOR. In terms of dynamic risk, they were found

to have higher pre-treatment scores and less change on measures of cognitive distortions, rape myth endorsement, and hostility towards women. They had higher impersonal and violent sexual fantasies prior to treatment and a higher occurrence of exploratory sexual fantasies after treatment. In terms of negative emotions, only anger was found to be related to sexual recidivism, and the offenders were considered as less able to relate to other people or to develop relationships. In a follow-up study in 2007, Allan, Grace, Rutherford, and Hudson again followed all Kia Marama completers ($n = 495$) for a period of 5.8 years on average (even though it is not stated, it is assumed to include the sample of Hudson et al., 2002). Nearly 16% of offenders were convicted of another offence during the follow-up period, specifically 9.3% of a violent offence and 9.9% of a sexual offence (average time to sexually reoffend was 2.55 years). It was found that sexual recidivists had higher scores on the Static-99. Only 232 Kia Marama inmates had completed all psychometric tests at pre-treatment (including scales for sexual attitudes and beliefs, emotional functioning, and interpersonal competency); a factor analyses for the outcomes of the completers revealed four independent factors over all scales, namely social inadequacy, sexual fantasies, anger/hostility, and pro-offending attitudes. With regards to risk prediction, elevated factor values were related to higher risk of sexually reoffending, mostly regarding self-reported sexual fantasies and pro-offending attitudes. These dynamic risk factors were independent from the Static-99 risk prediction, and if added, improved AUC from 0.72 to 0.81 for sexual recidivism. As a limitation, it is unclear if there are systematic differences between completers and non-completers, and why the effects of treatment were not considered in this study.

Overall, these studies reveal that the most significant predictors of sexual recidivism are (1) sexual deviance, (2) cognitive distortions, and (3) a general criminal/ antisocial lifestyle (confirmed by four independent studies), followed by (4) young age of offender, (5) male victim, (6) treatment/ supervision failures, and (7) intimacy deficits (confirmed by three independent studies). With regards to factors unrelated to sexual reoffending, only general psychological problems have been identified.

The importance of sexual deviance for sexual reconviction is confirmed by Craig, Browne, Beech, and Stringer (2006) who compared the outcome of the Static-99 and the Multiphasic Sex Inventory (MSI; Nichols & Molinder, 1984) with reconviction data of 199 sex offenders. The MSI scales of sexual obsession, sexual/social desirability and sexual dysfunction made significant contributions to risk prediction, statistically independent from the Static-99. The studies also show very clearly that actuarial risk can significantly be improved with the inclusion of dynamic risk factors.

It further has become apparent that there is still no consistent risk profile for a sex offender. In addition or as a consequence, different risk instruments consider different risk factors, and there is still no agreement about their best selection and combination. Indeed, Barbaree, Langton, and Peacock (2006) compared the results of 311 sex offenders on five actuarial risk assessment tools (VRAG, SORAG, RRASOR, Static-99, and MnSOST-R). For each instrument, they identified the 25% of offenders who would be classified into each of the high and low risk categories. While 55% of their sample was categorised as “high risk offender” by at least one of the risk tools, only 3% received this classification by all five instruments. Similar results were found for low risk offenders, where only 4% received the same classification by all included instruments. With these contradictory figures, the current professional practice is to combine different types of risk measures when assessing sex offenders to better account for overall risk, and also to account for static-dynamic differences (Bengtson, 2008; Boer, 2006; Craig et al., 2005).

The above review has provided some insight in the development, format and content of conventional risk assessment measures. The last section concludes what lessons were learned for the risk assessment of CSEMOs.

Preliminary Conclusions: Risk Assessment for CSEMOs

The previous review has shown that a good risk measure for recidivism in sex offenders combines dynamic and static risk factors, and may include expert opinion if guided by an evidence-based framework. It further concluded that best practice suggests a multimodal approach,

combining various measures of risk assessment to create a comprehensive picture of the risks and needs of the offender in question.

With regards to risk assessment of CSEMOs, there are two main reasons why conventional risk assessment instruments cannot be readily applied to this offender group. Firstly, as described previously, CSEMOs require a differential definition of risk, including reoffending with another CSEM offence as well as reoffending with a contact sex offence. Secondly, the ethical concerns raised at the start of this chapter pointed to the importance of empirical validation of the measure on the population on which it is used. However, none of the measures discussed above is validated on online sex offenders in general, let alone CSEMOs in specific. In contrast, the coding rules of the Static-99 for example state clearly that it cannot be used for pornography offenders (A. Harris, Phenix, Hanson, & Thornton, 2003). For the Static-99R, CSEM offending can be the index offence where there is an identifiable named victim (Phenix, n. d.), which mostly refers to cases of CSEM production. In addition, the review in Chapter Three revealed some differences between CSEMOs and CSOs, and amongst CSEM users, which further weakens the transferability of existing validation studies onto CSEMOs. The three-dimensional model in Chapter Three suggests that while contact-driven offenders may have more similarities with offline sex offenders, fantasy-driven offenders are likely to have qualitatively different risks and needs that call for specific assessment tools.

Risk assessment of CSEMOs has become a controversial topic. Middleton (2009b) wrote “[risk] assessment based on similar tools can distinguish between differing levels of risk and deviance” (p. 212). On the other hand, Hanson and Babchishin (2009) cautioned that even if the same risk factors apply to online sex offenders, specific variables such as base rates of recidivism might differ from offline sex offenders. Then again, Taylor and Quayle (2005) stated that internet offending needs to be understood as a distinct form of sex offending and should not be integrated into existing models of offending. Before a consensus can be found, it has yet to be empirically established what risk factors are relevant for the group of CSEMOs, what different types of recidivism are to be

considered, and what base rate of recidivism this offender group has. In addition, as the identified heterogeneity of CSEMOs pointed to the value of sub-classifications (like the fantasy-driven vs. contact-driven pathway), subgroups of CSEMOs may likely vary in their specific risk, for example regarding base rates of offending.

Thus, three main conclusions for the development of a CSEM risk assessment measure can be drawn from the above review on conventional risk assessment provided. Firstly, a typology identifying subgroups of CSEMOs needs to be established before risk-relevant variables levels can be established with any certainty. Secondly, as it is likely that conventional risk factors may have some predictive value for at least a subgroup of CSEMOs (e.g., contact-driven offenders), an assessment tool should include both conventional as well as newly developed risk variables at least until reliable studies on CSEMO risk prediction have been conducted. Thirdly, given that the conventional risk literature is largely focused on likelihood aspects of reoffending, comprehensive but non-probabilistic ways of assessing risk are currently most suitable for CSEMOs. The second aspect thus points strongly to the value of SPJ assessment methods for CSEMOs, following the example of the SVR-20 and RSVP. These conclusions define the theoretical framework for the empirical part of this thesis.

Chapter Summary

This chapter provided a closer look in traditional risk assessment for sex offenders and the ethical aspects related to it. Risk assessment was initially based on unstructured expert opinion; however, over time a list of variables with a statistically significant and validated relationship to future offending was compiled. This first generation of actuarial risk instruments had a focus on static, unchangeable variables, such as a prior criminal record (e.g., RRASOR: Hanson, 1997). Following that, the meaning of psychological variables in the offence process gained professional recognition and dynamic (changeable) risk variables were identified. Dynamic factors can be relatively stable over time, such as cognitive distortions and self-management problems, or acute, such as an

emotional crisis that directly leads to a sex offence. Some actuarial measures combined both static and dynamic risk factors, as exemplified by the MnSOST-R (Epperson et al., 1998). Finally, structured professional risk assessment was established, which allows for individualisation of risk assessment based on an evidence-based framework. Here, the most established risk measure is the SVR-20 (Boer et al., 1997). Overall, there is a professional consensus that the best practice in sex offender risk assessment combines different risk measures; ideally, expert opinion should be guided along variables with a reliable statistically significant relationship to criminal offending.

In the second part of this chapter, different risk factors were compared according to their empirical predictive value. With regards to static risk factors, four dimensions appeared reliable in risk prediction: 1) previous criminal history, 2) characteristics of offending: male, stranger, extrafamilial victim, physical violence, multiple sex offences, and density of sex offending, 3) personal variables: lack of stable adult relationships, unstable employment, psychopathy, mental illness, poor compliance with supervision and probation, and 4) developmental variables: childhood abuse, unstable caregivers, young age at first offence, and history of substance abuse. With regards to dynamic risk factors, distorted and offence-supportive cognitive attitudes, deviant sexual interest, negative socio-affective functioning, self-management problems, and negative social influences were identified as crucial for risk assessment. There is limited research on acute risk factors, mainly referring to the only strategic measure for imminence of offending, the Acute (Harris & Hanson, 2003). Overall, the most important risk factors for sexual recidivism were repeatedly found to be sexual deviance, cognitive distortions, a general criminal/ antisocial lifestyle, young age of offender, male victim, treatment/ supervision failures, and intimacy deficits (decreasing importance).

As for risk assessment of CSEMOs, it has to be established what type of risk is referred to, especially with regards to progression to contact offending, what risk assessment is appropriate, what risk factors are relevant, what recidivism base rate exists, and what risk groups can be differentiated. This defines the framework of this thesis: the development

of a typology for CSEM users that will inform an initial draft for the assessment and treatment of CSEMOs.

Part II: Research Studies

The second part of the thesis contains the empirical research conducted, the development of a comparison study between offenders who used CSEM and sex offenders with contact child victims. Participants were asked to complete a computer survey exploring variables on their personal presentation and offence-related characteristics. Chapter Six outlines the general methodology of the study, including survey development, data collection, and data preparation. Chapters Seven to Nine are dedicated to the study content. In particular, the three main research questions that have become apparent from the theoretical introduction are addressed:

- (1) Do users of CSEM have an offender profile distinct to contact child sex offenders, which may limit the applicability of conventional assessment method and treatment goals developed for contact sex offenders? (Chapter Seven)
- (2) Are CSEM users a homogeneous group or can different subtypes of CSEM users be identified? (Chapter Eight)
- (3) If they exist, do these subgroups of CSEM users present with unique clinical features and/or risk characteristics related to their particular recidivism risk probability, the harmfulness of their potentially recidivistic behaviour, and the imminence of their reoffending when at risk? (Chapter Nine)

In Chapter Seven, differences between the offender subtypes were examined, based on variable groups identified with methods of dimension reduction and classification. The findings supported the assumed differences in the profile of CSEM users and offenders with contact sex offences against a child as well as the heterogeneity amongst CSEM users.

In Chapter Eight, the focus narrowed to users of CSEM. Details around their CSEM usage were analysed, which confirmed the heterogeneity of this offender group. Using numerical and visuo-spatial methods of analysis, five subgroups of CSEM users were differentiated. The findings validated the existence of at least two inherently different

pathways to CSEM offending, namely contact-driven versus fantasy-driven offending.

Chapter Nine is dedicated to exploring the risk profile of the offender subgroups. Two sets of variables, conventional risk predictors for sex offending and model-based variables, are explored in their relationship to criminal activity, specifically contact sex offending and CSEM offending. The offender subgroups are then compared on these variables, based on which a classification schema for CSEM users was developed. The outcome confirms the existence of a fantasy-driven and contact-driven pathway to CSEM offending.

Chapter 6:

General Methodology: Study Design and Data Preparation

The main study for this thesis is based on a computerised survey that contained a variety of variables of clinical relevance for the assessment of CSEM users. In this chapter, the general methodology of the main study is described, including the phases of development of the final survey, the methods of participant recruitment and data collection, as well as the preparation of the final data set.

Survey Development

The survey was developed in several stages. After a pool of draft items had been developed based on the existing literature, two validation studies were conducted: In the Expert Survey, these draft items were evaluated by professionals working in a clinical or forensic setting with users of CSEM. In addition, the internal structure of the COPINE Scale was assessed to determine its suitability as a classification tool for CSEM content. The survey items were finalised in a number of pilot-tests, including two postgraduate students, a subject case, and a clinical psychologist specialised in the treatment of CSEM users.

Content-related Considerations

A draft survey was developed based on two main aspects: subject areas that had been identified in the theoretical introduction and existing guidelines or empirical studies on the assessment of CSEM users.

The first part of this thesis has already provided an overview of areas of interest in the assessment of CSEMOs. In Chapter Two, the concept of CSEM was explored in more detail. It became apparent that an assessment of CSEMOs should include relevant features of the material in their possession, most notably their content. Secondly, there are some features about the material collection in general that may be explored, such as its size, organisation, and whether it contains new or self-

produced material. It is also relevant how much the collector invests in his collection, financially, temporally, and emotionally. A related issue is whether the collector manipulates the material, for example by adding text or digitally altering the content of the material. Furthermore, as summarised in Table 2, CSEM can fulfil one or more different functions for its users, which should be assessed for. Examples are sexual gratification or using CSEM as a way of establishing status within an online newsgroup. Finally, some features of the internet may foster a form of dependency that is difficult to withdraw from for some users. Hence, it should be assessed which meaning(s) the internet has for the individual, in terms of the needs the internet fulfils for each user.

In Chapter Three, characteristics of CSEMOs and their offences were analysed in more detail. Summarising the findings, a comprehensive clinical assessment of the offender would include demographics, computer usage and access (both general as well as specific to his offending), and his relationship history and value that is placed on these connections. Of further interest are childhood variables, especially concerning early sexualisation. Psychological variables in general and those that have been found to define a difference to contact sex offenders should also be assessed, such as social skills or a history of mental health issues. Offence-related variables need to be explored, including cognitive distortions held by the offenders and an analysis of the offence process, such as triggers, distal and proximal setting events, and maladaptive usage of the internet in general.

In the fourth chapter, the relationship between pornography consumption and sexual aggression was examined more closely. In that respect, a person's criminal history and previous reoffending is of relevance. In addition, a person might behave in a way that increases the likelihood of reoffending, such as increased "risky behaviours" (e.g., starting to view online legal material that previously led to the censorship offence), problems with sexual self-regulation, or cognitive distortions. A person's sexual fantasies and his current usage of pornography are also central to the assessment; this also includes if a person discloses an interest in direct sexual contact with a child.

In the preceding chapter, Chapter Five, the traditional risk assessment of sex offenders was examined. Risk assessment tools vary in their inclusion of variables and may include static variables (i.e., stable over time), such as one's previous criminal history, nature of the offence(s), personal variables such as employment history or mental health issues, and developmental variables, such as sexual abuse trauma as a child. In addition, dynamic risk factors describe aspects that are subject to change, such as cognitive distortions or emotional functioning.

In addition to these aspects raised in the theoretical introduction, there is an emerging body of professional literature that either examined the application of conventional risk prediction tools for CSEM users, or developed draft guidelines for the assessment of these offenders.

Three studies were identified that employed a conventional risk assessment tool with CSEMOs. The RM2000 is part of the psychometric scales regularly administered in the UK National Probation Service (England and Wales), however it is not validated for online offenders (Webb et al., 2007). In Middleton et al. (2005, 2009), distribution of the RM2000 scores revealed that the majority of CSEMOs were classified as low risk when assessed with the RM2000. Webb et al. (2007) examined the RM2000 and the Stable scores of 90 CSEMOs and 120 CSOs. Regarding the RM2000, there were no significant differences in the score distribution between the offender groups. On the Stable, CSOs were found to be significantly more likely to have positive attitudes towards sexual assault and more problems with supervision compliance while CSEMOs showed significantly more problems with sexual self-regulation.

Given the lack of validation for usage of conventional risk measures on CSEMOs, some professionals have instead developed specific assessment recommendations and guidelines based on theoretical considerations, anecdotal exposure to CSEM cases, or empirical studies (Beech, 2009; Bow, Bailey, & Samet, 2005; Caple, 2009; A. Carr, 2004; Davidson, 2007; Delmonico, 1999; Elliott & Beech, 2009; Gallagher, 2007; Graf & Dittmann, 2009; Hanson & Babchishin, 2009; International Center for Missing and Exploited Children, 2006; Middleton, 2009a, 2009b; O'Brien & Webster, 2007; Osterbaan & Ibrahim, 2009; Quayle, 2007,

2009b; Quayle et al., 2006; Quayle & Taylor, 2002b, 2003; Rettinger, 2000; Seto, 2009a, 2009b; Shaw & Imhof, 2009; J. Sullivan & Beech, 2004; Taylor & Quayle, 2006, 2008; H. Wood, 2007; Young, 2008).

Another source of information were guidelines for court and/or police of how to secure evidence and conduct supervision in these cases (Bowker & Gray, 2004; Casey, 1999).

Following examination of the academic literature and collapsing of research outcomes, 20 areas of interest for an assessment tool of CSEMOs were identified, and a list of related risk variables for each area was developed (see Table 5).

Table 5: Draft Categories and Items for the Assessment of CSEM Users

Category		Items
Material Type (MT)	1	digital images
	2	printed photographs
	3	digital video files
	4	video-tapes/ DVDs
	5	digital sound files
	6	audiotapes or other sound recordings
	7	digital text files
	8	magazines/ books
CSEM criminal history (CCH)	1	current conviction for CSEM
	2	past conviction(s) for CSEM
Material access (MA)	1	www, such as open websites
	2	open chat rooms, or a private room in chat form
	3	online newsgroups
	4	peer2peer exchange, such as ICQ or skype
	5	Email
	6	online order and sent per mail/courier
	7	offline contacts
Level of engagement with material (EM)	1	self-production of material by cutting and pasting of offline pictures
	2	self-production by digitally altering images, using software such as Photoshop or Corel Draw
	3	monetary payment for material
	4	“payment” for material by uploading/trading own material

Preferences in CSEM (PR)	1	preferably male victims
	2	distinct victim preference, such as certain type of hair or skin colour
	3	distinct preference for certain sexual activity
	4	specific picture selection to complete picture series
	5	exclusion of certain material type, specific selection rules
Function of material (FR)	1	sexual arousal
	2	online posting for other users
	3	offline exchange with other adults
	4	online trading with other users
	5	grooming of minors (online)
	6	grooming of minors (offline)
	7	financial gains
	8	establishment of social contacts
Criminal history (OCH)	1	current conviction for sex offence (adult)
	2	current conviction for sex offence (minor)
	3	past conviction(s) for sex offence (adult)
	4	past conviction(s) for sex offence (minor)
	5	majority male victims
	6	majority stranger victims
	7	conviction for non-contact sex offence (<i>do not include objectionable material</i>)
	8	conviction for non-sex violent offence
	9	conviction for non-sex, nonviolent offence
Exacerbating factors (EF)	1	previous sexual contact with minors
	2	given drugs/ alcohol to minors
	3	show legal pornography to minors
	4	show child pornography to minors
	5	take pictures/videos of minors with their knowledge
	6	take pictures/videos of minors without their knowledge
Childhood variables (CV)	1	experience of sexual abuse
	2	experience of physical abuse
	3	neglect/ lack of resources
	4	unstable family composition
	5	experience of emotional abuse
	6	childhood behavioural problems (school refusal, bullying, stealing, running away, self-harm, social problems)

Sexual preferences (SP)		possession of other objectionable material (bestiality, extreme violence, necrophilia)
Progressing in offending behaviour (PROG)	1	change of preferred victim type over time
	2	change of preferred sexual activity over time
	3	change of preferred location to download material over time
	4	increase of contact to other child pornography users over time
Opportunity factors (O)	1	engagement in sex-tourism
	2	employment includes contact to minors
	3	hobbies/ leisure activities include contact to minors
	4	employment requires computer knowledge
	5	hobbies/ leisure activities include computer knowledge
	6	employment allows unsupervised Internet access
	7	employment allows unsupervised access to several computers/ servers
	8	internet access from home
	9	internet access from work place
	10	internet access from public location (university, library, Internet cafe)
Personality factors (P)	1	frequent house moving
	2	untidy and unclean living circumstances
	3	interest in fantasy and fantasy characters (online games, Star Trek, ...)
	4	collection of non-objectionable material
	5	mental health issues
	6	history of drug/ alcohol abuse
Relationship behaviour (REL)	1	currently in live-in relationship
	2	history of unstable/ problematic relationships
	3	domestic violence
	4	frequent affairs/ cheating on partner
	5	engagement in paid sexual activities, such as sex workers
Level of engagement in CSEM offending	1	offline cataloguing of child sexual abuse material
	2	online conversations with other users interested in child pornography
	3	member of a newsgroup or other online group for people with similar sexual interests in minors
	4	online sex conversations / cybersex with minors
	5	deceptive online profile, such as younger age or female gender
	6	offline contact with a minor met online (this may include

		letters or phone calls, sending/ receiving of gifts)
	7	offline meetings with a minor met online
	8	passive participation in sexual abuse of a child, such as via live camera
Security awareness (SA)	1	saving of child pornography material to offline devices, such as USB sticks, disks, or computer hard drive
	2	creation of hard copies of child pornography material, such as printed out some image
	3	computer was shared with other users
	4	installing of security measures (could include change of file names into less obvious titles (such as "dad's 60 th birthday") or usage of security software)
Computer equipment (COMP)	1	presence of hard-ware usable for pornography production (digital camera, scanner, web-cam)
	2	presence of design software, such as CorelDraw
	3	computer equipment values more than \$3,000.00
Collection characteristics (CC)	1	possession of CSEM that has been created in the last two years
	2	possession of CSEM that showed children younger than 5 years
	3	possession of CSEM that showed infants
	4	Possession of CSEM material with added text, such as changed file names or story line to the images
Cognitive distortions (DIS)	1	sexual objectification of children
	2	world is a dangerous place
	3	uncontrollability of own actions
	4	entitlement to actions
	5	children are not harmed by actions
'Internet addiction' (ADD)	1	addiction symptoms when online or dealing with child sexual abuse images, such as feelings of relief or excitement, neglect of other duties?
	2	constant increase of time spent online or time spent dealing with child sexual abuse images?
	3	'withdrawal symptoms' when not on the computer, such as anger or feelings of missing out
	4	loss of time when online or dealing with child sexual abuse images
	5	unsuccessful attempts to reduce Internet activity or time spent with child sexual abuse material
	6	computer activity as a means to escape problems
	7	denial/minimisation of amount of time spent on the computer
	8	denial/minimisation of computer activities
	9	computer activities have markedly reduced offline social relationships

- 10 experience of work problems due to computer activities (amount and content)
 - 11 loss of sleep due to amount of computer activities
-

Validation Studies

Two validation studies were conducted to increase the informative value of the survey: an expert survey to obtain informed clinical judgement on the assessment of CSEMOs, and an assessment of the internal structure of the COPINE scale as a measure of CSEM content.

Expert Survey

An expert survey was designed and distributed via email to forensic, criminological, and clinical professionals to provide feedback on the drafted items and to collect additional information, for example, potential subgroups of CSEM users. Using a peer-recruiting system, responses from seven participants were collected, all with experience in the apprehension or management of CSEM users. While only the main findings can be reproduced here, the full study is described in Appendix B.

The results of the Expert Survey reflected participants' understanding of the heterogeneity of the group of CSEM users, with a main distinction between offenders who additionally seek direct sexual contact to minors from those who do not. However, with regards to the different functions of CSEM, there was consent amongst the experts, reflecting *Sexual arousal* as the single most frequent purpose. Experts further recognised the offence process as dynamic and acknowledged an influence of the employed technology, for example it was pointed out that specific image content can only be accessed via certain media (comment to the category *Preferences in CSEM*).

Overall, experts had moderate agreement in their rankings ($W = .292$ for frequency of variables, and $W = .323$ in terms of the risk-level of variables). A noteworthy finding was the distribution of missing values (i.e., no responses given by experts). Missing values were found to increase considerably when assessing personal instead of behavioural variables, such as *Personality factors* or *Internet addiction*. As no time-

effect was found in the occurrence of missing values and their position in the survey, it was assumed that experts' confidence in their ranking was reduced when dealing with psychological variables.

With regards to factors that identify a *high-risk offender* (as defined by each expert), any form of contact with children was generally ranked as high-risk (e.g., *Opportunity factors*). Participants' comments on *Cognitive distortions* or the subjective identification of additional risk factors further underlined a clear focus on direct contact with minors as a risk issue. While this may define a subgroup of CSEM users, it appeared that the risk of reoffending with CSEM was generally considered less serious by the participants than a contact sex offence with a minor victim. Alternatively, as all of the involved experts would have had some form of training on conventional risk assessment for sex offenders, the responses may not be a genuine assessment of CSEM users but a reference to the traditional risk assessment literature.

Few suggestions were made as amendments to the presented draft measure: Regarding cognitive distortions supportive of CSEM offending, the experts suggested adding moral disengagement and "society has it all wrong". Further recommendations for risk variables included offenders' reaction to their apprehension and fantasies or behaviours surrounding a real child.

*Assessing the Internal Structure of the COPINE scale*¹⁹

Both the literature review and the expert survey have pointed to the importance of the content of CSEM for a comprehensive assessment of CSEM users. As described in Chapter Two, the COPINE scale (Taylor, Holland, et al., 2001; see Table 1) was developed for classification purposes of an offender's image collection, and has found wide application.

¹⁹ This is a summary of an article whose final and definite form has been published: Merdian, H. L., Thakker, J., Wilson, N., & Boer, D. (2011). Assessing the internal structure of the COPINE scale. *Psychology, Crime and Law*. [OnlineFirst Publication] doi: 10.1080/1068316X.2011.598158. *Psychology, Crime and Law* is available online at: www.tandfonline.com.

Nevertheless, whether the levels of the COPINE scale do indeed depict a cumulative scale in terms of increased deliberate sexual victimisation has never been empirically established. Further, the scale is based on the equally unchallenged assumption that the levels are appropriate descriptions of the actual content. In fact, to the knowledge of the researcher, there is no empirically established reliability regarding the categories of the COPINE scale. Also, despite frequent usage of the scale, to the knowledge of the researcher, no study has been conducted on the construct validity of the scale. Hence, it is currently unknown if the ten categories of the COPINE scale reflect all number of categories of available child abuse images, if they are replicable and if they are mutually exclusive. Another issue is that the COPINE scale has only been applied to pictures and does not cover the whole range of child sexual exploitation material. Nonetheless, no alternative typologies have been developed to date.

Therefore, before the COPINE scale (or adjusted versions of it) is systematically and consensually used for legal or research purposes, some quality checks need to occur. One of the validation issues to be addressed is whether the ten categories of child abuse images are actually perceived as different from each other in terms of relevant indices; for example, with regards to the impact on the victim. If so, then each level of the COPINE scale could be transferred into a rank of impact on the victim or obscenity of the material. The goal of the current study was to confirm if an increase in level on the COPINE scale is perceived equivalent to offensive material depicting increasingly higher impact on the victim.

The different levels of the COPINE scale were translated into a “plain English” version, which was validated using six independent raters. Overall, the raters showed very high agreement in their item matching and produced a very high average Spearman correlation with the original scale ($W = .891$, $r_S = .933$).

Psychologists working in correctional services ($n = 43$) and postgraduate students at the School of Psychology, University of Waikato ($n = 41$) were asked to complete a sorting task by assigning a rank of

severity to each of the ten levels of the COPINE scale. Overall, the participants clearly connected increasing levels of the COPINE scale with increasing seriousness of the offence, resulting in a highly significant correlation between the participants' ranking and the original order of the items ($r_S = .951$). These findings confirm the applicability of the COPINE scale as an assessment of CSEM content for this study. More details are discussed in the full study, included in the Appendix C.

Development of the Final Survey

The survey was finalised in five stages, outlined in the flowchart in Figure 3. Based on the outcomes from the Expert Survey as well as a review of recent literature, a large item pool was developed. These items were discussed with a cultural advisor in terms of their suitability for Maori participants and were checked by a "Plain English Translator"²⁰ to ensure their aptness for a basic reading level.

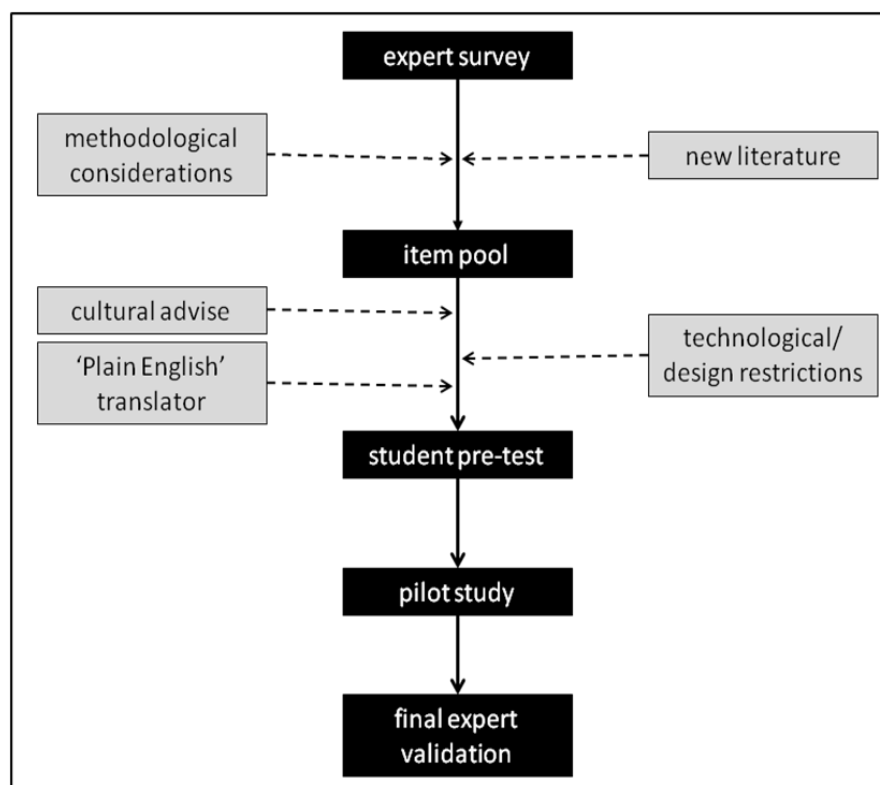


Figure 3: Flowchart of survey development

²⁰ *Plain English* refers to a style of writing that is easy to read and understand with a basic reading level. The Plain English Translator in this project was a professional with significant research experience in the area.

There were also some methodological issues to be considered. As suggested by Vaux and Briggs (2006), all items were ordered in subsections and introduced by brief transition sections. Despite concerns regarding the length of the survey, it was decided to maintain a large item pool given the exploratory nature of this research and the advantages of high numbers of items for later data analysis (Fishman & Galguera, 2003; Lounsbury, Gibson, & Saudargas, 2006). A further issue of discussion was the inclusion of ipsative items (i.e., items that are conditional to responses on previous items), whose usage, as Fishman and Galguera (2003) pointed out, may limit the test assumption of independent item answers. Nevertheless, the advantage of collecting all desired information at once on three different offender groups outweighed these concerns. Lastly, it is often recommended in questionnaire studies to integrate a measure of social desirability and to counterbalance all items (e.g., see Kline, 2000). However, given the overall high transparency and the large number of the items, it was decided against an additional social desirability scale but to analyse data for response trends. Given that most items checked for presence of a certain variable, items were not counterbalanced in order to reduce semantic complexity. Overall, it was assumed that most people who participated were highly motivated to respond truthfully, considering the voluntary nature, the anonymity of this study and that no individual benefit resulted from participation. The survey was programmed using Microsoft SQL Server Management Studio 2008. Some item content, response types, and order of items had to be changed given technological restrictions with the design software.

The survey was then pre-tested by two master-level students with research experience in criminal psychology. Both were instructed to answer yes to every question in order to access all items, including ipsatives. Following implementation of suggested changes, the survey was then piloted on a volunteer participant, recruited from the Department of Corrections. This pilot person, a convicted child sex offender, had been released from prison and was living in the community under probation supervision. As with the students, he was instructed to answer all

questions with yes in order to be exposed to all items, and his impressions were discussed afterwards with the researcher. Again, changes were applied following the pilot study, mostly related to the phrasing of items. The last validity check was conducted by a private therapist with extensive experience in the treatment of CSEMOs who had not participated in the original expert survey. The final item pool of the survey, as well as detailed information on the changes applied to the draft items in Table 5 can be found in the Appendix D.

Study Outline and Data Collection

This section outlines the final survey design, the modes of participant recruitment and the final data preparation.

Survey Design

Overall, the survey consisted of 211 items, which were grouped into nine subsections²¹. Participants were self-guided through the survey while a bar on the right side indicated their progress through the questions. The survey was interrupted four times for a break of 30 seconds (portrayed by a clock ticking down); these break times were indicated by a little coffee cup on the progress bar. Following advice from the Plain English Translator, word explanations were added to some items including unusual terminology. These words were presented in a different colour and activated an explanatory text box when clicked on. The final design of the survey and the terminological explanations can be viewed in the Appendix E.

Certain items were followed up by additional questions, dependent upon a positive response on the first item. If the participant gave a negative response to the initial question, he continued the survey without the follow-up questions. For example, the most significant jump followed from item *off21* ("Have you ever seen pornography that showed children under 18 years?"); a negative response omitted nearly 60 questions and directly led to the last subsection of the survey, *cognitive distortions*.

²¹ The term *child pornography* was used in the survey instead of *CSEM* due to its familiarity.

At the beginning of the survey, participants were asked to provide anonymous consent and some initial demographic information; they were then encouraged to put themselves into their perspectives prior to detention:

Some of the questions might be tricky to answer because your life might have changed since you started treatment or you entered prison.

Please answer all questions as if you are still in your “old life” before prison or treatment, even if you would do things differently now or if your circumstances have changed.

Once a participant completed all questions, a message on the computer screen told them to inform the “person who administered the survey”. By closing the screen, any identifying information was deleted to ensure anonymity of the responses.

Design Failures and Technological Issues

There were some issues in the survey design that could not be resolved before the start of the data collection. Some of the explanatory boxes that popped up to the coloured words in the survey did not maintain their formatting, hence font sizes and text alignment changed within the survey, which might have affected legibility. Secondly, the item section regarding personality mistakenly contained a question on internet behaviour. Following ad07 (“Do other people see you differently from how you really are?”), the question “Is there a difference in your online and offline personality?” (ad08) was asked. Even though contextually placed, at this point of the survey the concept *internet* and *online* had not been introduced yet, hence some participants may have misunderstood the question. In addition, four different laptops were used for the data collection, exposing participants to differing screen width and resolution, and some subjects completed the survey on laptops or computers provided by the community centres.

Participant Recruitment

The main criterion for participation was a history and/or interest in sexual contact to a minor and/or possession, distribution, or production of CSEM. Further, individuals were eligible for this study if they were male, were a minimum age of 18 years, had sufficient understanding of English reading and writing, and had no intellectual impairment that may have affected their ability to make an informed decision about participation or to understand the test material.

Subjects were recruited from community sex offender treatment centres and prison settings throughout New Zealand, whose staff decided upon eligibility of their subjects. Initial contact with the professional institution was established via email, followed up with either a personal visit or a telephone conversation. All participating institutions received an information letter which outlined the purpose of this study and the options of conducting the study (e.g., as online or offline version, conducted by the researcher or by staff members). After recruitment and assessment procedures were arranged with each participating agency, information letters for the participants were distributed. In most cases, letters were distributed and discussed in treatment groups by staff members. The researcher only met potential participants if requested by the agency.

Data collection took place between February and August 2010 (Period 1), and in April and May 2011 (Period 2). There were several modes of data collection, including online completion of the survey, group collection (2-3 offenders completed the survey at once, with the researcher present if required), and single data collection with the researcher present or absent. Choice of data collection was arranged according to the requests of the participating agency. Following completion of the survey, each participant was encouraged to discuss his experiences and thoughts about the survey with their group facilitators. Community participants also received a list of external mental health professionals as resources²². The study received ethical approval from the University of Waikato and all participating agencies (see Appendix F).

²² The list contained counsellors, psychologists, and clinical psychologists registered with ACC; all gave written agreement to be included.

Templates of the material used in the recruiting process can be found in Appendix G.

Data Preparation

The participants' responses were either retrieved from the server that contained the online survey or from the SQL scripts from the offline data. These data scripts were converted separately and then compiled into a Microsoft Office Excel 2007 spreadsheet. To ensure accuracy of the data transfer, the conversion process was repeated for half of the responders from the first data collection period. After completion of the second data collection period, a random subgroup of 18 data sets was converted again. Both conversion checks resulted in 100% agreement with the original data set.

The complete data set initially consisted of 77 participants, seven of whom completed the survey during the second collection period. Nine subjects had to be removed from the data (including two participants from the second data collection period). Five subjects did not complete the survey. Of the other four cases whose data were removed, one case did not admit to either CSEM offending or a contact sex offence against a child. Another case self-identified as female, which either raises questions about the truthfulness of his responses or suggest that a staff member had used the wrong log-in code when completing the survey. One participant was excluded as his qualitative responses contained personalised comments to the researcher. Response trend analysis revealed a normal distribution for the sum of yes responses of subjects as well as their sum scores on the Likert-scaled questions, except for one case who had a significantly higher number of yes responses, and had also used the same figure for every numeric question. This case was excluded from further analysis. Hence, the final sample was reduced to 68 subjects.

In three instances, responses were changed according to the subjects' comments. For ad08, subjects were asked to indicate if they had a specific online personality, and then describe the difference between their online and offline personality (ad09). Here, two cases commented that they had mistakenly agreed to ad08. Given the misplacement of this

item (as described above), responses on ad08 were changed accordingly. One case commented that he had mistakenly indicated that he had viewed CSEM; his status was changed from *MO* to *CSO*.

More detailed information on the methodology used is outlined separately for each research question. Given its exploratory quality, the design of the current study lacks the rigour of a confirmatory multivariate research approach and instead requires methods of data exploration or “data mining” (see Izenmann, 2008; Johnson & Wichern, 2002). Each section thus contains considerations regarding its methodology and describes steps regarding data mining or data preparation.

Chapter Summary

In this chapter, the general methodology of the main study was described. The study was built around a computerised survey for variable collection amongst CSEM users and offenders with direct sexual contact to minors. The survey was developed in three main phases: Development of a draft item pool based on the existing literature, two studies to confirm its validity, namely an Expert Survey and a validation study of the COPINE scale, and a series of pilot studies to finalise the items.

The final item pool was then integrated into a computer-supported design. Participants were recruited from community treatment and prison settings, with methods of recruitment and data collection shaped to the requirements of each participating agency. The chapter finished with a description of the methods of selection and validation of the response sets, resulting in a final sample of 68 participants.

Chapter 7:

Sample Description and Profiles of Offender Subtypes

Based on the introduction in Part I of this thesis, it was hypothesised that the contact and non-contact offender types are likely to differ in terms of their demographic and offence characteristics (in addition to the defining issue of contact vs. non-contact offending), which may influence the applicability of conventional assessment methods for users of CSEM. The profile exploration of the offender subgroups relates to the first research question of the thesis, namely “Do users of CSEM have an offender profile distinct to contact child sex offenders, which may limit the applicability of conventional assessment method and treatment goals developed for contact sex offenders?”.

This chapter explores differences between the offender types, in general and in response to specific hypotheses raised in Chapter Three, Four, and Five of this thesis. The chapter starts with a descriptive analysis of the total sample and offender subgroups. Methods of dimension reduction are used to identify variable groups within the item pool that are then used to compare the offender types. The resulting differences are examined in terms of their importance for prediction of offender type. The chapter closes with a discussion of the findings and limitations of the study.

Profile Description of the Total Sample and Offender Subtypes

This section contains the descriptive analysis of the sample based on the survey items that had been responded to by all offender subgroups. Methodological considerations regarding parallel testing of large number of variables are discussed prior to an exploration of the variable distribution amongst the total sample and offender subtypes.

Methodological Considerations regarding Simultaneous Testing of Variables

In this study, a large number of variables were tested on a comparably small sample of participants, in order to draw preliminary conclusions about the offenders and to inform future research. One controversial topic for any multivariate data set is the issue of simultaneous testing, as conducting multiple comparison tests increases the likelihood of spurious significance findings (Columb & Sagadai, 2006), also called *familywise* or *experimentwise error rates* (Field, 2009). The most common adjustment to avoid experimentwise error rates is the Bonferroni correction which applies a significance level α that is divided by the number of planned comparisons. However, due to its conservative nature the Bonferroni correction increases the likelihood of a Type II error (Field, 2009), and is not recommended for more than five comparisons (Columb & Sagadai, 2006).

As described above, the exploratory nature of the study requires methods of data mining. Rothman (1990) argued that in these cases, adjustment for multiple comparisons “negates the value of much of the information in large bodies of data” (p. 43) and implied a “paradox of paying a penalty for having more information” (p. 46). Overall, there appears to be professional consensus that unadjusted multiple comparisons have some value in a hypotheses generating (as opposed to hypotheses driven) approach. For example, Huberty and Morris (1989) described four cases in which multiple ANOVAs are better suited than multivariate methods, such as MANOVA: if the outcome variables are independent, for exploratory research questions, in replication studies, and “when some evidence is needed to show that two or more groups of units are equivalent with respect to a number of descriptors” (p. 303). Saville (1990) suggested that a multiple comparison approach may generate false hypotheses but argued that each hypothesis should be regarded in the context of other studies and as a starting point for confirmatory research. Instead of overall significance, Sainani (2009) recommended examining p-values and effect sizes when evaluating multiple comparison data: “For

exploratory analyses, it is more important to judge p values cautiously than to try to formally determine their true significance level” (p. 1103).

In light of these considerations, in this study, variables or groups of variables that are formally or conceptually considered as independent will be examined simultaneously without correction for multiple comparisons. However, within independent variable groups, results will be adjusted for spurious significance findings. Further, effect sizes (denoted with r) are provided for each comparison test in the analysis to allow for additional evaluation.

Demographic Description of the Total Sample

The demographic distribution of the sample is described in this section, based on the five demographic variables (dem02 - dem55) included in the survey. Details are listed in the first column of Table 6.

Age: Participants had a mean age of 43.4 years ($SD = 13.2$; $n = 66$)²³, ranging from 20 to 74 years. Age was normally distributed, $D(66) = .076$, $p > .05$.

Ethnicity: More than half of the participants self-identified as NZ European (57.4%), about a quarter as Maori or part-Maori, one as Pacific Islander, and five offenders stated other Western nationalities. Four participants did not report any ethnic identity. Overall, only three offenders did not report English as their first language.

Education: Offenders had completed an average of 9.7 years of education after turning 5 years of age ($SD = 5.3$; $n = 67$), ranging from 1 to 22 years. Years of education were significantly non-normally distributed, $D(67) = .113$, $p < .05$. Visual analysis of the histogram revealed a bimodal distribution for offenders, with a peak for an education period of less than 5 years and a second peak for an education period between 10 and 15 years.

Income: Eleven offenders responded that they were unemployed. Box-plot analysis of the income earners revealed several outliers on the high end of the income scale. Once removed, the remaining subjects'

²³ Specific subsample sizes may differ due to missing values; sample size is denoted for each variable.

responses were normally distributed with an average income of \$34,414.33 ($SD = 23,588.21$; $n = 46$)²⁴. Ten offenders had reported an extremely low average yearly income. It was assumed that these offenders may have misread the question, reporting weekly income or missing “0s” in their response (e.g., 30 instead of 30,000 for their yearly income). In these cases, income was adjusted by replacing the provided figure with the estimated yearly income for people on the Unemployment Benefit (\$ 11,278.28, using rates as of 1 October 2010²⁵), which increased the average income to \$36,250.10 ($SD = 21,136.76$; $n = 46$); income remained normally distributed. As before, this result indicated extreme heterogeneity in the income of the sample.

Business ownership: About one quarter of the offenders owned their own business, or had owned a business as their last source of income. There was no significant correlation between income and business ownership ($r_{pb} = .184$, $p > .05$).

Differences between first and second data collection period: The samples from the two data periods showed no significant difference on any of the demographic markers (age, ethnicity, education, income, and business ownership). However, the sample of the second data collection period contained one outlier on age. Once removed, there was a significant difference in age between the two samples, with the second group ($Mdn = 27$ years; range: 22-70 years) being significantly younger than the first sample ($Mdn = 43$ years; range: 20-74 years), $U = 26.5$, $z = -2.609$, $p < .01$, $r = -.324$.²⁶ Given that age was normally distributed for the whole sample, the two samples were combined for further analysis.

Distinction of offender type: Overall, given self-reported information based on off06, “As an adult, have you ever had sexual contact with a person younger than 16 years?”, and off21, “Have you ever seen pornography that showed children under 18 years?”, the final sample

²⁴ This large standard deviation, albeit statistically correct, indicates extreme heterogeneity in the income distribution.

²⁵ http://www.workandincome.govt.nz/manuals-and-procedures/deskfile/main_benefits_rates/unemployment_benefit_tables-01.htm

²⁶ Given the small sample size(s) and the heterogeneity amongst offenders, the assumptions for parametric testing were usually not fulfilled. Non-parametric testing was used if not stated otherwise.

consisted of 22 offenders who had offended with CSEM (CSEMOs), 29 sex offenders with contact child victims (CSOs), and 17 offenders with both offence types (MOs).

Table 6: Characteristics of the Offender Samples

	Total	CSEMOs	CSOs	MOs
Demographics	n = 68	n = 22	n = 29	n = 17
Age (yrs)	<i>M</i> =43.43 <i>SD</i> =13.2 <i>Mdn</i> =42.5	<i>M</i> =41.82 <i>SD</i> =14.5 <i>Mdn</i> =39.5	<i>M</i> =41.29 <i>SD</i> =7.86 <i>Mdn</i> =42	<i>M</i> =45.56 <i>SD</i> =13.2 <i>Mdn</i> =44.5
Ethnicity				
NZ	57.35	77.27	41.38	58.82
European	27.94	4.55	44.83	29.41
Maori	1.47	4.55		
Pacific Isl.	7.35	9.09	6.9	5.88
Other				
Education (yrs)	<i>M</i> =9.69 <i>SD</i> =5.29 <i>Mdn</i> =10	<i>M</i> =11.62 <i>SD</i> =5.18 <i>Mdn</i> =12	<i>M</i> =7.87 <i>SD</i> =5.12 <i>Mdn</i> =8	<i>M</i> =9.69 <i>SD</i> =4.09 <i>Mdn</i> =9.5
Annual income (NZ\$) ^a	<i>M</i> =34,414 <i>SD</i> =23,588 <i>Mdn</i> =31,000	<i>M</i> =37,565 <i>SD</i> =15,222 <i>Mdn</i> =36,000	<i>M</i> =22,248 <i>SD</i> =19,419 <i>Mdn</i> =19,000	<i>M</i> =49,454 <i>SD</i> =30,982 <i>Mdn</i> =50,000
Unemployed	16.18	9.09	24.14	11.76
Own business	23.53	27.27	20.69	23.53
Relationship Status and Sexual Preference				
Sex.				
Preference	73.53	86.36	72.41	58.82
Females	16.18	9.09	20.69	17.65
Males	10.29	4.55	6.9	23.53
Both				
Current partner				
Sexual	30.88	36.36	20.69	41.18
Live-in	25	31.82	13.79	35.29
Stable partner				
None	27.94	36.36	27.39	17.65
1	23.53	18.18	24.14	29.41
2	20.59	18.18	20.69	23.53
3+	27.94	27.27	27.59	29.41
Own children	52.94	40.91	51.72	70.59
Criminal activities				
In prison	54.41	4.55	89.66	58.82
Treatment				
Current	97.06	90.91	100	100
+ past	25	13.64	24.14	41.18
Length (mths)	<i>M</i> =12 <i>SD</i> =15.74 <i>Mdn</i> =10	<i>M</i> =8 <i>SD</i> =5.46 <i>Mdn</i> =8	<i>M</i> =12 <i>SD</i> =18.3 <i>Mdn</i> =10	<i>M</i> =16.06 <i>SD</i> =19.27 <i>Mdn</i> =10
Violent crime				
Convictions	23.53	9.09	27.59	35.29

Weapon use	27.94	4.55	44.83	29.41
Non-viol. Crime	44.12	18.18	62.07	47.06
Sex offending				
Adult victim				
Current	10.29		20.69	5.88
Previous	5.88		10.34	5.88
> 1	5.88		10.34	5.88
Minor victim				
Current	54.41		89.66	64.71
Previous	35.29		58.62	41.18
> 1	41.18		55.17	70.59
CSEM				
conviction	25	63.64		17.64
Current	2.9	9.09		
>1				
Online crime				
Illegal	38.24	54.55	20.69	47.06
Downl.				
Fraud	1.47		3.45	

Note. Figures denote percentage scores if not labelled otherwise.

^aOutliers removed.

Profile Description of the Offender Subtypes

Table 6 displays the distribution of items relating to demographics, relationship status and criminal history amongst the total sample and the offender subgroups.

Demographic Variables

Visual analysis of the demographic variables indicated outliers for *age* and *education*. After their exclusion, significance testing revealed that CSEMOs have a higher average in years of education than CSOs ($Mdn = 12$ vs. $Mdn = 8$; $U = 182.5$, $z = -2.41$, $p = .015$, $r = -.34$) and are less likely to be of Maori descent ($p < .05$, Fisher's exact test). CSOs had the least income amongst offender types ($Mdn = \$19,000$ vs. CSEMOs: $Mdn = \$36,000$ and MOs: $Mdn = \$50,000$), $H(2) = 9.385$, $p < .01$. Using a Bonferroni-adjusted α of .025, the difference between CSOs and MOs was highly significant, $U = 38.5$, $z = -2.723$, $p < .01$, $r = -.506$, while the difference between CSOs and CSEMOs approached significance, $U = 90.5$, $z = -2.067$, $p = .039$, $r = -0.349$.

However, only one CSEMO was in prison at the time of data collection in contrast to 90% of CSOs ($n = 26$) and nearly 60% of MOs ($n = 10$). Overall, the difference in their status (community vs. prison) between CSEMOs and CSOs was found to be highly significant ($p < .001$,

Fisher's exact test). Hence, it appears that the demographic differences between CSOs and CSEMOs may reflect a difference in their status. This was further confirmed by analysis of the correlation matrix revealing significant intercorrelations between *status* and *type* ($C = .592, p < .001$)²⁷, *status* and *education* ($r_{bisR} = .318, p < .01$), and *status* and *ethnicity* ($C = .306, p < .05$). Indeed, subjects residing in the community were found to have a higher average education than subjects residing in prison ($Mdn = 12$ vs. $Mdn = 8$), $U = 341.5, z = -2.565, p = .01, r = -.315$, and were less likely to be of Maori descent ($p < .05$, Fisher's exact test).

Relationship Status and Sexual Preference

The majority of participants expressed a sexual preference for females (74% total; 86% CSEMOs, 72% CSOs, and 59% MOs), followed by males (16% total; 9% CSEMOs, 21% CSOs, and 18% MOs). About a third of offenders were currently in a sexual relationship (31% total; 36% CSEMOs, 21% CSOs, and 41% MOs), about a quarter in a live-in relationship (25% total; 32% CSEMOs, 14% CSOs, and 35% MOs). The majority of participants had either had no long relationship in their lives (28% total) or had experienced more than three long-term relationships (28% total). About half of the offenders had children.

Even though there were no significant differences in the distribution of any of these variables, the profile of MOs stood out. There was a trend for MOs to prefer both sexes (24% vs. 5% CSEMOs and 7% CSOs), they had the highest percentage of participants in a sexual or live-in relationship, the highest percentage of participants with children (71% vs. 41% CSEMOs and 52% CSOs) and the lowest number of participants who had never been with a partner in a long-term relationship (18% vs. 36% CSEMOs and 28% CSOs).

²⁷ The relationship between two nominal scaled variables is established using

Contingence Coefficient $C = \sqrt{\frac{\chi^2}{\chi^2 + n}}$ (see Bortz, 2005).

Criminal Activities

All but two offenders were currently in treatment for their sexual behaviours, and the two remaining offenders had already completed treatment at the time of data collection. There was a trend for MOs to have completed additional treatment in the past. Overall, participants had completed an average of 12 months of treatment ($SD = 15.74$) at the time of data collection, ranging from less than one month to more than 8 years of treatment.

About a quarter of participants had convictions for violent crimes and just above a quarter had either used or threatened to use a weapon. Forty-four percent had convictions for non-sexual, non-violent crimes. Online crimes were less common: 40% admitted to the illegal download of online material but only one offender had committed credit-card fraud on the internet. None of the participants appeared on act2 (“creating fake websites”) or act3 (“creating viruses, worms or Trojans”). Overall, only 14 CSEMOs and 3 MOs were currently convicted for their CSEM crimes; only two of the CSEMOs reported previous CSEM convictions.

Each offender was assigned a score for their criminal activities (max. 13). There were significant differences in the criminal history between the offender groups, $H(2) = 24.813$, $p < .001$. Using an adjusted alpha of .025, CSEMOs ($Mdn = 2$) were found to have committed significantly less criminal activities than CSOs ($Mdn = 4$, $U = 57.5$, $z = -4.979$, $r = -.704$) and MOs ($Mdn = 4$, $U = 70$, $z = -3.373$, $r = -.54$); there was no difference between the latter two offender groups.

In order to reduce the number of comparisons, CSOs and MOs were compared on all offence types except for CSEM offending²⁸; no significant differences were identified. MOs and CSEMOs were compared in terms of their online offending (CSEM crimes and illegal download); overall, CSEMOs were significantly more likely to have a current or previous conviction for CSEM offending, $U = 98$, $z = -2.884$, $p(1\text{-tailed}) = .003$, $r = -.46$, but there was no significant difference in terms of illegal downloading. CSOs and MOs were then combined into a

²⁸ Per definitionem, MOs are expected to have a higher count on CSEM offending.

“contact” category and compared to CSEMOs on the remaining offence types. Using an adjusted alpha of .0167, CSEMOs were significantly less likely than contact offenders to have engaged in violent offending ($U = 330$, $z = -2.795$, $p < .0167$, $r = -.339$) and non-violent offending ($p < .0167$, Fisher’s exact test). There was a trend for CSEMOs to be less likely to engage in adult sex offending that did not reach significance under an adjusted alpha, $U = 396$, $z = -2.343$, $p = .014$, $r = -.284$.

It has to be considered that offenders with a long-standing criminal history are more likely to go to prison, which again underlines the issue of the high status-type intercorrelation. Indeed, participants residing in the community had a highly significantly lower criminal rate than prison participants, $U = 37.5$, $z = -6.318$, $p = .000$, $r = -.796$.

Items regarding Contact Sex Offending against a Minor

For offenders with a contact sex offence against a minor, a number of additional questions were asked about their offending, none of which differentiated between the two offender types. A quarter of CSOs but nearly half of MOs had mainly had male victims; five CSOs and one MO had offended against stranger victims. A quarter of CSOs but more than 40% of mixed had intoxicated their victims while four CSOs and seven MOs had exposed their victim to legal pornography. In nine cases, the offending had some relationship with CSEM: Four CSOs and five MOs reported they had produced photographic or video material during the offence, and in three of these cases, their victims were exposed to CSEM.²⁹ Two of the MOs showed or forwarded their self-produced material to other people.

Offenders with a contact offence against a minor were asked to describe their reasons for their offending (off11.1; see Appendix H). Qualitative responses were analysed according to Mayring’s (2000) model of qualitative content analysis.

All but one MO responded to the item. Overall, nine different themes were identified from the offenders’ responses (frequency in

²⁹ One of them included a CSO, which meant he did not respond truthfully when asked if he had ever seen CSEM.

brackets): Lack of Appropriate Adult Relationship (15), Sexual Interest in Minors (13), Stress and Sexual Needs (12), Self-esteem Issues (7), Own Sexual Trauma (5), Opportunity (4), Blame Attribution (4), Curiosity (1), and Escape From Misery (1). Two responses contained no reason as to why the individual committed the offending.

CSOs' responses covered all the identified themes while MOs only named reasons belonging to four themes: Sexual Interest in Minors (8), Lack of Appropriate Adult Relationship (4), Stress and Sexual Needs (3) and Own Sexual Trauma (3). CSOs were more likely than MOs to list explanations belonging to several themes. The most notable difference in the responses by CSOs and MOs is that MOs were more likely to admit a sexual interest in minors while the majority of CSOs listed lack of an appropriate sexual partner, stress, and self-esteem issues as their main reasons for their offending behaviour.

Summary

Few significant differences were found between the offender types. As a group, CSEMOs were less likely than CSOs to be of Maori descent and had completed more years of education. CSOs had earned the least income from all offender types. There were no significant differences on relationship status or sexual preference but a trend for MOs to be more sexually and romantically involved than the other two offender groups. With regards to past criminal activities, CSEMOs were the least likely to have a criminal history, however were likely to have illegally downloaded online material and were more likely than MOs to have been convicted of a CSEM offending.

Differences in the Profiles of Offender Subgroups

The following section describes the analysis conducted to detect significant differences between the offender types based on variable clusters and principal component analysis. The identified variable groups were then tested in their relevance for prediction of offender type.

Hence, the focus of the analysis was dimension reduction amongst the variables. The analysis was split into two sections, namely, a cluster

analysis for binary variables and principal component analysis for the Likert-scaled variables on cognitive distortions. Data analysis and findings are reported separately for each variable type.

Methodology

This section contains details of the methods of analysis employed for the research question of profile comparison. The preparatory analysis of the variables is described alongside general methodological considerations for dimension reduction as well as specific comments on the classification of binary variables and Likert-scaled variables.

Dimension Reduction: Data Preparation

As the majority of items were binary, all items were scaled on a binary level: Hence, p08 ("number of previous relationship") was converted into percentages of people for "never been in a relationship" and "more than three long-term relationships". After removal of outliers on item wsp06 ("How much money would you get if you sold all your computer equipment, including software?"), a median value of \$1,000 was determined and the item was dichotomised.³⁰ The table in the Appendix I displays the percentage distributions on the variables responded to by all offender types (p01-off20).

Prior to analysing the data, the items were screened for lack of responses. Within the *Personality* section, items p14 to p18, ad02, ad06, and wsp09 were reversed. Item p16 was removed as only three participants agreed to it, and all three also had agreed to at least one other *childhood neglect* item. Consequently, *childhood neglect* was defined as any agreement to items p14-18.

Items p19-p28 describe childhood conduct issues. Correlation analyses revealed significant intercorrelations amongst rule-breaking behaviours but no relationship between these items and difficulties making friends, self-harm, and "being a victim of bullying". When the correlations amongst rule-breaking behaviours were controlled for the influence of

³⁰ Participants were scored 0 for values lower than mdn, and 1 for values equal or more than mdn.

bullied others, only *running away* remained having a significant influence (stealing: $\phi = .452, p < .001$; lying: $\phi = .345, p < .01$). Hence, any positive response on items p19, p20, p23, p23.5, and p28 was reduced to a dichotomous item *rule-breaking*.

Within the section *Work & Spare Time*, only three people had professionally worked with minors, hence item *wsp07* was removed from further analysis. None of the CSOs had reportedly used the internet to contact minors or other adults with a sexual interest in minors. Thus, these items were excluded from analysis for this section and will be considered for the hypotheses referring to CSEM users. With regards to deviant pornography other than CSEM, only three offenders had admitted to have viewed necrophilia, hence item *off19* was removed from further analysis.

Dimension Reduction: General Methodological Considerations

Considering these modifications, CSEMOs, CSOs, and MOs had responded to nearly 70 binary variables and to 39 Likert-scaled variables regarding cognitive distortions. Two common ways of variable reduction in exploratory research are Principal Component Analysis and Cluster Analysis. Principal Component Analysis (PCA) is used to simplify a variable set to its latent principal components by examining item clusters based on their variance-covariance structure (Johnson & Wichern, 2002). In this way, as outlined by Afifi, Clark, and May (2004) dimension reduction occurs by selecting the variables belonging to the principal components that explain the majority of the overall variance. Cluster Analysis (CA) is a way of combining variables into groups according to their similarity, which is based on a distance matrix between items (Afifi et al., 2004)³¹. Both dimension reduction techniques can reveal relationships that were not previously assumed (Johnson & Wichern, 2002), and have been used for variable selection (Jolliffe, 2002; Silverstein, 1985). The main difference between the two techniques is that in PCA, principal components are not mutually exclusive and may be improved using rotation techniques (Bailey, 1994). This may reveal underlying

³¹ CA is discussed in more detail in Chapter Eight.

interrelationships between the items, however may also complicate the selection process for variables, for example when one item loads equally on two principal components. In contrast, CA results in an exclusive cluster membership for each item, albeit on the expense of information loss. Further, PCA introduces a new structure level beyond the data while CA remains on the variable level, thus inherently is a classification rather than dimension reduction method (Bortz, 2005).

Classification of Binary Data

One consideration for the selection of an appropriate method is the available data structure. As Bailey (1994) and D. Cox (1972) described, factor analytic methods are generally better suited for quantitative rather than categorical data. Specifically, even though frequently applied, Jolliffe (2002) cautioned interpreting linear functions of binary data, which is how principal components are generally described. Another consideration is the strength of association between the variables. Hence, the first step in dimension reduction consists of analysis of the correlation matrix of the items. Overall, the matrix displays rather low intercorrelations between items. Even in the variable with the highest intercorrelations, 40% were too low when employing a cut-off of $\phi = 0.3$ (as suggested in Field, 2009). Hence, only items with more than 90% of low intercorrelations were excluded from further analysis, reducing the data set to 44 variables. Besides these low intercorrelations, a further argument for variable classification instead of component identification is the large number of items on relatively few cases, as according to Bailey (1994), factor solutions require several times as many cases as variables.

Cluster Analysis is a procedure sensitive to outliers (Afifi et al., 2004), and these “random noise variables” or “masking variables” have been found to complicate the clustering selection (Brusco & Cradit, 2001; Dean & Raftery, 2010; Steinley & Brusco, 2008). Hence, the low correlated items were removed and only the selected 44 items were clustered, using an agglomerative hierarchical cluster analysis with squared Euclidean distances (recommended distance measure for variable selection; Izenman, 2008). As suggested in Afifi et al. (2004) and

Gironda and Clark (2008), clustering was (a) repeated on a subset of cases and (b) repeated using a different clustering method.

Dimension Reduction of Cognitive Distortion Items

As outlined above, Principal Component Analysis (PCA) is dependent on two main criteria: Intercorrelations between items and adequacy of sample size. Analysis of the intercorrelation matrix between all items identified only four items with ten or more correlations lower than $r_s = .3$: Dis2, Dis13, Dis19, and Dis29. With regards to the number of subjects needed for PCA, it is recommended to have more cases than variables in PCA. Further, Field (2009) proposed using the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) to assess the value of conducting PCA, with higher KMO values suggesting more reliable results.

Binary Variables: Study Outcomes

The analysis of offender differences on binary variables occurred in three stages. First, scores on the binary variables were analysed in descriptive manner. Secondly, the variables were divided into eight sub-clusters, based on hierarchical cluster analysis. Thirdly, the offender subgroups were compared on these variable clusters in order to identify differences in their profile.

Descriptive Analysis of Binary Variables

Items were screened for differences between the offender types. Overall, it appeared that CSEMOs and MOs were more experienced (and more equipped) regarding computers and online activities (e.g., wsp01-06) than CSOs. However, only CSEMOs reported personal cost regarding their online activities, as expressed in higher scores on items regarding *Internet Addiction* (wsp19-23). CSEMOs and MOs were also more likely than CSOs to have consumed deviant pornography other than CSEM (off18-20). In contrast to the other offender types, CSEMOs appeared the most mentally unstable, for example they reported the most mental health issues (p03), the highest level of stress (wsp08), and identified the highest amount of interpersonal struggles (e.g., never been in a relationship, p08;

struggles to find a partner, p09; or being bullied in childhood, p21.1). On the other hand, as a group, CSEMO had received a more stable and unperturbed childhood than the other two offender groups, for example CSEMOs reported the least abuse experiences (p26, p27) or displayed the least criminal behaviours in their childhood (p23, p28). MOs appeared the most mentally stable, e.g., they reported the least mental health issues (p03), least amount of stress (wsp08) and highest ability to deal with their stressors (wsp09). On the other hand, MOs described themselves as risk takers (ad04) and had the most interpersonal difficulties, as expressed in cheating on their partner (p10) or their experience of domestic abuse (p10.5, p11).

Cluster Analysis of Binary Variables

Cluster analysis on the survey variables resulted in eight variable clusters. Repeating clustering on three quarters of randomly selected cases, all but five variables were equally classified (89% identical classification of variables). When running a hierarchical analysis with a defined solution of eight clusters, the original classification was maintained (100% identical classification of variables). The final cluster structure is described in Table 7.

Table 7: Eight-Cluster Solution Resulting from Hierarchical Cluster Analysis on Binary Variables

Cluster	Item	
Cluster 1: Computer Competency and Access	wsp01	possession of digital camera
	wsp02	possession of computer
	wsp03	possession of printer
	wsp04	possession of scanner
	wsp14	ever accessed internet
Cluster 2: Focus of Internet Behaviours	wsp05	possession of webcam
	wsp19-25	“internet addiction”
	off18-20	viewing of deviant pornography
	act01	illegal downloading
	wsp10	leisure time on computer
	wsp06	high value of computer equipment
Cluster 3: Social Exclusion and Escape	CPt2	current conviction for CSEM
	p21.1	being bullied in childhood
	wsp12	interest in fantasy and Science Fiction
	ad07	different self-image from other people
Cluster 4: Intimacy Deficits	wsp09	feeling inadequate to deal with stress
	p09	struggled to find partner
	p21.2	difficulties to make friends in childhood

	(p08)	never been in a relationship
Cluster 5: Child Sex Offending	off07 off08 off09	current conviction previous conviction convictions against more than one victim
Cluster 6: Exposure to Adversity	ad01 p25 off5.5 p22 p11 off04 off05 p14-18 p10.5	being irritable and aggressive self-harm in childhood usage of weapon or threat thereof bullied others in childhood domestic abuser conviction for violent crime conviction for non-violent crime neglect in childhood victim of domestic abuse
Cluster 7: Family and Self	p10 p07 ad04	cheating in relationship own children risk-taking behaviour
Cluster 8: Childhood Troubles	p19-28 p24	rule-breaking in childhood running away in childhood

Note. Cluster labels are the result of a discussion between the researcher and two independent sources, that is, a layperson and a researcher experienced in the area of sexual crimes.

Group Comparisons on Final Clusters

The three offender groups were compared in the summed scores of the variables belonging to each cluster. Given expected differences between the offender types, Cluster 5, Child Sex Offending, and item CPT2 (“Have you ever been convicted of possession, display, trading and/or distribution of child pornography?”) were omitted from the current analysis as they had been examined in the section on criminal history. Their removal did not influence the existing cluster structure.

Given their non-parametric distribution, Kruskal-Wallis tests were conducted to test for significant differences between the offender types. No significant differences were found on Cluster 3, Social Exclusion and Escape, Cluster 4, Intimacy Deficits, and Cluster 8, Childhood Troubles. Figure J1 in Appendix J shows the distribution of means for offender types on the clusters.

Graphical comparisons were used to limit the number of tests conducted. There were highly significant differences between the offender groups on Cluster 1, Computer Competency and Access, $H(2) = 13.5$, $p = .001$. Follow-up tests identified significant differences at an adjusted alpha level of .025 between CSOs and the other two offender groups, with CSOs being the lowest users of electronic media (only tested with MOs,

$U = 134.5$, $r = -.38$), and no difference between MOs and CSEMOs. Cluster 2, Focus of Internet Behaviours, was highly significantly different between all offender types, $H(2) = 33.3$, $p < .001$. Using an adjusted alpha of $\alpha = .025$, CSEMOs were found to have significantly higher scores on Cluster 2 than MOs, $U = 93.5$, $z = -2.663$, $p < .01$, $r = -.43$, and MOs had highly significantly higher scores than CSOs, $U = 84$, $z = -3.777$, $p < .001$, $r = -.56$. The offender groups were significantly different on Cluster 6, Exposure to Adversity, $H(2) = 7.5$, $p < .05$. There was no significant difference between CSOs and MOs but CSEMOs were significantly less likely to experience or display abusive power than the other two offender groups (only tested with MOs, $U = 120.5$, $z = -1.948$, $p < .05$, $r = -.31$). Finally, there were significant differences between offender types on Cluster 7, Family and Self, $H(2) = 11.4$, $p < .01$, with CSEMOs having the lowest and MOs having the highest scores. Using an adjusted alpha of $.025$, the difference between CSOs and MOs was significant, $U = 162.5$, $z = -2.015$, $p < .025$, $r = -.30$, while the difference between CSEMOs and CSOs only approached significance, $U = 233$, $z = -1.693$, $p = .047$, $r = -.24$. The significance findings on these variable clusters are summarised in Table 8.

Table 8: Summary of Significance Findings on Variable Clusters

Cluster	CSEMO - CSO	CSEMO - MO	CSO - MO
1. Computer Competency and Access	>*	-	<*
2. Focus of Internet Behaviours	>*	>*	<*
3. Social Exclusion and Escape	-	-	-
4. Intimacy Deficits	-	-	-
6. Exposure to Adversity	<*	<*	-
7. Family and Self	(<)	<*	<*
8. Childhood Troubles	-	-	-

Note. Cluster 5 was omitted as it had been analysed as part of Criminal History. >*, <* : significant difference; (>), (<) : trend; - : no significant difference

Cognitive Distortions: Study Outcomes

The analysis of the cognitive distortion items was consistent with the pattern described above. Following descriptive analysis of the items, item components were identified that summarise the items into logical groups. Finally, offender subgroups were compared in their scores on these distortion components.

Descriptive Analysis of Cognitive Distortions

Sum scores on the cognitive distortion items were normally distributed, $D(39) = .14$, K-S test, with no significant outliers. Item sum scores had a median of 278, ranging from 219 to 321. All but three items had a median score of 4 (*disagree*) or 5 (*strongly disagree*), with the exception of Dis13 ($Mdn = 3.5$; “An adult can tell if having sex with a young child will emotionally damage the child in the future.”), Dis19 ($Mdn = 3.5$; “My daughter [son] or other young child knows that I will still love her [him] even if she [he] refuses to be sexual with me.”) and Dis35 ($Mdn = 3$; “For many men, sex offences against a children are the result of stress and the offence helped to relieve the stress.”).

Scale analysis is influenced by subjects who respond markedly differently from the group. Therefore, sum scores were determined for each participant including all items on cognitive distortions. Scores had a potential range of 39 (*strongly agree* for all items) to 195 (*strongly disagree* for all items).

Participants had a median score of 162, with scores ranging from 85 to 195. This reveals a clear tendency towards the higher end of the response scale, stating that more people disagreed with the statements than agreed to them. Scores were found to be normally distributed, $D(68) = .093$, $p > .05$, K-S test. Box-plot analysis revealed no significant outliers in the sum score distribution. Item responses were statistically independent from participants' status (community vs. prison, $r_{pb} = -.027$), age ($r_s = .115$), and education ($r_s = -.042$).

Principal Component Analysis of Cognitive Distortions

PCA with varimax rotation was conducted, extracting seven independent components, which explained about 75% of the total variance and reproduced 80% of the original item correlations with only minor deviations. KMO was .829, which confirmed adequacy of the sample size. Analysis of KMO values for individual variables indicated acceptable values across all variables.

Visual analysis of the scree-plot revealed a second inflexion after four components, however this solution only explained 66% of the overall variance and omitted two items. Hence, the seven-component structure was retained (see Table 9).

Table 9: Seven-Component Structure Resulting from Principal Component Analysis on Cognitive Distortion Items

Components						
1	2	3	4	5	6	7
Children as Sexual Objects	Justification	Children as Sexual Agents	Denial of Sex Offender Status	Emphasis on Cognitive Element	Entitlement	Unconditional R'ship
Dis01	Dis02	Dis08	Dis13	Dis22	Dis06	Dis19
Dis03	Dis04	Dis18	Dis27	Dis28	Dis25	
Dis07	Dis05	Dis20	Dis30	Dis29	Dis37	
Dis10	Dis09	Dis26	Dis31	Dis33	Dis38	
Dis11	Dis16	Dis34	Dis35		Dis39	
Dis12			Dis36			
Dis14						
Dis15						
Dis17						
Dis21						
Dis23						
Dis24						
Dis32						
% Explained variance:						
21.46	11.51	10.92	9.88	9.25	7.13	4.98
Cronbach's alpha:						
.960	.885	.894	.844	.756	.820	

Note. Component labels are the result of a discussion between the researcher and two independent sources, that is, a layperson and a researcher experienced in the area of sexual crimes.

Component 1 consisted of 13 items, explaining about one fifth of the total variance. These items shared many of the features in Ward and Keenan's (1999) description of Children as Sexual Objects: perception of children as consensual sex partners, denial of harm, sex as expression of love, and free choice by all participants. Hence, the title was maintained. Subscale reliability of Component 1, using Cronbach's alpha, was $\alpha = .96$ (lowest item-total correlation: $r = .662$).

Component 2 consisted of five items, explaining about 12% of the total variance. Items here combined features from Entitlement and Children as Sexual Objects, and communicate a sense of blame attribution. The component was therefore labelled as *Justification*. This subscale had an alpha of .885 with the lowest item-total correlation at $r = .636$.

Component 3 consisted of five items, explaining 11% of the total variance, relating to cognitions describing children as sexual active. This subscale, labelled *Children as Sexual Agents*, had a subscale alpha of $\alpha = .894$, and the lowest item-total correlation at $r = .626$.

The six items of Component 4 combines features from Uncontrollability and Nature of Harm. In these statements, the offender either denies control over the situation or believes he can minimise harm to the victims. Therefore, the factor was labelled *Denial of Sex Offender Status*, given that the offender believes to be different from the "typical" sex offender. Subscale alpha was $\alpha = .844$, with the lowest item-total correlation at $r = .509$.

The four items belonging to Component 5 resulted in a scale alpha of $\alpha = .756$ and the lowest item-total correlation at $r = .452$. These items described some understanding of the negativity of one's action, and hence were labelled *Emphasis on Cognitive Element*. They explain about 10% of the total variance.

Component 6 also combined features from Nature of Harm and Uncontrollability but emphasised the dominant position of the self, hence was labelled *Entitlement*. This subscale had an alpha of $\alpha = .82$, with the lowest item-total correlation of $r = .517$, and explaining 7% of the total variance.

Component 7 only constituted one item, Dis19, explaining 5% of the total variance. Given the content of this item (“My daughter [son] or other young child knows that I will still love her [him] even if she [he] refuses to be sexual with me.”), this component was labelled *Unconditional Relationship*. Overall, the total scale had a reliability score of $\alpha = .968$.

In summary, dimension reduction revealed at least six meaningful underlying dimensions to these cognitions items. The subscale alphas are very high, resulting from the many participants disagreeing with these statements.

Group Comparisons on Cognitive Distortion Components and Scales

Sum scores. CSEMOs had a median sum score of 170 (ranging from 95 to 195) while CSOs had a median sum score of 159 (ranging from 101 to 195) and MOs had a median sum score of 146 (ranging from 85 to 195). Box plot analysis identified one outlier in the group of CSEMOs, with a sum score of 95. After removal of the outlier, the difference in sum scores between offender types just reached significance, $H(2) = 5.992$, $p = .05$. Follow-up Mann-Whitney tests between CSEMOs and CSOs, and CSOs and MOs did not reach significance; hence, the overall significance finding is based on the difference between CSEMOs and MOs. It is noted that there is a tendency to score towards the higher end of the scale for all offender types.

Component scores. As assumptions for ANOVA were not fulfilled (even after removal of outliers), group differences on the component sum scores were tested using Kruskal-Wallis tests (for graphical depiction, see Figure J2 in Appendix J). The offender types significantly differed in their scores on three components, on Component 2, Justification, $H(2) = 14.344$, $p < .01$, on Component 3, Children as Sexual Agents, $H(2) = 7.756$, $p < .05$, and on Component 6, Entitlement, $H(2) = 10.266$, $p < .01$. Selected Mann-Whitney Tests were conducted to follow up these findings, with a Bonferroni-corrected alpha at .025. It appeared that CSEMOs were highly significantly more likely to disagree with these statements than the other two offender types, with no significant difference between CSOs and MOs (only tested on CSOs, Component 2: $U = 159$,

$z = -2.801$, $p(1\text{-tailed}) < .01$, $r = -.39$; Component 3: $U = 199$, $z = -2.338$, $p(1\text{-tailed}) < .01$, $r = -.33$; Component 6: $U = 154$, $z = -2.787$, $p(1\text{-tailed}) < .01$, $r = -.4$).

Scale comparisons. The items were sorted according to their original scale membership into ABCS and C&SA. Kruskal-Wallis Tests were conducted to test for differences between the offender groups. There was a significant difference between the offender groups on ABCS sum scores, $H(2) = 7.087$, $p < .05$. CSEMOs had significantly higher sum scores on ABCS than the other two offender groups, $U = 206$, $z = -1.937$, $p(1\text{-tailed}) < .05$, $r = -.27$ (only tested with CSOs).

Overall, CSEMOs were found less agreeable with the cognitive distortion items. The identified differences between offender types are summarised in Table 10.

Table 10: Summary of Significance Findings on Cognitive Distortions

Components	CSEMO - CSO	CSEMO - MO	CSO - MO
Children as Sexual Objects	-	-	-
Justification	<*	<*	-
Children as Sexual Agents	<*	<*	-
Denial of Sex Offender Status	-	-	-
Emphasis on Cognitive Element	-	-	-
Entitlement	<*	<*	-
Dis19	-	-	-

Note: >*, <*: significant difference; - : no significant difference

Prediction of Offender Type

In summary, significant differences between offender types were found on seven variable groupings: Cluster 1, Computer Competency and Access, Cluster 2, Focus of Internet Behaviours, Cluster 6, Exposure to Adversity, Cluster 7, Family and Self, Component 2, Justification, Component 3, Children as Sexual Agents, and Component 6, Entitlement. An analysis followed whether offender type could be predicted based on

these variable groupings. It is acknowledged that this procedure will yield significant results given that the same sample is used for predictor selection and model validation. However, in this case, predictor analysis can be considered as a method of weighting the predictive variables in their importance.

Methodology

Predictor analysis for categorical variables is usually examined with multinomial regression analysis. As discussed in Menard (2002), stepwise regression is not recommended for theory validation but is frequently used in exploratory research with little pre-existing information. Field (2009) recommends using the backward method due to its reduced susceptibility to suppressor effects amongst predictor variables. There are no strict guidelines about appropriate sample sizes for regression analysis, and some researchers have even suggested a minimum of only ten cases per predictor (see discussion in Field, 2009). Given that Hosmer and Lemeshow (1989) stated that variable selection should be based on “scientific relevance” (p. 87) and that stepwise models allow for less strict sample size requirements, all seven predictors were included in the analysis. The resulting predictors were examined in more detail using profile plots, as they are frequently used to display multivariate data in exploratory research (Cook & Swayne, 2007; Inselberg, 2008).

Results

Multinomial Regression Analysis

Employing a stepwise model (backward entry) on the main effects of the variable sum scores resulted in successful classification of 69% of participants (77% of CSEMOs, 76% of CSOs, and 47% of MOs correctly classified), based on three main predictors: Cluster 2, Focus of Internet Behaviours, Cluster 7, Family and Self, and Component 2, Justification (see Figure 4). The model thus was a clear improvement towards the proportional by chance classification accuracy of 44% ($p < .01$, Fisher’s exact test). Specifically, CSOs were less likely than CSEMOs to engage in

internet behaviours, $b = -.614$, Wald $\chi^2(1) = 15.955$, $p < .001$. MOs were more likely than CSEMOs to justify their behaviour,³² $b = -.406$, Wald $\chi^2(1) = 6.993$, $p < .01$, and more likely to engage in behaviours related to Family and Self, $b = 1.388$, Wald $\chi^2(1) = 7.562$, $p < .01$. In comparison to MOs, CSOs were less likely to engage in internet behaviours, $b = -.402$, Wald $\chi^2(1) = 8.287$, $p < .01$, and less likely to score high on Family and Self, $b = -.927$, Wald $\chi^2(1) = 4.078$, $p < .05$. The model revealed no significant outliers or influential cases and reached large effect sizes, $R^2 = .60$ (Cox & Snell), $R^2 = .68$ (Nagelkerke). Common statistic software packages do not allow for power analysis for multinomial logistic regression, and only one paper was identified proposing an algorithm for SAS (see Vaughan & Guzy, 2002). However, given the strong effect sizes for these findings, the identified predictors are likely to describe stable effects even if low power is assumed.

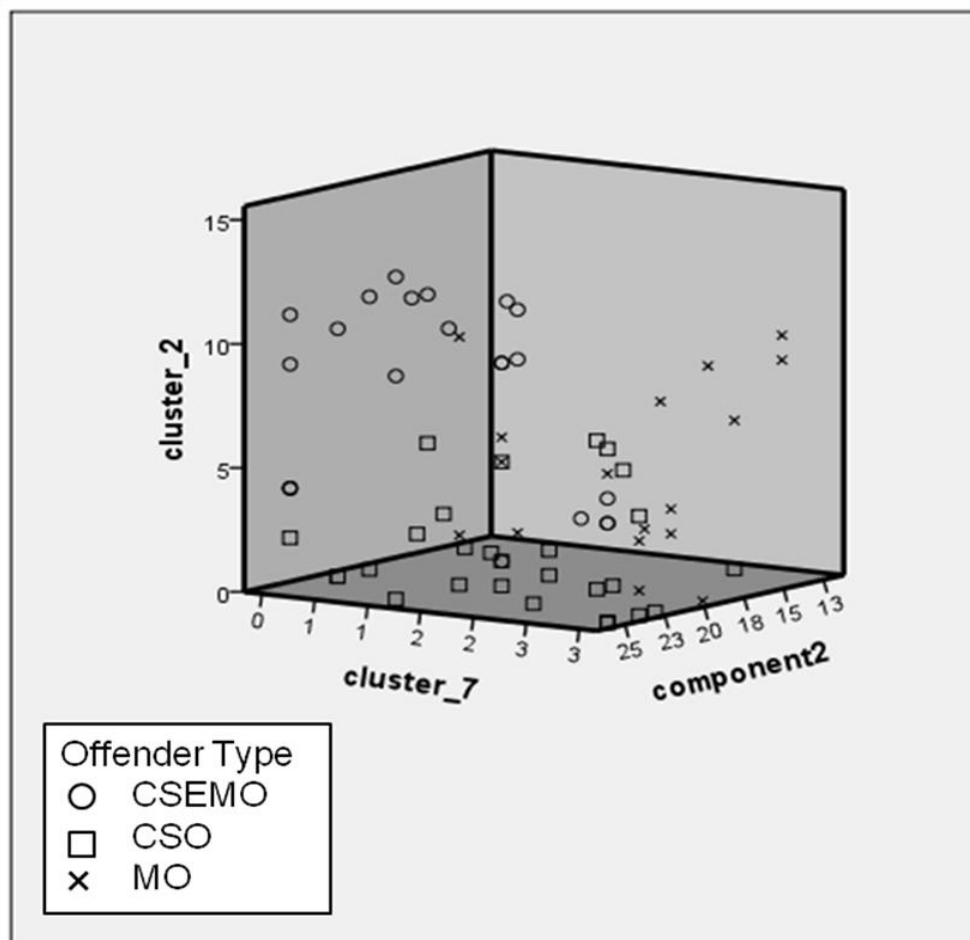


Figure 4: Variable groups with predictive validity for offender type

³² Given the design of the Likert scale, higher scores equal less agreement.

Profile Plot Analysis

The profile plots for the predictor variable groups can be found in Figure 5 to Figure 7. Each item of a cluster is represented as a vertical line. For the purpose of this study, offenders of the same type were combined into a horizontal line and plotted on the verticals. Values on the vertical lines are rescaled to display the same level for maximum and minimum values, despite differing absolute values. For example, in the profile plot in Figure 5, 77% of CSEMOs agreed to wsp19 in comparison to 73% for wsp20. However, both values appear on the same horizontal level given that both define the maximum value on the respective variables (compare with percentage distributions in Table I1 in Appendix I).

As can be seen in Figure 5, for all items except wsp05, CSEMOs had the highest percentage of participants agreeing while CSOs had the lowest percentage of participants agreeing. MOs were located between both offender samples but were more likely than CSEMOs to have possessed a webcam (wsp05). MOs were closer to CSEMOs on items wsp10 (“In your private time, do you like spending time on your computer?”), act01 (illegal downloading), and off18, off19.5 and off20 (exposure to deviant pornography other than CSEM). On the other hand, they were closer to CSOs on wsp06 (computer equipment valued more than \$1,000), and wsp20-25 (items belonging to high emotional impact of computer and internet usage). Overall, it appeared that the emotional value of their computer usage was the main differentiating aspect between the offender types CSEMO and MO.

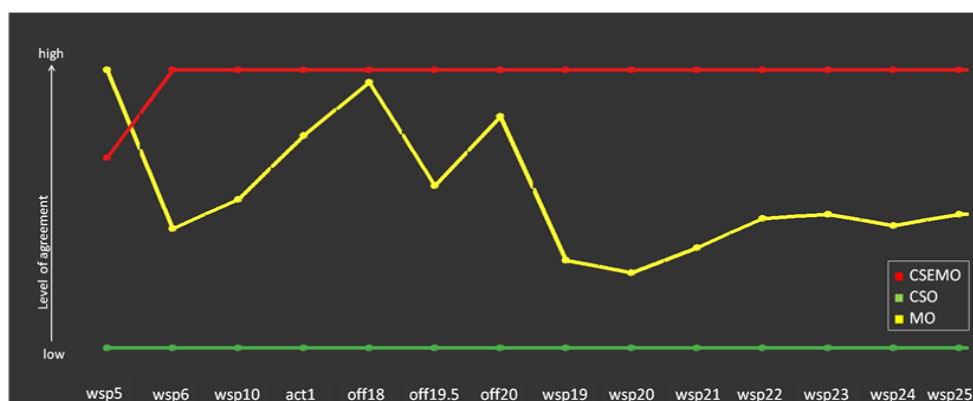


Figure 5: Profile plot for Cluster 2 displaying standardised level of agreement for each offender group

On Cluster 7 (displayed in Figure 6), MO defined the maximum scores while CSEMOs have the minimum scores on each variable. CSOs' scores were closer to CSEMOs with except for ad04 ("In your daily behaviour, do you think you like taking risks, for example driving too fast?").

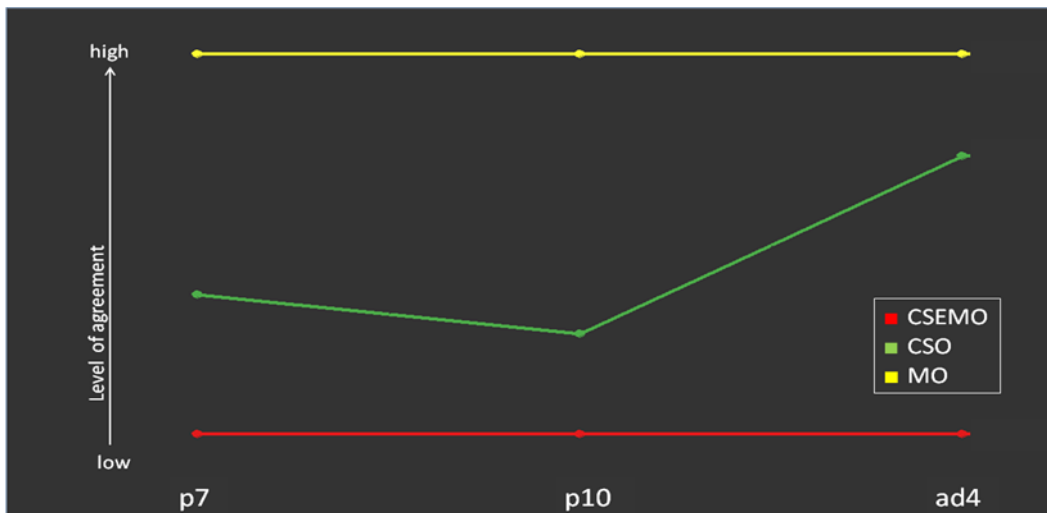


Figure 6: Profile plot for Cluster 7 displaying standardised level of agreement for each offender group

A similar outline can be seen on Component 2 (as displayed in Figure 7), with MOs defining the higher and CSEMOs defining the lower end of the scale. CSOs clearly appeared more similar to CSEMOs than MOs. Given the lack of agreement on the part of CSOs and CSEMOs, Dis02 ("A man is justified in having sex with his children or step-children if his wife doesn't like sex.") and Dis09 ("When a young child has sex with an adult, it helps the child learn how to relate to adults in the future.") appear the most distinctive predictors for MOs. CSOs were more likely to agree when the child had an active role in the sexual contact (Dis04 and Dis05). None of the offender groups agreed with Dis16 ("It's better to have sex with your child [or someone else's child] than to have an affair.").

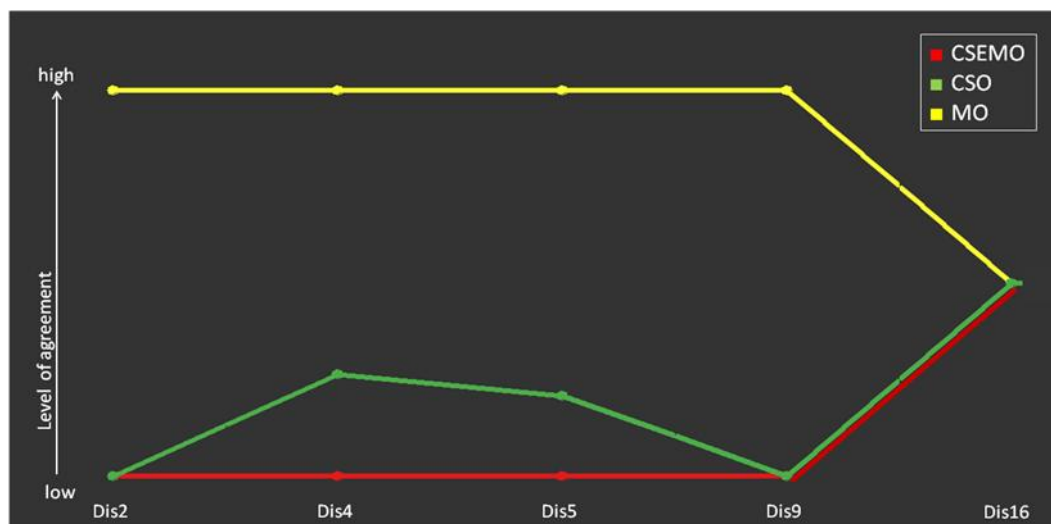


Figure 7: Profile plot for Component 2 displaying standardised level of agreement for each offender group

Result Summary

In summary, group comparisons between offender types resulted in a number of significant variables. CSEMOs were found to be less likely than CSOs to have a longstanding criminal history, to have either been the victim or the agent of negative or aggressive behaviour, and are less likely to agree to statements blaming other people (including their victims) for their sexual actions, to consider children as sexually willing and active, and to feel entitled to their sexual actions. In contrast, CSEMOs were more likely to have exposure to various kinds of electronic media, and to engage in a number of internet activities, to be more negatively impacted by their internet actions, and to be exposed to a number of deviant pornography. With regards to MOs, the most outstanding finding was that they scored higher on Family and Self, which revealed a higher tendency to disregard others. Overall, as Figure I2 and Figure J2 (Appendix I and J) have shown, MOs had the highest distribution of scores on all variables, suggesting a heterogeneous composition of people in this offender type.

These variable clusters were tested in their ability to predict offender types. Regression analysis revealed that nearly 80% of offenders can be correctly classified using the variables belonging to Clusters Focus of Internet Behaviours, Family and Self, and the cognitions expressing Justification. Profile plots were used to examine percentage distributions

on these items, revealing a clear distinction between CSEMOs and CSOs on Cluster 2, while MOs, even though displaying high usage of the internet, reported less emotional impact related to their usage. On Cluster 7 and Component 2, MOs had the highest and CSEMOs had the lowest scores. CSOs were similar to CSEMOs except for a higher agreement to risk-taking behaviour and cognitions involving active involvement of the child in sexual contact. Overall, it appears that the main difference between CSEMOs and the other offender types is the emotional significance of their online actions while MOs seem to disregard emotional ties to others.

Discussion

In this study, different offender types (CSEMOs, CSOs, and MOs) were compared on a number of variables that were sorted into coherent groups based on methods of dimension reduction. Three variable groups appeared most relevant in offender type prediction, Focus of Internet Behaviours (CSOs lower than CSEMOs and MOs), Family and Self (MOs higher than CSEMOs and CSOs), and cognitions expressing Justification (MOs higher than CSEMOs).

With regards to criminal history, the finding described in Chapter Four was confirmed with CSEMOs having the least significant criminal past. Babchishin et al. (2010) found that about 20% of CSEMOs also had committed contact sex offences against a child, or 13.3% when only official data was considered. In the current study, 43.6% of CSEM users (= MOs) admitted to having committed a contact sex offence against a minor, 70.6% of whom were convicted for child sex offending. This exceeds the percentage proposed by Babchishin et al. When conviction rates were considered, only one of the 17 offenders with a current conviction for CSEM offending also had a conviction for a contact sex offence against a child. There was no information about the order of offending collected in this survey.

Reviewing demographic variables, in comparison to the findings presented in Chapter Three, there were no significant differences between the offender types in terms of age, however it was confirmed that

CSEMOs are less likely to be part of an ethnic minority and on average have reached a higher level of education. It thus stands to reason that ethnicity may play a mediating role in access to education, computer access and literacy. Indeed, the review on internet usage in New Zealand conducted by the World Internet Project (P. Smith et al., 2010) found that Maori and Pacific Islanders reported considerably less usage of the internet than New Zealand Europeans. The lack of an age gap between the offender groups was surprising, given the presented literature and the reverse relationship between age and general internet usage in New Zealand (P. Smith et al., 2010). The demographic analysis also revealed a significant influence of the current setting of the offenders (community vs. prison) and a strong relationship between setting and offender type. It thus needs to be considered that the identified differences between offender types could also be a function of their setting.

Overall, there were only few significant differences between the offender groups. CSOs were identified as the offender group with the lowest income. The influence of some potential misunderstandings in answering this question is noted (see comments above), however, is likely to have affected all offender groups evenly. Low income on the part of CSOs may be a result of their identification as child sex offenders prior to their conviction. Income may thus be a mediating factor of profound financial and emotional disruptions, such as having to leave home or losing one's job.

Considering childhood experiences, findings from Chapter Three suggested that CSEMOs had experienced less physical abuse, and that all offender types had similar rates of sexual abuse and behavioural-emotional problems. Indeed, CSEMOs had the fewest participants exposed to physical abuse (p26: 71% MOs, 59% CSOs, 36% CSEMOs) and had experienced less sexual abuse (p27: 55% CSOs, 53% MOs, 41% CSEMOs). Overall, offenders had a median of five childhood conduct problems difficulties, with only 15% having two or less issues and CSEMOs having the least problems.

The review in Chapter Three presented mixed findings with regards to mental health concerns. In the current analysis, CSEMOs were found to

have more mental health problems than the other offender types, while MOs appeared to have the lowest level of such concerns. CSEMOs also reported more negative consequences based on their online behaviour, such as loss of control online or loss of offline relationship due to their internet consumption. Previous studies had also suggested lower scores on impulsiveness and higher abstract or reflective skills on part of CSEMOs. Indeed, CSOs appeared the least reflective of the offender types, with the fewest participants describing themselves as conscientious (ad02) or as perceived differently than they really are (ad07), and the least amount of people enjoying fantasy or Science Fiction in their leisure time (wsp12). CSEMOs were the least likely to engage in risk-taking behaviours (ad04: 77% MOs, 66% CSOs, 36% CSEMOs). There was no difference between the offenders in terms of impulsiveness (about 40% of offenders in each sample).

As described in Chapter Three, online offenders were less likely than offline offenders to be in an intimate relationship. Even though no differences were found in the current study regarding sexual and romantic involvement with a partner at the time of data collection, it was confirmed that CSEMOs had the highest number of participants who had never been in a long-term relationship and who reported struggles in finding a partner. Howitt and Sheldon's (2007) findings pointed to a qualitative difference in terms of the nature of romantic relationships. Indeed, the offenders differed considerably in terms of adultery (p10: 94% MOs, 55% CSOs, 41% CSEMOs), and domestic abuse experiences (p10.5, p11: 35% MOs, 21% CSOs, 9% CSEMOs). There was no difference with regards to paid sexual encounters (about 40%) and sex-tourism (less than 15% of offenders in each sample). Albeit not significantly different, the profile of MOs in terms of family and relationship status was noteworthy. In contrast to the other offenders, they were found to be more sexually and romantically active, more likely to admit a sexual interest in both sexes, more likely to have children, and had the lowest number of participants who had never been in a sexual relationship. In general, more offenders in the current study reported having children (about 50%) than found in previous studies (about 30%). The findings on the family situation thus

may suggest a higher amount of protective assets for MOs, such as good social support, higher expectations, and a developed social identity, which could aid in the desistance of offending.

However, MOs also had the highest scores on the cluster Family and Self, which includes risk-taking behaviour and adultery alongside having own children. This cluster thus resembles Malamuth's Confluence Model (Malamuth, 1996b; see discussion in Ward, Polaschek, & Beech, 2006), where sexual aggression is considered the result of two main pathways, sexual promiscuity and hostile masculinity. Hence, the cluster Family and Self may thus contain a level of antisociality, with having own children being simply a by-product of a high number of sexual relations. Alternatively, the inclusion of own children in this cluster may indicate a choice for intra-familial victims on part of the MOs. In summary, if this cluster represents a form of antisociality, MOs' behaviour and sexual identity may be more pervasively deviant across settings and thus MOs are likely to have high levels of responsivity issues. MOs were also found to be most likely to have had a webcam. Their usage of a webcam may again define a social aspect; however, it may also relate to the directness of their sexual activities online and describe a potential relationship between their online and offline offending.

These findings are further supported by MOs being more likely than CSOs to admit a sexual interest in minors as their main motivation to directly offend against a child. In their comparison study on occurrence of paedophilia amongst different offender types, Seto et al. (2006) found that CSEM usage may be a stronger indicator for paedophilia than contact sex offending against a child (see Chapter Three for a more detailed description of this study). However, the current outcome suggests that at least for a subgroup of CSEM users, namely MOs, their usage of CSEM may be an expression of a more persistent sexual preference for minors that, by presenting a more internalised trait, corresponds with the diagnostic criteria for paedophilia. A sexual interest in minors manifested in more than one setting could thus be a potential indication for MOs' more likely progression or combination of both offence types, CSEM and contact sex offending.

In line with these findings, MOs also had the highest agreement with cognitive distortions expressing *Justification* for their behaviours. Overall, Ward and Keenan (1999) suggested five implicit core themes that underlie cognitive distortions for child sex offenders: Children as Sexual Objects, Entitlement, Dangerous World, Uncontrollability, and Nature of Harm. Even though the current study failed to directly replicate Ward and Keenan's taxonomy, it provided valuable combinations of the five original implicit themes. Instead of the original five-factor solution, a seven-factor solution was suggested that explained 75% of the total variance and produced subscales with very high reliability scores ($\alpha = .756 - .96$) with a total scale alpha of .968. This result, even though statistically desired, is the effect of a lack of variance in the subjects' response patterns, reflecting a bias towards the higher end of the scale. The tendency towards disagreement with an item is somewhat concerning as it is questionable if a ceiling effect can be meaningfully interpreted. As Gannon and Polaschek (2005) pointed out: "Thus distorted cognition seems to be about disagreeing slightly less (...), not about agreement" (p. 184).

In the current study, CSEMOs had the highest level of disagreement with the items. In particular, CSEMOs were found to be less likely to agree to statements blaming other people (including their victims) for their sexual actions, to consider children as sexually willing and active, and to feel entitled to their sexual actions. One explanation is that CSEMOs may be more aware of consent issues in child-adult sexual activities, hence be more aware of their position of power towards the victim. Alternatively, these findings may confirm the assumption expressed in Chapter Three that CSEMOs' cognitions are possibly not picked up with existing scales. The listed cognitions may describe features inherent to a contact crime but not adequate for the cognitions occurring in CSEM usage. Indeed, there was no significant difference between the offenders when only the items from the C&SA were examined, which underlines its potential to be a more suitable assessment tool for non-contact offenders.

The previous literature, discussed in Chapter Three, found CSEMOs more likely to agree to items portraying children as sexual objects and less likely to agree to justification statements. Further, the

literature suggested that CSEMOs would be less inclined to emotionally identify with children. In the current study, offenders did not differ on items portraying children as sexual objects. Indeed, with regards to justification items, CSEMOs displayed the lowest agreement. None of the identified components in the current study explicitly referred to emotional identification with children. Content analysis suggested items Dis15 (agreed by 23% MOs, 10% CSOs, 5% CSEMOs), Dis23 (agreed by 18% MOs, 5% CSEMOs, 0% CSOs) and Dis37 (agreed by 29% MOs, 23% CSEMOs, 21% CSOs) as measures of emotional identification, which were mostly supported by MOs in this study. In the Expert Study, it was suggested that CSEMOs may support cognitions questioning societal morals, as expressed in Dis12. Again, this was only true for MOs (Dis12 agreed by 29% of MOs but none of the other offender types). Two items from C&SA were especially selected with consideration of the criminal situations of CSEMOs: Dis32 (“Sexual thoughts about a child are not that bad because it does not really hurt the child.”) and Dis33 (“Just looking at a naked child is not as bad as touching and will probably not affect the child as much.”). As expected, agreement for CSEMOs and MOs was higher than for CSOs (Dis32 agreed by 29% MOs, 23% CSEMOs, 10% CSOs; Dis33 agreed by 36% CSEMOs, 29% MOs, 10% CSOs).

In summary, the first research hypothesis has been confirmed. Based on this study, users of CSEM have an offender profile distinct to contact child sex offenders. This further suggests a limited applicability of conventional assessment methods and treatment goals developed for contact sex offenders rather than for non-contact offenders, and this is perhaps most evident on the findings on cognitive distortions.

Limitations

There are some general limitations with the study design. In short, given the various methods of recruiting and data collection, the response sets are likely to contain a number of unknown effects with potential biasing effects on the findings, for example the presence of the researcher or other participants during survey responding. As anonymity and safety precautions required complete merging of all data sets, the occurrence of

such effects could not be examined. However, the benefits of maximising the sample size by responding to the needs of the participating agencies clearly outweighed this potential shortcoming of the study. Another primary concern is the reliance on self-report data that was not only the basis for variable collection but also for the classification of offender type as the need for anonymity precluded any validation check of the offenders' response. However, there are a number of benefits supporting the use of self-report data for sex offending: As the focus of this study is psychological and behavioural differences between different offender types, the findings are likely to be biased by undetected offence behaviours. Data from Project Dunkelfeld, a professional service offered by the Berlin Charité providing a safe point of address for men with a sexual interest in minors, confirmed the high occurrence of undetected child abusers in the community (see Beier et al., 2009). Thus, a computerized study design that warranted anonymity was a chance to identify undetected child abuse in addition to known offence history. Furthermore, all offenders were in treatment or had been in treatment at the time of data collection, hence had previously admitted to the offence behaviour and were accustomed to an environment that furthers honest disclosure.

The exploratory nature of this study in combination with the very small sample size limited the choice and applicability of methods of data analysis as well as the generalisability of the results. However, using the argument of low statistical power, stable effects that can be found under these circumstances are assumed to be replicated with larger sample sizes with greater power. It was thus considered more likely to miss effects with the current study design than to identify false effects.

In the current analysis, a large number of items had to be excluded due to low intercorrelations with the remaining variables. While this removed a significant amount of information, their consideration would likely not have achieved meaningful findings based on the characteristics and size of the study sample. This research decision was further confirmed by the face validity of the resulting cluster solution.

Chapter Summary

In this chapter, differences between the offender subtypes were examined, based on variable groups identified with methods of dimension reduction and classification. It was then examined which variable groups are most relevant for the prediction of offender type. The findings support the difference in the profile of CSEM users and offenders with contact sex offences against a child as well as the heterogeneity amongst CSEM users. Most noteworthy, CSEMOs were less likely to have committed criminal offences in the past and expressed cognitive distortions of differing quality from contact offenders. Three variable groups appeared most relevant in offender type prediction, Focus of Internet behaviours (CSOs lower than CSEMOs and MOs), Family and Self (MOs higher than CSEMOs and CSOs), and cognitions expressing Justification (MOs higher than CSEMOs). It thus appears that CSEMOs have the highest emotional, time-related and financial cost involved in their internet behaviour while MOs appear to disregard their emotional ties to others. Indeed, it was suggested in the discussion of this chapter that the items relating to Family and Self may represent an antisocial pathway to offending that is most expressed amongst MOs. The identified differences thus support the notion that conventional assessment and treatment guidelines may not be suitable for non-contact offenders.

Chapter 8:

Classification of CSEM Users

The previous chapter has confirmed the heterogeneous nature of CSEM users, thus providing a positive answer for the second research question of this thesis, namely whether different subgroups of offenders who have used CSEM can be identified.

In addition to the variables examined in the previous chapter, the survey contained items relating to CSEM usage that were responded to only by CSEMOs and MOs. This chapter starts with a descriptive summary of these items. These items are then used as a basis for offender classification, both numerically employing hierarchical cluster analysis and spatially employing methods of multidimensional scaling. Overall, five subgroups of CSEM users are identified. In the third part of this chapter, the identified offender subgroups are compared on the variable clusters and components identified in the previous chapter. Finally, the dimensions in the spatial map of offenders' relatedness are examined in more detail based on multiple regression analysis. The chapter ends with a discussion of the limitations and impact of these findings.

Descriptive Analysis of Variables

The following section describes the information provided by CSEMOs and MOs with regards to their CSEM consumption and offending. Overall, 72 items were available for this analysis: Information about the participants' CSEM offending was collected in CPT1-CPa29 (59 items). Percentage distributions are displayed in Table K1 of Appendix K. In addition, given the low number of CSOs with exposure to the internet, the 12 items about general online usage (act01-12) were also included in this section (see Table D1 in Appendix D).

Overall, the survey consisted of three open-ended questions that allowed participants to respond by typing into a text box: (1) the reasons for sexual contact with a minor (off11.1), only to be answered by CSOs and MOs, (2) details about their online persona (ad09), responded to by all

offenders who had indicated they had an online persona, and (3) reasons for starting using CSEM (CPa29), only responded to by CSEMOs and MOs. While the first question has been attended to in the previous chapter, the latter two questions are of relevance for this chapter.

Starting Age and Length of Offending

Offenders had a mean age of 33 years ($SD = 15.11$) when they started viewing CSEM, ranging from 6 years to 63 years. CSEMOs were slightly older ($M = 35.64$ years, $SD = 15.57$) than MOs ($M = 30.5$ years, $SD = 14.45$). Three MOs were under 18 years of age when they were first exposed to CSEM. Starting age was normally distributed, $D(37) = .116$, $p > .05$, K-S test. Length of offending was defined as the time span between their starting age and their current age, subtracted by the time they spent in treatment. This is likely to be an overestimation for some participants (e.g., as treatment may have been preceded by a prison sentence, thus reducing the time frame of offending; the survey did not allow for measure of the time spent in prison). On average, offenders had offended over a period of 10 years ($SD = 10.00$), ranging from 10 months to 46 years. Boxplot analysis identified a few outliers, whose exclusion reduced the mean length of offending to $M = 6.4$ ($SD = 4.11$). MOs reported a considerably longer time span of offending ($M = 14.93$, $SD = 13.01$) than CSEMOs ($M = 5.65$, $SD = 4.34$). The large standard deviations reveal the heterogeneity on these variables; the distribution of length of offending showed a bimodal shape, with a peak at 3-5 years and under and another peak between 6-8 years and under. Given the wide distribution of variables scores, median scores are presented for the following variables where required.

Only 44% of offenders had been convicted for their CSEM offending (14 CSEMOs, 3 MOs) and two of the CSEMOs had been reconvicted for CSEM offending. All of the MOs and 70% of CSEMOs considered their penalty as fair for what they had done.

Access to CSEM

All, except for three MOs, indicated they accessed CSEM on a computer. Eighty-nine percent viewed CSEM from a home computer (95% CSEMOs, 79% MOs), two MOs accessed CSEM from work (one had his own business), and two offenders (1 CSEMO, 1 MO) from a public location, such as a library. Six offenders indicated “other” means to access CSEM (1 CSEMO, 5 MOs).

Seventy-four percent of offenders retrieved their material mainly from the internet (86% CSEMOs, 59% MOs). None of the participants had used mobile devices to transmit or receive CSEM. For CSEMOs, the majority of offenders retrieved CSEM from the www, followed by file exchange systems and online newsgroups. Less common were chat rooms, offline contacts and direct email or mail distribution. For MOs, the preferred online locations were less differentiated. As with CSEMOs, the majority used the www, while chat rooms, newsgroups and file sharing programs were equally popular. Directed mail or email was less common, and none had used offline contacts for CSEM. Overall, seven offenders reported they had changed their preferred means of access following prolonged exposure to CSEM (5 CSMOs, 2 MOs).

Types of CSEM

One offender indicated that he had not used any of the available formats for CSEM. From the remaining offenders, the majority had used digital images (84.21%; 21 CSEMOs, 11 MOs), followed by digital videos (60.53%; 15 CSEMOs, 8 MOs) and digital text files (47.37%; 12 CSEMOs, 6 MOs). Only one MO reported possession of digital sound files. In general, non-digital material was less common: magazines or books were used by 18% (3 CSEMOs, 4 MOs), photographs by 16% (3 CSEMOs, 3 MOs), 10% used videos and DVDs (2 CSEMOs, 2 MOs), and 8% had non-digital sound recordings (2 CSEMOs, 1 MO). Most offenders had CSEM in at least two different formats in their possession (*Mdn* = 3 for CSEMOs, *Mdn* = 2 for MOs), with the extreme being one MO possessing five different types of CSEM.

Content of CSEM

Half of the offenders possessed fictional CSEM (no real children depicted), which was more common for CSEMOs (63%) than MOs (35%). Less than a quarter of CSEMOs but more than half of MOs had a preference for material portraying male victims. A quarter of offenders had material displaying children under 5 years (7 CSEMOs, 3 MOs), and two offenders had material displaying infants. One MO had watched the live sexual abuse of a child.

Sixty-four percent of offenders expressed a preference for a certain victim type (14 CSEMOs, 11 MOs), which changed in about 30% of these cases with increasing exposure to CSEM (4 CSEMOs, 4 MOs). One third of offenders had a preference for CSEM displaying a certain activity (7 CSEMOs, 6 MOs), which also changed in 30% of these cases (3 CSEMOs, 1 MO).

With regards to levels of the COPINE scale (CPc9-CPc15, CPc17; see also Table 1), offenders' material covered an average of five different levels (CSEMOs: *Mdn* = 5, MOs: *Mdn* = 4). Most offenders had material rated as Level 6 (genitals depicted; CPc11: 100% CSEMOs, 88% MOs). The order of preference for CSEMOs was (decreasing popularity): Level 6, Level 5, Level 2-4, Level 7-9, Level 1, Level 10 (sadistic), and Level 10 (bestiality). For MOs, the order of preference was (decreasing popularity): Level 6, Level 7, Level 8-9, Level 2-4, Level 5, Level 10, and Level 1. For both offender types, the lowest and highest levels were the least common. In comparison to MOs, CSEMOs appeared to have a less explicit preference in their choice of content.

Engagement with CSEM Collection

From the offenders who used the internet as their primary source of CSEM ($n = 29$), participants spent a median of 16.25 hours per week online for CSEM purposes, reportedly ranging from 0 to 80 hours. There was a considerable difference between offender types, with a median of 14 hours for CSEMOs in contrast to 4.5 hours for MOs. The majority of offenders spent about one hour per week sorting and cataloguing their material (*Mdn* = 1 for both CSEMOs and MOs), with one offender

spending up to 40 hours per week with his collection. Four offenders had further added text or developed a story line to their material (2 CSEMOs, 2 MOs). Overall, 83% of the offenders admitted that they were sexually aroused by the material (89% CSEMOs, 70% MOs), and nearly half the offenders indicated they had been intoxicated while consuming CSEM (42% CSEMOs, 60% MOs).

With regards to methods of safekeeping, 62% had tried to hide CSEM on their computer (68% CSEMOs, 50% MOs), 59% of offenders had saved CSEM to offline devices, such as USB sticks (68% CSEMOs, 40% MOs), and 30% created hard copies of their material (32% CSEMOs, 30% MOs). Overall, MOs engaged in less safekeeping activities.

Trading Activities and Social Involvement Regarding CSEM

Only one fifth of offenders had paid for their CSEM (5 CSEMOs, 3 MOs), and none of the offenders reported having earned money with CSEM. Material was shared by one quarter of the respondents (6 CSEMOs, 4 MOs), mostly by means of the internet. From the offenders who used the internet as a primary source of access, 10% had shown their material to other adults (1 CSEM, 2 MOs) and 14% had posted material online for other users (3 CSEMOs, 1 MO). Seven offenders stated that since they started using CSEM, the number of people increased who they knew also had an interest in child abuse material (5 CSEMOs, 2 MOs). Five offenders stated that CSEM assisted them in meeting other adults (3 CSOs, 2 MOs) and ten had engaged in conversations with other CSEM users (6 CSEMOs, 4 MOs). Regarding a general sexual interest in minors, 13 offenders (8 CSEMOs, 5 MOs) had been in contact with other people with a sexual preference for minors, and 10 offenders had exchanged information about children with other adults (5 CSEMOs, 5 MOs). Ten offenders had been on “child lover” websites (4 CSEMOs, 6 MOs) but only three were members of such online newsgroups (1 CSEMO, 2 MO).

Online Interactions with Minors

From the 39 offenders, five people (3 CSEMOs, 2 MOs) had a fake online profile, such as a false profile on facebook. Only two offenders had

used the internet to get in touch with minors (1 CSEMO, 1 MO), and these offenders had also had sexual conversations with them online, engaged in offline contact with them, and had tried to arrange meetings with them. Both men also had sent CSEM to their victims.

Responses to Qualitative Questions

Qualitative responses were analysed according to Mayring's (2000) model of qualitative content analysis.

In what way is your online persona different from your real self?

Of the 49 people that used the internet, 26 stated that their online personality was different from their "real self" (ad09; 12 CSEMOs, 6 CSOs, and 8 MOs). Eight participants provided an answer despite the statement they had never been online (wsp14), and the content of their responses indicated a misunderstanding of the question. For example, one participant stated: "my appearance my voice is softer". These responses were removed from further analysis, and 18 responses remained (10 CSEMOs, 1 CSO, and 7 MOs). Because of the lack of CSO responders, the item had been moved into the current section. Considering the misplacement of this item, it cannot be ensured that all participants understood the question as intended. The responses are listed in Table L1 in Appendix L.

Overall, three main themes can be identified from the responses:³³ Forbidden Me, Desired Me, and Dirty Me. For some offenders ($n = 7$), their internet persona is an expression of how they would be in an environment where they feel free to say or do what they cannot do in their offline life (Forbidden Me). In contrast, the Desired Me ($n = 4$) is created as an expression of how they would like to be. Even though similar, the inherent difference between these two aspects is that the first group accepts their online persona as a part of themselves that they have to suppress for whatever reason, while the second group considers the online world as something like a fantasy/game world where they can try out a different

³³ In two cases ("I tend to hide my true feelings.", "I behave as society expects me to.") it was understood that the online persona means a relief from these constraints.

characteristics. For these two themes, participants mainly referred to social aspects of their behaviour (with a sexual connotation in some cases). In three cases, people explicitly mentioned how *society* constrains them from living their Forbidden Me. For example, one offender stated: “I am more open non line [sic], I feel that i can be more myself, its [sic] almost as if societies constraints dont [sic] apply.” In contrast, the following is an example for the Desired Me:

Online, I feel easier talking to people; even people I no [sic] offline. When I'm offline, I often feel more apprehensive talking to people. I'm afraid of being judged offline (though I have no reason for this). Online, if I'm talking to a complete stranger, I can talk to them about anything and not care what the topic is (even if it's completely inappropriate).

Finally, seven participants described a more sexualised, inappropriate online persona (Dirty Me), which could not be classified into either Forbidden Me or Desired Me. For example, one offender stated: “abusive on line [sic] that is, viewing child porn but not like that in life vey [sic] caring. Would [sic] never hurt or touch anyone inappropriately”. One CSEMO’s comment did not fall into any of the described themes: “Its [sic] a secret world where nobody gets hurt yet we can do what ever [sic] we like and have fantasies”. He was not describing his persona but rather justified his actions with reference to the more loose morals of the online community (as demonstrated through the use of pronoun *we*) and the lack of harm to others.

Examining different offender types, it appeared that CSEMOs and MOs expressed all three themes equally: Forbidden Me: 3 CSEMOs, 3 MOs; Desired Me: 2 CSEMOs, 2 MOs; and Dirty Me: 5 CSEMOs, 2 MOs. The one CSO had a non-sexual online persona (Forbidden Me).

Why do you think you started with child pornography? (CPa29)

Participants who had consumed CSEM were asked why they had started viewing CSEM. Responses were available from all but two MOs (see Table M1 in Appendix M). Overall, seven different themes were

identified from the offenders' responses (frequency in brackets): Sexual Interest in Minors (12), Stress Relief (11), Curiosity and Sexual Exploration (10), Desensitisation to Adult Material (5), Own Sexual Trauma (4), Statement Against Authorities (2), and Financial Reasons (1). Three responses contained no reason as to why the individual committed the offending.

CSEMOs' responses covered all the identified themes while MOs only named reasons belonging to five themes (frequency in brackets): Sexual Interest in Minors (7), Curiosity and Sexual Exploration (4), Desensitisation to Adult Material (2), Stress Relief (1), and Own Sexual Trauma (1). CSEMOs were more likely than MOs to list explanations belonging to several themes. As in the responses to item off11.1 (see Appendix H1), MOs were more likely to admit a sexual interest in minors in comparison to CSEMOs. The majority of CSEMOs listed Stress Relief (10), and Curiosity and Sexual Exploration (6).

Summary

Overall, it appeared that offenders who have used CSEM have a heterogeneous profile. This is reflected in the variety of means of access to CSEM, available material type and content preferences. With regards to ways of accessing CSEM, methods that require little social connectedness with other users, such as the www or file sharing programs, were most common. While non-digital CSEM appeared less prevalent than digital formats, the popularity of digital text files was an unexpected finding. With regards to the content of CSEM, the lowest and highest levels of the COPINE scale were the least represented, as was material displaying very young children. Only one offender admitted to being engaged in the live-stream sexual abuse of a child. Financial gain or payment in relation to CSEM was nearly non-existent in this offender sample. While a substantial amount of offenders had some form of social contact with other internet users with a sexual interest in minors, only two offenders had tried to contact minors via the internet. There was also identification of a dynamic component for some of the offenders, such as a change in ways of accessing CSEM or a change in preferred content.

Comparing CSEMOs and MOs, CSEMOs were more engaged with their material, which was linked to time-cost related to their CSEM offending. They were also more likely to possess fictional material, to have clear preferences in their ways of accessing CSEM, and to engage in means of safe-keeping CSEM. On average, MOs had offended over a longer time-span and were more likely to prefer male victims, which may indicate a similarity to contact offending. MOs were also more likely to name a sexual interest in minors as their motive for using CSEM. Based on the responses on the fairness of their penalty, it may be that MOs had a tendency to respond in a socially desirable manner. Conversely, this may also indicate that CSEMOs had less understanding of the severity of their offending.

Identification of Offender Subgroups

The above descriptive findings confirm the notion of the heterogeneity amongst CSEM users, which suggests that a number of variables are of relevance when describing an offender's case profile. Most importantly, the heterogeneous group structure further indicates the potential for a more refined classification beyond the distinction of offender type (CSEMO vs. MO). Classification techniques are useful in order to explore the underlying groupings of the data and to identify outliers (Johnson & Wichern, 2002). It was thus explored if different subgroups of CSEM users could be identified based on the above variables regarding details of their CSEM usage and general online activities.

Methodology

This section outlines the selection process of appropriate methods for data analysis, including variable selection and preparation.

Methodological Considerations to Case Classification

As described in the previous section, Cluster Analysis (CA) is a method of classifying observations into groups based on their similarity or dissimilarity. There are hierarchical and non-hierarchical clustering methods. *Hierarchical clustering methods* describe a process of clustering;

in agglomerative algorithms, observations are initially placed in separate clusters and are successively merged into groups, while in divisive algorithms, observations are initially placed into a large cluster and are then separated into smaller groups. The process of clustering is visually depicted, e.g., in a dendrogram. There are no standard objective procedures to guide one's cluster selection and interpretation (Afifi et al., 2004; Izenman, 2008). As outlined by Bortz (2005), a disadvantage of hierarchical methods is that once an object has been assigned to a cluster, its cluster membership cannot be reversed. Hence, methods of cluster validation are needed to confirm the findings of CA.

Bortz (2005) recommended combining both clustering methods, using hierarchical methods to identify a meaningful number of clusters, and validating and improving the cluster membership by means of non-hierarchical algorithms. According to Johnson and Wichern (2002), non-hierarchical clustering techniques were specifically designed to cluster observations rather than variables. The most popular example for non-hierarchical clustering methods is the k-means algorithm (Bortz, 2005). In k-means, observations are initially placed into a number of predetermined clusters and then reassigned in an iterative fashion until minimal distances between the observations in one cluster are achieved. However, the k-means algorithm can only be used for interval or ratio data, with some applications also allowing for ordinal data (Mooi & Sarstedt, 2011). K-modes algorithms for classification of nominal data have been proposed (e.g., see Chaturvedi, Green, & Carroll, 2001) but not for binary data. Hence, in this study, the resulting cluster structure can only be validated by using two different distance methods and differing order of participants. Under the current research goal of clustering similar cases of offenders, similarity is defined as not only the joint presence of a feature but also its joint absence. For the combined analysis of presence and absence of a variable, Bortz (2005) suggested usage of Sokal and Micheler's Simple Matching Coefficient (SMC) as a distance measure for binary data. The results were validated with the Squared Euclidean distance measure.

According to Izenman (2008), CA is a useful classification technique in an exploratory context, particularly where little research exists

about class membership of observations. CA has been applied previously to classify individuals based on a number of variables, for example in Brophy, Reece, and McDermott (2006) or Schear (1987). However, there are some limitations to the application of CA. It has become apparent that there are no objectives upon which to base one's clustering decisions in CA. In addition, it has been described before how CA is susceptible to the influence of outliers. According to Brusco (2004), a further issue to consider is the inclusion of masking variables, which are "irrelevant variables that hide or obfuscate that true structure in the data set" (p. 511). This again underlines the need for means of validating the initial cluster solution.

Afifi et al. (2004) suggested starting clustering with a visual representation of observations to explore the structure of the data. However, as outlined in Bailey (1994), visual representation of CA may require as many dimensions as variables (which in this analysis may reach up to 74 dimensions). Multidimensional Scaling (MDS) is used to develop a visual map of observations in a low dimensional space, based on algorithms employed to identify the optimal number of dimensions. MDS thus also allows for meaningful interpretation of these dimensions, similar as to how the components in Principal Component Analysis can be identified and interpreted. In MDS, differences between observations are based on their numerical similarity as distance points. As Izenman (2008) described: "MDS is primarily a data visualization method for identifying 'clusters' of points, where points in a particular cluster are viewed as being 'closer' to the other points in that cluster than to points in other clusters" (p. 464). For example, T. Cox (2005) described an application of MDS to classify golf players, and Egli, Riedel, Möller, Strauss, and Läge (2009) used MDS to map psychiatric patients based on their symptom profiles.

However, Arabie, Carroll, and DeSarbo (1987) stressed that a purely visual cluster selection is subjective and "misleading" (p. 54), and recommended complementary usage of MDS with the numerical techniques applied in CA. The combination of MDS and CA has initiated some methodological discussion (e.g., see Trosset, 1999) and has found application in a number of classification studies, for example historically in

the grouping of psychiatric patients (Angst, Scharfetter, & Stassen, 1983) or, more recently, in the grouping of item content (Sireci & Geisinger, 1992). Here, the cluster solution is thus validated by the spatial methods used in MDS. In addition, as MDS allows examination of the underlying dimensions of the data, thereby further assisting in the understanding and interpretation of the participant groups.

In summarising these considerations, classification of offenders will thus be achieved by combining hierarchical CA and MDS, including repeated CAs for different order of participants and different distance measures.

Variable Selection and Preparation

Prior to analysing the data, items were screened for lack of responses. As described above, only two offenders had used the internet to contact minors, and both of them engaged in all activities presented (act06-10), hence these items were reduced to one variable. All offenders who had shared their CSEM with other users (CPa02) had done so via the internet (CPa03), hence item CPa3 was omitted from further analysis.

Due to a lack of responders, items CPa11.5 (“Did you get some of your child pornography material via PXT from mobile devices?”), CPa26 (“Did you earn money from child pornography?”) and CPa27 (“Have you ever observed the live sexual abuse of a child?”) were also omitted. It can be assumed that sexual preference impacts CSEM behaviour; hence sexual preference (item p04) was dichotomised for both homosexual and bisexual orientation, and both variables were included in the analysis.

As in the previous section, the analysis was preceded by examination of the intercorrelation matrix of the variables. Seven items had more than 90% low intercorrelations ($\varphi \leq .31$; see Field, 2009) and were removed from further analysis: online persona *Desired me*, CSEM on videos/ DVD (CPt08), CSEM on magazines/ books (CPt12), and the following themes when asked for reasons why they started viewing CSEM (CPa29): *finances, own sexual trauma, curiosity and sexual exploration, and stress relief*. Overall, 67 of the 74 original binary variables (previous variables plus sexual preference) were included in the analysis.

Classification Analysis: Study Outcomes

Agglomerative hierarchical cluster analysis using SMC resulted in two main clusters and three smaller clusters of offenders (see Figure N1 in Appendix N). Six offenders did not fit in any of the existing groups. This cluster structure was independent from the order of cases and confirmed with hierarchical cluster analysis using squared Euclidean distance. To avoid confusion with the clusters identified in the previous chapter, offender clusters are referred to as *Groups*.

Multidimensional scaling, using squared Euclidean distance for binary data, resulted in a fair fit for a three dimensional solution (Stress $S = .13248$, $RSQ = .91838$), suggesting that the participants can be validly mapped in a three-dimensional space. The identified group structure is outlined in the MDS maps in Figure 8 below.

The two-dimensional map depicting Dimension 1 and Dimension 2 shows that the majority of offenders are combined in a large data cloud that is separated into the two main groups, Group 1 and Group 2. The smaller groups, consisting of two offenders each, are not as clearly defined and appear to be overlapping. The outsider position seems appropriate for the outlier grouped on the right (Cases 5101, 5091, 3245) as well as Case 5242, while Cases 5062 and 5097 appear close the main data cloud. Examining the map depicting Dimension 1 and 3, the clustering for Group 3 and 5 becomes more prominent. The clustering of Group 4 is most visible in the map of Dimension 2 and 3. In addition, outliers 5242, 5062 and 5097 appear clearly removed from the data centre on this dimension. It thus appeared that the visual mapping of the offenders validated the group structure identified using CA.

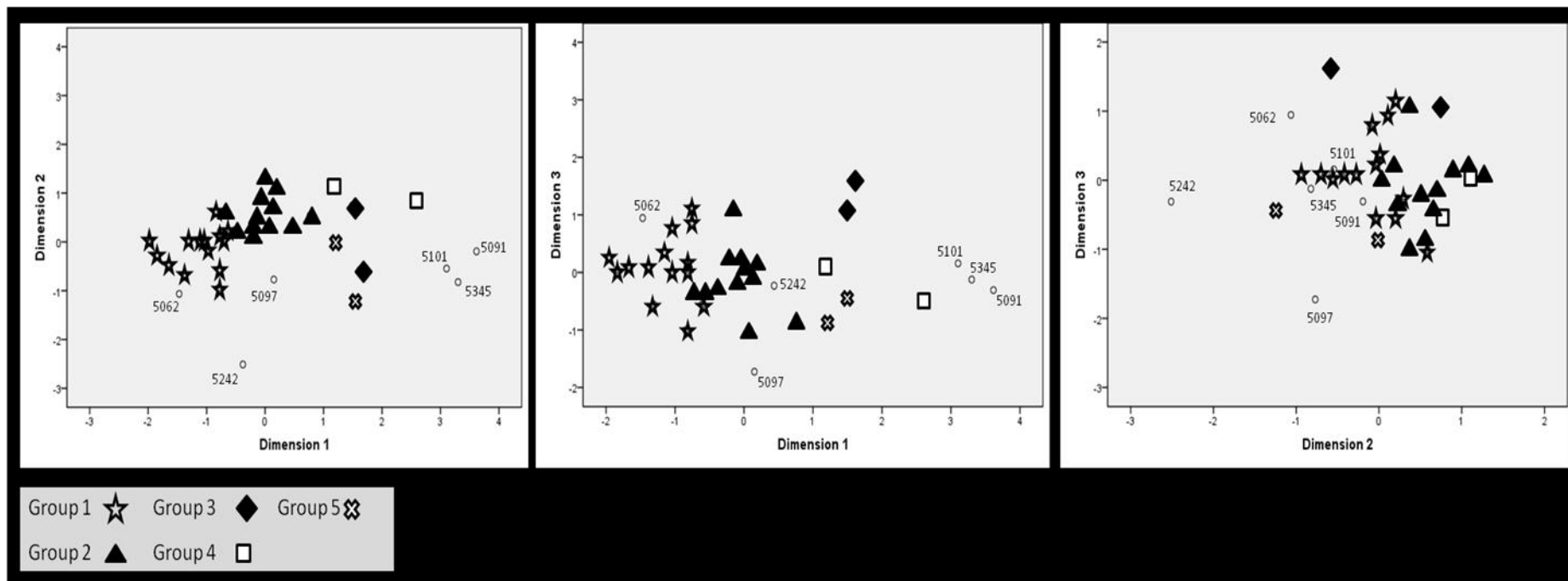


Figure 8: Two-dimensional MDS maps depicting the hierarchical cluster structure of offender classification (Euclidean space)

Profile Analysis of Offender Subgroups

In this section, the identified subgroups were explored in more detail, based on a descriptive analysis and inferential group comparisons.

Descriptive Analysis of the Offender Subgroups

Descriptive information about the five offender subgroups are summarised in Table O1 in Appendix O. While Group 1 and Group 2 make up the main part of offenders, the remaining three clusters consisted of two subjects each.

Group 1 – Contact-driven Users

The majority of offenders in Group 1 ($n = 15$) had had contact victims (10 MOs, 5 CSEMOs), and only a quarter of the offenders were convicted for their CSEM usage. The majority of offenders had consumed CSEM for a median period of 8 years, with great variation in the length of offending (range: 2-34 years). Their internet usage beyond CSEM was limited; only a few had engaged in illegal downloading. While one person had used the internet to contact other people with a sexual interest in minors, none had used the internet to get in touch with under-aged users. They did not engage in contact with other CSEM users, did not share their material, and most had gained their material from the open web (26.67%), which further supports the notion of a socially isolated offending. Only three people reported having had an online personality, two of whom stated that their online activities reflected their Desired me.

Most offenders had a variety of material types. Nearly 70% of offenders possessed digital images, followed by digital videos (33.33%) and magazines (26.67%). Digital text (without associated images) and non-digital photographs were least common. Sound-material was rare, with only one person admitting to its possession. About half of the offenders in Group 1 reported a preference for material depicting male victims. Beyond that, 40% expressed clear preferences regarding victim types. Ninety percent of offenders had material on COPINE Level 6 (depicting children's genitals), followed by material depicting children in sexual activities (Level 7) and children in non-sexual, nudist every-day

settings (Level 2-4). Only forty percent had pictures displaying children in sexual activities with adults (Level 8-9) and only one person had material on Level 10 (sadistic and bestiality material). None admitted possession of material displaying very young children.

Overall, offenders spent about 3 hours per week with their CSEM material (range: 0-30 hrs per week) and spent very little time sorting or cataloguing their material (range: 0-1 hrs per week). None of the offenders had engaged in attempts to hide their material. When asked about the reasons for their offending, the majority of responses fit into the themes of Curiosity and Sexual Exploration and a Sexual Interest in Minors, followed by Stress Relief. However, only two offenders stated that they found the material sexually arousing. With regards to offenders who had also engaged in contact offending, five had exposed their victims to pornography (but not CSEM) and one had taken pictures or videos of his victim(s).

In summary, offenders belonging to Group 1 do not seem to use the full range of the internet activities relating to CSEM, and appear to be limited to the locations and material that is readily available to them, both regarding content and material type. They do not engage in social networking with other offenders. Their interest in CSEM may also pre-date the internet, considering their possession of a range of non-digital materials and their length of engaging with CSEM. Given the high percentage of offenders who have engaged in contact offending, and that a sexual interest in minors was identified as a main theme, it is assumed that these offenders use CSEM as a general expression of their paedophilic interest, and the internet as an environment where they can live this side of themselves (Desired Me). This group was thus labelled *Contact-driven*, reflecting the terminology introduced in Chapter Three.

Group 2 – Fantasy-driven Users

In contrast to the first subgroup, Group 2 ($n = 12$) consisted mainly of CSEMOs (10 CSEMOs, 2 MOs), and nearly 60% of them were convicted for their offending. The majority of offenders had consumed CSEM over a shorter time span than the first subgroup, with a median

length of 5.5 years (range: 1-12 years). These offenders were active on the internet beyond CSEM consumption: 41.67% were engaged in illegal downloading, 25% were in contact with other users sexually interested in minors, but not explicitly with other CSEM users, and only one shared their material with other users. None engaged with minors online. Five offenders stated they had a different online persona; overall, their personas mainly expressed features of Dirty Me and Forbidden Me.

Members of Group 2 possessed material that was commonly available online (i.e., digital images, digital videos, and digital text), and hardly possessed material pre-dating internet times. A large number of offenders also possessed fictional material (83.33%). None expressed a preference for male material but nearly 60% had defined preferences for the victims displayed in their CSEM. Overall, each offender possessed a wider range of material than in Group 1, including the extreme levels of the COPINE scale. Most common were materials on Level 6 (depicting children's genitals; 100%), followed by material from Level 5 (erotic posing; 91.67%) and Level 2-4 (children in non-sexual, nudist every-day settings; 83.33%).

While offenders had retrieved most of their material from the www, they also used newsgroups and file sharing. They spent an average of 10 hours per week with CSEM (ranging from 1-20 hrs per week, one outlier with 60 hrs per week), and about 1 hour sorting and cataloguing their material (ranging from 0-2.5 hrs per week, one outlier with 30 hrs per week). Two thirds of offenders had attempted to hide their material or saved CSEM to external devices. With regards to reasons for their offending, the majority named Stress Relief (41.67%), followed by Curiosity and Sexual Exploration (33.33%). One quarter each reported Sexual Interest in Minors and Desensitization to Adult Pornography. In stark contrast to the offenders in Group 1, all of the offenders in this group reported they were sexually aroused by the material.

Two offenders in this group also had a contact offence with a minor. There was no cross-over between the offence types, that is, they did not expose their victims to CSEM. When asked why they engaged in sexual

contact with a minor, one offender referred to his own sexualisation at a young age while one stated: “showing love and affection”.

In summary, the offenders belonging to Group 2 appear inherently different from the first Group. Even though having engaged with CSEM consumption over a shorter period, their offending reveals a more dynamic component, reflected in a higher social activity and the usage of a wider array of locations, material types, and material content. They further appear more sexually engaged in their CSEM. All offenders stated that they used the material for sexual arousal, and Group 2 also had a high usage of fantasy-generating material, such as fictional and narrative CSEM. There was very little cross-over to direct sexual contact with a minor, and one of the two offender with contact victims reported a feeling of love towards his victim, thereby negating an intentionally abusive component. Indeed, their online persona seems to correspond to the sexual interest in minors, with participants reporting they live their Dirty Me and Forbidden Me online. Further, a quarter identified their CSEM consumption as a consequence of their desensitisation to other types of pornography. Group 2 was thus labelled *Fantasy-driven*.

Group 3 – Extreme Material Users

Group 3 consisted of two CSEMOs (one convicted), who reported that they lived the Dirty Me in their online persona. They were both actively engaged with other paedophiles and CSEMOs online and had shared their CSEM with other users. While their material types reflected exclusive usage of the internet (digital images and videos, digital text, and fictional material), they had clear victim preferences and only material up from Level 6 of the COPINE scale, including material of very young children. They had retrieved their material from the www as well as more social methods (chat and file sharing), and spent about 10-12 hours per week with their material (1 hour used for sorting and cataloguing). They named a number of reasons for their offending, Stress Relief, Sexual Interest in Minors, Desensitisation to Adult Material and Statement Against Authorities, and reported they were sexually aroused by the material. This group was

named for its most distinctive feature, usage of exclusively high-level material.

Group 4 – Social Users

Group 4 (2 CSEMOs, one convicted) also had mostly digital material and a defined victim preference. However, their usage of the material was more drawn towards the lower end of the COPINE scale, and they did not possess material of extremely young children. Their time-intensive engagement with CSEM was extremely high, spending 30 hours and 37.5 hours per week with their material (5 hour and 1 hour was related to sorting or cataloguing). In addition, they were actively engaged in various forms of social contact with other paedophiles and CSEMOs but did not engage in contacting minors. Their social engagement was also reflected in their many means of accessing CSEM, often dependent from other users (such as chat or email contacts). Both offenders used their material for sexual satisfaction, and further named a variety of reasons: Curiosity and Sexual Exploration, Stress Relief, Sexual Interest in Minors, and Statement Against Authority. As outlined before, the amount of time spent with CSEM can also be an expression of their social engagement, given their participation in file-sharing and trading.

Group 5 – Cautious Users

While one of the two offenders in Group 5 had been convicted for CSEM, the other had had sexual contact with a minor. Their CSEM collection included commonly available materials, that is, digital photos, print photos, digital videos, and digital text. They had a preference for material displaying male victims (but had also self-reported as homosexual), and their material covered all areas of the COPINE scale (albeit only one offender with Level 10). Their main sources of access were www and file sharing; however, their social contact with other CSEMOs did not go beyond their own file sharing activities and visits to dedicated websites. The offenders differed in terms of the time investment in their CSEM usage (22 hrs vs. 5 hrs per week). They had engaged in various methods of safe-keeping, such as saving their material to external

files, preparing hard copies and hiding their material. They reported being sexually aroused by the material, and acted out of Curiosity and Sexual Exploration and Stress Relief. Given the caution they applied to their CSEM usage, they were labelled *Cautious Users*.

Description of Outliers

Six offenders did not fit into any existing group. Four of these offenders were producers of CSEM (Case 5062, 5242, 5345, and 5091).

Case 5062 was a mixed offender (not convicted for CSEM), who described his online persona as Dirty Me and based his CSEM offending on his sexual interest in minors. He had not engaged in any online activity beyond consuming CSEM and had a very specific material collection, only including sound, text, and fictional material, located at the middle of the COPINE scale (neither extreme sadistic nor material lacking a sexually explicit connotation). He reported a source of access to CSEM other than his home, work or a public location, and had also paid for CSEM. He further stated that he had taken pictures of his contact victim(s) and that he made them take pictures of themselves. As can be seen in Table O1, his profile appears similar to contact-driven offenders but his engagement in CSEM production and his unusual preferences may define his outlier position.

Case 5242 was also a MO (not convicted for his CSEM offending). He was socially engaged with other paedophiles. He had shared his material with other adults but did not use the internet as his main source of CSEM (also referring to his location as “other”). His material suggests access to offline material (non-digital photos, videos and magazines) from any level of the COPINE scale. He had exposed his contact victim(s) to pornography, including CSEM, had his victims taken pictures of themselves, and also produced CSEM during the offence. In addition, he shared his self-produced material with other offenders.

Case 5345 was another MO (convicted for CSEM) who lived his Forbidden Me in his online persona. He was socially very active in paedophile circles, and possessed material from a wide range of types and content, also including very young children and extremely violent and

bestial material. He had accessed material from all online locations, and had taken steps to safeguard his material (e.g., printing, saving, and hiding). He had exposed his contact victim(s) to pornography, including CSEM, and had them take pictures of themselves, as well as self-produced CSEM during the offending.

Case 5091 was also a MO (convicted for CSEM) who referred to his online persona as Dirty me. He used the internet to contact minors. He was actively engaged in the paedophile community and shared his material. He reported that he spent 80 hours per week with CSEM, 40 of which he spent organising his collection. He possessed material widely available online (fictional, digital images, videos, and text), and had all forms of material content, including very young children and infants. He used several sources for CSEM, including direct email contacts. He stated that he had taken photos or filmed his contact victim without their knowledge, and shared the pictures.

Case 5101 is a CSEMO who has been convicted repeatedly, and who has used the internet to contact minors. He also worked with children. He was engaged in the paedophile community and used a wide array of access sources. He possessed material readily available online (digital images, video, texts, but no fictional material), displaying all content levels, also including extreme content (except for bestiality). He engaged with his material beyond viewing (saving, hiding, and printing), spent around 30 hours with the material (15 hrs sorting) and had even added text to his collection. He reportedly acted out of a sexual interest in minors.

Finally, Case 5097 was another CSEMO (no conviction) who lived his Dirty Me online but did not engage with minors on the internet. He had digital images, videos, sound and text files, covering all levels of the COPINE scale except for Level 10. He had material displaying very young children and expressed a preference for male children. He did not share his material, only spent about 2 hours per week on CSEM, and retrieved his material from the www, via file sharing (posted himself) and offline contacts. He reportedly offended due to his own sexual trauma.

Even though these outliers contain some interesting aspects for further consideration, more detailed analysis would go beyond the scope

of this thesis. What remains noteworthy though is that all but one producer of CSEM has been filtered from the main groups, thus suggesting some inherent differences between producers and consumers of CSEM.

Group Comparisons

The offender groups were then compared on the variable clusters established in the previous analysis (see Figure P1 in Appendix P for the median distribution amongst all offender groups). Given the small number of participants in the last three groups, these offenders were only visually compared while the two main groups, contact-driven and fantasy-driven offenders, were compared using inferential methods.

Based on graphical analysis, Groups 1 and 2 were compared on Cluster 2, 3, and 6, using an adjusted alpha of .0167. Boxplot-analysis was used to identify outliers on these clusters. As assumptions for normality and homogeneous variances were not fulfilled, Mann-Whitney U-tests were conducted, resulting in highly significant findings for Cluster 2, Focus of Internet Behaviours, $U = 30$, $z = -2.805$, $p(1\text{-tailed}) < .0167$, $r = -.55$, and Cluster 3, Social Exclusion and Escape, $U = 18$, $z = -3.247$, $p(1\text{-tailed}) < .0167$, $r = -.66$. Thus, Fantasy-driven Users appear to have been more engaged in general internet behaviours, had spent more time and money on their computers, had more emotional cost in relation to the internet, and had viewed a wider array of deviant pornography (Group 1: $Mdn = 4$, Group 2: $Mdn = 9$). These offenders also reported more struggles with the “outside world”, that is, they had been bullied in their childhood, enjoyed fantasy games, believed that people did not know their real identity, and felt inadequate to cope with stress (Group 1: $Mdn = 1$, Group 2: $Mdn = 3$).

With regards to the clusters identified in the previous section, Group 3 to 5 did not appear to have a coherent profile on any cluster except for Cluster 3. Here, Extreme Material Users and Social Users had higher scores on Social Exclusion and Escape than the other offender groups.

Figure P2 in Appendix P displays the distribution of sum scores on the items to cognitive distortions. As it was found in the previous section that the items selected from C&SA may have better suitability for

CSEMOs, C&SA sum scores are depicted separately. There appeared to be no difference between the offender groups in their cognitive distortion scores, which was confirmed by statistical tests between Group 1 and 2, total: $U = 63.5$, $z = -.987$, $p(1\text{-tailed}) = .168$, $r = -.194$; C&SA: $U = 71.5$, $z = -.574$, $p(1\text{-tailed}) = .291$, $r = -.113$. In summary, it thus appears that Social Exclusion and Escape seem to be a main feature of at least some of the offender subgroups. In addition, Fantasy-driven Users appeared to have higher emotional, time-related and financial cost resulting from their internet usage.

Interpretation of MDS Dimensions

The final aspect of this chapter entails a closer look into the spatial structure of the classification map. Analogous to principal component analysis, the dimensions identified in MDS, equivalents of principal components, can be interpreted as meaningful representations of the data. While this is often left to subjective decision-making, Kruskal and Wish (1978), and Everitt and Rabe-Heskett (1997) introduced a numeric decision process to interpret the dimensions based on a regression model. Interpretation of the MDS dimensions may provide some clarification about the underlying structure of the group classification. However, given the small sample in this study, this approach is purely exploratory and appropriate weighting needs to be given to these findings.

Based on the coordinates for each case in the three-dimensional space, a multiple correlation coefficient R between each of the 67 variables and the three dimensions was established. Using Kruskal and Wish's (1978) suggested cut-off of $\alpha = .01$ for significant R s, 39 variables appeared significantly related to the dimensions.

In order to provide meaningful interpretation of the dimensions, the variables were summarised to their meta-level as to provide descriptive labels. Thus, the 39 identified variables were combined into 13 categories according to their content³⁴ (see Table Q1 in Appendix Q). In order to

³⁴ Given the small sample size, this classification was based on logical rather than numerical deduction as the distances between cases, which are the subject of this analysis, would also have driven a numerical classification of item content. Ideally, the

obtain the best fit for the data, some variables were thus included in several categories, for example *digital images* was sorted into category Digital Material as well as category Visual Material. The sum scores for each category were regressed over the three dimensions; only categories with a highly significant R and an $R > .7$ qualified for further analysis (see criteria in Kruskal & Wish, 1978).

Table 11 displays the standardised regression coefficients β for the remaining variable categories. Overall, Dimension 1 has the highest β values, while Dimension 2 and Dimension 3 appear to contribute less to the variable categories. Examining the regression weights for each dimension, the category Online Contact with Other Adults with a Sexual Interest in Minors has the highest regression weight for Dimension 1. Engagement with CSEM and Distribution and Trading of CSEM were also closely related to this dimension. For the second dimension, Having Had or Attempted to Have a Contact Sex Offence with a Minor had the highest regression weight. Albeit of lower importance, Dimension 2 was also related to Engagement with CSEM and had a negative relationship with Possession of CSEM with Extreme Content. Dimension 3 had considerably lower regression weights but was mostly related to Possession of Fantasy-based Material.

According to Kruskal and Wish (1978), the standardised regression coefficients equal the cosine of the angle between the dimension in its original position and the vectors that would describe the new dimension. For example, the regression weight of Online Contact with Other Adults with a Sexual Interest in Minors on Dimension 1 described the cosine of 25.2° , given that $\cos(25.2^\circ) = .905$. Thus, Dimension 1 was rotated by 25.2° to represent the dimension *Social Contact*. Accordingly, Dimension 2 was labelled *Contact Victim*, $\cos(124.6^\circ) = -.568$, and Dimension 3 was labelled *Fantasy Material*, $\cos(114.9^\circ) = -.422$. Their new positions are displayed in Figure 9. Dimensions Social Contact and Contact Victim appear highly correlated while Social Contact and Fantasy Material seem independent from each other.

sample would have been split, one half for content classification, the other for the remaining analysis.

Table 11: Multiple Regression of Variable Categories on Dimensions of Relatedness among Offenders who have used CSEM, displaying the Multiple Correlation Coefficient R and Standardised Regression Coefficients β for Each Category

Variable category	Multiple correlation coefficient R	β Dimension 1	β Dimension 2	β Dimension 3
Engagement with CSEM	0.908	.804	.396	.063
Online contact with other adults with a sexual interest in minors	0.904	.905	-.132	.143
Distribution and trading of CSEM	0.884	.819	-.291	-.141
Possession of material with extreme content	0.841	.730	-.457	.031
Common means of access to CSEM	0.835	.693	.390	-.140
Possession of fantasy-based material	0.808	.631	.107	-.422
Material defined as sexually arousing ^a	0.763	-	-	-
Possession of digital material	0.75	.648	.233	-.212
Having had or attempted to have a contact sex offence with a minor	0.749	.445	-.568	.310

^a*Material defined as sexually arousing* consisted only of one variable, which did not allow for multiple regression analysis. Using binary logistic regression, regression weights were as follows: dim1: 7.236, dim2: 2.121, dim3: 1.575. Standardised regression weights are not easily accessible for logistic regression but the regression weights indicate that this variable had the highest weight on Dimension 1 and the lowest weight on Dimension 3.

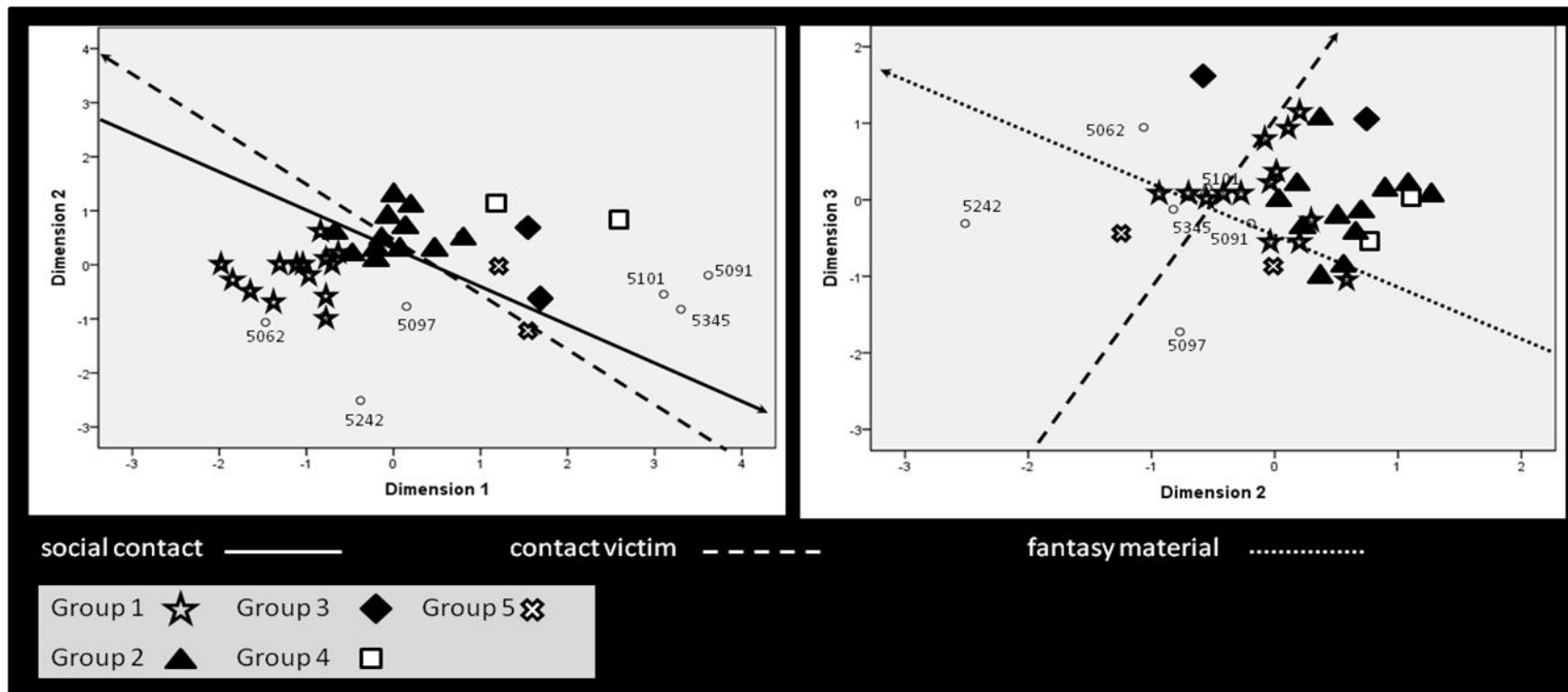


Figure 9: MDS vector position determined by regression analysis

In summary, these three dimensions were identified as the most relevant in the distribution of offenders. They are not independent from each other, as can be seen in the positioning of the axes for Dimension 1 and Dimension 2. It has to be repeated though that this analysis is based on a small sample size and does not have rigorous methodological qualities, which would require outlier analysis or examination of residuals for regression analyses. Less weight is thus to be assigned on the deducted position of the vectors rather than the variable correlations with the dimensions.

Result Summary

The aim of this chapter was to identify different subgroups of offenders who have used CSEM. An exploratory analysis of a set of questions covering details of participants' CSEM offending confirmed the heterogeneous nature of CSEM users. Based on their responses to variables enquiring details about their offending, CSEMOs and MOs were thus classified into five subgroups, using hierarchical cluster analysis and multidimensional scaling. The subgroups consisted of two main groups (Contact-driven and Fantasy-driven Users) and three offender pairs. For the Group 1, the Contact-driven Users, offenders' engagement online seems to be mainly a substitute or addition for direct sexual contact with a minor, and their CSEM appears to be based on locations and material that was easily available to them. Two-thirds of the Contact-driven Users, had admitted to direct sexual contact with a victim, and only two offenders reported that CSEM was sexually arousing to them. In contrast, Group 2, Fantasy-driven Users, had used a broader array of access, material types and content, and had also used the internet as a social medium to stay in contact with other users. They were more likely than Contact-driven Users to possess fantasy-based material, such as textual or fictional CSEM. All of the offenders in this group had used the material for sexual satisfaction, and there was hardly any cross-over to direct sexual contact to a victim. The third group, Extreme Material Users, differed from the other groups due to their preferred usage of CSEM with extreme content, such as sadistic material or CSEM displaying infants. In comparison, offenders in

Group 4, Social Users, did mostly possess lower-end pornography but were extremely involved in the social aspect of CSEM, which is also reflected in their means of accessing CSEM. The last group was labelled Cautious Users, given that they engaged in various forms of safekeeping of CSEM, such as saving it to external files or hiding their material.

The group of Contact-driven Users included one offender who had taken photos of his victim. The four other producers of CSEM were not classified into any group. Overall, there were six outliers that did not fit into any subgroup. From the two remaining outliers, one was contacting minors online and the other used CSEM to overcome his own sexual trauma. It appears that the outliers were singled out based on one extreme feature, such as unusual preferences for material type (Case 5062) or extreme time-investment with CSEM (Case 5091).

The offender groups were compared on the variable clusters and components established in the previous chapter. In comparison to Contact-driven Users, Fantasy-driven Users had significantly higher scores of Focus of Internet Behaviours and Social Exclusion and Escape. Overall, Group 3 and 4 had the highest scores on Social Exclusion and Escape, expressing their struggles with the outside world. The five groups did not differ in their scores on cognitive distortions.

It was examined if the distribution of offenders in the three-dimensional space of MDS could be further explained by interpretation of the three dimensions. The results of multiple regression analysis for content-based variable categories informed that Dimension 1, Social Contact, represents the social contact offenders had online with other adults with a sexual interest in minors. Dimension 2, Contact Victim, identified a person's propensity to sexual contact with a minor while Dimension 3, Fantasy Material, indicated the possession of fantasy-based material. The three-fold distinction thus underlines the three main aspects in the classification of offenders that define the MDS space.

Discussion

In this chapter, CSEM users were examined on a number of variables relating to their CSEM offending and different subgroups of

CSEM users were identified. From the 39 participants, only 44% had been convicted for their CSEM usage, and only two offenders were reconvicted. While it is acknowledged that all offenders were recruited from a treatment setting where some offenders may still be awaiting their trial, these figures may suggest that the current methods of policing CSEM users are either not fully effective or that apprehension does not usually result in conviction for their offending.

The low number of reconvictions in this sample is noteworthy considering that the reported average length of offending with CSEM was six years. This finding may thus be an effect of a rather recent rise in CSEM convictions, hence, leaving an offender little time to have reoffended since his initial apprehension, let alone being reconvicted for CSEM usage. However, in their meta-analysis on recidivism of online offenders, Seto et al. (2011) reported that only 3.4% of their study sample of online offenders had been reconvicted for CSEM usage within six years follow up. The current sample had a higher rate of reconviction, namely 11.76%.

The descriptive analysis of the variable distributions identified a number of unexpected findings. Only a small number of offenders were commercially involved in CSEM trading, with eight offenders reporting having paid for some of their material and none reporting having earned money with it. Only one offender listed financial aspects as motivation for getting involved with CSEM. Non-commercial sharing amongst peers was more common, however still rare; 10% reported having shown their material to other adults (1 CSEM, 2 MOs) and 14% had posted material online for other users (3 CSEMOs, 1 MO). These findings contradict the common perception of the frequency and severity of CSEM trading online. In recent years, large-scale investigations on commercial CSEM rings has become highly publicised, such as the case of Landslide Inc. (see McAuliffe, 2001) or more recent reports ("Seventy-Two charged", 2011). Consequently, CSEM users may now be more aware of the risk of detection involved in commercial online trading. In a way, an involvement in commercial trading also constitutes an understanding of the criminal aspect of one's behaviour; for example, one can hardly claim to have

found the material “by accident” (see Case 5098 in Table L1) after providing his credit card details on an explicit trading website.

A second unexpected finding was the high popularity of sexually explicit narratives amongst CSEM users (47.37%; 12 CSEMOs, 6 MOs). This may indicate a rather fantasy-based sexual stimulation on part of CSEM users, which explains the higher rate of CSEMOs than MOs (54.55% vs. 35.29%) who use narratives. The stimulating power of sexual narratives is recognised in a forensic setting, for example, Chaplin, Rice, and Harris (1995) reported increased discriminatory power in phallogometric assessments of one’s sexual arousal when both visual and narrative stimuli were combined. The attractiveness of textual CSEM may also be based on its availability online and the difficulties that arise in its classification as CSEM. In 2001, the conviction of Brian Dalton in the United States of America for possession of self-made CSEM stories has received much attention from media and civil rights defenders as an act against the First Amendment (see “Child Pornography Writer”, 2001). Textual CSEM is placed on the edge between obscenity and art; indeed, Nabokov’s (1955) *Lolita*, describing the romantic relationship between a professor and a 12 year old girl, has been selected as one of the 100 best English-speaking novels since 1923 by the magazine *Time*³⁵. CSEM narratives may thus be considered as “low risk” material that can easier be defended in court than visual CSEM. Conversely, offenders rarely listed a preference for CSEM with extreme content (Level 10, sadism, bestiality) or observing the live sexual abuse of a child, which may again reflect the availability of this material. Such extreme CSEM may also be not attractive for most CSEM users. As the previous chapter has shown, CSEM users have less developed cognitive distortions about children and their sexual engagement and such extreme CSEM may be too graphic in terms of the suffering of the children.

The third unexpected finding was the low number of CSEM users who tried to engage with minors online ($n = 2$). Online grooming, described in Chapter Two, has received much attention in the professional literature

³⁵ http://www.time.com/time/specials/packages/article/0,28804,1951793_1951943_1952538,00.html

(e.g., Wolak, Finkelhor & Mitchell, 2004) but is also highly publicised in the broad media, for example in TV shows like *To Catch a Predator*³⁶. The current findings though challenge the myth that CSEM viewing is directly related to engaging in sexual contact with a minor and confirm that for most offenders, CSEM viewing was a distinct phenomenon to online grooming.

There were some differences between CSEMOs and MOs in terms of their involvement with CSEM. Even though the group of MOs had a wider distribution regarding the length of offending than CSEMOs ($M = 14.93$, $SD = 13.01$ vs. $M = 5.65$, $SD = 4.34$), CSEMOs showed more dynamic in their offending and had explored more online pathways to CSEM. This was also reflected in the amount of time they spent with the material (14 hrs per week for CSEMOs vs. 4.5 hrs per week for MOs). It thus appears that for offenders who commit contact sexual abuse in addition to using CSEM, the latter may not be the main focus of their actions and/or their CSEM viewing is less compulsive. Nevertheless, there was little difference in the victim preference between the two offender types; the majority in both groups expressed a clear preference for a certain victim type that usually remained stable over time. A preference for certain sexual activities was less common (7 CSEMOs, 6 MOs). A distinct and stable victim preference is some indication for the predictive value of offenders' past actions, which suggests there would be value in the completion of risk scenario development for these offender types for risk assessment purposes.

Overall, classification analysis revealed five subgroups of offenders, differentiated mainly according to their social contact with other users, their involvement in direct sexual contact with a minor and the possession of fantasy-based material. Six offenders could not be integrated into any of the existing subgroups. In reviewing their profile, it appears that their outsider position was based on extreme responses on one or several

³⁶ In this TV show, the show host and police confront men who after engaging in sexual chats online with a "teenage girl" went to meet her in person. See http://www.msnbc.msn.com/id/17601568/ns/datetime_nbc/#.TjnQmYJaf8E. The model has found application in other countries, for example in Germany: <http://www.guardian.co.uk/world/2010/oct/19/paedophile-entrapment-tv-show-germany>

variables. All outliers reported an exclusive sexual attraction to minors, coupled with their own sexual abuse in two cases. The group of outliers also contained four of the five producers of CSEM in this sample, which suggests some inherent differences between CSEM consumers and producers. A larger study group may result in groupings that integrate these outliers into an offender classification, for example the introduction of a distinct group of CSEM producers appears conceptually feasible.

The five remaining subgroups included two main groups, Contact-driven and Fantasy-driven Users, and three pairs of offenders, Extreme Material Users, Social Users, and Cautious Users. Overall, the clear distinction between Contact-driven and Fantasy-driven Users is most noteworthy. It is difficult to draw firm conclusions about the latter groups due to their small sample sizes—they may indeed constitute distinct groups of CSEM users or may be extreme types of the two-fold distinction. Thus, again, this subgroup classification calls for validation with a larger study sample.

The distinction between contact-driven and fantasy-driven offenders has been a consistent thread throughout this thesis. In Chapter Three, the concept of abusive versus non-abusive offenders was introduced for the first time based on a review of existing typologies of online sex offenders. The terminology of contact-driven and fantasy-driven offenders was borrowed from Briggs et al. (2009) who empirically distinguished two groups of online users who had engaged in sexual chats with a minor online—those who attempted to set out a physical meeting (contact-driven) and those who maintained a sexual relationship devoid of physical contact (fantasy-driven). Even though originally used for internet chatters, the suggested distinction is considered conceptually attractive beyond this application. For example, Briggs and colleagues reported its successful integration into the assessment and treatment of online sex offenders.

In Chapter Four, details surrounding the classification of fantasy and contact-driven offenders were explored through a review of studies regarding pornography usage and its effects. The findings suggested that fantasy-driven CSEM users may have a low likelihood of committing a direct sex offence while instead living their sexual deviancy through their

fantasy. In comparison, contact-driven offenders may be more similar to contact sex offenders. Chapter Four further described a study by Williams et al. (2009) who examined the occurrence of sexually deviant thoughts and behaviours in a sample of undergraduate students. Overall, they found that while sexually deviant behaviours were always related to sexually deviant fantasies, only 38% of the students admitting to sexually deviant fantasies also engaged in sexually deviant behaviours. Thus, the suggested terminology does not imply that contact-driven offences are not fuelled by deviant fantasies; instead, the distinctive difference is that for fantasy-driven offenders, sexual satisfaction is based *solely* on fantasy-based offending.

In perhaps the most informative study, Sheldon and Howitt asked their sample of CSEMOs why they did not progress to contact sex offences. While 56% stated that fantasy was more rewarding to them than direct sexual contact, 81% reported that fantasy in general has high importance for their life. Riegel's (2004) field study of boy-attracted male online users achieved similar results. These findings correspond with the conclusions in Chapter Three that CSEMOs appeared generally prone to a fantasy world and were more able to relate to fictional characters than CSOs or the normal population. In addition, Babchishin et al. (2010) had found that offline offenders expressed less sexual deviancy than online offenders based on three measures of sexual deviancy, phallometric assessment, the SFQ (G. Wilson, 1978), and the Stable-2007 (Hanson et al., 2007), which may again indicate the richer sexual fantasy on part of online offenders.

So far, research results as well as the conceptual logic of this distinction seem to provide initial support for the classification of CSEM users as contact-driven and fantasy-driven. However, some caution should be applied: The case study by D. Wilson and Jones (2008) raised the issue that fantasy-driven offending may be a pre-stage for contact-driven offending. Alternatively, the quality, not quantity or importance, of fantasies may be the differentiating aspect between the offender types: In their study of sexual fantasies of sex offenders, Sheldon and Howitt (2007) found that CSOs reported more confrontational fantasies (presence of

victim) than CSEMOs. In summary, this two-fold distinction of fantasy-driven and contact-driven offenders, as well as the role of fantasy for sexual abusers, requires more professional attention.

Given the above considerations it is not surprising that the group of Contact-driven Users in this study contained a large number of offenders who had also committed contact sex offending towards a minor. This is where the finding that CSEMOs engage more with CSEM material than MOs fits in—it makes sense that Fantasy-driven Users need to enrich and evolve their sexual fantasies to a greater degree than the Contact-driven Users while the latter may engage in a rather opportunistic offending style on the internet. Group comparisons revealed that Fantasy-driven Users employed a wider array of internet behaviours, invested more money and time in their equipment and reported higher emotional cost in relation to the internet. They were also more likely to have viewed a wider array of deviant pornography. In the interpretive analysis of MDS dimensions, direct sexual contact to a minor was found to be nearly identical to lack of social contact to other offenders. Social engagement with other users may be a consequence or necessity to access certain types of material, and also be a result of less opportunistic online engagement, further outlining the distinction between Fantasy-driven Users and Contact-driven Users. Fantasy-driven Users also reported more struggles with the outside world, that is, they had been bullied in their childhood, believed that people did not know their real identity, and felt inadequate to cope with stress. Most notably, though, they enjoyed fantasy games, again confirming the general importance of fantasy for these individuals.

Extreme Material Users could potentially be a subgroup of Fantasy-driven Users with a clear preference for higher-end material and exposure to other types of deviant pornography. Indeed, like the Fantasy-driven Users, this group also reported high levels of social inadequacy and only reported limited engagement with other paedophiles and CSEMOs online. The offenders had further stated that their online persona expressed their Dirty me and had both not engaged in direct sexual contact with a victim. Their extreme sexual deviancy coupled with their offline social exclusion indicates a compartmentalisation that depicts the online world as a “safe

place”, allowing them to live their sexual deviancy (“social pariah”). Their social isolation is reminiscent of other cases with extreme sexual interests even in comparison to the wide array of paraphilias. For example, Earls and Lalumière (2009) presented a case study on preferential bestiality that not only reflected on this spartan research field but also on the isolated experience of the person in question. It is indeed likely that Extreme Material Users are considered extreme even by the standards of other CSEM users, which not only places them at the margin of normal society but also of the paedophile community.

Group 4, Social Users, was inherently different from this group even though sharing some similar features. Both offenders had not had any direct sexual contact with a victim and spent long hours online with CSEM. Albeit having equally high scores on *Social exclusion and escape*, Social Users were placed in the centre of the paedophile community based on their online engagement in various forms of social contact. Thus, as opposed to the pariah-position of the previous group, the online world seemed to provide a sense of membership and belonging for Social Users. Indeed, the one offender who described his online persona stated that he could overcome his social fears online, even with people he also engaged with in the offline world. In summary, the two groups thus describe two intrinsically different functions of the internet, namely, means for satisfying unusual sexual preference as opposed to means for establishing social connectedness that is missing in real life.

The last subgroup had the most unusual profile. These two offenders were labelled Cautious Users based on their engagement in methods of safe-keeping, such as saving their material to external files, preparing hard copies, and hiding their material. However, both indicated a low risk of private detection given that they both accessed the material from home, had no children and only one of them was in a relationship at the time. They also reported no external interest in duplicating CSEM—they did not report sharing the material with other users (beyond file-sharing activities) and the one offender who had sexual contact with a minor had not exposed them to his CSEM.

It thus stands to reason that their cautious behaviour in regards to CSEM is based on avoidance of punishment, likely due to previous adverse experiences with the correctional system. Indeed, while Case 5163 had been convicted for his CSEM, Case 5061 reported an extensive criminal history and had been repeatedly convicted for sexual contact with a minor. However, as behavioural experiments have repeatedly shown, the effects of punishment are only a temporary suppression of a response. Summarising the attributes of effective punishment, Mazur (1994) listed consistency, immediacy, responsiveness of the subject, and availability of alternative behaviours. With regards to the latter, Case 5061 may have chosen CSEM viewing as a less risky alternative to contact sex offending based on previous adverse effects. However, as none of the features of effective punishment are available for CSEM viewing, the offenders' cautious behaviour may cease over time or may allow for a cross-over to contact sex offending. Their responsiveness to punishment is further limited given that both offenders expressed a potential for negative feelings towards oneself: While the first case admitted "feelings of hate" as a reason for CSEM, Case 5163 stated that he had viewed CSEM due to his self-induced social isolation after identifying as homosexual, stating "thinking something was wrong with me".

The above discussion has provided evidence of the face validity of the five different offender subgroups. In addition, a measure for content validity was integrated into the Expert Survey (see Appendix B). Participating professionals were asked to list potential subgroups of CSEM users, which resulted in six different categories of CSEM users. The Paedophile (Non-Contact) described a user with sexual interest in minors albeit without direct sexual contact as opposed to the Paedophile (Contact) who referred to offenders with interest in direct sexual contact to a minor. This description covers the Fantasy-driven Users and Contact-driven Users. Some of the experts stated that the group of Paedophile (Contact) is likely to contain producers of CSEM and people who use CSEM to groom minors. Indeed, in the current study the one producer who was no outlier was part of the Contact-driven Users, and half of the

Contact-driven Users who had admitted sexual contact to a minor had exposed their victims to pornography.

The experts' third category, the Sexually Deviant, referred to offenders who use CSEM amongst other types of sexually deviant material, which in the current study fits to the description of Extreme Material Users. The two remaining groups, Sensation Seekers and Commercial Interest, were not reflected in the current study sample, which is likely to be an effect of the recruiting of offenders from treatment settings for serious sexual misconduct that would have filtered individuals with these interests.

In addition to the types of CSEM users, two participants in the Expert Survey also differentiated between types of CSEM collectors. The Dedicated Collector was described as having an organised search method, having clear victim preferences and spent considerable time on their collection. This was certainly a feature of the Fantasy-driven Users. In contrast, the Indiscriminate Collector expressed a broader collecting style, involving other types of deviant material. While highly specific in their content preferences, Extreme Material Users may show some of the features of indiscriminate collecting. The third group was labelled Risk-Aware Collector who typically do not have a lasting collection due to their high security awareness; this description is clearly reflected in the group of Cautious Users. Finally, the experts described the type of Compulsive Collector whose collecting behaviour is based on reasons other than sexual gratification. This last type may include the group of Social Users who need to engage in their CSEM collection in order to maintain social contact to other users, perceived as potentially more rewarding for this offender group than their engagement in CSEM. The experts' experiences from the clinical field thus confirmed the validity of the empirically identified subgroups and further outlined some similarities between the offender groups, indicating the potential value of a higher-level distinction.

Limitations

There are some limitations inherent to the methodological procedures used, most notably the low strength of the outcomes based on

the small sample size. This was especially relevant for the interpretation of the MDS dimension, which should only be considered a preliminary finding.

It was mentioned in the previous chapter that the survey was based solely on self-report data, and thus was liable to both socially desirable responding and selective disclosure. However, a potentially distinctive item was CPt04, "Do you think your penalty is fair for what you have done?". All of the MOs but only 70% of CSEMOs considered their penalty as fair, which may indicate a higher level of honest responding on part of CSEMOs. Additionally, it has to be considered that offender may unconsciously bias events that happened in the past. This may especially be relevant for the open-ended questions, such as their reasons for viewing CSEM, where responses had to be retrospectively constructed.

Finally, another limitation of this study was that the content of the CSEM material was assessed via a self-report application of the COPINE scale. It has been outlined in the study in Appendix C that the COPINE scale was originally intended for visual material only. However, this shortcoming was accepted for two reasons: It could not be controlled in this study what material the offender referred to when assessing its content, and the COPINE scale is the most developed method of assessing CSEM content. It is acknowledged though that the results of this survey do not validate the application of the COPINE scale for non-visual material.

Chapter Summary

Based on the heterogeneous nature of the group of CSEM users, both in terms of the findings from Chapter Seven as well as the descriptive analysis of variables relating to their CSEM offending, this chapter was aimed at identifying subgroups of CSEM users. Employing numerical and graphical procedures, five subgroups of CSEM users were distinguished, with six participants failing to respond. A three-dimensional space was found most suitable for the spatial representation of the participants, according to the dimensions of social contact with other users, direct sexual contact with minors, and possession of fantasy-based material. The

two main subgroups of CSEM users confirmed the two-fold distinction suggested in the theoretical introduction of this thesis, distinguishing Contact-driven Users and Fantasy-driven Users. While Contact-driven Users ($n = 15$) used CSEM as one expression of their sexual interest in minors, targeted at direct sexual contact, Fantasy-driven Users ($n = 12$) received sexual satisfaction solely based on their sexual fantasies. Consequently, Fantasy-driven Users showed higher involvement in their CSEM usage, for example in terms of their social engagement or emotional investment in their online usage. The three remaining offender subgroups consisted of two offenders each and included Extreme Material Users, Social Users and Cautious Users. The latter group was noteworthy due to their engagement in various forms of safe-keeping of their CSEM, suggesting a reaction to previous adverse experiences. Overall, these five subgroups appeared to have face and content validity (based on findings from the Expert Survey) and indicate some potential value in a higher-level distinction. In summary, these findings clearly confirmed the value of the second research aim of the thesis, the identification of different subgroups of CSEM offenders.

Chapter 9:

Risk Profile of CSEM User Subgroups

In Chapter Eight, different subgroups of CSEM users were identified. The current chapter was originally aimed at exploring if these subgroups differ in their risk of reoffending, both in terms of another CSEM offence and direct sexual contact with a minor. However, given the low number of offenders with a reconviction for CSEM ($n = 2$) and the low number of offenders who used the internet to engage with minors ($n = 2$), it is impossible to draw statistically reliable conclusions with the current sample.

Instead, the research aim is approached from two different angles. Firstly, the nature of criminal offending in this sample is explored in more detail. In the previous chapter, three aspects crucial for offender classification were identified, based on the three dimensions of the MDS maps: social contact with other adults with a sexual interest in minors, usage of fantasy-based CSEM, and direct contact with a minor for sexual purposes. Thus, these model-based variables are examined in their relationship to criminal activity, in their role as potential predictors thereof and in comparison to conventional predictors of sex offending. Secondly, the offender subgroups are compared in terms of their criminal activity and their profile on the described variables. In the last section of this chapter, these findings are combined into a classification scheme. The chapter concludes with further considerations, including limitations of this analysis.

Analysis of Criminal Activity

In the first part of the chapter, the different types of criminal activity are examined in more detail. The contribution of model-based and conventional risk predictors to criminal behaviour is explored, with a specific focus on CSEM offending and direct sexual contact with a minor.

Methodology

In this section, the measures used for criminal activity are outlined, and the conventional predictors of sex offending, model-based variables, and the method of analysis is described.

Measures of Criminal Activity

The survey allowed for measurement of ten different types of criminal activity:

- *Current conviction of CSEM offending (CPt02)*: This item was binary. Only 17 of the 39 participants who admitted to having used CSEM were convicted for their offending.
- *Previous conviction of CSEM offending (CPt03)*: This item was binary. Only two offenders had been convicted for their CSEM offending on more than one occasion.
- *Online contact with minors*: The item was binary, based on a summary of items act06-10. Again, only two offenders admitted using the internet to contact minors for sexual purposes.
- *Sexual contact with a minor (off06)*: The item was binary. Seventeen offenders had admitted to having engaged in sexual contact with a minor, as defined in offender type MO.
- *Number of convictions for sexual contact with a minor*: Conviction for a sexual offence against a minor was measured on a scale from 1 to 3, based on (1) current conviction (off07), (2) previous conviction(s) (off08), and (3) convictions against more than one minor (off09). All seventeen offenders who had engaged in sexual contact with a minor also scored on this item.
- *Producer of CSEM*: The item was measured as a binary item, based on any positive response to items off14.5-17. Five offenders had produced CSEM.
- *Number of convictions for sexual contact against an adult*: Conviction for a sexual offence against an adult was measured on a scale from 1 to 3, based on (1) current conviction (off01), (2) previous conviction(s) (off02), and (3) convictions against more than

one adult (off03). Only two offenders reported current or past convictions of this nature.

- *Violent offending*: This item was measured on a scale from 1 to 2, including (1) conviction of a non-sexual violent offence (off04) and (2) use of weapon or threat thereof (off05.5). Eleven offenders scored on this item.
- *Non-violent offending (off05)*: This item was binary. Twelve offenders reported convictions for non-violent, non-sexual offending.
- *Online offending (act01)*: This item was binary. While a range of online offences were originally included in the survey, participants had admitted only to the illegal downloading of music, games or movies. Twenty offenders scored on this item.

Measures of Conventional Predictors of Sexual Offending

In Chapter Six, a review of conventional risk assessment methods for sex offending resulted in seven main categories for risk predictors: age below 25 years; intimacy deficits; criminal/ antisocial lifestyle; treatment/ supervision failures; male victims; sexual deviancy; and cognitive distortions supportive of sexual offending. These categories define the first type of potential risk predictors, conventional risk variables. For the current analysis, they were quantified as follows:

- *Age below 25 years (max. 1)*: This item was retrieved from the current age of offenders (dem02).
- *Intimacy deficits (max. 3)*: This category referred to the items identified in Chapter Seven (i.e., Cluster 4: Intimacy deficits): Never been in a relationship (p08), difficulties to make friends in childhood (p21.2), and struggles to find a partner (p09).
- *Criminal/ antisocial lifestyle (max. 11)*: The category included childhood conduct issues (max. 3; p22; p24; and *rulebreaking*, defined as any score on p19, 20, 23, 23.5, 28), antisocial

- personality traits³⁷ (max. 10; ad01, ad02, ad03, ad04, ad05, ad06, p10), and having been abusive in a domestic setting (p11).
- *Treatment and supervision failures* (max. 3): The survey did not allow for measures other than offence-related failures, hence the category included sexual reoffending with a minor victim (off08), a reconviction for CSEM offending (CPt03), and more than one period of treatment for sexual behaviours (t03).
 - *Preference for male victims* (max. 2): A preference for a male victim could be expressed in contact sex offending (off10) or CSEM content (CPc02).
 - *Sexual deviancy* (max. 15): This category consisted of five different areas; sexual engagement with a minor (off06), deviant pornography other than CSEM (max. 3; off18, off19.9, off20), CSEM with extreme content (max. 4; CPc03, CPc04, CPc14, CPc15), Level of the COPINE scale³⁸ (max. 6; CPc11, CPc12, CPc13), and perception of CSEM as sexually arousing (CPa20).
 - *Cognitive distortions* (max. 195):³⁹ The category was based on the main components identified in Chapter Seven: Children as Sexual Objects (max. 65), Justification (max. 25), Children as Sexual Agents (max. 25), Denial of One's Status as a Sex Offender (max. 30), Emphasis on Cognitive Element (max. 20), Entitlement (max. 25), and Unconditional Relationship (max. 5).

Measures of Model-based Variables

The second group of variables examined in this section refers to the three dimensions identified in Chapter Eight. These model-based variables were defined as follows (see Table Q1 in Appendix Q):

- *Social contact with adults with a sexual interest in minors* (max. 12; act11, act12, CPa02, CPa04, CPa09, CPa10, CPa12, CPa21, CPa22, CPa23, CPa24, CPa25)

³⁷ Items ad02 and ad06 were reversed.

³⁸ *Level of the COPINE scale* only included items that were not better fitted in other categories; higher levels were given more weight in the sum score.

³⁹ Rankings on *Cognitive distortions* were reversed with higher scores indicating higher agreement with the items for this analysis.

- *Possession of fantasy-based CSEM (max. 7; CPt11, CPc01, CPc09, CPc10, CPc17; and two additional items: CPt09, CPt10)*⁴⁰
- *Contact victim (max. 2; off06, act06-10)*⁴¹

Method of Analysis

Given the small sample size in general and the low rates on some items in particular, there is little value in employing regression analytical methods to statistically identify predictors of offending based on this sample. Such an analysis would have very low power and its outcomes would be sample-specific. The findings are instead reported in a descriptive manner based on correlational methods. The ten indicators of criminal activity are explored in more detail in their combination with each other and with potential predictor-variables using rank-based correlation coefficients.

Results

Table 12 displays the correlations between the variables and the indicator of criminal activity. All indicators of criminal activity were considered in this section, with a main focus on sexual offending in terms of both direct and indirect sexual contact with a minor.

Current Conviction for CSEM Offending

A current conviction for CSEM offending was negatively related to most predictors, such as convictions for sexual offence against a minor ($r_{pbR} = -.512$) and an antisocial lifestyle ($r_{pbR} = -.357$). It was positively related to only four variables, a preference for extreme CSEM ($\varphi = .314$), social contact with other adults with a sexual interest in minors ($r_{pbR} = .349$), possession of fantasy-based CSEM ($r_{pbR} = .357$), and model sum scores ($r_{pbR} = .380$).

⁴⁰ Audio material had been excluded from the categories in Chapter Eight as their level of explicitness can vary.

⁴¹ Item act12 refers to the exchange of information about children with other adults; for this analysis, only *actual* contact with a minor was considered relevant.

Table 12: Matrix of Indicator-Variable Correlations

	Current CSEM conviction ²	Sexual contact w minor ²	Convic. sex w minor ¹	Current conv sex minor ²	Past conv sex minor ²	More conv sex minor ²	CSEM producer ²	Violent offending ²	Conviction violent offending ²	Use of weapon ²	Conviction non-violent offending ²	Online offending ²	Intimacy deficits ¹	Antisocial lifestyle ¹
Sum: indicators ¹	-	-	-	-	-	-	-	-	-	-	-	-		.417
Current CSEM convic. ²	-	-.460	-.512	-.436	-.411	-.474		-.337	-.319	-.375				-.357
Sexual contact with minor ²	-.460	-	.787	.713	.532	.758	.436	.333	.322	.342	.310			.348
Convic. sex. offence against minor ¹	-.512	.787	-	-	-	-	.404	.530	.521	.503	.405			.375
CSEM producer ²		.436	.404		.420	.409	-							
Violent offending ¹	-.337	.333	.530	.392	.595	.498		-	-	-	.614	-.386		.520
Conviction for non-violent offending ²		.310	.405	.446		.398		.614	.624	.486	-			.406
Online offending ²								-.386	-.394			-		

	Childhood issues ¹	Antisocial personality ¹	Domestic abuse ²	Treatment and supervision failures ¹	Treatment period > 1 ²	Preference for male victims ¹	Male contact victim ²	Preferred male CSEM ²	Sexual deviancy ¹	Deviant pornography ²	CSEM with extreme content ¹	Level COPINE scale ¹	Sexually aroused with CSEM ²
Sum: indicators ¹	.331	.376	.406	.421		.393	.388	.358					-.303
Current CSEM convic. ²	-.434		-.319	-.330			-.319				.314		
Sexual contact with minor ²		.329	.322	.427	.313	.413	.578	.312					-.368
Convic. sex. offence against minor ¹	.311	.362	.321	.409		.473	.571	.393					-.373
CSEM producer ²				.377	.302		.375						
Violent offending ¹	.551	.408	.534										-.503
Conviction for non-violent offending ²	.416	.351	.349										
Online offending ²									.309		.435		.389

	Cognitive Distortions ¹	Children as sexual objects ¹	Justification ¹	Children as sexual agents ¹	Denial ¹	Emphasis ¹	Entitlement ¹	Unconditional relationship ¹	Sum: conventional ¹	Social contact ¹	Fantasy-based material ¹	Contact with minor ¹	Sum: model ¹
Sum: indicators ¹	.349	.306	.468	.370	.303		.391		.397			.719	
Current CSEM convic. ²			-.300							.349	.357	-.358	.380
Sexual contact with minor ²	.301		.484	.403			.382		.322		-.390	.942	
Convic. sex. offence against minor ¹			.393				.341				-.421	.705	-.302
CSEM producer ²				.302			.309					.461	
Violent offending ¹													
Conviction for non-violent offending ²												.300	-.333
Online offending ²				.334							.329		.333

Notes. Only correlations $r \geq |.3|$ are displayed. Variables belonging to the same category are not correlated with each other (-). Data level: ¹continuous, ²binary. Depicted correlations as follows: ¹¹ Spearman's ρ , ¹² Point-biserial correlation coefficient r_{pbR} , ²² ϕ -coefficient. The following categories are not displayed due to their small sample sizes: *Previous conviction for CSEM offending*, *Online contact with minor*, *Adult sex offending*, and *Age < 25 years*. *Sum of indicators* refers to the sum score of criminal activities.

Sexual Contact with a Minor

This indicator was related to a number of variables, with the highest correlation for the model-based contact item ($r_{pbR} = .942$) and conviction for a sexual offence against a minor ($r_{pbR} = .787$) and the lowest meaningful correlation with the sum score on cognitive distortions ($r_{pbR} = .301$). In addition, the high correlations with a preference for male victims ($r_{pbR} = .312 - .578$) and the cognitive component Justifications ($r_{pbR} = .484$) were noteworthy while being sexually aroused by CSEM ($\phi = -.368$) and possession of fantasy-based CSEM ($\phi = -.390$) were negatively related to the outcome.

Conviction of Sex Offending against a Minor

Convictions for a sex offence against a minor were related to the majority of criminal activities and potentially predictive variables. The comparably high correlation with a preference for male victims ($\rho = .393 - .571$) was noteworthy as was the high correlation with the model-based contact item ($\rho = .705$). In contrast, convictions for a sexual offence against a minor were negatively related to most items including CSEM, such as a current conviction for CSEM offending ($r_{pbR} = -.512$), being sexually aroused by CSEM ($r_{pbR} = -.373$), and possession of fantasy-based CSEM ($\rho = -.421$).

Production of CSEM

Overall, there were only five offenders who had produced CSEM, outliers 5091, 5242, 5345 and 5062, as well as one case in the group of Contact-driven Users. Thus, correlational results reported here are likely case-specific. Production of CSEM had high correlations with sexual contact with a minor and convictions thereof ($r_{pbR} = .404 - .461$), previous treatment and supervision failures ($r_{pbR} = .377$), having had a male contact victim ($\phi = .375$) and the cognitive distortion components of Children as Sexual Agents ($r_{pbR} = .302$) and Entitlement ($r_{pbR} = .309$).

Discriminant Validity: Non-sexual Types of Criminal Activity

The correlation matrix between the indicators of criminal activity and the listed variables revealed that a high score on criminal activities was meaningfully correlated to 17 potential risk predictors. In detail, this item correlated highly with direct or indirect contact with a minor for sexual purposes (model-based; $\rho = .719$), which is not surprising given that four criminal activities concerned direct sexual contact with a minor. Conventional risk predictors explained about 20% of the total variance ($\rho = .397$), with the majority of variance explained by the cognitive component of Justification ($\rho = .468$) and treatment and supervision failures ($\rho = .421$). The sum score of criminal activity was negatively related only to being sexually aroused by CSEM ($r_{pbR} = -.303$).

High scores on violent offending were meaningfully related to past convictions of sex offending against a minor ($\rho = .530$), sexual contact with a minor ($r_{pbR} = .333$), conviction for a non-violent, non-sexual offence ($r_{pbR} = .614$), as well as all predictors belonging to an antisocial lifestyle ($\rho = .520$): antisocial personality ($\rho = .480$), childhood conduct issues ($\rho = .551$), and having abused in a domestic setting ($r_{pbR} = .349$). Violent offending was negatively correlated to online offending ($r_{pbR} = -.368$), a current conviction for CSEM offending ($r_{pbR} = -.337$), and being sexually aroused by CSEM ($r_{pbR} = -.503$).

Non-violent offending was related to other types of criminal activity, such as violent offending ($r_{pbR} = .614$), or sexual contact with a minor ($\rho = .31$). There was a noteworthy correlation with the antisocial domain ($r_{pbR} = .351 - .406$), and a negative correlation with the model-based sum score ($r_{pbR} = -.333$). Illegal downloading of media material (online offending) was fairly widespread; consequently, online offending was meaningfully related to eight variables, a preference for CSEM with extreme material content ($r_{pbR} = .435$), being sexually aroused by CSEM ($\rho = .389$), and thus sexual deviancy ($r_{pbR} = .309$). Online offending was further related to the cognitive component of Children as Sexual Agents ($r_{pbR} = .334$), possession of fantasy-based CSEM ($r_{pbR} = .329$), and the sum of model-based variables ($r_{pbR} = .333$) while being negatively related to violent offending ($r_{pbR} = -.386$).

The three remaining offence types were based on only two offenders each: sexual offending against an adult, having used the internet to contact minors, and past conviction for CSEM. These categories were overlapping, comprising only four different offenders.

From the offenders who had been convicted repeatedly of their CSEM offending (Case 5101 and Case 5159), one had used the internet to contact minors. None of them had admitted to sexual contact with a minor.

The two offenders who had used the internet to contact victims (Case 5101 and Case 5091) had both engaged socially on the internet (scores: 8, 12; max. 12) and both had high agreement with items regarding cognitive distortions, most notably on Justification (scores: 15, 18; max. 25) and Children as Sexual Objects (scores: 51, 50; max. 65). Both were convicted for their CSEM usage, one was reconvicted while the other had a conviction for a sexual offence both against an adult and minor victim. Only the latter had had sexual contact with a minor. Both had high scores in their engagement with CSEM, had possessed material with extreme content (scores: 2, 4; max. 4), and had engaged in trading.

Finally, both of the offenders who had convictions involving sex offences against an adult (Case 5091 and Case 5250) admitted to sexual contact with a minor, and both had intoxicated their victim. Both also held convictions for non-violent, non-sexual crime. They displayed a high agreement with distortions belonging to Justification (scores: 18, 9; max. 25). With regards to CSEM, they had accessed their material also by means other than a computer, potentially indicating offline contacts.

Summary

Despite the methodological limitations in this analysis, there are some noteworthy findings in this section. Given the negative correlations between CSEM offending and contact sex offending, these offence types appear mutually exclusive. This may reflect a trend in the current conviction scheme where offenders, once identified as contact sex offenders, are less likely to receive additional convictions for their CSEM offending. As expected, non-sexual offending (violent, non-violent, and

online offending) was only marginally related to the listed variables. Thus, the value of the identified variables as potential predictors of sexual offending was confirmed in their positive relationship with the outcome indicators (content validity) as well as in their lack of a relationship with unrelated constructs (discriminant validity). In addition, a current conviction for CSEM offending was negatively related to conventional risk predictors but was positively related to the model-based variables. Model-based variables resulted in a more robust relationship to CSEM offending as opposed to direct sexual contact with a minor, indicating their potential value as risk predictors.

Profile of Offender Subgroups on Variables relating to Sex Offending

The second section of this chapter explores differences and similarities between the offender groups, with regards to their criminal activity as well as their profile on the examined variables.

Methodology

The current analysis was based on descriptive analysis and inferential methods of group comparisons. As in the previous chapter, only the two main groups, Contact-driven and Fantasy-driven Users, were statistically compared given the small sizes of the remaining groups. Six offenders had been identified as outliers in the offender classification. A detailed analysis of their profile goes beyond the scope of this thesis but their characteristics are displayed in Table 13 alongside the offender subgroups.

Variable	Group 1	Group 2	Group 3	Group 4	Group 5	Outliers					
	(n = 15)	(n = 12)	(n = 2)	(n = 2)	(n = 2)	5097	5101	5091	5242	5345	5062
Violent offending (max. 2)	M=0.53 SD=0.83 Mdn=0	M=0 SD=0 Mdn=0	Mdn=0	Mdn=0	Mdn=1				2		2
Conviction	33.3% (5)				n = 1				1		1
Use of weapon	20% (3)				n = 1				1		1
Non-violent offending	46.7% (7)	16.7% (2)			n = 1			1	1		
Online offending	33.3% (5)	41.7% (5)	n = 2	n = 2	n = 2	1	1	1		1	
Sum (max. 15)	M=3.6 SD=2.2 Mdn=3	M=1.58 SD=1 Mdn=1.5	Mdn=1.5	Mdn=1.5	Mdn=5	1	4	8	8	6	6

Conventional Risk Factors for Sex Offending

Age < 25 years	6.7% (1)		n = 1		n = 1						
Intimacy deficits (max. 3)	M=0.67 SD=0.62 Mdn=1	M=1.42 SD=1.17 Mdn=1	Mdn=2	Mdn=1.5	Mdn=1.5		3	1	2	3	2
Criminal/antisocial lifestyle (max. 11)	M=5 SD=2.6 Mdn=4	M=3.58 SD=2.2 Mdn=2.5	Mdn=4	Mdn=3.5	Mdn=7	8	2	5	6	4	8
Childhood conduct (max.3)	M=1.53 SD=1.2 Mdn=1	M=1.08 SD=1 Mdn=1	Mdn=2	Mdn=2	Mdn=2	2		2	3		3
Antisocial personality (max.10)	M=3.13 SD=1.2 Mdn=3	M=2.5 SD=1.5 Mdn=2	Mdn=2	Mdn=1.5	Mdn=5	5	2	2	3	4	4
Domestic abuser	33.3% (5)					1		1			1

Variable	Group 1	Group 2	Group 3	Group 4	Group 5	Outliers					
	(n = 15)	(n = 12)	(n = 2)	(n = 2)	(n = 2)	5097	5101	5091	5242	5345	5062
Treatment/supervision failures (max. 3)	M=0.47 SD=0.74 Mdn=0	M=0.33 SD=0.65 Mdn=0	Mdn=0.5	Mdn=0	Mdn=1		1	1	2		1
Reconv. sex w. minor Reconv. CSEM	26.7% (4)	8.3% (1)			n = 1		1		1		1
Treatment period > 1	20% (3)	25% (3)	n = 1		n = 1			1	1		
Male victim (max. 2)	M=0.8 SD=0.94 Mdn=0	M=0 SD=0 Mdn=0	Mdn=0.5	Mdn=0	Mdn=1.5	1	1		2	2	
Male contact w. victim Prefer. male CSEM	33.3% (5) 46.7% (7)		n = 1		n = 1 n = 2	1	1		1	1	
Sexual deviancy (max. 15)	M=5.47 SD=3.56 Mdn=5	M=8.58 SD=2.71 Mdn=8.5	Mdn=12	Mdn=7.5	Mdn=11	10	12	14	13	13	9
Sex. contact w. minor	66.7% (10)	16.7% (2)			n = 1			1	1	1	1
Deviant pornography (max.3)	M=1.53 SD=1.12 Mdn=1	M=2 SD=1.13 Mdn=2.5	Mdn=2.5	Mdn=2.5	Mdn=2	2	3	2	3	2	2
CSEM with extreme content (max. 4)	M=0.13 SD=0.35 Mdn=0	M=0.67 SD=0.89 Mdn=0	Mdn=2.5	Mdn=0.5	Mdn=1.5	1	2	4	3	3	
level COPINE scale ^a (max.6)	M=3 SD=2.45 Mdn=3	M=4.75 SD=2.01 Mdn=6	Md=6	Mdn=3.5	Mdn=6	6	6	6	6	6	6
CSEM arousing	13.3% (2)	100%	n = 2	n = 2	n = 2	1	1	1		1	

Variable	Group 1	Group 2	Group 3	Group 4	Group 5	Outliers					
	(n = 15)	(n = 12)	(n = 2)	(n = 2)	(n = 2)	5097	5101	5091	5242	5345	5062
Cognitive distortions (max. 195)	M=67.2 SD=22.96 Mdn=68	M=62.5 SD=25.4 Mdn=54.5	Mdn=91.5	Mdn=84	Mdn=113. 5	70	139	134	44	149	119
Children as Sexual Objects (max.65)	M=21.6 SD=8.32 Mdn=22	M=19.2 SD=10.2 Mdn=14	Mdn=28.5	Mdn=30.5	Mdn=36	22	51	50	13	57	32
Justification (max. 25)	M=7.8 SD=3.6 Mdn=7	M=6.58 SD=3.3 Mdn=5	Mdn=8.5	Mdn=7	Mdn=13.5	5	15	18	5	9	13
Children as Sexual Agents (max.25)	M=7.73 SD=2.9 Mdn=6	M=7 SD=3.5 Mdn=5	Mdn=13	Mdn=8	Mdn=14	7	15	17	5	20	14
Denial of Status (max. 30)	M=12.8 SD=5.1 Mdn=12	M=11.8 SD=5.7 Mdn=9.5	Mdn=17	Mdn=14.5	Mdn=16.5	17	22	22	7	22	23
Emphasis on Cogn. (max. 20)	M=6.87 SD=2.03 Mdn=7	M=6.92 SD=1.9 Mdn=7	Mdn=10	Mdn=11	Mdn=13	9	13	10	4	12	19
Unconditional Rel. (max. 25)	M=8.33 SD=3.2 Mdn=8	M=8 SD=3.98 Mdn=6.5	Mdn=10	Mdn=10.5	Mdn=17.5	8	19	13	9	24	14
Dis19 (max. 5)	M=2.07 SD=1.3 Mdn=2	M=3 SD=1.8 Mdn=3	Mdn=4.5	Mdn=2.5	Mdn = 3	2	4	4	1	5	4
Sum (max. 230)	M=79.7 SD=25 Mdn=71	M=76.4 SD=27.4 Mdn=68	Mdn=111	Mdn=96.5	Mdn=136	89	158	155	69	171	139

Variable	Group 1 (n = 15)	Group 2 (n = 12)	Group 3 (n = 2)	Group 4 (n = 2)	Group 5 (n = 2)	5097	5101	Outliers			5062
Model-based Variables											
Social contact (max. 12)	M=0.4 SD=1.06 Mdn=0	M=1 SD=1.48 Mdn=0	Mdn=5.5	Mdn=8	Mdn=3	2	8	12	3	11	
Fantasy-based CSEM (max. 7)	M=1.3 SD=1.18 Mdn=1	M=3.3 SD=0.99 Mdn=3.5	Mdn=2	Mdn=5	Mdn=4	5	4	5	3	6	4
Contact victim (max. 2)	M=0.67 SD=0.49 Mdn=1	M=0.17 SD=0.39 Mdn=0	Mdn=0	Mdn=0	Mdn=0.5		1	2	1	1	1
Sum (max. 21)	M=2.4 SD=1.3 Mdn=2	M=4.5 SD=1.6 Mdn=4	Mdn=7.5	Mdn=13	Mdn=7.5	7	13	19	7	18	5

Note. Number of subjects *n* is listed in brackets next to percentage rates.

^aHigher levels of the COPINE scale are weighted more than low levels.

Descriptive Analysis of Offender Profiles

Group 1 – Contact-driven Users

Contact-driven Users had a comparably high score on criminal activities (*Mdn* = 3; range: 0-7). They surpassed the group of Fantasy-driven Users on all types of criminal activity except for CSEM offending and online offending.

Examining their performance on conventional risk predictors, Contact-driven Users had the second-lowest scores from all offender subgroups (*Mdn* = 71; range: 48-122). They had the lowest scores on intimacy deficits (*Mdn* = 1; range: 0-2) and sexual deviancy (*Mdn* = 5; range: 1-11), and were at the lower end in terms of agreement to cognitive distortions (*Mdn* = 68; range: 39-103), with the lowest scores on Emphasis on Cognitive Element (*Mdn* = 7; range: 4-11) and Unconditional Relationship (*Mdn* = 2; range: 1-5). They also had the lowest scores in terms of sexual deviancy, with the lowest preference for deviant pornography other than CSEM (*Mdn* = 1; range: 0-3), the least occurrence of CSEM with extreme content (*Mdn* = 0; range: 0-1), the lowest average content levels as measured on the COPINE scale (*Mdn* = 3; range: 0-6), and the lowest amount of users who found CSEM sexually arousing (13.3%). However, about half of the offenders expressed a preference for CSEM displaying male victims, and a third admitted a preference for male contact victims. They also had the second-highest scores on criminal or antisocial lifestyle (*Mdn* = 4; range: 2-9), with high scores on antisocial personality (*Mdn* = 3; range: 2-5) and the highest amount of offenders who have hit or beaten their partners (33.3%) in comparison to the other offender subgroups.

Considering the group of model-based variables, Contact-driven Users again had the lowest sum scores (*Mdn* = 2; range: 1-5). However, while they achieved the lowest scores on both possession of fantasy-generating material (*Mdn* = 1; range: 0-3) and social contact with other users sexually interested in minors (*Mdn* = 0; range: 0-4), they had the highest score in attempts to directly or indirectly contact a minor for sexual purposes (*Mdn* = 1; range: 0-1).

These findings underline the hypothesis that these offenders are focused on direct sexual contact with a victim. As four of the five measures on sexual deviancy are based on CSEM or legal pornography, their low score is possibly a consequence of the less intense exposure to CSEM in this offender subgroup. Even though they seem well adjusted (as demonstrated in low scores on intimacy deficits and cognitive distortions), their high scores on general criminality and antisocial lifestyle suggest some stability in their criminal behaviours, and thus potentially a lack of insight in the harmfulness of their actions. For example, their lack of recognition of interpersonal deficits stands in stark contrast to the high amount of group members that were physically abusive towards their partners.

Group 2 – Fantasy-driven Users

Offenders in Group 2 had low scores in terms of general criminal activity (*Mdn* = 1.5; range: 0-4). They had the lowest scores on most types of criminal activity except for CSEM offending (58.3% current conviction, one person reconvicted) and online offending (41.7%).

Fantasy-driven Users had the lowest score on conventional risk-predictors (*Mdn* = 68; range: 55-152). Their scores on intimacy-deficits (*Mdn* = 1; range: 0-3) placed them just above the first group and they had the lowest scores on cognitive distortions (*Mdn* = 54.5; range: 42-134), having the lowest scores on all components except Unconditional Relationship in comparison with the other offender subgroups. They had low scores on criminal and antisocial lifestyle (*Mdn* = 2.5; range: 2-8) and treatment/supervision failures (*Mdn* = 0; range: 0-2). None of the offenders expressed a preference for male victims. However, their scores on sexual deviancy placed them in the middle-field of all offender subgroups (*Mdn* = 8.5; range: 3-12), with all offenders admitting to being sexually aroused by CSEM and to having consumed a broad array of deviant pornography other than CSEM (*Mdn* = 2.5; range: 0-3). Their scores on CSEM with extreme content (*Mdn* = 0; range: 0-2) were low and their scores on level of the COPINE scale were high (*Mdn* = 6; range: 1-6).

In terms of model-based predictors, Fantasy-driven Users had the second-lowest scores (*Mdn* = 4; range: 3-8), with an average usage of fantasy-generating CSEM (*Mdn* = 3.5; range: 2-5), and low scores of social involvement online (*Mdn* = 0; range: 0-4) and contact with a minor (*Mdn* = 0; range: 0-1).

Overall, it appears that Fantasy-driven Users have not been criminally active beyond non-confrontational, mostly internet-based offending, and do not score high on conventional risk factors except for sexual deviancy. The findings confirm their involved engagement with CSEM and their disregard of direct sexual contact with a minor. Overall, model-based variables were only moderately informative with this offender group.

Group 3 – Extreme Material Users

Extreme Material Users had low scores in terms of criminal activity (*Mdn* = 1.5; scores: 1, 2), with their offending being based mainly on online offending (*n* = 2) and a conviction for their CSEM offending (*n* = 1).

However, these offenders had the second-highest scores on conventional risk factors (*Mdn* = 111; scores: 103, 119). One of the offenders was under the age of 25 years. They had the highest scores on intimacy deficits (*Mdn* = 2; scores: 2, 2) and sexual deviancy (*Mdn* = 12; scores: 11, 13), and had the second-highest scores on cognitive distortions (*Mdn* = 91.5; scores: 80, 103), with their high agreement on Denial of Sex Offender Status (*Mdn* = 17; scores: 13, 21) and Unconditional Relationship (*Mdn* = 4.5; scores: 4, 5) being the most prominent.

They achieved average scores on model-based variables (*Mdn* = 7.5; scores: 7, 8); most notably, they had the second highest score on social engagement with other users sexually interested in minors (*Mdn* = 5.5; scores: 5, 6).

It appears that this offender group is criminally not active beyond their CSEM offending, which is, however, manifested in each aspect of sexual deviancy. As outlined previously, their high social involvement

online may indicate ways of accessing their sexual material rather than a genuine interest in social exchange.

Group 4 – Social Users

Social Users showed the same profile on criminal activity as the Extreme Material Users. However, they only achieved average scores on conventional risk predictors (*Mdn* = 96.5; scores: 80, 113) with low scores on most variables. Their score on cognitive distortions was average (*Mdn* = 84; scores: 65, 103), however, they had the second-highest scores on Children as Sexual Objects (*Mdn* = 30.5; scores: 26, 35) and Entitlement (*Mdn* = 10.5; scores: 8, 13). Despite an overall low score on sexual deviancy (*Mdn* = 7.5; scores: 4, 11), they had a high score on deviant pornography other than CSEM (*Mdn* = 2.5; scores: 2, 3) and admitted to being sexually aroused by the material.

In comparison to the other offender groups, they had the highest scores on model-based variables (*Mdn* = 13; scores: 11, 15), with the overall highest scores on social contact with other users sexually interested in minors (*Mdn* = 8; scores: 6, 10) and possession of fantasy-based CSEM (*Mdn* = 5; scores: 5, 5).

In summary, these outcomes confirm that the group of Social Users has a high interest in social contact with other users with a sexual interest in minors. Their criminal activity is limited to their CSEM offending; here, they prefer low-level and fantasy-based material, which again confirms the social involvement as main focus of the offending of this offender subgroup.

Group 5 – Cautious Users

Cautious Users achieved comparably high scores on criminal activity (*Mdn* = 5; scores: 2, 8); however, detailed analysis revealed that only one of the offenders scored high on offline criminal activity while the other offender had engaged exclusively in online offending.

As a group, Cautious Users had the highest scores on conventional risk predictors (*Mdn* = 136; scores: 124, 148), having the highest scores in each domain in comparison to the other offender groups except for sexual

deviancy ($Mdn = 11$; scores: 9, 13). In contrast, they only had average scores on model-based variables ($Mdn = 7.5$; scores: 6, 9), with the second-highest scores on direct or indirect contact with a minor ($Mdn = .5$; scores: 0, 1).

Despite their low engagement in their CSEM offending, these offenders have a substantial criminal history and extremely high scores in a conventional risk-needs profile. It is apparent that they are less prominent on the model-based variables, likely reflecting the nature and focus of their offending.

Group Comparisons

General Criminal Activity

As can be seen in Table 13, offenders received a sum score (max. 15) on the criminal activities measured in the survey, with scores ranging from 0 to 8. The highest scores were achieved by four of the outliers (Cases 5091, 5242: sum = 8; Cases 5345, 5062: sum = 6). Group 5, Cautious Users, had the highest scores ($Mdn = 5$) amongst offender subgroups, followed by Contact-driven Users ($Mdn = 3$). Fantasy-driven Users, Extreme Material Users, and Social Users received equal scores of $Mdn = 1.5$. Given the small sample sizes, only the two main groups were statistically compared, resulting in a significant difference on the sum of criminal activities between those groups, $U = 39.5$, $z = -2.515$, $p < .01$, $r = -.484$.

A current conviction for a CSEM offence occurred in all offender groups: 26.7% of Group 1 and 58.3% of Group 2 were currently convicted for their CSEM consumption as well as one offender in each of the remaining groups. Three of the outliers (Case 5101, 5091, and 5345) were also convicted. The difference between the first two offender groups appeared noteworthy even though this difference did not reach statistical significance, $p > .05$, Fisher's exact test.

With regards to direct sexual contact with a minor, about two thirds of Group 1 but only 16.7% of Group 2 admitted to sexual contact with a minor, revealing a significant difference between the items, $p < .05$, Fisher's exact test. One offender in Group 5 and four of the outliers (Cases

5091, 5242, 5345, and 5062) also had had sexual contact with a minor. However, only offenders in Group 1, Group 5, and outliers 5242, 5345, and 5062 were convicted for their sexual conduct with minors (max. 3). Thus, Group 1 ($Mdn = 1$) was significantly more likely than Group 2 ($Mdn = 0$) to report sex offences against minors, $U = 48.5$, $z = -2.426$, $p < .05$, $r = -.467$, based on a higher likelihood to have a current conviction ($p < .05$, Fisher's exact test) and to have convictions for more than one victim ($p < .05$, Fisher's exact test).

Considering non-sexual types of offending, only Group 1, one case in Group 5, and two outliers (Cases 5242 and 5062) had scores on violent offending. Group 1 was significantly more likely than Group 2 to have a conviction for a violent offence ($p < .05$, Fisher's exact test), resulting in an overall significant difference between the groups, $U = 60$, $z = -2.163$, $p < .05$, $r = -.416$. Conviction for a non-violent offence was concentrated on the first two offender subgroups, with 46.7% amongst the contact-driven offenders and 16.7% in the fantasy-driven group (*ns*); only one offender in Group 5 and two outliers (Cases 5091 and 5242) further reported scores on this item. In contrast, illegal downloading of media material was common: 33.3% in Group 1, 41.7% in Group 2 (*ns*), all of the remaining groups, and all outliers except for Cases 5242 and 5062.

Overall, it became apparent that Contact-driven Users and Cautious Users have had the highest levels of criminal activity, which was based on higher involvement in violent offending as well as sexual contact offending against a minor. Albeit not significant, there was a trend for Fantasy-driven Users to have the highest conviction rate for their CSEM offending.

Conventional Predictors of Sex Offending

In comparing the findings from the descriptive analysis, the two main groups appeared more heterogeneous on their scores on conventional predictors of sex offending than the remaining offender subgroups, which is likely an effect of their larger sample size. Overall, Group 1 and Group 2 had the lowest sum scores in comparison to the other offender groups. This pattern is present on intimacy deficits, childhood conduct issues, and cognitive distortions. There was no

significant difference between the first two offender groups on these variables, except for a trend for Fantasy-driven Users to have higher intimacy deficits, $U = 57$, $z = -1.723$, $p = .057$, $r = -.332$.

With regards to a general criminal/ antisocial lifestyle, Contact-driven Users had a slightly higher score than Fantasy-driven Users, albeit not significant, $U = 57$, $z = -1.649$, $p = .052$, $r = -.317$. Group 5 was clearly removed from the remaining offender groups with the highest score of $Mdn = 7$ (max. 11). While the first two offender groups had the lowest childhood conduct issues ($Mdn = 1$), Group 1 ($Mdn = 3$) and Group 5 ($Mdn = 5$) had the highest scores on antisocial personality traits. In addition, Group 1 had the highest occurrence of domestic abuse (33.3%), resulting in a significant difference to Fantasy-driven Users (0%), $p < .05$, Fisher's exact test. This may reflect a relationship between antisocial traits and confrontational types of offending.

Only Group 3 and Group 5 had noteworthy scores on treatment and supervision failures and on preference for a male victim. Still, Contact-driven Users expressed a significantly higher preference for a male victim than Fantasy-driven Users, $U = 48$, $z = -2.674$, $p < .01$, $r = -.515$, for both contact offending (33.3% vs. 0%, $p < .05$, Fisher's exact test) and CSEM offending (46.7% vs. 0%, $p < .01$, Fisher's exact test).

Scores on sexual deviancy (max. 15) were wide-spread, with Contact-driven Users having the lowest ($Mdn = 5$), and Group 3 ($Mdn = 12$) and Group 5 ($Mdn = 11$) having the highest scores. There was a significant difference between the first two groups, $U = 45$, $z = -2.206$, $p < .05$, $r = -.425$, with Fantasy-driven Users outperforming Contact-driven Users. Examining the components of sexual deviancy, offender groups with high scores on confrontational offending, Group 1 and Group 5, both had the lowest scores on deviant pornography other than CSEM ($Mdn_1 = 1$, $Mdn_5 = 2$; max. 3). There was no significant difference between Contact and Fantasy-driven Users on consumption of deviant pornography, $U = 69$, $z = -1.076$, $p > .05$, $r = -.207$. With regards to possession of CSEM with extreme content (max. 4), Group 3 ($Mdn = 2.5$) and Group 5 ($Mdn = 1.5$) had the highest scores while Group 1 ($Mdn = 0$) and Group 2 ($Mdn = 0$) had the lowest. Still, Fantasy-driven Users were

significantly more likely to possess extreme CSEM than Contact-driven Users, $U = 61.5$, $z = -1.811$, $p < .05$, $r = -.349$. Group 1 ($Mdn = 3$) and Group 4 ($Mdn = 3.5$) had the lowest scores on the COPINE level of their CSEM (max. 6), with a significant difference between Group 1 and Group 2 ($Mdn = 6$), $U = 53.5$, $z = -1.909$, $p < .05$, $r = -.367$.

In Chapter Eight, the offender subgroups had been compared on their scores on cognitive distortions. No significant differences were found between the offender groups; however, descriptive analysis revealed that Group 3 ($Mdn = 91.5$) and Group 5 ($Mdn = 113.5$) had the highest sum scores (max. 195), followed by Group 4 ($Mdn = 84$). Group 1 ($Mdn = 68$) and Group 2 ($Mdn = 54.5$) showed the lowest agreement with these items. In comparing the component scores, this general pattern was only interrupted twice, with Group 1 having untypically high scores on Justification ($Mdn = 7$; max. 25) and Group 3 achieving the highest scores on Denial of Sex Offender Status ($Mdn = 17$; max. 30).

Overall, there appeared to be some differences between the offender subgroups on conventional risk predictors for sex offending. Offenders with a history of confrontational types of offending, Group 1 and Group 5, had the highest scores on antisocial lifestyle, especially antisocial personality traits. These offenders also revealed a low engagement with deviant pornography beyond CSEM. Further, the contact-focus of Group 1 was evident on these variables, scoring low on general sexual deviancy, especially on levels of the COPINE scale, but expressing a clear sexual preference for male victims. Despite their relatively low scores on cognitive distortions, they scored high on Justification, which may express a potential relationship to direct sexual offending. Cautious Users and Extreme Material Users appeared the most deviant in this analysis. They both had the highest scores on sexual deviancy, specifically on possession of CSEM with extreme content, and had the highest scores on cognitive distortions.

Model-based Variables

Examining the distribution on model-based variables, sum scores (max. 21) were widely scattered, with the lowest scores for Contact-driven

Users ($Mdn = 2$) and the highest scores for Social Users ($Mdn = 13$). There was a significant difference between Contact-driven Users and Fantasy-driven Users ($Mdn = 4$), $U = 27$, $z = -3.138$, $p = .001$, $r = -.604$. Social Users had the highest scores on variables measuring social contact with other users with a sexual interest in minors ($Mdn = 8$; max. 12), while both Contact-driven Users and Fantasy-driven Users had low scores (both $Mdn = 0$). Group 1 had the lowest scores on possession of fantasy-based CSEM ($Mdn = 1$; max. 7) while Social Users had the highest scores ($Mdn = 5$); Group 2 ($Mdn = 3.5$) was highly significantly more likely than Group 1 to possess fantasy-based CSEM, $U = 19.5$, $r = -3.513$, $p < .001$, $r = -.676$. In contrast, only Group 1 ($Mdn = 1$) and Group 5 ($Mdn = 0.5$) reported contact with minors (max. 2), with a significant difference between Contact-driven Users and Fantasy-driven Users, $U = 45$, $z = -2.55$, $p < .05$, $r = -.491$. In summary, these findings confirm the high differentiating quality of model-based variables between the offender subgroups.

Summary

The above findings, both on the descriptive analysis as well as regarding group comparisons, confirmed the heterogeneous nature of CSEM users and the value from differentiation of subgroups. Contact-driven Users and Cautious Users appeared closer to a conventional sex offender profile, scoring high on general indicators of interpersonal violence and antisocial personality traits. Fantasy-driven Users, Extreme Material Users, and Social Users appeared to have low criminal activity beyond their CSEM usage but differed markedly in their scores on the remaining variables. Most noteworthy was the discriminating influence of model-based variables in the subgroup classification. This feature was explored in more detail in the third part of this chapter.

Variable-based Offender Classification

The above section revealed consistent differences between the offender subgroups on the model-based variables, namely direct sexual contact with a minor, social contact with adults with a sexual interest in

minors, and possession of fantasy-based CSEM. The distribution of model-based variables between offender subgroups is summarised in Figure 10.

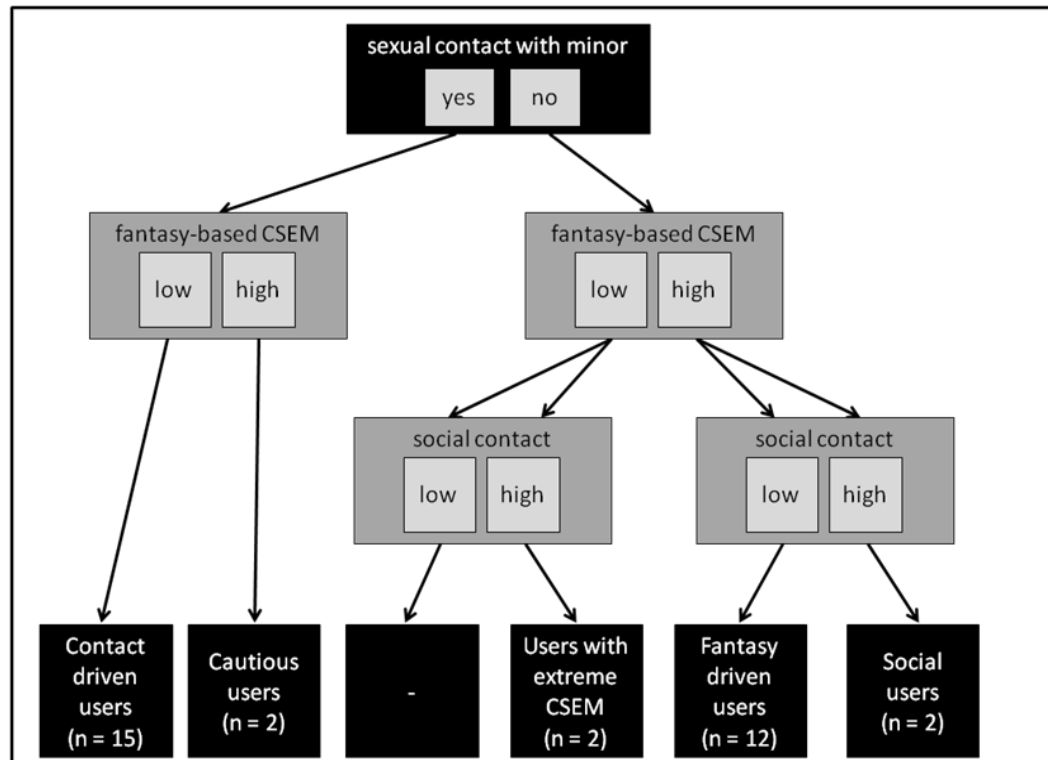


Figure 10: Offender classification according to model-based variables

Direct sexual contact with a minor (or attempts thereof) appeared to be the most discriminating factor between the offender subgroups, separating Group 1 and Group 5 from the remaining offenders (*contact-driven pathway*). It became evident that social contact with other users with a sexual interest in minors had a differentiating quality only for the offenders without direct sexual contact to minors (*fantasy-driven pathway*). Nevertheless, possession of fantasy-based CSEM added to the classificatory value of the scheme. Indeed, amongst offenders on the contact-driven pathway, Cautious Users were characterised by possession of fantasy-based CSEM in contrast to the low rates amongst Contact-driven Users. On the fantasy-driven pathway, Extreme Material Users had a low level of fantasy-based CSEM in contrast to the other two offender groups. Fantasy-driven Users had the lowest level of social contact with

other adults with a sexual interest in minors, with the other two offender groups showing relatively high levels of social engagement.

Examining the relationship to conventional predictors of sex offending, it became apparent that offenders on the contact-driven pathway had considerably higher scores on antisocial personality traits ($Mdn_1 = 3$, $Mdn_5 = 5$; max. 10) in contrast to offenders on the fantasy-driven pathway ($Mdn_2 = 2$, $Mdn_3 = 2$, $Mdn_4 = 1.5$). On the contact-driven pathway, Cautious Users had higher scores on the majority of conventional risk predictors beyond antisociality than Contact-driven Users, most notably on the items regarding preference for male victims ($Mdn_5 = 1.5$ vs. $Mdn_1 = 0$; max. 2) and sexual deviancy ($Mdn_5 = 11$ vs. $Mdn_1 = 5$; max. 15). Cautious Users may thus be considered an extreme subgroup of Contact-driven Users, either based on a more deviant set of characteristics or based on a more evolved stage in their offending.

Exploring the offender subgroups on the fantasy-driven pathway, the subgroup with low fantasy-based CSEM, Extreme Material Users, were characterised by higher scores on sexual deviancy ($Mdn_3 = 12$ vs. $Mdn_2 = 8.5$ and $Mdn_4 = 7.5$; max. 15), not surprisingly based on possession of CSEM with extreme content ($Mdn_3 = 2.5$ vs. $Mdn_2 = 0$ and $Mdn_4 = 0.5$; max. 4), and a high agreement to statements depicting Children as Sexual Agents ($Mdn_3 = 13$ vs. $Mdn_2 = 5$ and $Mdn_4 = 8$; max. 25) in contrast to the offender groups with high possession of fantasy-based CSEM.

Examining variables related to one's social engagement with other adults with a sexual interest in minors, offender subgroups with high social engagement (Extreme Material Users, Social Users) were mainly characterised by a higher agreement to cognitive distortions than Fantasy-driven Users, most notably on Children as Sexual Objects ($Mdn_3 = 28.5$ and $Mdn_4 = 30.5$ vs. $Mdn_2 = 14$; max. 65), Denial of Sex Offender Status ($Mdn_3 = 17$ and $Mdn_4 = 14.5$ vs. $Mdn_2 = 9.5$; max. 30), Emphasis on Cognitive Element ($Mdn_3 = 10$ and $Mdn_4 = 11$ vs. $Mdn_2 = 7$; max. 20), and Entitlement ($Mdn_3 = 10$ and $Mdn_4 = 10.5$ vs. $Mdn_2 = 6.5$; max. 25). They also had slightly higher scores on general criminal lifestyle ($Mdn_3 = 4$ and $Mdn_4 = 3.5$ vs. $Mdn_2 = 2.5$; max. 11).

Once again, caution in interpreting these findings is warranted due to the small sample sizes and the exploratory nature of these outcomes. For example, the current sample did not allow for the classification of an offender subgroup on the fantasy-driven pathway with low levels of fantasy-based CSEM and low social engagement with other adults with a sexual interest in minors. Overall, the most significant finding of this classification scheme is arguably the identification and confirmation of two stable pathways of offending, the contact-driven versus fantasy-driven pathway. This scheme can be applied in the classification and clinical assessment of CSEM users.

Result Summary

In this chapter, the potential risk profiles of the offender subgroups were explored in more detail. The previous chapters had revealed some variables with a potential relationship to sex offending, specifically the conventional risk predictors outlined in Chapter Five and model-based variables identified in Chapter Eight. These were compared in their relationship to different types of criminal activity. The findings confirmed a relationship between these variables and indicators of sex offending, with CSEM offending being negatively correlated to conventional predictors of sexual reoffending. Model-based variables appeared to have higher informative value in their relationship to CSEM offending.

Comparing the offender subgroups in their criminal activity again confirmed the heterogeneous nature of CSEM users and thus the value of offender sub-classification. There appeared to be a two-fold distinction between the offender groups, with Contact-driven Users and Cautious Users on one side and the remaining offender groups on the other side, with the former appearing more similar to a conventional profile of sex offending.

Consequently, a classification scheme of offender subgroups was developed according to the model-based variables. Two main pathways of offending were distinguished based on direct sexual contact with a minor (or attempts thereof), differentiating a contact-driven and a fantasy-driven pathway to offending. Social contact with other users with a sexual interest

in minors appeared to have informative value only for offenders on the fantasy-driven pathway. While the limitations of this study do not allow for firm conclusions about the validity and reliability of this scheme, the theoretical and empirical analyses suggest that the two-fold distinction of the offender subgroups likely describes a stable finding.

Discussion

The current chapter was dedicated to the potential risk profile of the offender subgroups and the above comments outlined the difficulties in obtaining this research aim. Instead, two types of potential predictors for sex offending were examined in their relationship to contact sex offending and CSEM offending, resulting in a variable-based classification schema for the offender subgroups.

An interesting finding of this analysis was the negative relationship between a current conviction for CSEM offending and other types of criminal activity as well as most conventional predictors of CSEM. In fact, only possession of CSEM with extreme content, social contact with other users with a sexual interest in minors, and possession of fantasy-based CSEM were positively related to a CSEM conviction. As outlined before, the negative correlations between CSEM offending and contact sex offending give the impression that these two offences are mutually exclusive, which stands in contrast to the 25% of participants in this study who have engaged in both offence types. Thus, these findings, if replicated, may raise questions about the current investigation and policing system in New Zealand. For example, it may well be that users of CSEM are less likely to be detected than contact sex offenders or that offenders are more likely to be convicted for a contact sex offence even if they have committed both types of offending. One potential follow-up study is an examination if convicted CSEM users who have successively been convicted for contact sex offending have also maintained any type of engagement with CSEM as part of their contact offending.

The main outcome of this analysis was the development of a variable-based classification schema for the subgroups of CSEM users. It had already been suggested in Chapter Eight that a meta-classification

existed beyond the five subgroups. Indeed, two broad passages to CSEM offending were identified, a contact-driven and a fantasy-driven pathway, building up on the previous differentiation of contact-driven and fantasy-driven CSEM users. Each pathway consists of one main offender group. In addition to Contact-driven Users, Cautious Users were also placed on the contact-driven pathway, and Extreme Material Users and Social Users appeared on the fantasy-driven pathway alongside Fantasy-driven Users. As outlined in the previous chapter, future research needs to determine the role of the smaller subgroups on each pathway: Are they offenders at a later stage in their offending than the main group? Or do these offenders differ on an extreme characteristic from the main group in each pathway?

In summary, offenders on the contact-driven pathway are characterised by antisocial traits and a history of confrontational offending. For these offenders, CSEM appears to be only one form of their sexual deviancy while sexual satisfaction is mainly gained from direct sexual contact with a minor or, potentially, the fantasies thereof or resulting from it. From the two offender subgroups on the contact-driven pathway, Cautious Users had higher detected antisociality and higher scores on all remaining variables. They also gained more sexual satisfaction from their CSEM usage. As outlined in Chapter Eight, their reportedly high engagement in safety measures is likely a reaction to exposure to traditional punishment. Within the Cautious group, the offenders seemed markedly different from each other: The convicted CSEM offender displayed high scores on intimacy deficits while the contact offender had a history of confrontational offending and high scores on sexual deviancy. In both cases, though, their behaviour reflects a strong self-focus, for the CSEM offender based on an apparent inability to relate to others, for the contact offenders based on an apparent disregard for others, which likely provides the emotional and psychological basis for further offending.

Overall, the contact-driven pathway contained six offenders who did not report any direct sexual contact with a minor. Their classification into the contact-driven pathways suggests an increased interest in direct sexual contact with a minor in the future. However, the developed

classification model does not allow any probabilistic risk prediction at this stage.

While the contact-driven pathway appears similar to the conventional sex offender, the fantasy-driven pathway is less well understood. The fantasy-driven offender groups in this study had not been criminally active beyond their CSEM offending, they had markedly lower scores on antisociality but had high rates on sexual deviancy. Especially noteworthy is their usage of deviant pornography other than CSEM which not only differentiates them from offenders on the contact-driven pathway but further underlines their usage of sexually explicit material as a source of sexual satisfaction. The two smaller subgroups on this pathway, Extreme Material Users and Social Users, both represent one specific aspect of CSEM engagement. In both cases, their involvement with CSEM is linked to high social contact with other users, for Extreme Material Users as a form of accessing material to satisfy their unusual sexual preferences while Social Users sought a social connectedness online that was missing in real life. The main group, Fantasy-driven Users, appeared more adjusted, with lower scores on General criminal lifestyle and Cognitive distortions and markedly lower social engagement with other users with a sexual interest in minors in comparison to the small offender subgroups. Chapter Two outlined the role of social contact with other users with a sexual interest in minors for CSEM users, especially regarding the role of newsgroups. O'Connell (2001) described how paedophile communities are important means of accessing specific material, and Beech et al. (2008) pointed to the normalising effect of these communities. Indeed, the two subgroups with high social engagement had higher scores on Sexual deviancy (except for high levels of the COPINE scale) and Cognitive distortions.

One fantasy-driven subgroup remained undefined in this analysis—offenders with a low interest in fantasy-based CSEM and low social contact. While this may point to a lack of offenders engaging in such CSEM consumption, this subgroup may also identify CSEM users who remain largely undetected, potentially based on their low social connectedness that keeps them from exposing themselves online.

In addition to these considerations, there are some questions around the validity and reliability of the classification schema. It has been outlined throughout this chapter that this classification scheme is based on a sample too small to draw firm conclusions and it is yet to be confirmed whether this scheme would be validated on a larger sample. Given the methodological shortcomings that had surrounded the identification of social contact and fantasy-based CSEM as discriminators (see Chapter Eight), the role of these variables needs to be explored in more detail using robust methodologies. In addition, the numeric value of *high* versus *low* social contact or fantasy-based CSEM needs to be defined.

At this stage, the scheme has value as a tool for clinical assessment that will inform but not structure risk assessment. Referring back to the initial research question regarding the risk profile of the offender subgroups, the findings to date suggest that conventional risk assessment methods may have value with offenders on the contact-driven pathway, however new approaches need to be developed for the fantasy-driven pathway.

Limitations

This chapter was originally aimed at exploring the offender subgroups in terms of their risk of reoffending. This research goal was not achieved given the small sample size and the low number of participants that reported critical behaviours, specifically reconvictions for CSEM offending, sex offending against a minor, and attempts to contact minors online for sexual purposes. The approach was then adjusted to explore the relationship between criminal activity and potential predictors of sex offending as well as the distribution of these variables amongst the offender subgroups.

Beyond their labelling as “potential predictors” the methodology used in this chapter did not allow for conclusions about their predictive value but identified a positive and exclusive relationship between the selected variables and sexually criminal behaviour. This is the extent of the information resulting from this analysis and future research is clearly needed to build on these findings.

An additional downside of the current sample size is the high amount of variability contained in this subgroup classification; a larger sample may find some subgroups to be merged or outliers to constitute independent groupings. Consequently, the described variability was carried forward into any further analysis and thus would have influenced the current findings.

Along with the methodological limitations, there were some content-related shortcomings given the adjustment of the study to the new research aims. There was some duplication of the items concerning sex offending with a minor. Even though it was considered as an indicator of criminal activity, sexual reoffending with a minor was also part of the category Treatment and Supervision Failures within the conventional risk predictors. Further, sexual contact with a minor was also included in the category Contact Victim within the model-based variables. Thus the resulting correlations are likely overestimations of their true value.

Two conventional predictors were especially difficult to conceptualise in a survey: treatment and supervision failures and sexual deviancy. As described in Chapter Six, treatment and supervision failures are included as items in the risk assessment measures SORAG, SVR-20 and Stable. Using the SVR-20 as an example, supervision failures are defined as “Failure during institutional or community placement” (Boer & Hart, 2008; n. p.). Boer and Hart (2008) further underlined that breaches of supervision conditions may be related to an offender’s personality disorder or antisocial attitudes. In the current survey, treatment and supervision failures were assessed on three items: reconviction for a sex offence with a minor, reconviction for CSEM offending, and more than one period of treatment for one’s sexually abusive behaviour. However, all of these items involve correctional involvement and do not encapsulate the full extent of this predictor. In addition, as the majority of offenders were in the initial stages of treatment at the time of data collection, some offenders had not yet had the chance to engage in supervision and potential breaches.

Secondly, more clarity is needed regarding sexual deviancy. In two reviews on the assessment of sexual deviancy in sex offenders, Borg

(2011) and Smid, Van Beek, and Troelstra (2011) noted the lack of agreement and standardisation of this item. In general, the concept of sexual deviancy versus sexual appropriateness is a difficult area (e.g., see Gavin & Bent, 2010). Even when the object of one's sexual attraction is culturally and professionally defined as inappropriate as it is the case with paedophilia (considering the argument about children's inability to provide genuine consent; Finkelhor, 1979), criticism has been raised about the psychopathology of hebephilia (e.g., see Franklin, 2009). Still, any sexual contact between adults and post-pubertal minors is considered sexually deviant in most Western legislations.

Besides the difficulties in defining sexual deviancy, there are further issues related to its appropriate assessment. In the SVR-20, sexual deviancy is defined as "a stable pattern of sexual interest, preferences, arousal or behaviour involving inappropriate persons or objects" (Boer & Hart, 2008; n. p.). In the Stable, sexual deviancy is assessed through sexual drive, sexual preoccupation, and using sex as coping mechanism (see Borg, 2011). These aspects are difficult to conceptualise and, thus, existing self-report measures, such as the second edition of the Multiphasic Sex Inventory (MSI-II; Nichols & Molinder, 1996) or the MASA (Knight et al., 1994), have a lengthy and complex structure. Smid et al. (2011) described a number of implicit measures for sexual deviancy but pointed to ethical issues surrounding phallometric assessment and the lack of validating research on other physiological measures.

In the current study, sexual deviancy was assessed with the following items: sexual contact with a minor, consumption of deviant pornography other than CSEM, consumption of CSEM with extreme content, consumption of high-level CSEM, and perception of CSEM as sexually arousing. One criticism of this conceptualisation is the heavy bias towards CSEM usage, as well as the limited subject breath included. However, as Borg (2011) summarised, excessive pornography usage is considered in most risk assessment instruments, and Hanson and Morton-Bourgon (2005) pointed to the importance of sexual arousal and fantasies towards children for the assessment of sexual deviancy.

Chapter Summary

This chapter was aimed at exploring the risk profile of CSEM users. However, the small sample size and the low occurrence of critical behaviours, such as a reconviction for CSEM, prevented a predictive analysis of risk-related items. Instead, the subgroups of CSEM users were compared in terms of their criminal activity. Two types of potential predictors for sex offending were examined, conventional risk predictors as well as the model-based variables identified in the previous chapter. The findings suggested a model-based classification tree of CSEM users, differentiating a contact-driven pathway (Cautious Users, Contact-driven Users) from a fantasy-driven pathway (Extreme Material Users, Fantasy-driven Users, and Social Users). Social contact with other offenders appeared to have informative value only for the fantasy-driven pathway. While the offenders on the contact-driven pathway appear similar to a conventional child sex offender, for example with regards to higher antisociality, new avenues need to be explored for the fantasy-driven groups.

Part III: Integrating Theory and Practice

The final part of this thesis provides an integrative view of the theoretical and empirical findings of this study. Its core feature is the development of an Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU), merging both the theoretical considerations that resulted in the Three-Dimensional Model of CSEM Offending (Part I) and the empirical classification model (Part II). Central to the classification of CSEM users remains the distinction of two separate groups of offenders: Contact-driven offenders find their main source of sexual satisfaction in direct sexual contact with a minor while fantasy-driven offenders experience their sexual fantasies involving minors as sufficiently gratifying. The Integrated Model is the conceptual basis for IMCAT-CU, a set of structured clinical guidelines for the classification, assessment, and treatment of CSEMOS.

Chapter 10:

An Integrated Model for the Classification, Assessment, and Treatment of CSEM Users

This chapter provides a concluding summary of the theoretical and empirical contribution of this thesis. The findings are summarised into an Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU) that combines both the Three-dimensional Model of CSEM Offending from Part One of this thesis with the empirical classification model developed in Part Two. The model is aimed to structure clinical assessment and treatment for CSEM users, and to guide future research in this area. Specific clinical guidelines are developed that lead to the evaluation of potential risk scenarios for each subtype of CSEM user alongside suggestions for their case management. The chapter concludes with an outlook into future developments in the area of online child sexual abuse.

Summary: The Problem of CSEM Offending

Since the advent of the internet, convictions for the possession, display, trading and distribution of child sexual exploitation material have risen steadily. According to the 2009 report by the Department of Internal Affairs, convictions in New Zealand have more than doubled since 2004 (from 146 to 324 convictions; C. Sullivan, 2009; D. Wilson & Andrews, 2004), and have likely increased since then given this trend. The recognition and exploration of the internet as a crime setting has also identified how many individuals, predominantly men, use the internet to engage with CSEM. As summarised in Cooper's (1998) Triple-A-Engine, the attraction of the internet as a marketplace for CSEM is likely based on the high availability and accessibility of the material online, coupled with a feeling of anonymity and thus a perceived low risk of detection. The aim of this thesis was to broaden the knowledge about users of CSEM and to develop guidelines for their clinical assessment and treatment as well as to provide a basis for future research development.

Contribution of this Thesis

The theoretical introduction provided a thematic introduction and overview of the current literature regarding CSEM offending. The cross-over from CSEM consumption to direct sexual contact with a minor was noted as a main concern of stakeholders, such as the Department of Corrections. Thus, a framework of analysis was defined by examining the relationship between pornography and sexual aggression, and by reviewing developments in the conventional risk prediction of sex offending. A theoretical model resulted, differentiating two separate types of CSEM users, namely offenders with an interest in direct sexual contact with a minor (contact-driven) and offenders whose sexual satisfaction is based on their fantasies surrounding children (fantasy-driven).

The main part of this thesis consisted of an empirical study, exploring CSEM users and their offending in comparison to contact sex offenders. The empirical body was based on a computerised survey, examining a number of variables on users of child sexual exploitation material (CSEM offenders, CSEMOs), contact sex offenders with child victims (CSOs), and offenders with both offence types (mixed offenders, MOs). Overall, responses from nearly 70 offenders were available, specifically 22 CSEMOs, 29 CSOs, and 17 MOs. The response analysis was divided into three parts, defined by three separate research aims: (1) Exploration of differences between CSEM users and contact child sex offenders, (2) Identification of subgroups of CSEM users, and (3) Exploration of the clinical and risk related characteristics of the subgroups of CSEM users.

Overall, a number of differences were found in the presentation of the three main offender groups. In contrast to CSEM users (CSEMOs and MOs), CSOs were more likely to report past criminal activities and to endorse various cognitive distortions approving sexual activities with children. However, they showed little engagement with the internet, in general or as a means for sexual satisfaction. By comparison, CSEMOs had the highest exposure to and emotional dependency on the internet and had typically explored other types of deviant pornography beyond

CSEM. The group of MOs showed the highest heterogeneity on the examined variables, however they also consistently displayed a high level of cognitive distortions justifying their sexual actions and a disregard of emotional ties to others.

While CSEMOs reported a low criminal activity beyond their CSEM offending, the current sample of CSEM users had a higher occurrence of direct sexual contact with a minor (43.6%) than identified in other research samples (Babchishin et al., 2010); however, this number reduced dramatically when only convicted offending was regarded (2.6%). These findings confirm the value of self-report data as opposed to official data, a trend that is evidently reflected in more recent research (see Grundmann, Neutze, & Beier, 2010; Neutze et al., 2011).

The described differences between the offender groups also question the applicability of conventional sex offender assessment and treatment methods for CSEM users. Some of the identified differences point to potential treatment targets of CSEMOs, such as the lack of intimacy and interpersonal relationships, the high occurrence of mental instability, and internal and external withdrawal from “real life”. The analysis also identified that CSEMOs are less likely to endorse cognitive distortions supportive of sexual actions with children, or, alternatively, that existing scales may be unsuitable to detect cognitive distortions in CSEMOs. On the other end of the scale, MOs appeared highly significant in terms of antisociality and hostile masculinity, and were most likely to admit a sexual interest in minors as potential motives for their offending.

Overall, the findings supported the previously identified heterogeneity of CSEM consumers and introduced the second research aim, the classification of subgroups of CSEM users. Using numerical and visuo-spatial methods of analysis, five subgroups of CSEM users were identified. The majority of offenders split into two subgroups: Offenders with a main interest in direct sexual contact with a minor (Contact-driven Users; $n = 15$) and offenders whose sexual engagement with minors did not go beyond their CSEM usage (Fantasy-driven Users; $n = 12$). There were also three smaller subgroups ($n = 2$ each): Extreme Material Users, Users who focused on social engagement with other offenders (Social

Users), and offenders who exerted extreme caution in their CSEM offending (Cautious Users). Six offenders could not be assigned to any of the identified groups. The identified classification showed content validity in comparison to the outcomes of the Expert Survey. Three variables stood out as most critical in the classification of the offender groups (i.e., model-based variables): social contact with other users with a sexual interest in minors, direct sexual contact with a minor (or attempts thereof), and possession of fantasy-based material, such as narrative CSEM. Similarities between the offender subgroups suggested value in a high-order classification amongst offender groups.

In the last chapter, the question whether the identified subgroups differed in terms of their risk profile was explored. A classification schema based on the three model-based variables was developed, confirming two main pathways to CSEM offending: a contact-driven pathway (Contact-driven Users, Cautious Users) and a fantasy-driven pathway (Fantasy-driven Users, Extreme Material Users, and Social Users). While the offenders on the contact-driven pathway displayed very high scores on antisociality and confrontational criminal activity, offenders on the fantasy-driven pathway were mostly characterised by their social withdrawal from the real world and their high scores on sexual deviancy. Social engagement with other users with a sexual interest in minors had distinguishing quality only for offenders on the fantasy-driven pathway.

Contact-driven and Fantasy-driven Pathways to CSEM Offending

The distinction between contact-driven and fantasy-driven CSEM users has been a recurring theme in this thesis, and has been identified and confirmed on both a theoretical and empirical basis. To clarify, the two-fold distinction differentiates users of CSEM based on their *main source* of sexual satisfaction, direct sexual contact with a minor or fantasies thereof, however, this differentiation does not preclude any offender group from engaging in other forms of sexual activities, with minors or in general. Offenders on each pathway are characterised by specific needs they aim to fulfil with the internet usage, thereby assigning certain functions to their online behaviour. As outlined in Chapter Two, the

function of the internet has previously been identified as a crucial aspect in the assessment of online offenders (see Caple, 2008; Sheldon & Howitt, 2007; Surjadi et al., 2010; Taylor & Quayle, 2003), and the current findings further support this notion.

Offenders on the contact-driven pathway showed some similarity with the conventional profile of sex offenders (e.g., history of confrontational offending, antisociality). In his review on CSEM offenders, Seto (2010) had already pointed to the importance of antisociality for users with contact sex offending. Here, the subgroup of Cautious Users stood out given their high negative feelings towards themselves and others that supported an egocentric worldview, either out of an inability to relate to others or out of disregard for others. From the 17 users identified as contact-driven offenders, six had not engaged in direct sexual contact with a minor, potentially defining individuals at a high risk of cross-over.

On the fantasy-driven pathway, the main group of Fantasy-driven Users appeared well adjusted except for their high scores on sexual deviancy. This, however, may not be unusual—sexual deviancy in the normal population has been neglected as a research topic, and the one study that was identified (Briere & Runtz, 1989) reported comparably high rates of paedophilic fantasies amongst male undergraduate students (21% indicated some sexual attraction to children, 7% reportedly would engage in sexual contact if immunity was guaranteed). Beyond the exploration of their sexual needs, the internet has a more elaborate function for offenders on the fantasy-driven pathway, such as means for satisfying unusual sexual preferences (Extreme Material Users) and means for establishing social connectedness (Social Users). The apparent differences between contact sex offenders and CSEM users in general, and between the two pathways of CSEM offending in specific call for a critical review of current clinical assessment and treatment methods for CSEM users.

Developments in the Assessment and Treatment of CSEM Users

The current study has identified a number of critical defining variables for CSEM users. Most notably, lack of intimacy and interpersonal relationships, the high occurrence of mental instability, and internal and external withdrawal from “real life” have been identified as distinguishing features of CSEM users. However, a recent study by Wall, Pearce, and McGuire (2011) observed equal scores on emotional avoidance between contact child sex offenders and online child sex offenders. Evidently the psychological needs of CSEM users need to be subject to more systematic evaluation, and newly developed treatment methods, such as i-SOTP by Hayes and Middleton (2006), need to be updated accordingly.

The findings from the current analysis also questioned the suitability of current assessment scales, especially regarding the applicability of existing measures of cognitive distortions supportive of child sexual abuse for CSEM users. Research into the development of alternative measures is needed, as exemplified on the Children & Sexual Activities (C&SA) by Howitt and Sheldon (2007). Nevertheless, the most crucial aspect in the risk assessment of CSEM users remains the question of risk of reoffending, especially in terms of a cross-over to contact sex offending with a minor. The current study did not allow for any conclusive statements on risk probability, however it suggests a higher likelihood for offenders on the contact-driven pathway to cross-over or recidivate with a contact sex offence.

In general, with the rising numbers of CSEM users in correctional facilities and treatment centers, the assessment of risk has been a topic of urgency, but no consensual approach has been reached yet. There appears to be a reluctance towards falling back into the “dark times” of unstructured clinical assessment, and professionals initially appeared quick to point out the value of established risk measures. For example, in his paper on assessment guidelines for CSEM users, Witt (2010) stated:

Nonetheless, I see no reason to expect that risk assessment methods acceptable for contact sex offenders would also not be acceptable for Internet child pornography users. (...) Use of structured methods such as these will ensure that the evaluator

systematically samples areas associated with risk and communicates the findings in an organized, structured, transparent manner. (p. 15)

Professionals in the UK have been at the forefront of research aimed to validate established risk measures on CSEM users. Osborn, Elliott, Middleton, and Beech (2010) assessed the value of the RM2000 and the Static-99 in predicting sexual reoffending of CSEMOs within a follow-up period of 1.5 and 4 years. None of the offenders were classified as low risk on the conventional risk measures. However, none of the offenders in their sample of 73 CSEMOs reoffended during the follow-up period—thus, Osborn et al. concluded that the existing risk scales clearly overestimated the risk of CSEM users. However, when scoring an adjusted version of the RM2000, omitting the items *stranger victim* and *non-contact offending*, 72.6% were classified as low risk. The findings of this study thus further suggest that non-adjusted risk scales may not be suitable for CSEM users.

Osborn et al. also compared the resulting risk groups in terms of their level of CSEM content, victim characteristics, and size of the CSEM collection. They found that offenders classified as lower risk had possessed larger collection with higher level images⁴², including pictures of younger children, thus raising concerns about the contribution of these factors to the individual's risk profile.

In a recent study, Wakeling, Howard, and Barnett (2011) have further examined the predictive validity of the RM2000 (RM2000/s for sex offending, RM 2000/v for violent offending), as well as of the Offender Group Reconviction Scale 3 (OGRS3; Howard, Francis, Soothill, & Humphreys, 2009), a measure for general reoffending. Only their findings on sexual recidivism will be reported here. Wakeling et al. reviewed official reoffending data of 1,344 CSEM offenders residing in the community in England and Wales, 426 of whom had also been convicted for non-internet-related sex offending (= MOs⁴³). In total, the offenders had an overall reoffending rate of 7.5% at 1-year follow-up, and 10.6% at 2-year

⁴² Level of image content was assessed with the image levels of the Sentencing Advisory Panel (2006) who use an adjusted version of the COPINE Scale.

⁴³ It is not clear from the definition provided by Wakeling et al. (2011) what offence types constitute "non-internet sex offences".

follow-up; however, sexual reoffence rates were very low, namely 2.1% at 1-year follow-up and 3.1% at 2-year follow-up. Of the sexual recidivists, 75% had committed another CSEM offence at 2-year follow-up, with the remainder having engaged in offline sex offending (19%) or both types of offending (6%). CSEMOs had a sexual reoffence rate of 1.6% at 2-year follow-up in comparison to 6.6% of MOs. Only 0.1% of CSEMOs had reoffended with non-internet sex offences while the majority engaged in further CSEM offending.

Examining the scores of the RM2000/s, the measure failed to adequately predict rates of sexual reoffending beyond the “very high” risk group but reliably identified higher rates of index sex offending. CSEMOs were assessed as lower risk on the RM2000/s than MOs (independent from the scoring rules), thus indicated fewer criminal historic risk factors amongst CSEMOs. ROC analysis of the RM2000/s scores showed low to moderate predictive accuracy for sexual reoffending (AUC = .67), but separate analyses for the two offender groups revealed poor or chance findings (AUC = .60 for MOs, AUC = .50 for CSEMOs).

In summary, the findings of these two studies indicate that established risk measures have little value for the CSEM users. Nevertheless, the higher predictive accuracy for MOs suggests some value of established risk measures for offenders with contact victims. In his review on CSEM users, Seto (2010) also recommended using established risk measures for CSEM users with a contact offence history, however he concluded that probabilistic risk estimates may not apply to the individual. In addition, given that the majority of CSEM users in these studies showed little risk of reoffending, there is an economic interest to focus resources on the group of higher-risk offenders.

If conventional methods of assessment, and potentially treatment, are not applicable for CSEM users without contact victim, what recommendations can be made for the assessment of fantasy-driven offenders? The professional literature is in agreement that the best approach to risk assessment involves a multi-modal approach, considering established risk factors and multiple sources of information (see Borg, 2011). In recent years, broader conceptualisations of risk have become

more prominent, on a large scale proposed by Ward et al. (2006) in their integrative theory of sex offending. Mann, Hanson, and Thornton (2010) advocated an evaluation of confirmed risk factors for sex offending within the context of the individual, and to evaluate the importance of each factor in terms of its exploratory contribution to the individual's risk, and thus its causal contribution to reducing recidivism. In addition, these risk factors could be used to aid in the development of risk scenarios for individual offenders to facilitate risk assessment and management.

Hence, a complex and comprehensive assessment approach for CSEM users, including risk estimation without probabilistic risk prediction, appears to adequately define the current understanding of "best practice". In particular, Glasgow (2010) suggested, "[there is a] move towards a consensus that use of [CSEM] must be seen as a dynamic process, and its significance in relation to risk must be interpreted in the light of contextual and personality factors" (p. 103).

Based on assessments of 16 CSEM users, Glasgow pointed to the importance of evaluating the digital evidence in CSEM cases alongside standardised psychological interviews. Throughout these interviews, he systematically refined self-assessment tools of CSEM activity, for example to rate the victims' ages in an offender's collection. Glasgow also introduced software that randomly collected images from the offender's computer hard drive for content analysis, including level of the COPINE Scale, and developed guidelines how to assess the material presented.

Not only the actual CSEM but other digital evidence, such as chat histories, online postings, or emails, should be screened for social contact with other offenders as well as sources for potential cognitive distortions (Witt, Merdian, Connell, & Boer, 2010). Glasgow (2010) further pointed to the need for assessors to collaborate effectively with the police or other agencies involved, as means to access digital evidence or to gain objective descriptions of the client's online activities. He again cautioned that, to date, no empirically validated conclusion about the risk probability of one offender can be drawn. However, Glasgow pointed to the merit of comprehensive assessment of all existing evidence for the purpose of retrospective research in cross-over cases.

In summary, the main future research goal appears to be the development and standardisation of comprehensive assessment and treatment methods that are suitable for CSEM users, especially fantasy-driven offenders. The following section will outline the final research aim of this thesis: the development of a comprehensive clinical assessment tool for professionals working with CSEM users.

Model-Based Guidelines for the Classification, Assessment, and Treatment of CSEM Users

This section consists of two main aspects, the introduction of the Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU), and the development of structured clinical guidelines for the assessment and potential risk classification of CSEM Users.

Towards an Integrated Model for the Classification, Assessment, and Treatment of CSEM Users

In Chapter Three, a theoretical review of existing typologies resulted in a three-dimensional classification model for CSEM users (see Figure 1). The first dimension differentiated between *fantasy-driven versus contact-driven offending*, basically meaning *absence versus presence of a contact victim*. Secondly, two different types of motivations were distinguished, sexually versus non-sexually motivated offending. The former was further differentiated in an exclusive sexual preference for minors versus a general deviant interest, while non-sexual motivations may be based on financial interest or other types of motivation, such as curiosity. Finally, the role of social networking with other users with a sexual interest in minors defined the third dimension, however this aspect only appeared crucial in reference to fantasy-driven offending (see A. Carr, 2004, 2006; Hartmann et al., 1984; Krone, 2004, 2005a; McLaughlin, 2000). The focus of this model was to develop a guideline for the clinical assessment and treatment of CSEM users, and three main streams were identified: (1) CSEM users with a non-sexual motivation, resulting in a general criminal assessment, (2) CSEM users without contact victims,

resulting in “fantasy-driven assessment and treatment”, and (3) CSEM users with contact victims, resulting in a combination of both conventional and fantasy-driven assessment and treatment.

The empirical part of the thesis led to a second, research-based model for offender classification, with a focus on more refined subgroup identification, and again based on three separate dimensions (see Figure 10). As in the previous model, sexual contact with a minor defined the first dimension, however this dimension extended towards the offender’s preferred source of sexual satisfaction rather than actual presence of a contact victim. The second differentiating aspect was possession of fantasy-based material, including narratives, audio material but also commercial pictures of children. The third dimension again mirrored the theoretical model, placing social contact with other users with a sexual interest in minors as a differentiating variable for CSEM users without direct sexual contact with a minor.

In comparing these models, some differences are apparent. As outlined before, offenders with a purely non-sexual motivation were unlikely to be found in the current sample, given that subject recruitment was from sex offender treatment settings. Also, the empirical study did not identify a differentiating quality between offenders motivated by an exclusive sexual interest in children and offenders with a wide range of deviant sexual interests. However, in comparison to contact-driven users, offenders on the fantasy-driven pathway had reported higher scores on deviant pornography other than CSEM (see Chapter Nine), hence the motivational distinction may also be understood as an inherent characteristic of the two pathways. Acknowledging its informative value for the assessment of an offender, both types of sexual motivation were retained but neither was assigned a differentiating value in the group classification.

The information from both the conceptual model and the empirical model was combined into the IMCAT-CU. The resulting decision tree is depicted in Figure 11. The model suggests an initial assessment of a CSEM user in terms of *motivation*. The motivational evaluation can also act as a filter before specialised psychological services get involved with

the offender as a purely non-sexual motivation does not involve specified assessment and treatment procedures but requires a general criminal assessment. In the second step, CSEM users with a sexual motivation are

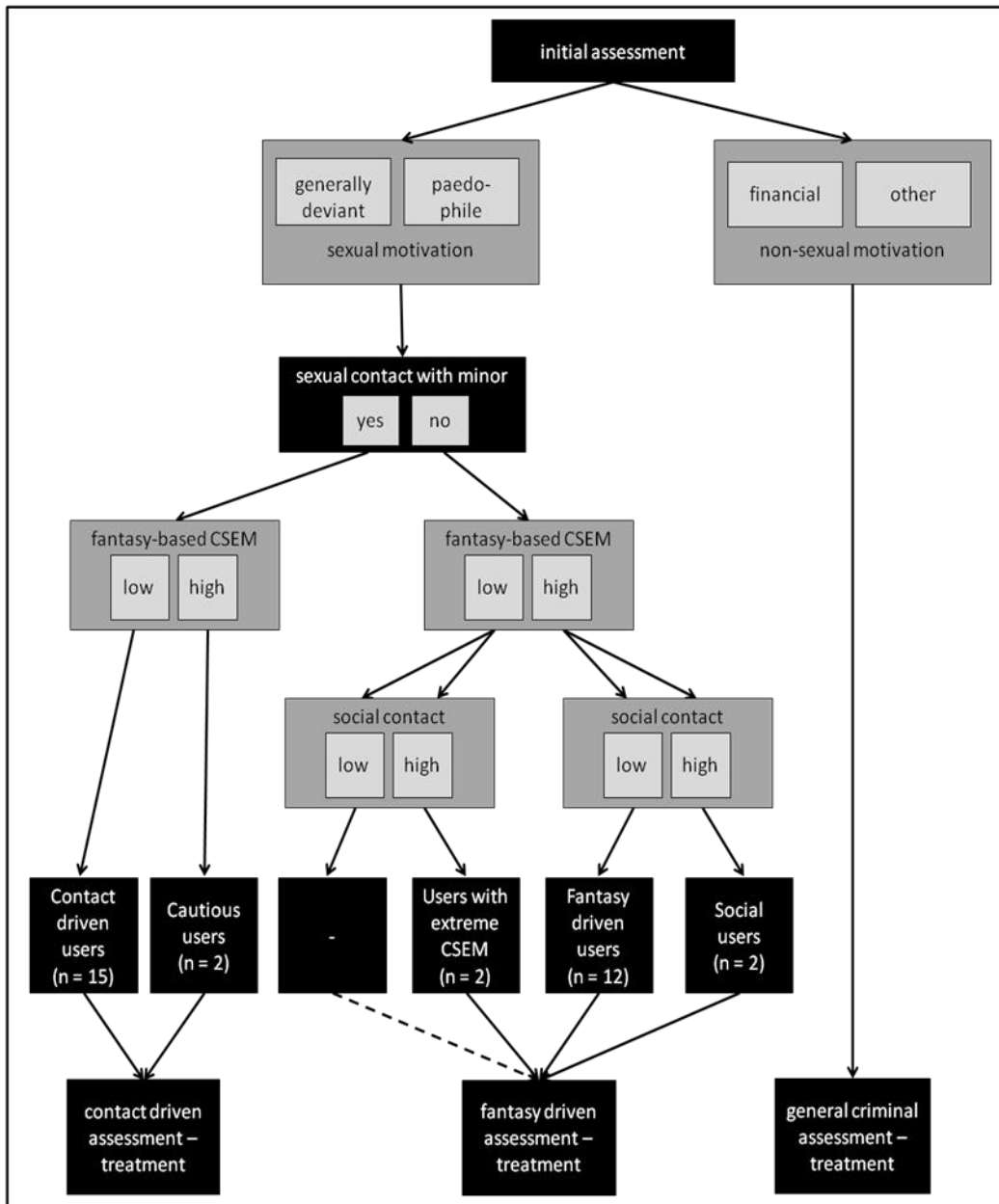


Figure 11: An Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU)

then classified according to the core model identified in the empirical section of this thesis. Details surrounding the assessment have been described in the previous chapter. In short, offenders are initially assessed in terms of their CSEM pathway, contact-driven versus fantasy-driven

offenders. Offenders on the fantasy-driven pathway are assessed both in terms of their possession of fantasy based material, as well as their engagement in social contact with other users with a sexual interest in minors. Both variables provide information regarding the primary function of the internet for these offender groups. As reviewed above, conventional methods of assessment and treatment appear to have less value for offenders on the fantasy-driven pathway, and more typologically focused methods are needed for the so-called *fantasy-driven assessment and treatment*.

With regards to offenders on the contact-driven pathway, the findings suggested a further differentiation in terms of their possession of fantasy-based material, which was found to indicate higher scores on conventional risk predictors and likely a previous experience with apprehension. As offenders on the contact-driven pathway have been empirically found to be similar to the conventional sex offenders, contact-driven assessment and treatment consists of a combination of both conventional and fantasy-driven measures, as previously suggested in the theory-based model.

The limitations of this empirical model have been reviewed before; in short, the model is based on exploratory research on a small sample, and both the differentiating variables as well as the structure of the identified subgroups need to be validated by more rigorous research. Some considerations on the lack of a fantasy-driven group with low fantasy-based CSEM and low social engagement with other users with a sexual interest in minors were noted previously.

To summarise, the IMCAT-CU was developed to guide and structure the best practice approach for professionals working with CSEM offenders. It outlines a conceptual model based on existing theories and typologies of CSEM users and its empirical validation. It may aid in the categorisation of CSEM users and in the selection of appropriate assessment and treatment measures. The portrayed typology also allows for a dynamic component in the offending process, where individuals can shift from one subgroup to another over time. For instance, Taylor, Quayle et al. (2001) reported from interviews with CSEMOs how they progressed

through a series of stages in their offending behaviour. An understanding of the individual's offence stages allows for the identification of his needs and motivations for each stage.

Structured Clinical Guidelines for the Assessment of CSEM Users

In Chapter Five, the most recent type of sexual recidivism scales was introduced, Structured Professional Judgement (SPJ). SPJ measures aim to develop an understanding of the individual case via structured clinical questions that can be combined into risk scenarios and guidelines for case management. Such assessment methods are more time demanding than static risk assessment tools, however they result in a comprehensive picture of the individual. The most commonly used methods for an assessment of sexual violence are the SVR-20 and the RSVP (see Chapter Five for a more detailed description).

The value of structured clinical guidelines for CSEM cases is evident given that no explicit risk factors can be empirically identified yet, and given that complex case formulation will aid in the individual contextualisation of the variables as well in achieving a sound knowledge base of the group of CSEM users. Thus, based on the Integrated Model for the Classification, Assessment, and Treatment of CSEM Users (IMCAT-CU), a prototype for a structured assessment of CSEMOs was developed, following the outline of the SVR-20 and RSVP.

The reader is encouraged to compare this list with existing assessment tools; its structure closely follows the outline of the SVR-20 (Boer et al., 1997) and the RSVP (Hart et al., 2003). The following sources were particularly valuable contributions during survey development and throughout the thesis: Bow et al. (2005); Bowker & Gray (2004); A. Carr (2004); Casey (1999); Quayle (2009b); Quayle et al. (2006); Quayle & Taylor (2003); Seto (2010); J. Sullivan & Beech (2004); Taylor & Quayle (2006, 2008); Witt et al. (2010); Young (2008).

Table 14: Structured Assessment Guidelines for Users and Producers of Child Sexual Exploitation Material

I M C A T - C U	
Instructions	
Sections in grey shading apply to offenders with a history of direct sexual contact with a minor and are omitted for fantasy-driven offenders. For contact-driven offenders, it is recommended to use this assessment tool alongside established measures for sexual recidivism on contact-driven offenders.	
Describe how each section is manifested in the offender, guided by the suggestions made in brackets. Distinguish between past and present offending, what changes have occurred before the recent offending, and what relevance the section has for future management strategies.	
Some sections require validation with digital evidence.	
A. SEX OFFENDING	
1. Sexual Offending with Direct Victim	
(include non-contact offences, such voyeurism; exclude CSEM offending)	
General Offence Description	(provide information on nature of offending, setting, victim characteristics, age of offender; distinguish between index offence and past offences)
Diversity of Sexual Violence	(provide information regarding variation in nature and victim selection)
Intensity of Sexual Violence	(provide information on the density of acts)
Escalation of Sexual Violence	(provide information on increases in frequency or severity over time)
Physical Harm to Victim(s)	(provide information on serious physical violence prior to or during sexual offence)
Psychological Harm to Victim(s)	(provide information on psychological pressure placed on victim, as well as presence of weapon and threat of serious physical harm prior to or during sexual offence)
2. CSEM Production	
General Offence Description	(provide information on nature of offending, setting, victim characteristics, awareness of victim, involvement of victim, amount and type of CSEM produced)
History of CSEM production	(provide information on historic offences, and changes in diversity and intensity)
Physical Harm to Victim(s)	(provide information on serious physical violence prior to or during the act)
Psychological Harm to Victim(s)	(provide information on psychological pressure placed on victim, as well as presence of weapon and threat of serious physical harm prior to or during the act)
Content of Self-produced CSEM	(provide information regarding level of sexual explicitness, depicted violence, presence of adults in material, voice-over, victim characteristics, victims' expression; if historic offences,

	any changes that occurred over time)
Engagement with Self-produced CSEM	(provide information on the offenders' engagement with self-produced material, e.g., sexual satisfaction versus trading/distribution of material, blackmailing of victim; photo shopping/textual additions; financial gain related to material; CSEM production as main focus or by-product of sexual offence)
Technological Equipment	(provide information on sophistication of CSEM production, e.g., type and cost of technological equipment used, type of online sources for distribution)
3. Possession, Display, Trading and/or Distribution of CSEM	
Collection	(provide information on the amount and type of material, the organisation of the collection, age of material, sources of material access)
Content of the Material	(provide information regarding level of sexual explicitness, depicted violence, presence of adults in material, victim characteristics, victims' expression, boy: girl ratio, possession of fantasy-based material; also: deviant pornography other than CSEM)
Victimology	(provide information on defined content preferences or dislike of certain contents)
Technological Equipment	(provide information on type and cost of equipment used, type of software installed, level of technological sophistication and offender's knowledge, size of digital storage space, means of protection and security installed)
Engagement with CSEM	(provide information on amount of time spent in relation to CSEM and CSEM collection, manipulation of collection)
Distribution and Trading of CSEM	(provide information on trading and distribution of CSEM, directness of exchange, potential financial gains, preferred sources of exchange)
Social Contact with Other Users with a Sexual Interest in Minors	(provide information on means and content of communication, membership to newsgroups or contact list; frequently visited online locations; function of contact: instrumental versus social; include also non-direct means of communication, such as online postings, offender's screen name/s)
Functional Analysis of CSEM	(provide information on function of CSEM for offender, typical offence scenario, circumstances of offending, motives of offending)
Engagement in Potential Cross-over Behaviours	(provide information on offender's attempts to contact minors, misleading online profiles, misleading screen names, visits to online locations clearly provided for young audience, use of youth language, offline access to children)
Dynamic Component of Offending	(provide information on length and intensity of offending, escalation, changes in content, access sources, social engagement)
B. PSYCHOSOCIAL ADJUSTMENT	
1. Psychological Adjustment	
Extreme Minimisation or	(provide information on denial of offence, responsibility, or consequences of offending, amount of secrecy, shame, and

Denial of Offending	guilt)
Attitudes that Support or Condone Sex Offending	(provide information on cognitive distortions, use existing scales and adjusted versions for CSEMOs) ^a
Problems with Self-Awareness	(provide information on offender's insight and reflective skills, also characteristics of online persona developed)
Problems with Stress or Coping	(provide information on subjective and objective stressors, offender's coping mechanisms and skills, internet behaviour as withdrawal from real life)
Problems Resulting from Child Abuse	(provide information on offender's experience and coping with physical abuse, sexual abuse, neglect in childhood)
Problematic Online Behaviours	(provide information on amount and purpose of offender's internet exposure, negative emotional, social, and financial consequences from online behaviours, level of awareness of environment, function of internet for offender)
2. Psychopathology	
Sexual Deviance	(provide information on sexual interests, preferences, arousal, or behaviour involving inappropriate persons or objects; sexual preoccupation with CSEM collection; role and content of sexual fantasies; stability of sexual deviance ^b)
Psychopathy	(provide information on presence and stability of psychopathic personality; use additional scales such as PCL-R)
Major Mental Illness	(provide information on mental illness, incl. cognitive impairment; use appropriate assessment tools)
Substance Abuse	(provide information on use of illicit drugs and abuse of illegal drugs, leading to impairment of health or personal functioning; intoxication prior/ during offending)
Violent or Suicidal Ideation	(provide information on thoughts, intents, or attempts to cause harm to others or self)
3. Social Adjustment	
Intimacy Deficits	(provide information on presence and nature of social relationships, including romantic and sexual relationships, and offender's ability to sustain them) ^c
Problems with Employment	(provide information on offender's ability to establish and maintain stable employment)
Past Non-sexual Offences	(provide information actual, attempted or threatened physical harm and on non-sexual, non-violent offending, including online offences and illegal downloading of non-CSEM material)
4. Manageability	
Supervision Failures	(provide information past and current violations of supervision conditions, consider behaviour post-apprehension)
Negative Attitude towards Intervention	(provide information on offender's beliefs and values towards supervision, motivation to participate and behaviour during intervention)
Lack of Realistic Plans	(provide information on offender's plan for his future, including future exposure to internet)

5. Case-specific Considerations
(provide information on unique or acute issues, for example include initial reaction towards apprehension ^d , frequent travel abroad, use of very young prostitutes)

Notes. ^aSee also Chapter Seven and Eight. ^bSee also Chapter Eight. ^cSee also Cluster 4 in Chapter Seven. ^dSee comments in the Expert Study, Appendix B.

There is a paucity of psychometric scales to assess aspects of online offending, and the ones that exist have not yet undergone rigorous psychometric evaluation. However, the following scales may be helpful additions to develop a comprehensive clinical picture of the individual:

- Assessment of general online sexuality: Internet Sex Screening Test (Delmonico, 1999)
- Assessment of problematic online behaviour: Internet Addiction Scale (Young, 1998)
- Assessment of CSEMOs' online activities and attitudes: Internet Behaviours and Attitudes Questionnaire (O'Brien & Webster, 2007; see Chapter Three)
- Assessment of the function of CSEM: Functions Checklist (Caple, 2008)
- Assessment of sexually abusive behaviours in young offenders: Guidelines developed by Quayle (2007)

Information aggregation and case formulation based on the assessment allows for the identification of risk scenarios for the individual offender, which functions as basis for detailed case management strategies. The Integrated Model distinguishes five subgroups of CSEM users; the discussions in Chapter Eight and Nine have outlined the differences between these offender groups. Considering that these subgroups likely define the continuum of CSEM offending, they represent five different prototypes of offending.

An assessment conducted with the RSVP concludes with a definition of likely risk scenarios for the individual offender that allow for specific, risk-oriented case management. Table 15 provides a means to determine the most likely risk scenarios for the five prototypes of CSEMOs and recommended case management strategies.

Table 15: Prototypical Risk Scenarios and Case Management Strategies for CSEM Users based on IMCAT-CU

	Type 1: Contact-driven User	Type 2: Cautious User	Type 3: Extreme Material Users	Type 4: Fantasy-driven User	Type 5: Social User
Characteristics	High likelihood of (past) sex offending with minor High likelihood of producing CSEM	High likelihood of (past) sex offending with minor High likelihood of producing CSEM	Likelihood of (past) sex offending with minor Likelihood of producing CSEM	Low likelihood of (past) sex offending with minor Low likelihood of producing CSEM	Low likelihood of (past) sex offending with minor Low likelihood of producing CSEM
	<i>CSEM offending:</i> static; fantasy material: low; social contact: low	<i>CSEM offending:</i> static; fantasy material: high; social contact: low	<i>CSEM offending:</i> dynamic; fantasy material: low; social contact: high	<i>CSEM offending:</i> dynamic; fantasy material: high; social contact: low	<i>CSEM offending:</i> dynamic; fantasy material: high; social contact: high
	<i>Characteristics:</i> material: images, videos, magazines; middle-level content; preference: male gender; time investment: low	<i>Characteristics:</i> material: images, videos, text; middle-level content; preference: male gender; time investment: mixed; high engagement in various means of safe-keeping	<i>Characteristics:</i> material: images, videos, text; exclusively extreme content; preference: defined victim preference; time investment: medium-high	<i>Characteristics:</i> material: images, videos, text; mostly middle-level content; preference: defined victim preference; time investment: medium; average engagement in means of safe-keeping	<i>Characteristics:</i> material: images, videos, text; mostly lower-level content; preference: defined victim preference; time investment: high
	<i>Motives:</i> Sexual interest in minors, Curiosity, Stress; material arousing: no	<i>Motives:</i> Sexual interest in minors, Curiosity; material arousing: yes	<i>Motives:</i> Stress, Sexual interest in minors, Desensitization, Statement; material arousing: yes	<i>Motives:</i> Stress, Curiosity, Sexual interest in minors, Desensitization; material arousing: yes	<i>Motives:</i> Stress, Curiosity, Sexual interest in minors, Statement; material arousing: yes
	<i>Offenders:</i> high criminal history, high	<i>Offenders:</i> high criminal history, high on all	<i>Offenders:</i> low criminal history, high on all	<i>Offenders:</i> low criminal history, sexual	<i>Offenders:</i> low criminal history, high interest in

	antisociality, low sexual deviance, low intimacy problems	conventional risk predictors	conventional risk predictors, high social exclusion	deviancy, high emotional, financial, and social cost of internet behaviour, high social exclusion	deviant pornography other than CSEM, medium cognitive distortions, high social exclusion
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Risk Scenarios

<p>Nature</p> <p>What kind of sex offending is the perpetrator likely to commit? Who are the likely victims? What is the likely motivation? What is the offender trying to accomplish?</p>	<p>Offender is likely to maintain low-level engagement with CSEM, focused on male victim Offender may engage in online grooming of minors, offender is also at risk of committing direct sex offence Offender is motivated by sexual interest in children</p>	<p>Offender is likely to extend engagement with CSEM, focused on male victim. High antisociality and sexual deviance suggests tendency to explore more extreme material in future Offender may engage in online grooming of minors, offender is also at high risk of committing direct sex offence Offender is motivated by sexual interest in children</p>	<p>Offender is likely to maintain engagement with CSEM, “Desensitisation” suggests further progression into more extreme content Potential progression to contact sex offending due to sadistic interests and antisociality</p>	<p>Offender is likely to maintain engagement with CSEM, potential progression due to desensitisation Sexual deviancy and motives “Curiosity” suggest offender is likely to explore other deviant sexual interest “Sexual interest in children” may suggest some risk to engage in direct sexual contact with minor, or attempts to contact minor online</p>	<p>Offender is likely to maintain engagement with CSEM and other deviant pornography, but focus on social engagement Presentation suggests low risk of direct sexual contact with minor</p>
<p>Severity</p> <p>What is the likely severity of CSEM offending? What is the likely severity of</p>	<p>Low severity of CSEM offending likely to be maintained, but high antisociality and history of confrontational offending may suggest likelihood of physical harm to contact victims</p>	<p>Severity of CSEM offending likely to increase, high antisociality and history of confrontational offending may suggest likelihood of physical harm to contact victims</p>	<p>Severity of CSEM offending likely to increase Current pattern suggests high risk of physical violence in case of direct sexual contact with minor</p>	<p>Severity of CSEM offending likely to increase Current pattern suggests low risk of physical violence in case of direct sexual contact with minor</p>	<p>Severity of CSEM offending unlikely to increase Current pattern suggests low risk of physical violence in case of direct sexual contact with minor</p>

contact sex offending?

Imminence

Are there any warning signs that signal that the risk is increasing or imminent?

Offending as a way of coping with stress, engaging in online grooming as warning sign for direct sexual contact

Offender appears concerned about safety, likely as a result of previous experiences with apprehension. May suggest low imminence at the moment.

Offending as a way of coping with stress, engaging in online grooming as warning sign for direct sexual contact, social expansion as indicator of new material preferences

Offending as a way of coping with stress, engaging in online grooming as warning sign for direct sexual contact

Social dependency may instigate to extend offending, for example, to satisfy others or to gain access to relevant groups

Offending as a way of coping with stress, engaging in online grooming as warning sign for direct sexual contact

Frequency/ Duration

How often may the sex offending occur?
Is the risk chronic or acute?

Low frequency but motive "sexual interest in minors" suggests stability of offending

Currently low frequency but motive "sexual interest in minors" suggests stability of offending; offender may explore different avenues for offending, for example, sex tourism, and extend safety knowledge

Potentially high frequency and duration of further CSEM offending
High likelihood of exploring other types of deviant pornography
"Desensitiation" suggests compulsiveness of CSEM offending
Current history suggests low risk of confrontational offending; however, sadistic interests, antisociality and social

Potentially high frequency and duration of further CSEM offending
High likelihood of exploring other types of deviant pornography
"Desensitiation" suggests compulsiveness of CSEM offending

Potentially high frequency and duration of further CSEM offending
High likelihood of exploring other types of deviant pornography
"Sexual interest in minors" suggests future progression to direct sexual contact but current presentation suggests low imminence

Likelihood How likely is cross-over to direct sexual contact with minor?	High	High	Medium	Low	Low
	engagement online may suggest instigation of others to produce desired CSEM				

Case Management Strategies

Monitoring What needs to be monitored with this offender?	Direct access to minors, attempts to engage with minors online, personal stressors	Direct access to minors, attempts to engage with minors online, escalation of CSEM offending, high likelihood of undetected offending due to safety measures	Direct access to minors, attempts to engage with minors online, escalation of CSEM offending, extension of offending to other types of deviant pornography, social contact to other offenders	Direct access to minors, attempts to engage with minors online, escalation of CSEM offending, extension of offending to other types of deviant pornography, high likelihood of undetected offending due to safety measures	Direct access to minors, attempts to engage with minors online, escalation of CSEM offending, extension of offending to other types of deviant pornography, social contact to other offenders
Treatment Which deficits in psychosocial adjustment are high priorities for intervention?	Antisociality, general criminal behaviour, cognitions supportive of children as sexual targets	Antisociality, general criminal behaviour, sexual deviancy, CSEM and sexual arousal/ fantasies, intimacy deficits cognitions supportive of children as sexual targets	Extreme sexual deviancy, CSEM and sexual arousal/ fantasies, intimacy deficits and high social exclusion, antisociality, cognitions supportive of children as sexual targets, general criminal behaviour	Sexual deviancy, CSEM and sexual arousal/ fantasies, high emotional, financial, and social cost of internet behaviour, high social exclusion	CSEM and sexual arousal/ fantasies, high interest in other deviant pornography, cognitive distortions, high social exclusion

Supervision

What supervision or surveillance strategies could be implemented to manage the risks posed by the perpetrator?

What restrictions on activity, movement, association, or communication are indicated?

Focus on direct contact with minors, potential to maintain computer access with monitoring software

Focus on direct contact with minors but decline access to computer; behaviour suggests low likelihood of compliance

Decline or strictly limited access to computer, consider direct contact with minors, consider contact to other users of CSEM; "statement against authority" suggests low likelihood of compliance

Decline or strictly limited access to computer, consider direct contact with minors

Decline or strictly limited access to computer, consider direct contact with minors, consider contact to other users of CSEM; "statement against authority" suggests low likelihood of compliance

The IMCAT-CU is thought to summarise the current “state of the art” of CSEM assessment and to provide clinicians with a hands-on tool that can be implemented in their current assessment and treatment work with CSEM Users. It is also hoped that the IMCAT-CU is used as a basis for future research, and to invite theoretical and empirical validation.

Where To From Here?

An important issue in researching online sex offending is a lack of consensus what actually constitutes “deviant” sexual behaviour on the internet. There is a current movement towards more fundamental psychological research, for example Yoon and Knight’s (2011) experimental research on sex offenders’ perception of visual sexual material and Brand and colleagues’ (2011) examination of the relationship between psychological variables and consumption of online pornography. Research on online sexual grooming has also progressed, exemplified by P. Rogers, Wczasek, and Davies’ (2011) attempt to conceptualise blame attributions in online grooming cases, and Sherrill, Renk, Sims, and Culp’s (2011) study on variables influencing these attributions. Both studies will find direct applications in reviewing sentencing protocols and judicial decision making in online solicitation cases. In addition, selected studies on less explored areas of online child sexual abuse have emerged, for example regarding the role of female perpetrators (Elliott & Ashfield, 2011; Martellozzo, Nehring, & Taylor, 2010).

Future research is clearly needed to further explore details surrounding CSEM offending and the offenders who engage in it. Above all, it remains to be seen whether CSEM offending constitutes an inherently different *type* of child sexual abuse, or a different *dimension* in comparison to contact sex offending. The integrative model developed in this thesis is provided as an aid for professionals working with CSEM users, and in order to instigate more empirical research on the classification of these offenders. The role of sexual fantasy and social contact with other offenders with a sexual interest in minors in the offending of CSEM users needs to be clarified. In addition, the study pointed to some unexpected outcomes, such as the low commercial

involvement of CSEM users (at least in New Zealand), the popularity of sexual narratives, and the negligible intersection between CSEM consumption and online grooming of minors.

Tony Ward and Anthony Beech (Beech & Ward, 2004; Ward & Beech, 2006) have introduced an integrative approach in combining existing theories of child sexual abuse to explain its occurrence and to structure the assessment and treatment of the offenders. In validating their model, Beech and Ward (2004) concluded:

On a final note, an important research task in psychology and mental health is to develop theories of both great depths and breadth. Sometimes, there can be a tendency to focus on the former of these two values at the expense of the latter, resulting in sophisticated domains of work that are effectively quarantined (p. 59).

The thesis was focused on the development of a theoretical and empirical model of breadth rather than depth. The author hopes that future research can fill the gaps in this model, identify its position amongst existing models of child sex offending, and validate and extend the IMCAT-CU and the two-fold distinction of contact-driven and fantasy-driven CSEM users.

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- Zillmann, D. (1994). Erotica and family values. In D. Zillmann, J. Bryant, & A. C. Huston (Eds.), *Media, children and the family* (pp. 199-213). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Zillmann, D. & Weaver, J. B. (1989). Pornography and men's sexual callousness toward women. In D. Zillmann & J. Bryant (Eds.), *Pornography: Research advances and policy considerations* (pp. 95-123). Hillsdale, NJ: Lawrence Erlbaum Associates.

Appendix A: Reference List for Scales

The following list contains common citations for material used in Chapter Three without a reference in their original source document.

Fear of Intimacy Scale

Descutner, C. J. & Thelen, M. H. (1991). Development and validation of a Fear-of-Intimacy Scale. *Psychological Assessment*, 3(2), 218-225. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1040359002007330>

Fear of Negative Evaluation Scale

Watson, D. & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448-457.

The Minnesota Multiphasic Personality Inventory-2

Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A, & Kaemmer, B. (1989). *The Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Manual for administration and scoring*. Minneapolis, MN: University of Minnesota Press.

Multiphasic Sex Inventory

Nichols, H. R., & Molinder, I. (1984). *Multiphasic Sex Inventory Manual*. Available from Criminal and Victim Psychology Specialists, 437 Bowles Dr., Tacoma, WA, 98466.

Relationship Styles Questionnaire

No scholarly reference available. View:

Caple, T. (2008). *A comparison of the characteristics and motivations of abusing and non-abusing child pornography*

offenders (Unpublished doctoral dissertation). James Cook University, Townsville, AUS.

Sexual Behaviour Checklist (SBC)

No scholarly reference available. Items are printed in:

Buschman, J., Bogaerts, S., Foulger, S., Wilcox, D., Sosnowski, D., & Cushman, B. (2010). Sexual history disclosure polygraph examinations with cybercrime offences: A first Dutch explorative study. *International Journal of Offender Therapy and Comparative Criminology*, 54(3), p. 409.

Social Avoidance and Distress Scale

Watson, D. & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448-457.

Appendix B: Expert Survey

The survey was distributed to forensic, criminological, and clinical professionals to provide feedback on the drafted items, especially with regards to (a) how frequently, in their experience, the variables to be found amongst a group of CSEMOs, and (b) how important the variable is for risk assessment of CSEMOs. This survey received ethical approval from the School of Psychology Ethics Committee of the University of Waikato.

Method

Participants

Participants ($n = 7$) were experienced professionals from psychology and related areas with relevance for the topic of CSEM. They were recruited via a peer system; the survey was originally sent out to professional contacts of Dr Nick Wilson, National Advisor for Psychological Research in the NZ Department of Corrections and a member of the supervisory team for this thesis. Some of these initial contacts forwarded the survey on to colleagues that they felt were better qualified to complete the questions.

Material

Overall, the expert survey consisted of 15 pages in a Word format, separated into three parts (see Appendix B). In the first part, open questions regarding the different types and recidivism risk of CSEMOs were asked: “*In your experience, what are the **different types** of online child pornography offenders?*” and “*In your experience, what makes a child pornography offender **a high-risk offender**?*”.

The second part of the survey consisted of a list of the above variables, and participants were invited to assess their value *in their opinion and based on their personal experience*. For each variable, they were asked to rate the frequency of its occurrence in CSEMOs on a 5-point Likert scale (1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *very often*,

5 = *always*). In addition, they were asked to estimate the risk value of each variable, defined as indicative of a high-risk offender (as per their previous definition in Part 1), on a 5-point Likert scale (1= *unimportant*, 2 = *of little importance*, 3 = *moderately important*, 4 = *important*, 5 = *very important*). The last column allowed some space for comments to each variable. The third part of the survey again consisted of two open questions, inviting suggestions for any other risk variables and asking for any additional comments.

Procedure

All participants received a copy of the participation letter and the expert survey as word documents attached to an email. They were asked to fill in the survey document and send it back to Dr Nick Wilson or to the researcher either by mail or email. Participants could choose to stay anonymous. Email reminders were sent four and eight weeks after the initial point of contact.

Survey Outcomes

Demographic Data

The survey was conducted between July and September 2009; one late survey was received in January 2010. Overall, seven participants completed the survey. At the time of this study, four participants worked in academic professions as forensic or correctional psychologists combined with practical work in the assessment and treatment of sex offenders (Subjects 1-3, 7). One participant was a therapist working solely in the treatment of sex offenders (Subject 5). The two remaining experts worked in the area of policing of censorship offences (Subject 4 and 6). All participants were male and geographically distributed as follows: two participants were located in Canada, one in England, one in Germany, and three in New Zealand. Two participants decided to stay anonymous.

A response rate cannot be established given that it is not known how many people had originally received an invitation for the survey. Overall, the sample seems representative of the professions working with

child sex offenders (assessment, treatment, policing, and theory), with varying exposure to CSEMOs.

Part One of the Survey

Responses to the open questions in part one of the survey were analysed according to the model of qualitative content analysis (Mayring, 2000); this model was chosen given the specificity of the criterion question and the communication focus of the model. Using an inductive category application, emerging categories from the participants' texts were identified and methods of revision and reduction were used to establish internal consistency.

Question 1:

*In your experience, what are the **different types** of online child pornography offenders?*

It became apparent that there was a systematic difference in how subjects understood this question. While most participants focused on behaviours or underlying motivation in their classification of offenders, Subject 4 and 6 described characteristics of *how* the material was collected. It was decided to consider these separately.

Overall, the remaining participants identified six different types of CSEMOs. The first category, named by all participants, was labelled the *Paedophile (non-contact)*. These offenders were described as having exclusive sexual interest in children but with no interest (or no history) in contact child sex abuse. Subject 5 pointed out how pornographic pictures of children may be used by some offenders in the hope of preventing hands-on offending. The second group, *Sexually Deviant* is understood as having a general interest in deviant sexual material, which can also include sadism or bestiality. CSEM is sought out as one of the extreme forms of pornography, and as Subject 5 points out, is also approached to counteract desensitisation from legal pornography. This category was identified by five participants. Four subjects described the group of *Sensation Seekers* who seek out or discover CSEM out of general interest or curiosity but not sexual motivation. Subject 7 pointed out that Sensation

Seekers will be less likely to access CSEM in a chronic fashion. Three subjects described the next group, *Paedophile (contact)*, which refers to offenders with a sexual interest in children and a history of contact child sex abuse; this can also include production of own images (Subject 1). Here, Subject 2 pointed out how CSEM can also be used to supplement the contact offending or to desensitise a child. The fifth group was labelled *Commercial Interest* and describes people who offend out of financial, not sexual interest in the matter. This group was only identified by one subject. One subject described pornography offending as a stress response in times of life crisis, where people try to return to the age of their first, good sexual experience. This may fit into several of the above categories.

With regards to the answers provided by Subject 4 and 6, four categories of collecting behaviour were identified. The first category describes the *Dedicated Collector*, who are organised in their search and/or collection. This also refers to the specificity of the content they are searching for, which might be a certain type of material, content (e.g., depicted age of the victim, depicted activity), or combination of material (e.g., CSEM and bestiality). Subject 6 also described how some offenders manipulate the images in their collection to make it fit their preferences, for example by cropping out certain elements of the image. The second group, *Indiscriminate Collector* reflects a broad collecting style, either because of sensation-seeking in extreme pornography or general sexual deviancy. The third group is labelled *Risk-aware Collector* and refers to CSEMOs who do not have a (lasting) collection given their high security awareness. This also includes users who might trivialise file-names or place their material in an undefined directory. The last group describes the *Compulsive Collector* who is understood as collecting CSEM without sexual gratification.

Question 2:

*In your experience, what makes a child pornography offender **a high-risk offender**?*

A few participants pointed out that there should be a distinction between risk defined as reoffending with CSEM and risk defined as

progressing to a contact sex abuse with a child (Subject 2, Subject 5, and Subject 6). However, only Subject 2 and 5 provided information specific to the different risk groups, for Subject 3, the wording suggested he was referring only to risk for hands-on offending; all others listed general risk factors.

With regards to reoffending with CSEM, the specific risk factors listed can be divided into four themes. The first one, History, refers to early exposure to sex and/or pornography and exposure to sexualised media in general. Subject 5 also listed “history” and “sexuality and development” but did not specify them further. The next theme refers to the offender’s current situation, including loneliness or a hectic life. Subject 5 further listed economics, self-esteem/image, and family but did not provide more information. The third theme refers to the internet as a medium, providing easy access to the abuse material and furthering compulsive use of the behaviour. The last theme is referring to a protective factor: Subject 2 reported that not many offenders reoffended once they had been caught.

With regards to risk for contact sex abuse, three broader themes were identified: first, the directness of victimisation, for example getting in touch and grooming of potential victims and prior contact offences. Second, the offender’s criminal history needs to be considered, including prior contact sex and violent offences, and an early onset and long criminal history. Finally, the last theme Personality factors included substance abuse and low motivation.

Regarding risk factors in general, eight broad themes were identified an individual’s personal characteristics, use of the internet, CSEM content, type of CSEM, engagement with CSEM, creation of deviant fantasies, sophistication of CSEM storage/protection, and victim-related factors.

Considering the offender’s Personal Characteristics, sexual interest in children, was the most prominent risk variable, also expressed as criminal history of the offender. Further issues were substance abuse and difficulties socialising on part of the offender. Lastly, failure to acknowledge guilt and failure to take appropriate steps after being caught were identified as additional risk factors; for example, some offenders

were noted to purchase a new computer straight after their apprehension. In that respect, Subject 6 stated: "It is my experience that those who do not accept they must change their behaviours so go about getting a new computer, going online etc, will reoffend within months (if not days)".

The second broad theme is a person's Use of the Internet in the offending process, with higher risk being expressed in a more focused online search for material and by utilising multiple technologies (e.g., web chat/ peer to peer/newsgroups).

The next category, Content of the Material, refers to the consistency of the depicted content, expressing preferences for certain age groups or gender, as well as the specificity of the depicted action (e.g., regarding degree of violence or presence of adults). However, the degree of violence depicted does not seem to be indicative of risk level. As Subject 6 pointed out:

I have encountered offenders I believed were very likely to offend physically, and in one case had already offended physically, yet preferred CSEM featuring young girls aged 11 to 14 posing, dancing, stripping only. There is some (psychological) literature suggesting that those who collect posing type material can more easily imagine themselves acting out their fantasy and are more of a risk as a result (than those who fantasise about kidnap & rape or [sic] a child).

In the next theme, Type of the Material, it is understood that sexualisation of non-objectionable material (like a children's clothing catalogue) and the possession of text stories describing grooming and/ or offending against a child are also indicative of a higher risk level of the offender. Subject 6 stated, "It is my opinion that they involve the offender in offending against children more than an image does, despite not involving an 'actual victim'".

The next broad theme is Engagement with the Material, and refers to the frequency of offending (especially if regular and/or increasing) and the length of offending. Also, the way the images are categorised (time spent with the material and *how* material is categorised) were identified as being indicative of risk. A further issue is the manipulation of the material, for example by placing their own face on an existing image or by adding

text to a graphic, as well as the creation of new material (including both production of digital as well as real material). Furthermore, Subject 4 added “memorialising of own abuse”, possibly referring to both the offender’s own sexual abuse history as well as to previous contact sex offences.

Other theme is the Creation of Deviant Sexual Fantasy around the material, and the Degree of Sophistication of Storage/ Protection of the abuse material. However, Subject 6 cautions that this could also be related of the immediate risk of detection, for example by a flatmate or partner. The last theme refers to Victim-related Factors, such as proximity to the real world (e.g., possession of binoculars or a video camera for viewing children) and access to children in real life.

Part Two of the Survey

The questionnaire presented to the experts can be found at the end. Experts assessed each item (variable) on a 5-point Likert scale for its frequency (FR) of occurrence amongst CSEMOs and its value for a risk assessment (RV). Each item had a third column for additional comments.

In some instances, these written comments by experts influenced their rating score; for example, Subject 2 commented “yes very much so” on item CCH3, which was converted into a rating of 5. Given the small number of participants, it was decided to use the mode instead of median as a measure of central tendency as it is less prone to influence by outliers. All statistical and graphical analyses were conducted using PASW Statistics 18 and Microsoft Excel 2007.

Interrater Reliability.

Firstly, consistency of the raters’ in ranking the provided variables was assessed. For that purpose, FR and RV were considered in separate analyses. The large number of items ($n = 116$) increased the complexity of a quantitative analysis of interrater reliability. Hence, it was decided to use the sum of absolute differences (SS) from the mode as a measure of variability of expert responses. First, each item’s mode was established, following which the difference between each expert’s score and mode was

established for each cell, and converted into absolute figures. Finally, the sum of these absolute difference scores over all items was determined for each expert. To establish a measure of interrater reliability, Kendall's coefficient of concordance (W) was used. Figure B1 shows the sum of absolute difference scores for ratings of frequency. Two subjects markedly differentiate from the other experts' rating: Subject 5 (SS = 258) and Subject 7 (SS = 183). Indeed, they did only partly completed the survey and presented with a high number of missing values (S5: 110 missing values; S7: 72 missing values). However, given the exploratory nature of the study, it was decided to retain them in the analysis. Reliability analysis revealed a moderate agreement between all raters with regards to their frequency rating ($W = .323$); this only slightly improved when Subject 5 and 7 were excluded from the analysis ($W = .458$).

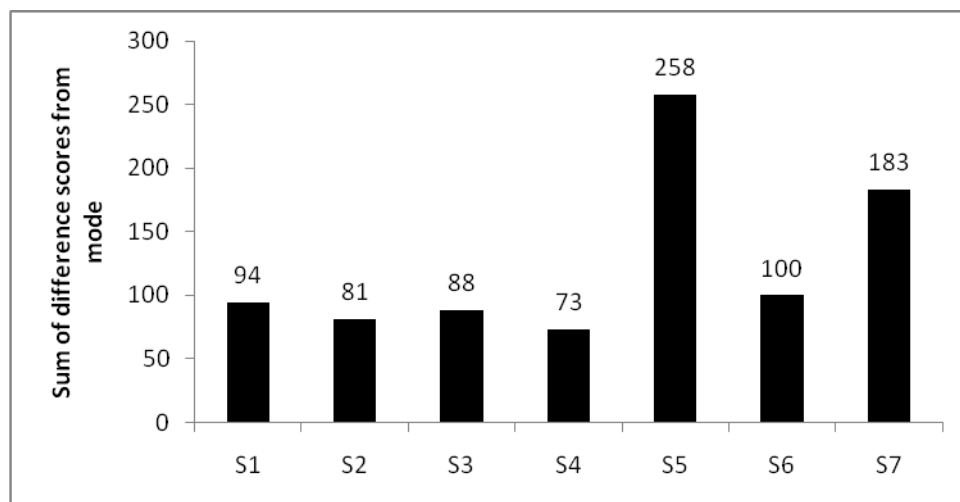


Figure B1: Sum of difference scores per subject (frequency)

Sum scores for differences from mode with regards to risk value rating are depicted in Figure B2. Overall, there was more variability for risk value ratings than for frequency ratings. As above, Subjects 5 and 7 clearly stand out in their difference scores (S5: SS = 337; S7: SS = 276). Reliability analysis using Kendall's W resulted in low agreement amongst all experts ($W = .292$) and only slight improved after exclusion of S5 and S7 ($W = .362$).

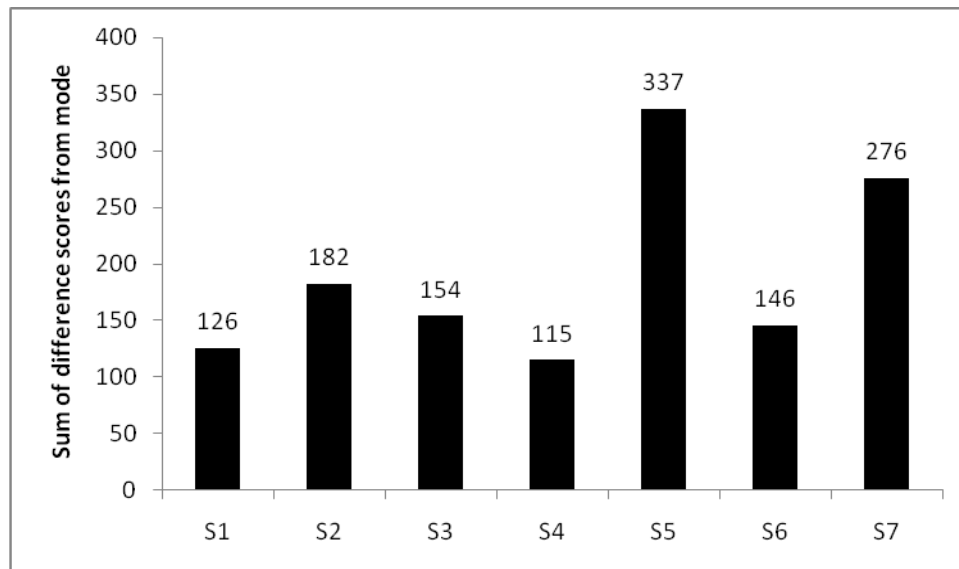


Figure B2: Sum of difference scores per subject (risk)

Relationship between FR and RV

Figure B3 portrays a scatterplot for the relationship between FR and RV using expert's mode rating.

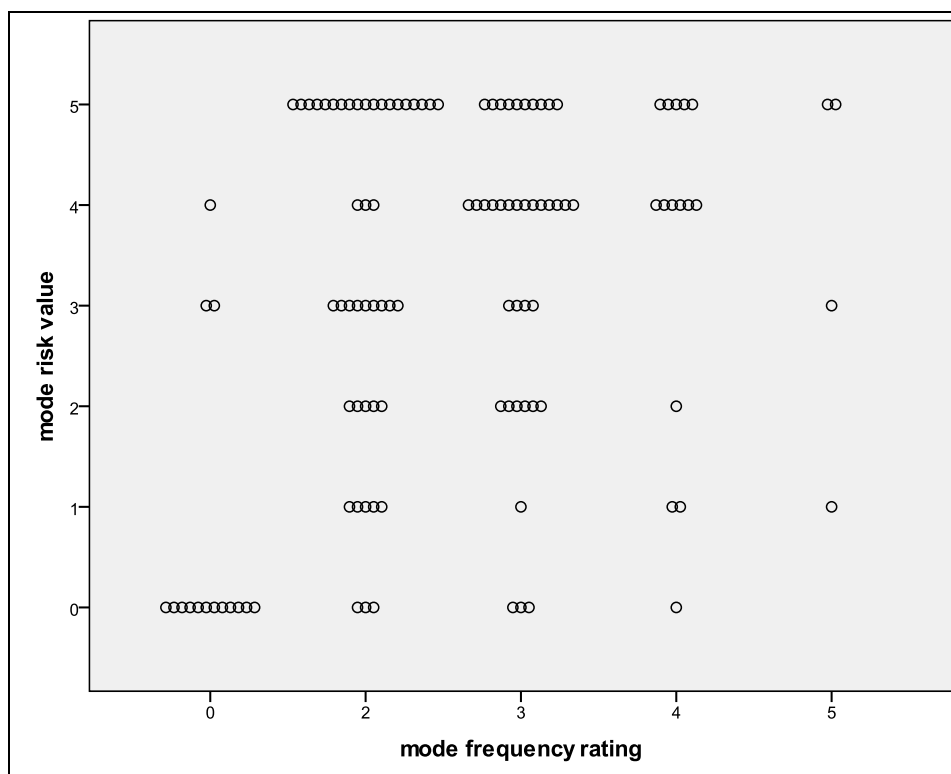


Figure B3: Scatterplot of modes for frequency (FR) and risk value (RV)

A graphical analysis did not reveal a reliable pattern. It appears, though, that a moderate frequency rating of 2 and 3 is related to the highest risk value. The more frequent, the less risk value is assigned to the variables. There was a small, but significant relationship between subjects' ranking for frequency of a variable and its importance for a high-risk profile, $\tau = .241$, p (two-tailed) $< .01$.

Analysis of Variable Categories and Items

The median ratings for item category are depicted in Figure B4, differentiated in FR and RV ratings. Overall, it can be seen that risk ratings were generally higher than frequency ratings. The following categories contained missing values (MV): Exacerbating factors (8.3% MV), opportunity factors (10% MV), function of material (12.5% MV), collection characteristics (12.5% MV), personality factors (25% MV), internet addiction (40.9% MV), childhood variables (66.7% MV), and relationship behaviour (80% MV).

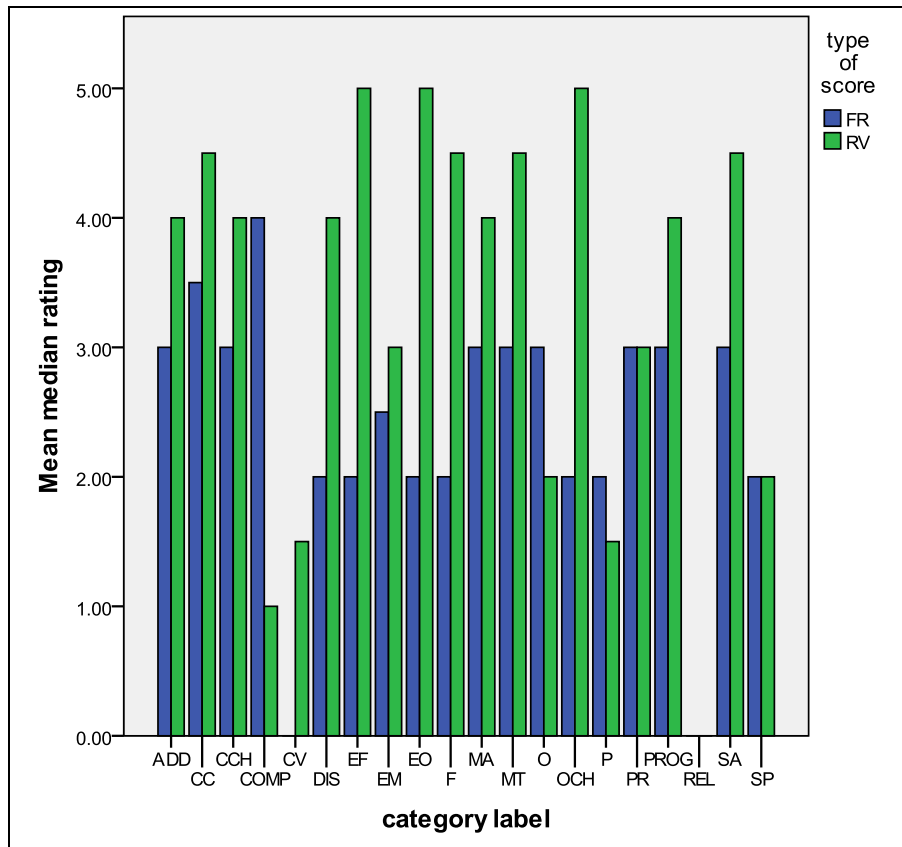


Figure B4: Median category ranks for frequency (FR) and risk value (RV)

With regards to frequency, the category rated as most common amongst CSEMOs was *computer equipment*, including relevant hardware and software and highly expensive computer equipment. This is followed by *collection characteristics*, including recent material, depicting victims of young age, and text addition. The categories perceived as least frequent are *childhood variables* (own sexual, physical, or emotional abuse or neglect, unstable family composition, childhood behaviour problems) and *relationship behaviour* (relationship history and current status, domestic violence, extramarital sexual conduct, and paid sexual activities), which certainly also reflects the high number of missing values in these categories.

Considering risk value, experts considered the categories *criminal history* (current and past sex offence, male victim, stranger victim, other criminal history), the *level of engagement in CSEM offending* (e.g., offline cataloguing, online chats with other users, online victim grooming), and *exacerbating factors* (e.g., sexual contact with minors, exposure of minors to drugs or pornography) as highly important. On the other hand, *computer equipment* and *relationship behaviour* were considered least important for a risk profile. Again, this will be a result of the high number of missing values for categories other than behaviours. The detailed ranking for each item can be found in Table B1.

Part Three of the Survey

In the final part of the survey, participants were asked for suggestions for additional risk variables and for any other additional comments.

Two participants offered ideas for further risk variables. Subject 4 advised exploring more about the engagement and interaction with the material. He further suggested identifying the offender's attitude regarding apprehension and dealings with the [policing institution] and/or police, also focusing on the degree of minimisation employed by the individual. Moreover, his work experience suggested a relationship between risk and the offender's actions after apprehension (e.g., some attend to counselling while others buy a new computer). Subject 6 focused on

Table B1: Item Rankings (Part Two of Expert Survey)

	FR		RV	
	mode	Median	mode	median
MT		3		4.5
MT1	5		5	
MT2	3		5	
MT3	4		5	
MT4	3		5	
MT5	2		1	
MT6	2		1	
MT7	3		2	
MT8	3		4	
CCH		3		4
CCH1	3		4	
CCH2	3		4	
MA		3		4
MA1	5		1	
MA2	3		1	
MA3	2		1	
MA4	4		4	
MA5	3		5	
MA6	2		5	
MA7	2		5	
EM		2.5		3
EM1	2		3	

	FR		RV	
	mode	median	mode	median
EM2	2		3	
EM3	3		2	
EM4	3		5	
PR		3		3
PR1	3		5	
PR2	3		3	
PR3	3		3	
PR4	3		3	
PR5	2		3	
FR		2		4.5
F1	4		5	
F2	3		4	
F3	2		5	
F4	3		4	
F5	2		5	
F6	2		5	
F7	0		0	
F8	2		3	
OCH		2		5
OCH1	2		5	
OCH2	3		5	
OCH3	2		5	

	FR		RV	
	mode	Median	mode	median
OCH4	3		5	
OCH5	2		5	
OCH6	2		4	
OCH7	2		3	
OCH8	2		2	
OCH9	3		4	
EF		2		5
EF1	2		5	
EF2	2		0	
EF3	2		4	
EF4	2		5	
EF5	2		5	
EF6	2		5	
CV		0		1.5
CV1	0		3	
CV2	3		3	
CV3	0		0	
CV4	0		0	
CV5	0		0	
CV6	0		3	
SP		2		2
SP1	2		3	
PROG		3		4

	FR		RV	
	mode	median	mode	median
PROG1	3		2	
PROG2	3		4	
PROG3	4		4	
PROG4	2		4	
O		3		2
O1	0		0	
O2	3		4	
O3	4		5	
O4	4		4	
O5	4		2	
O6	3		2	
O7	3		2	
O8	5		5	
O9	2		2	
O10	2		1	
P		2		1.5
P1	2		0	
P2	2		1	
P3	2		2	
P4	5		3	
P5	2		3	
P6	0		0	
REL		0		0

	FR		RV	
	mode	Median	mode	median
REL1	3		0	
REL2	0		0	
REL3	2		0	
REL4	0		0	
REL5	0		0	
EO		2		5
EO1	2		5	
EO2	3		4	
EO3	3		4	
EO4	2		5	
EO5	2		3	
EO6	2		5	
EO7	2		5	
EO8	2		5	
SA		3		4.5
SA1	4		5	
SA2	3		5	
SA3	3		2	
SA4	3		4	
COMP		4		1
COMP1	4		1	
COMP2	4		1	
COMP3	2		3	

	FR		RV	
	mode	median	mode	median
CC		3.5		4.5
CC1	4		0	
CC2	3		5	
CC3	4		4	
CC4	2		5	
DIS		2		4
DIS1	4		5	
DIS2	2		2	
DIS3	2		2	
DIS4	2		5	
DIS5	4		4	
ADD		3		4
ADD1	3		5	
ADD2	0		4	
ADD3	0		0	
ADD4	0		0	
ADD5	3		4	
ADD6	0		0	
ADD7	3		4	
ADD8	4		4	
ADD9	3		4	
ADD10	3		0	
ADD11	3		0	

Note. Table 5 displays a list of items and an acronym key.

contact offending against a child, hence suggested exploring fantasies involving children and related behaviours, such as “likening images seen online to a real child, photographing (non-sexual) a real child and engaging in sexual fantasy using the photograph and CSEM” as well as “gone out of his way to be around children (perhaps visiting a certain mall at school-closing hours, being on the bus that picks up school routes etc) in order to feed this fantasy or generate opportunities”.

With regards to general comments, Subject 2 returned to the need for a clear definition of risk. Considering contact offending, he described:

If we are discussing the risk they pose to children (i.e., their own children, or other they have access to) and if we are assessing them in terms of whether they should be restricted in their access to children, which will more often be why a risk assessment is being carried out with this population, then the level of current and previous victimisation is all we have to go on— that is, (1) are their [sic] allegations or convictions for contact? offenses against children before, 2) have they committed a contact offense against an adult, 3) is there reason to believe they are targeting children for potential contact offences—in chat rooms or on chat software. The importance of any other behavioural factors (i.e., preference of images, computer type, use of newsgroups over www links etc) is likely to be negligible and simply a byproduct of their offending.

Discussion

The results in the first part of the survey showed participants’ understanding of the heterogeneity of the group of CSEMOs. Two participants focused solely on collecting behaviour which further underlined the variety in CSEM offending. The resulting subgroups of CSEMOs further confirmed the motivational model developed in Chapter Four, with a general distinction between contact and non-contact offending, and the four distinct motivations of financial (*Commercial Interest*), other (*Sensation Seeking*), generally deviant, and explicit paedophile interest.

The responses to risk factors of offenders were very specific and covered a wide array of themes. However, some of the factors appeared as describing differences to contact sex offenders rather than actual risk factors for this offender category. Also, all of the involved experts would have had some form of training on sex offender risk assessment, hence it can be expected that they were guided by conventional risk factors, especially with regards to contact sex offences. For example, any form of contact with children was generally ranked as high-risk (see scores on *opportunity factors*) even though this is not necessarily applicable to CSEMOs. In addition, the comments for *cognitive distortions* and the additional risk factors in part three of the survey revealed a clear focus on contact with minors. Subject 2 further mentioned that other factors are “negligible and simply a byproduct” of the offending; this certainly does not acknowledge the risk of reoffending related to CSEM. Following that, it is difficult to establish if the high risk scores on established risk factors for contact sex offenders, such as PR1 (“preferably male victims” depicted in CSEM), is a genuine assessment or a reference to traditional risk assessment literature.

Overall, experts had moderate agreement in their rankings, with agreement on risk value scores being slightly lower than for frequency of occurrence ($W = .292$ vs. $W = .323$ across all experts). This may reflect the variety in personal definitions of risk held by the individual participants. Overall, there was a low but significant correlation between frequency and risk value scores ($\tau = .241$), indicating a relationship between moderate FR scores and high risk relevance. This finding is not surprising; even though it makes intuitive sense to assume that high risk offenders have some characteristics that are significantly different from the larger group of low-medium CSEMOs, some behaviours will have low FR scores solely because they are not relevant for CSEM offending, thereby levelling the influence of other low-frequency behaviours on risk. Another relevant finding is that RVs. were generally higher than FR scores. One explanation for this outcome is that a conservative approach was employed by risk assessors where it is safer to err on the side of higher risk in case of uncertainty.

Another noteworthy finding is the distribution of missing values (i.e., no responses given by experts). Missing values were found to increase considerably when dealing with personal instead of behavioural markers, such as *personality factors* or *internet addiction*. No relationship was found to the position of these variables in the survey; hence, the high number of missing values in these categories is not related to the length of the survey. It is thus assumed that experts' confidence in their ranking was reduced when dealing with personal issues. This might reflect the content of the current risk assessment for contact sex offenders that has a traditional focus on static risk factors (see Chapter Five).

In general, experts' ranking communicated a sense of the heterogeneity of CSEMOs. This was not only reflected in the different offender groups identified in Part One of the survey but also in the recognition of the variety in abuse material (see scores on *collections characteristics*). On the other hand, this variety was not transferred to the different functions of CSEM, stating *Sexual arousal* (F1) as the single most frequent function. Experts further recognised the offence process as dynamic (see moderate to frequent rankings on *Progressing in offending behaviour*), and also recognised the influence of the technologies involved, for example it was pointed out that image selection is only possible with certain media (comment to the category *preferences in CSEM*).

A few contradictions were identified with regards to the different categories and variables. For *material type*, digital text files received a low score on risk relevance; however, *added texts* was mentioned as one of the risk factors in Part One of the survey. The experts' ranking could also reflect their previous exposure with the material type. For *material access*, close association to other users was pointed out as highly risk relevant but was disputed as one of the functions of CSEM offending and was also considered only moderately risk-relevant in *level of engagement in CSEM offending*. Some suggestions were made as amendments to the presented draft for a risk measure: It was suggested adding moral disengagement and "society has it all wrong" as types of cognitive distortions supportive of CSEM offending. Lastly, further recommendations for risk variables

included offenders' reaction to their apprehension and fantasies and behaviours surrounding a real child.

There are some limitations inherent to this study. Given the unmonitored distribution of the survey, a definite response rate cannot be established. Secondly, the survey consisted of a large number of items to be ranked, which has likely increased the self-selection of respondents. Also, the length of the survey might have tired participants during completion; for example, Subject 5 and 7 both had high numbers of missing values. Alternatively, some respondents might have completed the survey at different points in time, which may have affected the number of confounding variables impacting their ranking. Thirdly, experts differed in their experience with regards to sex offending in general, and CSEMOs in particular. Hence, some rankings could be based on profiles of conventional sex offenders or on only a small number of CSEM cases the person has been exposed to. Also, participants may have varied in their awareness of the current literature about CSEM offending.

There are also some shortcomings with regards to the design of the survey. Firstly, even though experts were encouraged to provide comments, this option was not used by all experts, consequently the information available from each expert varied. In addition, these comments were also used to clarify an individual's scores as well as the meaning of each category.. In a way, it can be argued that qualitative information has thus been weighted more than the quantitative scores, a research decision that had not been communicated to the experts beforehand. Secondly, experts were asked to provide a definition of a high-risk offender in the first part of the survey, which was responded to with differing levels of specificity. Hence, it cannot be assumed that the risk value scores provided in part two of the survey refer to the same risk definition but rather referred to the individuals' understanding of risk. Finally, some of the category titles could have appeared leading to the subjects, in particular *exacerbating factors*, *progressing in offending behaviour*, and *level of engagement in CSEM offending*. Even though these titles were chosen in alignment with the professional literature, the wording may have drawn the experts towards a higher risk rating. Despite these limitations, it

is acknowledged that few people do this specific work and there is a great need to engage with this dearth of expert knowledge.

Summary

A number of variables that were considered relevant for an assessment of CSEMOs were identified based on the theoretical introduction of this thesis and a review of relevant literature. These variables were compiled into a questionnaire and distributed to professionals working in the area of sex offender risk assessment. This expert survey was conducted to explore and validate the items developed for a risk measure for CSEMOs. There were some limitations relating to the study, including the large number of items to be ranked, the unmonitored distribution and return rate, and the different levels of exposure to CSEM cases or relevant literature.

Despite these limitations, the expert survey has been an important source of information for the final design of the test. Experts only moderately agreed in their rankings, and overall chose a conservative approach with regards to risk assessment. There was a clear understanding of the heterogeneity in CSEMOs and the dynamics involved in their offending; this is further underlined by the discussion around risk focusing on contact sex offences with children and risk regarding reoffending with CSEM. Experts could choose to add comments or to omit responses; these missing values increased when more personal factors (such as childhood variables) were assessed. This study identified some contradictions, such as a person's involvement with the material, particularly the meaning of narratives and social networking with other offenders. Experts also made some suggestions to add to the measure, regarding cognitions reflecting moral disengagement and regarding risk value of offenders' reaction to their apprehension and fantasies and behaviours surrounding a real child.

Expert Survey: Additional Material

- 1) Ethical Approval Letter
- 2) Invitation Letter
- 3) Survey Outline

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

25 June 2009

Hannah Merdian

Dear Hannah

Re: Risk items for Online Child Sexual Abuse Image Offenders

Your procedure for getting expert opinions on your risk measure for online child sexual abuse has been approved.

Yours sincerely

A handwritten signature in black ink that reads 'R Isler'.

Dr Robert Isler
Convenor
Psychology Research and Ethics Committee
Department of Psychology
University of Waikato

Risk items for online child sexual abuse image offenders

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

June 22, 2009

Dear Colleagues and Experts

in the assessment and treatment of sex offenders,

My name is Hannah Merdian and I am currently developing a risk measure for online child sexual abuse image offenders, commonly referred to as child pornography offenders. This research is part of my PhD, conducted at the University of Waikato and supervised by Assoc/Prof. Doug Boer (University of Waikato) and Dr. Nick Wilson (Research Center, Correctional Services Hamilton). After careful examination of the literature and collapsing of research outcomes, 20 separate "risk areas" for child pornography offenders were identified, such as location of material or level of engagement with other image offenders. I then developed a list of related risk variables for each area. Before testing them on a large group of online child sexual abuse image offenders, I would like to consult forensic experts and experienced psychologists on the value of these risk items. There is still not much knowledge about this particular offender group, and thus I hope to integrate some on-site experience in the scale.

Given your professional experience with sexual offenders and your expertise in criminal psychology, I would like to ask you for some comments on the drafted risk items. Of course, your input will be recognized in the acknowledgement section of the thesis as well as the final format of the risk measure; if you chose to stay anonymous, I will refer to you as "a member of the international groups of experts consulted". This survey has received ethical approval from the Ethics Commission (Psychology) of the University of Waikato.

You will find all risk variables in the attached word document. You can add your notes and comments into the document, or handwritten on the printed format (please mail to Hannah Merdian, Department of Psychology, 1 Knighton Rd, Hillcrest 3216, Hamilton; postage and printing cost will be reimbursed).

Please do not hesitate to contact Nick Wilson (Nick.WILSON@corrections.govt.nz) or Hannah Merdian (h.merdian@gmail.com) for any questions or concerns.

Thank you very much for your help,

Hannah Merdian

Risk of Online Child Sexual Abuse Image Offenders

*The following pages contain a list of variables that might be useful when considering type and recidivism risk of online child sexual abuse image offenders, commonly referred to as child pornography offenders. **Please share your experience and thoughts.***

In your experience, what are the **different types** of online child pornography offenders?

In your experience, what makes a child pornography offender a **high-risk offender**?

Please assess the value of the following variables **in your opinion and based on your personal experience**. Please highlight the number of your choice, or delete unselected numbers.

	Risk areas	Frequency	Risk value	Comments
		Please indicate the frequency of this variable in child pornography offenders. 1=never 2=rarely 3=sometimes 4=very often 5=always	Please indicate if you think that presence of this variable is valuable to define a high-risk offender (as per your definition). 1=unimportant 2=of little importance 3=moderately important 4=important 5=very important	Please add any further comments/ notes you might have.
Material type	Digital video files	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Video-tapes/ DVDs	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Digital sound files	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Digital images	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Printed photographs	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Audiotapes or other sound recordings	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Digital text files	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Magazines/ books	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Criminal history – censorship (child)	Current conviction for possession of online child sexual abuse material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Past conviction(s) for possession of online child sexual abuse material.	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Do you consider the number of past convictions as important?	n/a	n/a	
	Which locations were used to download child pornography?			
	World wide web, such as open websites	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

Locating of material	Open chat rooms, or a private room in chat form	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online newsgroups	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	peer2peer exchange, such as ICQ or skype	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Email	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online order and sent per mail/courier	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Offline contacts	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Other locations?	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Level of engagement	Self-production of material by cutting and pasting of offline pictures	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Self-production by digitally	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	altering images, using software such as Photoshop or Corel Draw			
	Monetary payment for material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	“Payment” for material by uploading/trading own material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Material preferences	Preferably male victims	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Distinct victim preference, such as certain type of hair or skin colour	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Distinct preference for certain sexual activity	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Specific picture selection to complete picture series	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Exclusion of certain material type, specific selection rules	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Function of the material	Sexual arousal	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online posting for other users	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Offline exchange with other adults	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online trading with other users	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Grooming of minors (online)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Grooming of minors (offline)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Financial gains	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Establishment of social contacts	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Other?	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Criminal history	Current conviction for sexual offence (adult)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Current conviction for sexual offence (minor)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Past conviction(s) for sexual offence (adult)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Past conviction(s) for sexual offence (minor)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Majority male victims	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Majority stranger victims	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Conviction for non-contact sex offence (<i>do not include objectionable material</i>)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Conviction for non-sex violent offence	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Conviction for non-sex, nonviolent offence	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Previous sexual contact with minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Engagement in following activities during previous contact with minors?				
Exacerbating factors	Given drugs/ alcohol to minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Show legal pornography to minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Show child pornography to minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Take pictures/videos of minors with their knowledge	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Take pictures/videos of minors without their knowledge	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Childhood	Experience of sexual abuse	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Experience of physical abuse	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Neglect/ lack of resources	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Unstable family composition	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Experience of emotional abuse	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Childhood behavioural problems (school refusal, bullying, stealing, running away, self-harm, social problems)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

Sexual preferences	Possession of other objectionable material (bestiality, extreme violence, necrophilia)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5		
	Progression in Offending Behaviour	Change of preferred victim type over time	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
		Change of preferred sexual activity over time	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
		Change of preferred location to download material over time	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
		Increase of contact to other child pornography users over time	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Engagement in sex-tourism	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5		

Opportunity factors	Employment includes contact to minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Hobbies/ leisure activities include contact to minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Employment requires computer knowledge	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Hobbies/ leisure activities include computer knowledge	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Employment allows unsupervised Internet access	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Employment allows unsupervised access to several computers/ servers	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Internet was usually accessed from....			

	Home	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Work place	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Public location (university, library, Internet cafe)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Personality factors	Frequent house moving	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Untidy and unclean living circumstances	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Interest in fantasy and fantasy characters (online games, Star Trek, ...)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Collection of non- objectionable material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Mental health issues	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	History of drug/ alcohol	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	abuse			
Sexual orientation and relationship	Currently in live-in relationship	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	History of unstable/ problematic relationships	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Domestic violence	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Frequent affairs/ cheating on partner	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Engagement in paid sexual activities, such as sex workers	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Offline cataloguing of child sexual abuse material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online conversations with other users interested in	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	child pornography			
Level of engagement with minors	Member of a newsgroup or other online group for people with similar sexual interests in minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Online sex conversations / cybersex with minors	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Deceptive online profile, such as younger age or female gender	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Offline contact with a minor met online (this may include letters or phone calls, sending/ receiving of gifts)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Offline meetings with a minor met online	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Passive participation in sexual abuse of a child, such as via live camera	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Risk level	Saving of child pornography material to offline devices, such as USB sticks, disks, or computer hard drive	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Creation of hard copies of child pornography material, such as printed out some image	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Computer was shared with other users	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Installing of security measures (could include change of file names into less obvious titles [such as	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	“dad’s 60 th birthday”] or usage of security software)			
Computer equipment	Presence of hard-ware usable for pornography production (digital camera, scanner, web-cam)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Presence of design software, such as CorelDraw	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Computer equipment values more than \$3,000.00	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Collection characteristics	Possession of child pornography material that has been created in the last two years	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Possession of child pornography material that showed children younger	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	than 5 years			
	Possession of child pornography material that showed infants	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Possession of child pornography material with added text, such as changed file names or story line to the images	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Activities Children and Sexual Activities	Presence of supportive cognitive distortions?			
	Sexual objectification of children	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	World is a dangerous place	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Uncontrollability of own actions	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Entitlement to actions	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	Children are not harmed by actions	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Other cognitive distortions?			
"Internet Addiction"	Addiction symptoms when online or dealing with child sexual abuse images, such as feelings of relief or excitement, neglect of other duties?	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Constant increase of time spent online or time spent dealing with child sexual abuse images?	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	"Withdrawal symptoms" when not on the computer, such as anger or feelings of missing out	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

Loss of time when online or dealing with child sexual abuse images	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Unsuccessful attempts to reduce Internet activity or time spent with child sexual abuse material	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Computer activity as a means to escape problems	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Denial/minimisation of amount of time spent on the computer	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Denial/minimisation of computer activities	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
Computer activities have markedly reduced offline	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

	social relationships			
	Experience of work problems due to computer activities (amount and content)	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	
	Loss of sleep due to amount of computer activities	1 --- 2 --- 3 --- 4 --- 5	1 --- 2 --- 3 --- 4 --- 5	

Suggestions for additional risk variables:

Additional comments:

I wish to stay anonymous and will not be named in the thesis or resulting risk measure:

Yes

No

Appendix C: COPINE Study

- 1) Full Text Article: Author Version
- 2) Ethical Approval Letter
- 3) Server Content from Original Study

This is a copy of an article whose final and definite form has been published in Psychology, Crime and Law ©2011. Psychology, Crime and Law is available online at: www.tandfonline.com.

Assessing the Internal Structure of the COPINE Scale

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The COPINE scale allows standardised classification of a person's child pornography collection while taking into account contextual considerations. However, despite its frequent usage in research studies, the scale has never been empirically validated with regards to its psychometric properties. This study describes a validation design to assess reliability and construct validity of the scale while considering ethical concerns. An online survey was conducted amongst psychological staff members of Correctional Services NZ as well as postgraduate students from the University of Waikato. Participants were asked to rate verbal descriptions of each item level of the original scale according to its perceived seriousness of the offence, suggesting a higher penalty for more serious image offending. Results revealed that students and correctional staff showed high interrater-agreement in their rankings, and that rankings increased with higher-level images as defined in the original scale. Two areas of difference to the original scale ranks were identified, concerning levels "Posing" and "Sexual Explicit Activities". The implications of these findings are discussed.

Keywords: child pornography; COPINE scale; sexual abuse; sex offending

Introduction

The COPINE scale

Child pornography has been described as “visual representation of sexual abuse committed against the person of a child” (Fournier de Saint Maur, 2001), or “child sexual exploitation material” (Carr, 2009). The definition of “child” with regards to identifying age varies between countries; UNICEF (2000) suggests an age limit of 18 years, which has also been adopted in relevant legislation in most Western countries⁴⁴, for example the New Zealand Films, Videos and Publications Classification Act 1993 and its Amendment 2005 in New Zealand. Despite the common perception of child pornography as images or videos, child pornography can also occur in audio representations, text (such as narrative stories), and other visual representations such as manipulated photographs, drawings or cartoons.

The most widely accepted psychological measure on child pornography is the COPINE scale, produced by the homonymous research group, then based at the University College Cork, Ireland. The COPINE (Combating Paedophile Information Networks in Europe) Project was founded in 1997 in order to research internet offending against children, and is characterised by a clear action and child-centred focus (Taylor & Quayle, 2005). A major part of their research activities was the establishment of an archive of child sexual abuse images for victim identification purposes; this has now been integrated into the Interpol Abuse Image Database (Beech, Elliott, Birgden, & Findlater, 2008; Taylor, Quayle, & Holland, 2001). Based on their extensive image collection, Taylor, Holland, and Quayle (2001) developed the COPINE scale as a typology of paedophile picture collections in order to allow standardised assessment of the detected material while taking into account contextual considerations. As can be seen in Table C1, the scale consists of ten levels, from *indicative* (non-erotic images, such as family photos) to

⁴⁴See <http://www.interpol.int/Public/Children/SexualAbuse/NationalLaws/Default.asp> for an overview of current child pornography legislation of Interpol member states, and the International Centre for Missing and Exploited Children (2006) for a global review.

sadistic or bestiality material, with each ascending level depicting an increasing impact on the victim.

[Insert Table C1 here]

According to Taylor and Quayle (2003), “Conceptualising picture collections and child pornography in terms of this continuum emphasises the sense in which sexualisation of pictures is a psychological process” (p. 34). A psychological rating system like the COPINE scale acknowledges the fact that for some viewers arousing images are not restricted to pictures legally defined as objectionable, but that the context also contributes to how an image is perceived. As Taylor and Quayle (2003) stated, “It is the *context* to those photographs, and the way in which they are organised, or stored, or the principal themes illustrated, which may give rise to concern” (p. 33).

The COPINE scale has gained extensive professional recognition, and is now frequently used as a typology in studies on child abuse material (e.g., see Wortley & Smallbone, 2006). In the UK, for some years now, an adjusted version of the COPINE scale has been used to inform legal decisions about child pornography offenders; this adjustment includes only the more explicit levels of the original scale. Gillespie (2003) critically reviewed these guidelines, pointing out that abandoning the first levels of the original COPINE scale give the impression that there was an objective measure of indecency. Nearly a decade after the introduction of the COPINE scale, Quayle (2009) reflected on this change in usage of the COPINE scale, from a mere classification tool to a legal decision aid: “One consequence of this has been that there has been a possible confusion between image Level and either the badness or dangerousness of the offender, but another consequence has been that it provides a means of communication about the images without, for most people, the images having been seen. (...) [This] may allow us to talk about them, but in ways that distances us from their content” (p. 6).

Legal application of the COPINE scale

Effective child pornography legislation needs to allow for systematic differentiation between more and less serious offending, and for aligning penalties accordingly. In the model legislation proposed by the International Center for Missing and Exploited Children (2006), aggravating factors that qualify offenders for higher sentencing include, amongst others, “the number of images manufactured/produced/distributed/possessed” and “the sexual violence toward children (...) being depicted in the images that were manufactured/produced/ distributed/ possessed” (p. 5). Besides separating producers of child pornography, a further distinction is noted between individuals who download and possess the material and those who distribute and make child pornography available to others. In summary, it appears that besides individual factors (e.g., repeat offenders, severity of one’s criminal record), at least three main criteria inherent to the actual material define the seriousness of one’s child pornography offending: (1) quantity of the material, (2) quality of the material, and (3) usage of the material. Hence, legal guidelines are needed for each criterion for a classification of “seriousness”.

Based on the case *R. v. Wild* (No.1) [2002] 1 Cr. App. R. (S) 157, the Court of Appeal in the UK approached the Sentencing Advisory Panel for advice on sentencing in child pornography offences. These original guidelines (Sentencing Advisor Panel, 2006) were used in further child pornography cases (*R. v. Oliver and others* [2002] EWCA Crim 2766, http://www.inquisition21.com/pca_1978/reference/oliver2002.html) and were subsequently revised into their current format (a more detailed account of the developments can be found in Heberton, Shaw & Pease, 2009). The revised guidelines (Sentencing Guidelines Council, 2007) consider all three main criteria of assessment of quantity, quality and usage of the material in differing depths. With regards to quality of the material, the guidelines are closely oriented on the COPINE scale: The Sexual Offences Act 2003, Part 6A2, describes five levels to define “seriousness for sentencing for offences involving pornographic images”,

starting with “erotic posing” (Level 5 of the original scale) and cumulating in “sadism or penetration of, or by, an animal” (Level 10 of the original scale), and outlines related penalties in detail.

Some criticism towards the application of the COPINE scale for legal purposes has been described above. It has to be noted, though, given the limited information available on the topic at the time, that a thorough review on content of child pornography images could not disregard the COPINE scale, nor were or are there any other aids available for legal decision making on child pornography content. It is further noted that the advice given by the Council is understood as guidelines only and that courts can depart from an applicable guideline with good reason (see Heberton et al., 2009). With this in mind, the Sentencing Advisory Council did create a legal document that, if nothing else, reduced the arbitrary element in sentencing and provided a working document that could be questioned and revised when implemented in court cases.

Nevertheless, it has never been established if the levels of the COPINE scale are appropriate descriptions of the actual content. The process of adapting the COPINE scale for sentencing purposes is further based on the equally unchallenged assumption that higher image levels are indeed linked to a higher “seriousness” of the offence. In fact, to knowledge of the authors, there is no empirically established reliability regarding the categories of the COPINE scale. Also, despite frequent usage of the scale, to knowledge of the authors, no study has been conducted on the construct validity of the scale. Hence, it is currently unknown if the 10 categories of the COPINE scale reflect all number of categories of available child abuse images, if they are replicable, mutually exclusive, and do indeed depict a cumulative scale in terms of ‘increased deliberate sexual victimisation’. Another issue is that the COPINE scale has only been applied to pictures and does not cover the whole range of child sexual exploitation material but that no alternative typologies have been developed to date.

Therefore, before the COPINE scale (or adjusted versions of it) is systematically and consensually used for legal or research purposes,

some quality checks need to occur. One of the validation issues to be addressed is whether the 10 categories of child abuse images are actually perceived as different from each other in terms of relevant indices; for example, with regards to the impact on the victim. If so, then each level of the COPINE scale could be transferred into a rank of impact on the victim or obscenity of the material. One set-up of such a study would be to ask subjects to classify randomly selected child pornographic material and then establish (1) interrater agreement and (2) agreement with the original scale. There are serious ethical concerns around exposing laypeople to child pornographic material given the high emotionality of this topic. Such a study could be conducted with populations that regularly deal with the material (e.g., staff at the NZ Censorship Compliance Unit); however, there are reports about the traumatising impacts of work-related exposure to child pornography (e.g., Wolak & Mitchell, 2009) that raise questions if exposure needs to be prolonged for research purposes. Additionally, it is ethically questionable if the images of abused children should be used for other than the necessary assessment procedures, given the impact such exposure would have for the victim and given that their consent to a study cannot be established. However, alternative ways to validate the COPINE scale are needed if it is continued to be used for research and legal assessment purposes.

Aim of the present study

The present study aims to validate the image typology proposed by the COPINE project as a measure of “seriousness” of the depicted scenes. Given the ethical concerns described above, two deviations from the ‘ideal’ study set-up were introduced: Firstly, it was decided to use only verbal descriptions of the material. Secondly, study participation was limited to psychologists and psychologists in training as it can be assumed that their education would have provided them with a level of exposure to topics with similar emotionality, but that they lack explicit knowledge regarding child pornography. The focus on psychologists can be understood as a limitation to ecological validity, however this was deemed necessary due to ethical considerations. There are also reasons that support the choice of

psychologists as an initial validation sample: Psychologists are trained to classify behaviour rather than people, and to work with both victims and offenders and therefore might be less likely to be biased in either direction. The COPINE scale was originally developed by psychologists for assessment purposes, not for legal usage, and all subjects would have received some training in assessment and scale applications in general.

In this study, as suggested by Taylor, Holland, and Quayle (2001, p. 4), “seriousness” was defined as “increased deliberate sexual victimisation”, and subjects were asked to rate the level descriptions on a scale from 1 to 10, with 1 being material with a low level of impact for the victim and 10 being the highest impact for the victim. The goal of the study was to confirm if an increase in level on the COPINE scale is perceived equivalent to offensive material depicting increasingly higher impact on the victim. This study was approved by the Ethics Committee of the University of Waikato and the NZ Corrections Psychological Services.

Method

Participants

Participants were recruited from two different populations, postgraduate psychology students at a New Zealand University (“students”, $N = 41$) and registered psychologists employed with the Department of Corrections in New Zealand (“correctional staff”, $N = 43$). Psychologists employed in Corrections Psychological Services in NZ provide assessment and treatment services to a range of child and adult sex offenders. However, it should be acknowledged that that majority of their assessment and treatment services are with non-sexual violent offenders reflecting the risk-need focus of their work and the New Zealand prison population.

Procedure and data collection

Stimulus material

The COPINE scale was converted into “plain English” (see Table C1). This was conducted for two reasons: First of all, the level descriptions in the original scale were very limited and in rather technical language;

hence, reduced complexity was sought at least for postgraduate students with no (assumed) prior exposure to child pornography material. Secondly, some of the correctional psychologists may have read about the COPINE scale and the discussions regarding meaning of each level. Hence, it was decided to alienate the description from the original wording to prevent recognition of the scale level.

The semantic equivalence between the original COPINE and the plain English scale was tested with a smaller sample of six postgraduate students. Overall, average Spearman correlation between raters' matches and the original scale was very high ($r_s = .933$). The overall agreement between raters was established using Kendall's W^{45} , which resulted in high interrater agreement ($W = .891$). One rater provided a considerably lower correlation with the original scale ($r_s = .636$) than the other participants; once excluded from the sample, overall interrater agreement improved to $W = .99$. Item rankings were analysed using the reduced sample of $n = 5$ raters.

Six of the items revealed 100% agreement between raters' choice and actual match to the original scale level ("Indicative", "Explicit Erotic Posing", "Explicit Sexual Activity", "Assault", "Gross Assault", and "Sadism/Bestiality"). One rater interchanged level 4 ("Posing") and 5 ("Erotic Posing"), and two raters interchanged level 2 ("Nudist") and 3 ("Erotica").

Data collection

An invitation to participate in an online survey regarding child pornography was sent out to all potential subjects via anonymous email lists, compiled by the School of Psychology at the University and the Department of Corrections, respectively. A link led subjects to the anonymous online survey. Here, each participant was asked to provide some demographic information on gender, age, ethnicity, occupation (student or correctional psychologist), presence of experience in the treatment and assessment of sex offenders, and number of years of

⁴⁵ See methodology section on ranking behaviour for a discussion regarding measures of interrater agreement for ordinal data.

experience. Participants were then asked to rate seriousness for all levels of the COPINE scale separately, by assigning each rank between 1 and 10, representing a continuum of increasing impact on the victim. The following text was presented:

The scale consists of ten levels. I would like you to sort them by assigning a number to each level, with **“1” being the least intrusive** and **“10” describing the most severe form of child pornography** in your opinion. For example, you could put yourself into the role of a judge who has to decide which of these cases deserve the most severe punishment, which the least severe, and so on.

The COPINE levels were presented in random order, reduced to “name” and the “plain English description” (column 2 and 4 of Table C1).

Results

Demographic data

Only data from survey-completers was available to the authors due to anonymity restrictions, thus the percentage of completers vs non-completers could not be established. The completer sample consisted of 84 subjects, 43 of whom were working at the Department of Corrections at the time of this study. From the remaining subjects, 39 identified themselves as students; two subjects did not declare they were students but they completed the survey to an earlier date as the invitations were sent to Corrections, hence can be assumed to be students.

As the assumptions for independent t-tests could not be met, demographic information was examined using Mann-Whitney *U*-tests. Overall, only 18 men participated in the survey; Corrections staff were significantly more likely to be male ($U = 638.5$, $z = -3.059$, $p < .05$, $r = -.33$). The average age of the participants was $m = 36.17$ years ($SD = 12.04$). Students ($mdn = 26$ years) were significantly younger than Corrections staff ($mdn = 38$ years; $U = 425$, $z = -4.09$, $p < .001$, $r = -.44$). Corrections staff were significantly more likely to be experienced in the assessment and treatment of sex offenders ($U = 126$, $z = -7.808$, $p < .001$, $r = -.85$) and had a median of 4 years work experience with this client

group (range from 4 months to 38 years). There was no difference in terms of ethnicity between the two groups; most subjects self-identified themselves as NZ European ($n = 56$), eight as Maori, one as Pacific Islander and 19 fell into the category “other”, comprising mostly of Europeans and Asians.

Ranking behaviour

From the 84 participants, 22 had not completed the ranking task as instructed and had assigned the same ranks to different descriptions. Comparisons between subjects who had and who had not followed instructions revealed no differences with regards to demographic variables between the samples except for ethnicity ($U = 503$, $z = -.219$, $p < .05$, $r = -.24$). Crosstab analysis confirmed a significant difference with regards to the number of NZ Europeans and “Others” in each sample ($\chi^2(1) = 5.577$, $p < .05$), revealing that people who did not follow instructions were considerably less likely to be NZ Europeans and considerably more likely to self-identify as “other”, mostly Europeans or Asians.

There is some discussion about the appropriate measures of interrater agreement for ordinal data (e.g., Banerjee, Capozzoli, McSweeney, & Sinha, 1999; Jacobson & Westergren, 2005). Randolph (2005) has now introduced a formula for free-marginal multirater kappa, an extension of Fleiss’ application of Cohen’s kappa, but this has not found wide application yet. Therefore, it was decided to use Kendall’s coefficient of concordance (Kendall’s W) as a measure of interrater agreement. Kendall’s W is recommended as an agreement measure for rank data (Field, 2009) and has been used in previous studies including more than two raters and rank data (e.g., Arrindell, De Vlaming, Eisenhardt, Van Berkum, & Kwee, 2002; Butler, Benoit, Budman, Fernandez, McCormick, Venuti, & Katz, 2006; Cho & Bero, 1994). Overall, the ranking showed a very high interrater agreement of $W = .909$. Within groups, students had slightly lower agreement ($W = .889$) than correctional staff ($W = .931$), which implies that students had a higher variance in their ranking behaviour.

The participants' ranking of the COPINE levels revealed a clear increase in ranks with increasing COPINE level; this results in a highly significant correlation with the original scale ($r_s = .952, p < .001$). However, two areas of difference were found (see Figure C1). "Posing", COPINE level 4, was ranked lower in this study and positioned on level 2. "Assault", COPINE level 8, and "Explicit Sexual Activity", COPINE level 7, were reversed in the new ranking order.

[Insert Figure C1 here]

When comparing the two participant samples, rankings were nearly identical except for two items: Students had ranked "Explicit Sexual Activity" and "Assault" in the original order. Figure B2 and B3 show the distribution of rankings between samples.

[Insert Figure C2 and C3 here OR Table C2]

Given the small cell sizes, as suggested in Field (2009), Fisher's exact test was performed to analyse differences in the ranking behaviour of the two samples. No significant difference was found in the ranking of item "Assault" ($p > .05, ns$). Ranking behaviour for item "Explicit Sexual Activity" was not significantly different but revealed a trend of differing rankings, with students being nearly two times more likely to rank item "Explicit Sexual Activity" in its original scale position than correctional staff ($p = .065, ns$).

Limitations

There are some limitations to consider with this current study. One concern are the small sample sizes of both participant groups ($n = 41$ for students, $n = 43$ for correctional psychologists), as well as focus on psychologists or psychologists in training.

Some weaknesses can be found with reference to the design of the study as an online survey. As Cooper, Scherer, and Mathy (2001) describe, online studies have low reliability and are impacted by self-

selection, which negatively affects generalisability of the results. Additionally, the current design did not allow for comparisons between completers and non-completers of the survey. Furthermore, the participants' answers might have been influenced by their environment, which is especially relevant for correctional staff who could only access their emails at their workplace. Nevertheless, an online study allowed for a higher degree of anonymity and easier completion of the questionnaire, arguably leading to more honest and more reliable responses than a pen-and-paper survey or interview study.

A main concern was the high rate of participants (26% of the whole sample) that did not follow instructions. In these cases, subjects did not assign each rank between 1 and 10 but allocated equivalent levels of seriousness to several COPINE items. Further analysis revealed that these subjects were different to the other participants with regards to ethnicity, being more likely to be of non-native descent. Hence, if their disregard of the instructions reveals a linguistic problem, it cannot be ensured that they understood the items and items descriptions as native speakers did.

Discussion

This research project investigated the perceived seriousness of the 10 item levels of the COPINE scale (Taylor, Holland, & Quayle, 2001) as a first examination of reliability and validity of the scale. The results have implications for legal purposes, scientific research and other areas where the COPINE scale or an adjusted version is implemented.

The different levels of the COPINE scale were translated into "plain English", which was validated using six independent raters. Overall, the raters showed very high agreement in their item matching and produced a very high average Spearman correlation with the original scale ($W = .891$, $r_s = .933$).

Following Taylor, Holland, and Quayle (2001), in this study, seriousness of the offence was defined as "impact on the victim". In that respect, overall the 10 levels of the COPINE scale appear reliable and valid in terms of their item distinction. The participants clearly connected

increasing levels of the COPINE scale with increasing seriousness of the offence, resulting in a highly significant correlation between the participants' ranking and the original order of the items ($r_s = .951$). There were two areas that need to be explored further. First, participants in this study ranked "Posing" (COPINE level 4) as level 2. While the original wording states "deliberately posed pictures of children where amount, context and organization suggests sexual interest", the plain English translation is "pictures where the child and/or adolescent knowingly pose for the camera but the picture is not 'sexy' on its own". There is an absence of nudity or semi-nudity that is present in the description of the previous two levels. It therefore could be explored if images categorised into level "Posing" could be more accurately classified in item levels "Indicative" for non-sexualised images or "Erotic Posing" for images with a more sexualised content.

Secondly, the order of COPINE level 7 ("Explicit Sexual Activity") and COPINE level 8 ("Assault") was reversed in the new rankings assigned by the participants. A closer analysis of the rankings revealed that student participants had a slightly higher likelihood to maintain the original order, and that this was based on the position of "Explicit Sexual Activity" as opposed to "Assault". Both levels include pictures showing diverse sexual activities (ranging from masturbation to penetration), only differing in the absence ("Explicit Sexual Activity") or presence of an adult ("Assault"). Hence, it appears that in this study, most participants considered the involvement of an adult as less serious than if the sexual activity is committed by the victim(s) themselves. Both positions can be argued for: From an offender's point of view, active adult involvement on the image gives the viewer a possibility to identify with the perpetrator and as a scenario bares similarity to direct abuse scenes, which are penalised more severe than acts of voyeurism. However, considering impact on the victim, passive victimisation might have less severe consequences on a victim's mental well-being than active involvement in one's own abuse scenario or becoming an abuser of other victims themselves. One explanation is that the original COPINE scale had set out a too broad definition of "sexual activities". In the revised version of the Sentencing

Guidelines in the UK (Sentencing Guidelines Council, 2007), a further differentiation between penetrative and non-penetrative actions is recommended. It states (Part 6A.2): “Images of non-penetrative activity between children are generally less serious than images depicting non-penetrative activity between adults and children.” Images that fall into these categories are classified as level 2 and 3 in the Sentencing Guidelines, respectively, while level 4 is defined as “Penetrative sexual activity involving a child or children, or both children and adults”. These definitions reflect an understanding that the absence of adult involvement does not reduce the impact of more explicit sexual activities.

Overall, it appears that the 10 levels of the COPINE scale can be considered empirically valid and related to seriousness of image content, and that their inclusion in legal guidelines and for research purposes has merit. The outcomes of this study also support the recommendations by the Sentencing Advisory Council with regards to seriousness of image content, which might find applications in other legislations. However, the scale descriptors have only been validated with a small number of people, hence these considerations need to be subject to a larger validation. It further has to be emphasised that there is a limited number of studies involving the COPINE scale, and that the current study was, to our knowledge, the first of evaluating character.

Further studies are needed to retest the psychometric properties of the scale, and to explore more specific issues, for example how subjects would rate severity of images if sexual activities would be distinguished between penetrative and non-penetrative actions or the value of the category “Posing”. It is also noted that content evaluations based on the COPINE scale, or an adjusted version, make assumptions of the nature of harm in relation to the images that are not based on empirical validation. It again needs to be cautioned that this study has been conducted based on verbal descriptions of images; real images might have a different impact on the viewers and might have resulted in a different outcome, albeit an impact mediated by subjective emotional responses. The current paper describes an exploratory study based on small sample sizes, which thus limits the choice of methodology. It is acknowledged that a more

sophisticated methodology would strengthen the conclusions drawn in this study; in particular, methods considering distances between rankings, for example by using paired comparisons, may be of value for future research.

Also, subjects were drawn from a pool of psychologists and psychologists in training and future research should be extended using other professions dealing with the matter (e.g., lawyers or police officers). A study involving non-experts could also be of interest given that in most Western countries, classification as objectionable material is based on an approach to censor what a “reasonable” man would find offensive (Evans, 2005). However, as outlined above, thorough consideration of the ethical issues involved is required. Finally, the relevance of the COPINE scale or an adjusted version for non-image material needs to be tested to justify their application to other material types.

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Table C1: COPINE Typology (with added translation into plain English)

Headings	Description	Description (plain English)
Level 1: Indicative	non-erotic, non-sexualised pictures of children in underwear, swimming, playing - out of commercial sources, family pictures. Context or organisation of pictures indicates inappropriateness	Pictures of normally dressed children and/or teenagers in daily-life situations (e.g., kids playing, school pictures). These pictures could be from catalogues, commercials, family albums, or brochures.
Level 2: Nudist	naked or semi-naked children in appropriate nudist settings, legitimate sources	Pictures of children and/or teenagers in daily-life situations where it is normal to be naked, or in underwear or swimwear. This could be on the beach or in a bathtub. These pictures could be from catalogues, commercials, family albums, or brochures.
Level 3: Erotica	surreptitiously taken photographs of children in play areas or other safe environments showing either underwear or varying degrees of nakedness	Pictures of children and/or teenagers in daily-life situations where it is normal to be naked, or in underwear or swimwear. This could be on the beach or in a bathtub. These pictures were taken without the child and/or teenager knowing it.
Level 4: Posing	deliberately posed pictures of children where amount, context and organization suggests sexual interest	Pictures where the child and/or adolescent knowingly pose for the camera but the picture is not "sexy" on its own.
Level 5: Erotic posing	deliberately posed pictures in sexualised or provocative poses	Pictures where the child and/or adolescent knowingly pose for the camera, in order to be "sexy". For example, they might pretend to be model, a filmstar, or a pornography actor/actress.
Level 6: Explicit erotic posing	emphasising genital areas, regardless if clothed or naked	Pictures of children and/or teenagers where the main attention is on a boy's penis and a girl's vagina and/or breasts.
Level 7: Explicit sexual activity	touching, mutual or self-masturbating, oral sex and intercourse by child, no adult involved	Pictures of children and/or adolescents engaged in a sexual activity, either alone or with other children/adolescents. They might touch each other, masturbate, have oral sex, or sexual intercourse.
Level 8: Assault	children as subject of sexual assault- including digital touching, involving an adult	Pictures of children and/or adolescents where the child/adolescent touches an

		adult or an adult touches the child/adolescent in a sexual way.
Level 9: Gross assault	grossly obscene pictures of sexual assault, involving penetrative sex, masturbation or oral sex	Pictures of children and/or adolescents engaged in a sexual activity with an adult. They might masturbate, have oral sex, or sexual intercourse.
Level 10: Sadistic/ bestiality	(a) child tied, bound, beaten, whipped, or other pain implied (b) animal involved in sexual relation	(a) Pictures of children and/or adolescents where they experience pain. For example, the child/adolescent might be tied, bound, beaten, or whipped. (b) Pictures of children and/or adolescents where they engage in a sexual activity with an animal. They might masturbate, have oral sex, or sexual intercourse over or with an animal.

Table C2: Distribution of Ranks on Level 7 and Level 8

Rank	Level 7: Explicit Sexual Activity		Level 8: Assault	
	Students (<i>n</i>)	Corrections (<i>n</i>)	Students (<i>n</i>)	Corrections (<i>n</i>)
1	0	0	0	0
2	1	0	0	0
3	0	0	0	0
4	0	0	1	1
5	2	1	2	1
6	5	2	3	3
7	16	11	12	21
8	11	22	18	13
9	1	5	3	4
10	5	2	2	0

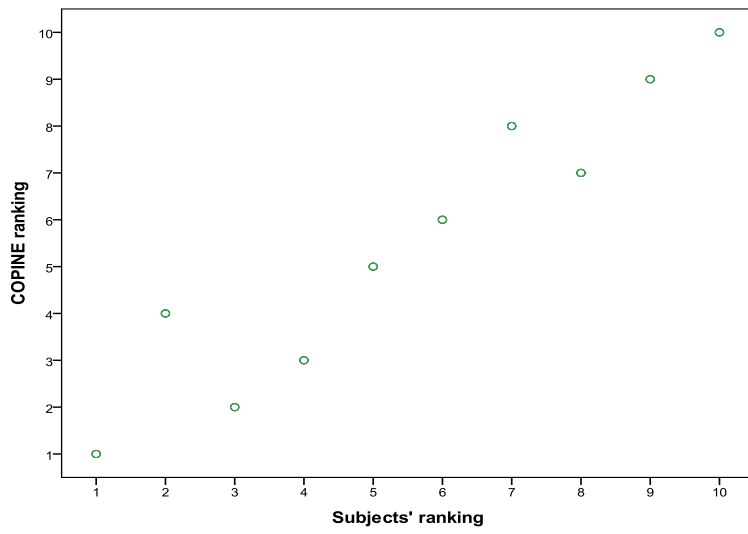


Figure C1: Comparison between new and original rankings

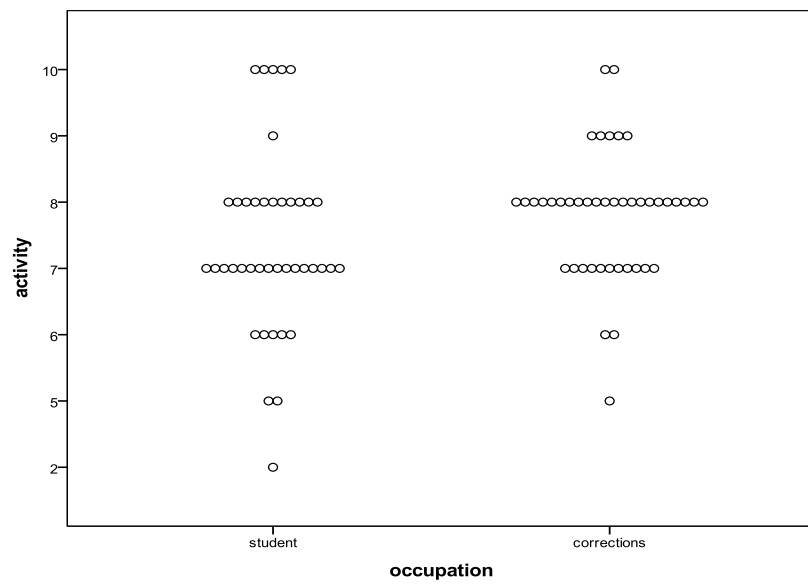


Figure C2: Distribution of ranks for item "Explicit Sexual Activity"

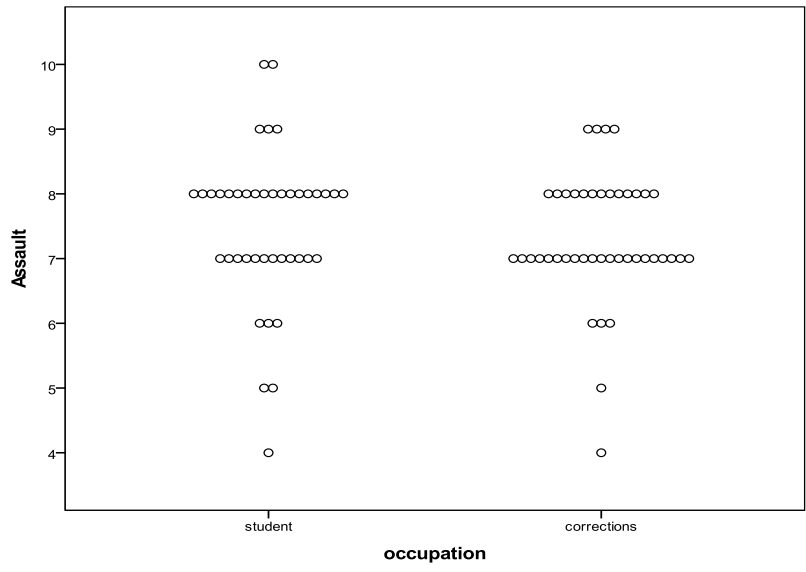


Figure C3: Distribution of ranks for item “Assault”

09:06

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Ethics Review for Human Research
APPLICATION

5.3.2009

TITLE OF PROJECT: Standardisation of the COPINE scale for a New Zealand population

Name of applicant: Hannah Lena Merdian

Address:

Supervisor (where applicable): A/Prof D. Boer, Dr. N. Wilson

Other people involved: -

Project (select appropriate): PhD

Other, please specify: -

Course requirement (course number:)

Renewal of previously approved project

Proposed starting date: 23 March 2009

Important Note: Please download the *Guidelines* from the Psychology webpage and read them BEFORE you proceed. For the questionnaire, you may press F1 for brief advice. Hard copies of this Application form and the Guidelines are available at the Psychology secretaries' office K1.26.

Psychology Research and Ethics Committee Decision:

Exempted Approved Reapproved Rejected

Convenor signature: RTsew

Date: 24/3/2009

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The
University
of Waikato
Te Whare Wānanga
o Waikato

Thanks a lot for participating in this survey!

My name is Hannah Merdian and I am currently developing a risk measure for online child sexual abuse image offenders, commonly referred to as child pornography offenders. This research is part of my PhD, conducted at the University of Waikato and supervised by Assoc Prof. Doug Boer (University of Waikato) and Dr. Nick Wilson (Correctional Services Hamilton).

An important step to define the dangerousness of a child pornography offender consists of assessing the severity of his or her image collection. An expert group at the University of Cork, Ireland, has developed the COPINE scale, which I would like to employ for my research. To ensure the appropriateness of this measure for New Zealand's offenders, it would be helpful to validate the content of the scale.

The scale consists of ten levels. I would like you to sort them by assigning a number to each level, with **"1" being the least intrusive** and **"10" describing the most severe form of child pornography** in your opinion. For example, you could put yourself in the role of a judge who has to decide which of these cases deserves the most severe punishment, which the least severe, and so on. Please assign **all numbers** between 1 and 10!

You can take as much time as you need. Some of the descriptions might be upsetting – **please stop if you feel you do not want to be exposed to this topic.**

Once again, thanks a lot for your support.

Hannah Merdian

[Continue on to the survey](#)

This survey is anonymous. It would be helpful if you could provide some demographic information about your person to identify possible influencing variables:

Gender Male Female

Age years

Ethnicity Pakeha
 Maori
 Pacific Islander
 Other (please specify)

Occupation Employed at the Department of Corrections
 Student at the University of Waikato

Experience in the treatment and/or assessment of sexual offenders.
 No
 Yes (please specify)
 years

Now the survey can start!

Please sort these levels from "1" being the least intrusive to "10" describing the most severe form of child pornography.

Please assign **all numbers** between 1 and 10! (je Don't use the same number twice)

<input type="text" value="Rank"/>	<i>Assault</i>	Pictures of children and/or teenagers where the child/teenager touches an adult or an adult touches the child/teenager in a sexual way. a) Pictures of children and/or teenagers where they experience pain. For example, the child/teenager might be tied, bound, beaten, or whipped.
<input type="text" value="Rank"/>	<i>Sadistic/ bestiality</i>	b) Pictures of children and/or teenagers where they engage in a sexual activity with an animal. They might masturbate, have oral sex, or sexual intercourse over or with an animal.
<input type="text" value="Rank"/>	<i>Explicit sexual activity</i>	Pictures of children and/or teenagers engaged in a sexual activity, either alone or with other children/teenagers. They might touch each other, masturbate, have oral sex, or sexual intercourse.
<input type="text" value="Rank"/>	<i>Erotica</i>	Pictures of children and/or teenagers in daily-life situations where it is normal to be naked, or in underwear or swimwear. This could be on the beach or in a bathtub. These pictures were taken without the child/teenager knowing it.
<input type="text" value="Rank"/>	<i>Explicit erotic posing</i>	Pictures of children and/or teenagers where the main attention is on a boy's penis and a girl's vagina and/or breasts.
<input type="text" value="Rank"/>	<i>Posing</i>	Pictures where the child and/or adolescent knowingly pose for the camera but the picture is not "sexy" on its own.
<input type="text" value="Rank"/>	<i>Indicative</i>	Pictures of normally dressed children and/or teenagers in daily-life situations (for example, kids playing, school pictures). These pictures could be from catalogues, commercials, family albums, or brochures.
		Pictures of children and/or teenagers in daily-life situations where it is

- | | | |
|-------------------------------------|----------------------|--|
| <input type="text" value="Rank"/> ▾ | <i>Nudist</i> | normal to be naked, or in underwear or swimwear. This could be on the beach or in a bathtub. These pictures could be from catalogues, commercials, family albums, or brochures. |
| <input type="text" value="Rank"/> ▾ | <i>Erotic posing</i> | Pictures where the child and/or teenager knowingly pose for the camera, in order to be "sexy". For example, they might pretend to be model, a film star, or a pornography actor/actress. |
| <input type="text" value="Rank"/> ▾ | <i>Gross assault</i> | Pictures of children and/or teenagers engaged in a sexual activity with an adult. They might masturbate, have oral sex, or sexual intercourse. |

Please check that you have answered each question with a different ranking (number)

All data is anonymous - no personal data is kept on record

Please click the 'Submit' Button to send the data to the researcher

Appendix D: Final Item Pool and Changes to Expert Survey

Table D1: Final Item Pool in the Offender Survey

Category	Label	Item content	Response
Demographics	dem01	Gender	male, female
	dem02	Age	NUM
	dem03	Ethnicity	NZ European, Maori, Pacific Islander, Indian, Japanese, Chinese, Other (please type)
	dem04	Is English your first language?	YN
	dem05	How many years of education (school, university, unitec) did you complete?	NUM
	dem06	How much did you earn in your last employment? (or current employment, if employed) Please state an approximate figure of yearly income. Please press "1" if you were unemployed.	NUM
	dem55	Did you have your own business?	YN
Personality	p01	In the last 5 years, have you moved more than once a year?	YN
	p02	In the last 5 years, have you changed your employment more than once every two years?	YN
	p03	Have you ever been diagnosed with a mental health problem?	YN
	p04	In general, who are sexually attracted to?	females, males, both
	p05	Are you currently in a sexual relationship?	YN
	p06	Are you currently in a live-in relationship?	YN
	p07	Do you have children?	YN
	p08	How many previous long-term (more than 6months) or live-in relationships have you had?	NUM
	p09	Have you ever struggled to find a partner for a relationship?	YN

p10	Have you ever had sexual contact with someone even though you were in a relationship with someone else? This includes romantic kissing, touching each other or having sex with someone else.	YN
p10.5	Have you ever been hit or beaten by your partner?	YN
p11	Have you ever hit or beaten your partner?	YN
p12	Have you ever paid for offline sexual behaviours or favours, such as for prostitutes or lap-dance?	YN
p13	Have you ever done sex-tourism?	YN
p14	In your childhood, did you mostly live with the same adults?	YN
p15	In your childhood, have you always had enough food to eat?	YN
p16	In your childhood, have you always had a place to sleep?	YN
p17	In your childhood, did you feel that your parents or caregivers loved you?	YN
p18	In your childhood, did you go to school most of the time?	YN
	In your childhood, did you do any of these things:	
p19	– Wagging school	YN
p20	– Suspension/expulsion from school	YN
p21.1	– Being bullied by others	YN
p22	– bullied others	
p21.2	– Difficulties in making friends	YN
p23	– Stealing	YN
p23.5	– frequently lied or broken promises	YN
p24	– Running away from home	YN
p25	– hurting yourself, like cutting, burning or hitting yourself	YN
p28	– criminal activities, such as arson, destroying of property, or physical or sexual assault to a person	YN
p26	In your childhood, have you been the victim of physical abuse?	YN
p27	In your childhood, have you been the victim of sexual abuse?	YN
ad01	In your daily behaviour, would you consider yourself irritable and aggressive more than other people?	YN

	ad02	In your daily behaviour, would you consider yourself responsible and conscientious more than other people?	YN
	ad03	In your daily behaviour, would you consider yourself impulsive, e.g it is not like you to plan ahead?	YN
	ad04	In your daily behaviour, do you think you like taking risks, for example driving too fast?	YN
	ad05	In your daily behaviour, is it easy for you to lie if it serves your purpose?	YN
	ad06	In your daily behaviour, do you have second thoughts or regret your behaviour more than other people?	YN
	ad07	Do other people see you differently from how you really are?	YN
	ad08	Is there a difference in your online and offline personality?	YN
	ad09	In what way in your online personality different?	TXT
Work & Spare-Time	wsp01	Prior to your detection or treatment, did you have a digital camera?	YN
	wsp02	Prior to your detection or treatment, did you have a computer at home?	YN
	wsp03	Prior to your detection or treatment, did you have a printer at home?	YN
	wsp04	Prior to your detection or treatment, did you have a scanner at home?	YN
	wsp05	Prior to your detection or treatment, did you have a web-cam at home?	YN
	wsp06	Overall, how much money would you get if you sold all your computer equipment, including software?	NUM
	wsp07	In your job, did you work directly with children and teenagers, for example as a caretaker in school?	YN
	wsp08	Do you think you have more stress than other people of similar age and in similar position?	YN
	wsp09	Do you think you cope well with the stress in your life?	YN
	wsp10	In your private time, do you like spending time on your computer, for example for gaming, photography, or programming?	YN
	wsp11	In your private time, do you have a hobby where you have contact to children or teenagers, for example in scouts or sports clubs?	YN
	wsp12	In your private time, are you interested in fantasy or Science Fiction?	YN

	wsp13	In your private time, are you interested in second-life or third-person games?	YN
	wsp14	Have you ever accessed the Internet?	YN
	wsp15	– Home	YN
	wsp16	– Work	YN
	wsp17	– public place, such as library	YN
	wsp18	– Other	YN
	wsp19	Did you typically experience pleasure, excitement or relief when you were on the Internet?	YN
	wsp20	Since you started going online, has the time you spend online increased?	YN
	wsp21	Have you ever felt a loss of control when you are or were on the computer or online?	YN
	wsp22	Have you ever lied about the amount of time you spent on the computer/Internet?	YN
	wsp23	Have some of your offline relationships suffered because you spent more time on your computer/Internet?	YN
	wsp24	Have you ever experienced work problems because of the time you spent on your computer/Internet?	YN
	wsp25	Have you ever gotten less than 4h sleep in a night because you spent too long on the computer/Internet?	YN
Internet activities	act01	Illegally downloading music, games or movies	YN
	act02	Creating fake websites	YN
	act03	Creating viruses, worms or Trojans	YN
	act04	Using someone else's credit card details	YN
	act05	Did you have a fake online profile, such as on facebook or twitter?	YN
	act06	Have you ever used the internet to get in contact with children?	YN
	act07	Have you ever had online conversations with a child younger than 18 years?	YN
	act08	Did you talk about sexual topics?	YN
	act09	Have you ever had offline contact with a child younger than 18 years you met online, for example you had telephone calls or you sent presents to them?	YN
	act10	Have you ever arranged or tried to arrange an offline meeting with a child that you met online?	YN
	act13	Have you ever visited child-lover websites, such as NAMBLA?	YN

	act11	Have you ever had online contact with other adults who are sexually interested in children?	YN
	act12	Have you exchanged information about children with other adults on the Internet?	YN
Treatment	t01	Are you currently attending treatment for your sexual behaviour?	YN
	t03	Did you attend treatment for your sexual behaviour in the past?	YN
	t02	For how many months have you been attending treatment?	NUM
Criminal History	off01	Are you currently serving time for a sexual offence against an adult?	YN
	off02	Prior to this, have you already been convicted for a sexual offence against an adult?	YN
	off03	Do you have convictions for sexual offences against more than one adult?	YN
	off04	Have you ever been convicted of a non-sexual violent offence?	YN
	off05	Have you ever been convicted of a non-sexual, non-violent offence?	YN
	off5.5	Have you ever used a weapon or threatened to use a weapon against another person?	YN
	off06	As an adult, have you ever had sexual contact with a person younger than 16 years?	YN
	off07	Are you currently serving time for a sexual offence against a person younger than 16 years?	YN
	off08	Previously, have you already been convicted of a sexual offence against a person younger than 16 years?	YN
	off09	Do you have convictions for sexual offences against more than one person younger than 16 years?	YN
	off10	Were more than half of your victims male?	YN
	off11	Were more than half of your victims strangers to you?	YN
	off11.1	Why do you think you had sexual contact with a minor younger than 16y?	TEXT
	off12	Given them drugs or alcohol	YN
	off13	Shown them legal pornography	YN
off14	Shown them child pornography	YN	
off14.5	Got them to take pictures of themselves	YN	
off15	Taken pictures or filmed them or your sexual activities without their knowledge	YN	

	off16	Taken pictures or filmed them or your sexual activities with their knowledge	YN
	off17	Taken pictures or filmed them or your sexual activities, and showed or sent the material to other people	YN
	off18	Have you ever seen pornography that showed extreme violence?	YN
	off19	Have you ever seen pornography that showed necrophilia?	YN
	off19.5	Have you ever seen pornography that showed urination/ defecation?	YN
	off20	Have you ever seen pornography that showed bestiality?	YN
	off21	Have you ever seen pornography that showed children under 18y?	YN
CSEM - type	CPt1	How old were you when you deliberately started viewing child pornography?	NUM
	CPt2	Have you ever been convicted of possession, display, trading, and/or distribution of child pornography?	YN
	CPt3	Have you been convicted of possession, display, trading, and/or distribution of child pornography on more than one separate occasion?	YN
	CPt4	Do you think your penalty is fair for what you have done?	YN
	CPt5	– Digital images	YN
	CPt6	– Printed photographs	YN
	CPt7	– Digital video files	YN
	CPt8	– Video tapes/DVDs	YN
	CPt9	– Digital sound files	YN
	CPt10	– Audiotapes or other sound recordings	YN
	CPt11	– Digital text files	YN
	CPt12	– Magazines/ books	YN
CSEM – content	CPc1	Did you have child pornography that did not have real children in them, such as cartoons or morphed images?	YN
	CPc2	Did more than half of your child pornography show male children or male teenagers?	YN
	CPc3	Did you have child pornography that showed children between 1-5 years?	YN
	CPc4	Did you have child pornography that showed infants (< 1 year)?	YN

	CPc5	Did you prefer a certain victim type?	YN
	CPc6	Have you changed your preference the more child pornography you had seen?	YN
	CPc7	Did you prefer a certain sexual activity in your child pornography?	YN
	CPc8	Have you changed this preference the more child pornography you had seen?	YN
	CPc9	Did some of your child pornography show children in situations where it is normal to be naked or in underwear, such as on the beach or in the bathtub?	YN
	CPc10	Did some of your child pornography show children who pose for the camera, for example they might pretend to be a model, a film star or a pornography actor/actress?	YN
	CPc11	Did some of your child pornography show the penis, vagina, anus of a child and/or breasts of a girl?	YN
	CPc12	Did some of your child pornography show children in sexual actions, either alone or with other children?	YN
	CPc13	Did some of your child pornography show children in sexual actions with one or more adults?	YN
	CPc14	Did some of your child pornography show children who are in pain, for example they are tied, bound, beaten, or whipped?	YN
	CPc15	Did some of your child pornography show children in sexual activities with an animal?	YN
	CPc16	Did you add text to your child pornography, for example by changing file names or developing a story line to the images?	YN
	CPc17	Did you have images of children that do not account as child pornography, such as from clothing catalogues or brochures?	YN
	<hr/>		
CSEM - activities	CPa1	Have you ever paid for child pornography?	YN
	CPa2	Have you shared your child pornography material with other people?	YN
	CPa3	Have you used the internet to trade your child pornography material with other users?	YN

CPa4	Since starting using child pornography, did you increase the number of people you know who are also interested in child pornography?	YN
CPa6	Did you get most of your child pornography from the Internet?	YN
CPa7	How much time did you spend online with child pornography? (<i>hours/ per week</i>)	NUM
CPa5	Have you ever consumed alcohol or drugs when you viewed child pornography?	YN
CPa8	Did you get some of your child pornography material from the www, such as open websites?	YN
CPa9	Did you get some of your child pornography material through other users in chat rooms?	YN
CPa10	Did you get some of your child pornography material from online newsgroups?	YN
CPa11	Did you get some of your child pornography material through peer2peer or file exchange programs?	YN
CPa11.5	Did you get some of your child pornography material via PXT from mobile devices?	YN
CPa12	Did you get some of your child pornography material via email from other users?	YN
CPa13	Did you get some of your child pornography material from online suppliers who sent the material per regular mail?	YN
CPa14	Did you get some of your child pornography material from offline contacts, such as other people or certain shops?	YN
CPa15	Did you change your preferred means of access the more child pornography you had seen?	YN
CPa16	How much time did you spend sorting and cataloguing your child pornography on your computer? <i>hours/ week</i>	NUM
CPa17	Have you ever saved your child pornography to offline devices, such as USB sticks, disks or CDs?	YN
CPa18	Have you ever created hard copies of your child pornography, such as	YN

printing out images?

CPa19	Have you tried to hide your child pornography on your computer?	YN
CPa20	Was child pornography sexually arousing for you?	YN
CPa21	Did you show child pornography to other adults?	YN
CPa22	Did you post child pornography online so that other users can view it?	YN
CPa23	Would you agree that child pornography helped you to meet other adults online?	YN
CPa24	Did you have online conversations with other child pornography users?	YN
CPa25	Have you been a member of an online newsgroup that was related to child pornography?	YN
CPa26	Did you earn money from child pornography?	YN
CPa27	Have you ever observed the live sexual abuse of a child online?	YN
CPa28	Did you send child pornography to children online?	YN
CPa29	Why do you think you started with child pornography?	TEXT

Cognitive Distortions	Dis1	If a young child stares at my genitals it means the child likes what she (he) sees and is enjoying watching my genitals.	1 - 2 - 3 - 4 - 5
	Dis2	A man is justified in having sex with his children or step-children, if his wife doesn't like sex.	1 - 2 - 3 - 4 - 5
	Dis3	A child 13 or younger can make her (his) own decision as to whether she (he) wants to have sex with an adult or not.	1 - 2 - 3 - 4 - 5
	Dis4	A child who doesn't physically resist an adult's sexual advances, really wants to have sex with the adult.	1 - 2 - 3 - 4 - 5
	Dis5	If a 13 year old (or younger) child flirts with an adult, it means he (she) wants to have sex with the adult.	1 - 2 - 3 - 4 - 5
	Dis6	Sex between a 13 year old (or younger child) and an adult causes the child no emotional problems.	1 - 2 - 3 - 4 - 5
	Dis7	Having sex with a child is a good way for an adult to teach the child about sex.	1 - 2 - 3 - 4 - 5

Dis8	If I tell my young child (step-child or close relative) what to do sexually and they do it, that means they will always do it because they really want to.	1 - 2 - 3 - 4 - 5
Dis9	When a young child has sex with an adult, it helps the child learn how to relate to adults in the future.	1 - 2 - 3 - 4 - 5
Dis10	Most children 13 (or younger) would enjoy having sex with an adult, and it wouldn't harm the child in the future.	1 - 2 - 3 - 4 - 5
Dis11	Children don't tell others about having sex with a parent (or other adult) because they really like it and want it to continue.	1 - 2 - 3 - 4 - 5
Dis12	Sometimes in the future, our society will realize that sex between a child and an adult is all right.	1 - 2 - 3 - 4 - 5
Dis13	An adult can tell if having sex with a young child will emotionally damage the child in the future.	1 - 2 - 3 - 4 - 5
Dis14	An adult just feeling a child's body all over without touching her (his) genitals is not really being sexual with the child.	1 - 2 - 3 - 4 - 5
Dis15	I show my love and affection to a child by having sex with her (him).	1 - 2 - 3 - 4 - 5
Dis16	It's better to have sex with your child (or someone else's child) than to have an affair.	1 - 2 - 3 - 4 - 5
Dis17	An adult fondling a young child or having the child fondle the adult will not cause the child any harm.	1 - 2 - 3 - 4 - 5
Dis18	A child will never have sex with an adult unless the child really wants to.	1 - 2 - 3 - 4 - 5
Dis19	My daughter (son) or other young child knows that I will still love her (him) even if she (he) refuses to be sexual with me.	1 - 2 - 3 - 4 - 5
Dis20	When a young child asks an adult about sex, it means she (he) wants to see the adult's sex organs or have sex with the adult.	1 - 2 - 3 - 4 - 5
Dis21	If an adult has sex with a young child it prevents the child from having sexual hang-ups in the future.	1 - 2 - 3 - 4 - 5
Dis22	When a young child walks in front of me with no or only a few clothes on, she (he) is trying to arouse me.	1 - 2 - 3 - 4 - 5
Dis23	My relationship with daughter (son) or other child is strengthened by the fact that we have sex together.	1 - 2 - 3 - 4 - 5

Dis24	If a child has sex with an adult, the child will look back at the experience as an adult and see it as a positive experience.	1 - 2 - 3 - 4 - 5
Dis25	The only way I could do harm to a child when having sex with her (him) would be to use physical force to get her (him) to have sex with me.	1 - 2 - 3 - 4 - 5
Dis26	When children watch an adult masturbate, it helps the child learn about sex.	1 - 2 - 3 - 4 - 5
Dis27	An adult can know just how much sex between him (her) and a child will hurt the child later on.	1 - 2 - 3 - 4 - 5
Dis28	If a person is attracted to sex with children, he (she) should solve that problem themselves and not talk to professionals.	1 - 2 - 3 - 4 - 5
Dis29	There is no effective treatment for child molestation.	1 - 2 - 3 - 4 - 5
Dis30	Because men have higher sexual needs, it is not always possible to control sexual urges.	1 - 2 - 3 - 4 - 5
Dis31	Some people who have sex with children are not true "sex offenders" – they are out of control and make a mistake.	1 - 2 - 3 - 4 - 5
Dis32	Sexual thoughts about a child are not that bad because it does not really hurt the child.	1 - 2 - 3 - 4 - 5
Dis33	Just looking at a naked child is not as bad as touching and will probably not affect the child as much.	1 - 2 - 3 - 4 - 5
Dis34	Children who are molested by more than one adult probably are doing something to attract adults to them.	1 - 2 - 3 - 4 - 5
Dis35	For many men, sex offences against children are the result of stress and the offence helped to relieve the stress.	1 - 2 - 3 - 4 - 5
Dis36	Sometimes the offender suffers, loses or is hurt the most.	1 - 2 - 3 - 4 - 5
Dis37	I feel more comfortable with children than adults.	1 - 2 - 3 - 4 - 5
Dis38	Children are supposed to do what adults want and this might include serving their sexual needs.	1 - 2 - 3 - 4 - 5
Dis39	A person should have sex whenever it is needed.	1 - 2 - 3 - 4 - 5

Note. NUM = type number; YN = yes/no; TEXT = type text; 1 - 2 - 3 - 4 - 5 = Likert scale (*strongly agree – strongly disagree*)

Changes to the Draft Items

All questions from the Expert Survey were formulated into direct questions to the offenders. The following items from the expert survey were dropped: EM 1 (“self-production of material by cutting and pasting of offline pictures”) and EM 2 (“self-production by digitally altering images, using Software such as Photoshop or Corel Draw”) were considered too specific to differentiate. PR 4 (“specific picture selection to complete picture series”) was understood to be covered in CPc05-08 where the offender is asked about specific victim and activity preferences in their images. PR 5 (“exclusion of certain material types, specific selection rules”) was dropped based on the negative validation by experts. Given the complexity of grooming behaviour, it was decided to refocus on internet-initiated grooming, hence item F 6. (“Grooming of minors offline”) was dropped. With regards to opportunity factors, items O 4 (“Employment requires computer knowledge”), O 6 (“Employment allows unsupervised Internet access”) and O 7 (“Employment allows unsupervised access to several computers/servers”) was removed based on the experts’ low ratings and the expected low item difficulty. For personality factors, P 2 (“Untidy and unclean living circumstances”) was considered too subjective for unbiased assessment; P 4 (“collection of non-objectionable material”) was replaced with CPc17, targeting more towards non-objectionable depiction of children. SA 3 (“Computer was shared with other users”) was dropped given the low informative value, supported by the low rating of experts. With regards to the collection of CSEM, items CC 1. (“Possession of child pornography material that has been created in the last two years”) was dropped given its low risk rating by experts and the comments that offenders do not necessarily know the publication dates of their files. The last set of changes occurred to the category “*Internet addiction*”: ADD 3 (“withdrawal symptoms”), ADD 5 (“unsuccessful attempts to reduce internet activity or the time spent with child sexual abuse material”), and ADD 6 (“computer activity as a means to escape problems”) were removed from the item list as they are complex to describe in personal questions and need a high level of insight on part of the respondent.

Hence, it was decided to focus solely on the behavioural aspects of *Internet addiction*.

Some new items were added in the final version: Professionals were asked for the ASRS risk score for the prison population and a section on demographic variables was added (dem01-55). The section on *Personality* was expanded to identify different personality types (ad01-09). With regards to *Work and spare time activities*, questions on stress and stress coping were added (wsp08 and wsp09). Another new section assessed for general criminal activities on the Internet (act01-05). With regards to sexual offence history, questions were added regarding treatment experience (t01-03) and sexual contact with minors (off11.1, off14.5, off17). For CSEM, image content was assessed in more detail (CPc10-17) and access with new mobile devices (CPa11.5) was added. The COPINE scale was summarised to eight levels in the survey, given difficulties to differentiate between COPINE Levels 2-4, and Levels 8 and 9 in personal question.

Finally, the section on cognitive distortions was expanded. The main part of this category consisted of the items of the Abel and Becker Cognition Scale (ABCS; Abel, Becker, Cunningham-Rathner et al., 1984). This scale consists of 29 statements, such as “Most children 13 (or younger) would enjoy having sex with an adult, and it wouldn’t harm the child in the future”. The offender is required to rank the items on a 5-point Likert scale from 1 for *strongly agree* to 5 *strongly disagree*, with 3 as the neutral point of neither agreement nor disagreement. The ABCS was originally tested on a group of 240 CSOs, 48 paraphilics (people with deviant sexual interests not involving children), and 86 control subjects (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989). Factor analysis revealed six different dimensions underlying the cognitions of these samples, which indicated that offenders can endorse cognitions of different qualities. Abel et al. (1989) found no difference with regards to agreement to the statements between child sex offenders and “other” paraphilics. However, they found that contact sex offenders were significantly more deviant than normal controls on all six factors. The ABCS has since been applied in many research projects (e.g., Stermac &

Segal, 1989; Kolton, Boer, A., & Boer, 2001; Marshall, Hamilton, & Fernandez, 2001; Allan et al., 2007) and has been found a valuable instrument to assess pro-paedophile attitudes (see Blumenthal, Gudjonsson, & Burns, 1999). However, there are some limitations with the ABCS. The items are transparent and of direct nature, which usually leads to a response bias towards disagreement (Gannon, Keown, & Polaschek, 2007). In addition, Blumenthal et al. (1999) pointed out that the ABCS is usually administered in a setting that encourages misrepresentation.

The feedback in the expert study had indicated that CSEMOs may have cognitive distortions different from known offence-supportive attitudes. Thus, items from Howitt and Sheldon's (2007) Children and Sexual Activities (C&SA), were included in the survey. The scale has been described in detail in Chapter Four. In short, the C&SA is a measure for offence-supportive cognitions suitable for online offenders, closely oriented on Ward and Keenan's (1999) typology of five core schemes of cognitive distortions. The 39 items are ranked on a 4-point Likert scale (strongly disagree to strongly agree). Given the low statistic power of the measure as a whole, it was decided to use selected items for areas that are not covered in the ABCS: Items 3, 4, 7, 9, 12, 13, 15, 18 and 19 (Dis30-39 in Table C1). Item 16, "Children are more reliable and more trusting than adults", was changed into "I feel more comfortable with children than adults". The response scale was standardised into a five point Likert scale on all items, thereby providing a neutral point of agreement.

Appendix E: Final Survey Design and Word List

Dear professional,

Have you completed a standardised risk or personality test with this client?

Please complete the following table.

Risk test		Personality test	
Title	Score	Title	Score
▶▶		▶▶	

[Click here to continue](#)

Dear Participant,

Thanks for agreeing to participate in this study!

The idea of this survey is to find out more about the similarities and differences between child pornography and contact sex offenders. Your information and thoughts are very important for this research.

[Click here to continue](#)

This survey is anonymous and cannot be traced back to you. The computer will save your answers with a code, such as *SJ001* for *Subject Number 1* and *SJ325* for *Subject Number 325*.

No one is able to link this code with you - even if you disclose information about your age or ethnicity. The researchers do not get access to your files, your results will not be shown to anyone at your treatment centre and are **absolutely confidential**.

[Click here to continue](#)

Before you start, I want to explain to you how this computer-survey works.

[Click here to continue](#)

You will need approximately 45 min to complete this survey.

Some of the words are "internet slang" or special expressions and you might not know their meaning.

These words are printed in **colour** – an explanation will appear on the page.

[Click here to continue](#)

The bars on the right side shows your progress through the survey – you finish the survey when the bars have reached the bottom of the screen.

The *coffee cup* gives you some space for a little break. To end the break earlier, just click on the clock on display.

[Click here to continue](#)

So before we start...

... **Colour** means that the word has an explanation box

... The *coffee cup* shows when you will have your next break

... The bars on the right side show your progress through the test

[Click here to continue](#)

University of Waikato
Psychology Department

CONSENT FORM

Research project: **Development of a risk measure for child sexual abuse image offenders – main study**
Name of Researcher: **Hannah Meridian**
Name of Supervisors: **Doug Boer, Nick Wilson, Jo Thakker, Cate Curtis**

I have received an information sheet about this research project or the researcher has explained the study to me. I have had the chance to ask any questions and discuss my participation with other people. Any questions have been answered to my satisfaction.

I agree to participate in this research project and I understand that I may withdraw at any time. If I have any concerns about this project, I may contact my group facilitator.

[Yes I agree](#) [No I don't agree](#)

If you press no that is the end of the survey

Please be aware that you cannot go backwards and change your answer.

[Click here to continue](#)

Please provide some information for statistical purposes:

Gender [male](#) [female](#)

Age

Ethnicity

Is English your first language? [yes](#) [no](#)

How many years of education (school, university, unitec) did you complete?
Please press enter after you finished your text

How much did you earn in your last employment? (or current employment, if employed) Please state an approximate figure of yearly income. Please press "1" if you were unemployed.
Please press enter after you finished your text

Did you have your own business?
[yes](#) [no](#)

Some of the questions might be tricky to answer because your life might have changed since you started treatment or you entered prison.

Please answer all questions as if you are still in your "old life" before prison or treatment, even if you would do things differently now or if your circumstances have changed.

[Click here to continue](#)

The first set of questions refer to the type of person you are and the way you live.

[Click here to continue](#)

In the last 5 years, have you moved more than once a year?

Have you ever been **diagnosed with a mental health problem**?

In the last 5 years, have you changed your employment more than once every two years?

In general, who are you sexually attracted to?

Are you currently in a sexual relationship?

Are you currently in a live-in relationship?

Do you have children?

How many previous long-term (more than six months) or live-in relationships have you had?
Please enter only the numerical part of

Have you ever struggled to find a partner for a relationship?

Have you ever had sexual contact with someone even though you were in a relationship with someone else? This includes romantic kissing, touching each other or having sex with someone else.

Have you ever been hit or beaten by your partner?

Have you ever hit or beaten your partner?

Have you ever paid for offline sexual behaviours or favours, such as for prostitutes or lap-dance?

Have you ever done **sex-tourism**?

In your childhood, did you mostly live with the same adults?

In your childhood, have you always had enough food to eat?

In your childhood, have you always had a place to sleep?

In your childhood, did you feel that your parents or **caregivers** loved you?

In your childhood, did you ever do any of the following things?

- Wagging school yes no
- Suspension/ expulsion from school yes no
- Being bullied by others yes no
- Bullied others yes no
- Stealing yes no
- Running away from home yes no
- Hurting yourself, like cutting or burning or hitting yourself yes no
- Difficulties in making friends yes no
- Frequently lied or broken promises yes no
- criminal activities, such as arson, destroying of property, or physical or sexual assault to a person yes no

In your childhood, did you go to school most of the time? yes no

In your childhood, have you been the victim of physical abuse? yes no

In your childhood, have you been the victim of sexual abuse? yes no

In your daily behaviour, would you consider yourself irritable and aggressive more than other people? yes no

In your daily behaviour, would you consider yourself responsible and conscientious more than other people? yes no

In your daily behavior, would you consider yourself impulsive, e.g. it is not like you to plan ahead? yes no

In your daily behaviour, do you think you like taking risks, for example driving too fast? yes no

In your daily behaviour, is it easy for you to lie if it serves your purpose? yes no

In your daily behaviour, do you have second thoughts or regret your behaviour more than other people? yes no

Do other people see you differently from how you really are? yes no

Is there a different in your online and offline personality? yes no

In what way is your online personality different?

[Click here to continue](#)

You finished the first part of the survey.

You can take your first break.



Please click the clock to finish the break.

The next set of questions refers to your work and your spare time activities.

[Click here to continue](#)

- Prior to your detection or treatment, did you have a digital camera? yes no
- Prior to your detection or treatment, did you have a computer at home? yes no
- Prior to your detection or treatment, did you have a printer at home? yes no
- Prior to your detection or treatment, did you have a scanner at home? yes no
- Prior to your detection or treatment, did you have a web-cam at home? yes no
- Overall, how much money would you get if you sold all your computer equipment, including software?

Please press enter after you completed your text.

In your job, did you work directly with **children** and teenagers, for example as a caretaker in school? yes no

Do you think you have more stress than other people of similar age and in similar position? yes no

Do you think you cope well with the stress in your life? yes no

In your private time, do you like spending time on your computer, for example for gaming, photography, or programming? yes no

In your private time, do you have a hobby where you have contact to children or teenagers, for example in scouts or sports clubs? yes no

In your private time, are you interested in **fantasy** or **Science Fiction**? yes no

In your private time, are you interested in **second-life** or **third-person** games? yes no

Have you ever accessed the Internet? yes no

Did you typically experience pleasure, excitement or relief when you were on the Internet? yes no

Since you started going **online**, has the time you spend online increased? yes no

Have you ever felt a loss of control when you are or were on the computer or **online**? yes no

Have you ever lied about the amount of time you spent on the computer/Internet? yes no


Have some of your offline relationships suffered because you spent more time on your computer/Internet? yes no

Have you ever experienced work problems because of the time you spent on your computer/Internet? yes no

Have you ever gotten less than 4h sleep in a night because you spent too long on the computer/Internet? yes no

You finished the second part of the test!

You can take your next break.



Please click the clock to finish the break.

The next set of questions ask about what you did on the Internet.

[Click here to continue](#)

Did you do any of the following illegal online activities? Please click on all that apply.

- Illegally downloading music, games or movies yes no
- Creating **fake websites** yes no
- Creating viruses, worms or Trojans yes no
- Using someone else's credit card details yes no

Did you have a **fake online profile**, such as on facebook or twitter? yes no

Have you ever used the Internet to get in contact with children? yes no

Have you ever had online conversations with a child younger than 18 years? yes no

Did you talk about **sexual topics**? yes no

Have you ever had **offline contact** with a child younger than 18 years you met online, for example you had telephone calls or you sent presents to them? yes no

Have you ever arranged or tried to arrange an offline face-to-face meeting with a child that you met online? yes no

Have you ever had online contact with other adults who are sexually interested in children? yes no

Have you exchanged information about children with other adults on the Internet? yes no

Have you ever visited child-lover websites, such as NAMBLA? yes no

The following questions refer to your offence and offence history.

[Click here to continue](#)

Are you currently attending treatment for your sexual behaviour?

Did you attend treatment for your sexual behaviour in the past?

For how many months have you been attending treatment?
Please press enter after you completed your text

Are you currently serving time for a **sexual offence** against an adult?

Previously, have you already been convicted for a **sexual offence** against an adult?

Do you have convictions for **sexual offences** against more than one adult?

Have you ever been convicted of a **non-sexual violent offence**?

Have you ever been convicted for a **non-sexual, non-violent offence**?

Have you ever used a weapon or threatened to use a weapon against another person?

As an adult, have you ever had **sexual contact** with a person younger than 16y?

Are you currently serving time for a **sexual offence** against a person younger than 16y?

Previously, have you already been convicted for a **sexual offence** against a person younger than 16y?

Do you have convictions for **sexual offences** against more than one person younger than 16y?

Were more than half of your victims male?

Were more than half of your victims strangers to you?

Why do you think you had sexual contact with a minor younger than 16y?

[Click here to continue](#)

Have you done any of the following things with a person younger than 16y?

- Given them drugs or alcohol
- Shown them **legal pornography**
- Shown them **child pornography**
- Taken pictures or filmed them or your sexual activities without their knowledge
- Taken pictures or filmed them or your sexual activities with their knowledge
- Taken pictures or filmed them or your sexual activities, and showed or sent the material to other people
- Got them to take pictures of themselves

Have you ever seen pornography that showed **extreme violence**?

Have you ever seen pornography that showed **necrophilia**?


Have you ever seen pornography that showed **bestiality**?

Have you ever seen pornography that showed **urination/defecation**?

Have you ever seen pornography that showed children under 18y?

You finished the third part of the survey!

You can take your next break.



Please click the clock to finish the break.

The following questions only refer to **child pornography**.

How old were you when you deliberately started viewing child pornography?
Please press enter after you finished your text

Have you ever been convicted of **possession, display, trading, and/or distribution of child pornography**?

Have you been convicted of **possession, display, trading, and/or distribution of child pornography** on more than one separate occasion?

Do you think your penalty is fair for what you have done?

Where was the computer located you used to access child pornography?

- Home
- Work
- Public place, such as library
- Other

Please click all the different types of child pornography that you have possessed:

- Digital images yes no
- Printed photographs yes no
- Digital video files yes no
- Video tapes/DVDs yes no
- Digital sound files yes no
- Audiotapes or other sound recordings yes no
- Digital text files yes no
- Magazines/ books yes no

The following questions refer to the content of child pornography – what was shown in the images.

[Click here to continue](#)

Did you have child pornography that did not have real children in them, such as cartoons or **morphed images**? yes no

Did more than half of your child pornography show male children or male teenagers? yes no

Did you have child pornography that showed children between 1-5 years? yes no

Did you have child pornography that showed infants (< 1 year)? yes no

Some people have a special type they look for in child pornography, such as a certain age, gender or skin colour. Did you prefer a certain victim type? yes no

Have you changed your preference the more child pornography you had seen? yes no

Some people only like certain activities in child pornography, for example they would only look at images of oral sex, or boy-boy activities. Did you prefer a certain sexual activity in your child pornography? yes no

Have you changed this preference the more child pornography you had seen? yes no

Did some of your child pornography show children in situations where it is normal to be naked or in underwear, such as on the beach or in the bathtub? yes no

Did some of your child pornography show children who pose for the camera, for example they might pretend to be a model, a film star or a pornography actor/actress? yes no

Did some of your child pornography show the penis, vagina, anus of a child and/or breasts of a girl? yes no

Did some of your child pornography show children in sexual actions, either alone or with other children? yes no

Did some of your child pornography show children in sexual actions with one or more adults? yes no

Did some of your child pornography show children who are in pain, for example they are tied, bound, beaten, or whipped? yes no

Did some of your child pornography show children in sexual activities with an animal? yes no

Did you add text to your child pornography, for example by changing their names or developing a story to the images? yes no

Did you have images of children that do not account as child pornography, such as from clothing catalogues or brochures? yes no

The next set of items asks for your activities related to child pornography.

[Click here to continue](#)

Have you ever paid for child pornography? yes no

Have you shared your child pornography material with other users? yes no

Have you used the internet to trade your child pornography material with other users? yes no

Since starting using child pornography, did you increase the number of people you know who are also interested in child pornography? yes no

Have you ever consumed alcohol or drugs when you viewed child pornography? yes no

Did you get most of your child pornography from the Internet? yes no

How much time did you spend online with child pornography? (hours/week)

Please press enter after you finished your text

Did you get some of your child pornography material from the world wide web, such as open websites? yes no

Did you get some of your child pornography material from through other users in chat rooms? yes no

Did you get some of your child pornography material from **online newsgroups**? yes no

Did you get some of your child pornography material from through **peer2peer or file exchange programs**? yes no

Did you get some of your child pornography material via PXT from mobile devices? yes no

Did you get some of your child pornography material from via email from other users? yes no

Did you get some of your child pornography material from **online** suppliers who sent the material per regular mail? yes no

Did you get some of your child pornography material from **offline** contacts, such as other people or certain shops? yes no

Did you change your preferred **means of access** the more child pornography you had seen? yes no

How much time did you spend sorting and cataloguing your child pornography on your computer? (hours/per week) Please press enter after you finished your text

Have you ever saved your child pornography to **offline devices**, such as USB sticks, disks or CDs?

Have you ever created hard copies of your child pornography, such as printing out images?

Have you tried to hide your child pornography on your computer?

Was child pornography **sexually arousing** you?

Did you show child pornography to other adults?

Did you post child pornography online so that other users can view it?

Would you agree that child pornography has helped you to meet other adults online?

Did you have online conversations with other child pornography users?

Have you been a member of an online newsgroup that was related to child pornography?


Did you earn money from child pornography?

Have you ever observed the live sexual abuse of a child online?

Did you send child pornography to children online?

Why do you think you started with child pornography?

You are nearly done!



Please click the clock to finish the break.

The last set of questions is about your opinion to some statements. Again, please try to answer the questions as if you were still in your "old life" before prison or treatment.

You can rate the statements from 1 to 5.

- 1 - Strongly Agree
- 2 - Agree
- 3 - Neutral (neither agree or disagree)
- 4 - Disagree
- 5 - Strongly Disagree

[Click here to continue](#)

A child 13 or younger can make her (his) own decision as to whether she (he) wants to have sex with an adult or not.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If a young child stares at my genitals it means the child likes what she (he) sees and is enjoying watching my genitals.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

A man is justified in having sex with his children or step-children, if his wife doesn't like sex.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

A child who doesn't physically resist an adult's sexual advances, really wants to have sex with the adult.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If a 13 year old (or younger) child flirts with an adult, it means he (she) wants to have sex with the adult.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Sex between a 13 year old (or younger) child and an adult causes the child no emotional problems.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Having sex with a child is a good way for an adult to teach the child about sex.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If I tell my young child (step-child or close relative) what to do sexually and they do it, that means they will always do it because they really want to.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

When a young child has sex with an adult, it helps the child learn how to relate to adults in the future.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Most children 13 (or younger) would enjoy having sex with an adult, and it wouldn't harm the child in the future.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Children don't tell others about having sex with a parent (or other adult) because they really like it and want it to continue.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Sometimes in the future, our society will realize that sex between a child and an adult is all right.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

An adult can tell if having sex with a young child will emotionally damage the child in the future.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

An adult just feeling a child's body all over without touching her (his) genitals is not really being sexual with the child.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

I show my love and affection to a child by having sex with her (him).

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

It's better to have sex with your child (or someone else's child) than to have an affair.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

An adult fondling a young child or having the child fondle the adult will not cause the child any harm.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

A child will never have sex with an adult unless the child really wants to.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

My daughter (son) or other young child knows that I will still love her (him) even if she (he) refuses to be sexual with me.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

When a young child asks an adult about sex, it means she (he) wants to see the adult's sex organs or have sex with the adult.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If an adult has sex with a young child it prevents the child from having sexual hang-ups in the future.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

When a young child walks in front of me with no or only a few clothes on, she (he) is trying to arouse me.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

My relationship with daughter (son) or other child is strengthened by the fact that we have sex together.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If a child has sex with an adult, the child will look back at the experience as an adult and see it as a positive experience.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

The only way I could do harm to a child when having sex with her (him) would be to use physical force to get her (him) to have sex with me.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

When children watch an adult masturbate, it helps the child learn about sex.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

An adult can know just how much sex between him (her) and a child will hurt the child later on.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

There is no effective treatment for child molestation.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

If a person is attracted to sex with children, he (she) should solve that problem themselves and not talk to professionals.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Because men have higher sexual needs, it is not always possible to control sexual urges.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Some people who have sex with children are not true "sex offenders" – they are out of control and make a mistake.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Sexual thoughts about a child are not that bad because it does not really hurt the child.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Just looking at a naked child is not as bad as touching and will probably not affect the child as much.

1 2 3 4 5
Strongly Agree Agree Neutral Disagree Strongly Disagree

Children who are molested by more than one adult probably are doing something to attract adults to them.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

For many men, sex offences against children are the result of stress and the offence helped to relieve the stress.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

Sometimes the offender suffers, loses or is hurt the most.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

I feel more comfortable with children than adults.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

Children are supposed to do what adults want and this might include serving their sexual needs.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

A person should have sex whenever it is needed.

1 2 3 4 5
 Strongly Agree Agree Neutral Disagree Strongly Disagree

You have completed the survey.

Thanks a lot!

Please inform the person who administered the survey.

[Click here to close the program.](#)

Design varies slightly from computer survey.

The yellow bars on the right side indicated progress throughout the survey and were not static as in this print.

The computer survey contained automatic jumps between pages when certain items were responded to negatively. In the print version, jumps are indicated with a yellow or green box around the answer. The target page is indicated by a yellow or green arrow in the left upper corner.

The question on ethnicity provided the following options:

NZ European	Maori
Pacific Islander	Indian
Japanese	Chinese
Other (please type)	

Word Explanations in Survey

Keyword	Explanation
Diagnose	Diagnose means that a doctor, psychologist, or psychiatrist told you that you have a mental health issue. It does not necessarily mean that you had treatment or got medication.
Mental Health Problem	Mental health problem refers to any psychological or psychiatric problem you have or have had; this may include depression, anxiety, panic attacks, etc.
Sex-Tourism	Sex-tourism refers to any travel you have undertaken with the purpose of having sex.
Caregivers	The word 'caregivers' describes people who were responsible for looking after you but were not your parents; this could be your grandparents, aunts and uncles, or foster parents.
Wagging	Wagging refers to skipping school even though you are supposed to go
Bullying	Bullying is school-related teasing by other kids, but in a very negative and hurtful way. If you are the victim, it could include name-calling, kicking, telling on you, stealing from you, beating up, etc. If you are the bully, you would have done these things to other kids.
Physical Abuse	Physical abuse is physical force or violence by members of your close environment (family, teachers, ...) that results in pain and leaves marks or injuries such as bruises, bodily injury, or even impairment.

Sexual Abuse	Sexual abuse refers to any sexual contact you had with an adult when you were younger than 16 years. For example, you were made to touch the adult or you were sexually touched by the adult
Children	In this survey, a child refers to any person younger than 18 years (if not otherwise indicated).
Fantasy Or Science Fiction	Fantasy and science fiction describe a kind of literature or movies that is based on made-up events and speculation. Science Fiction is more “real” than Fantasy as it is more based on science than pure imagination. These can be something as different as Star Trek, Jurassic Park, or Alice in Wonderland.
Second-Life Or Third-Person Games	Second life games are 3D computer games where the player has a character (avatar) and actively participates in the game, e.g. By building houses, meet other people, or fulfill different tasks. Games can be fantasy-based. Examples are SIMS, or Second Life Viewer. Third-person games are 3D computer games where the player is not depicted in the game but has a more distant “outside” perspective. This is usually used in action games, such as Tomb Raider or Super Mario.
Online	Online refers to all activities that require an internet connection, such as checking emails, bank accounts or chatting online.
Fake Websites	Fake websites refer to websites that you created to earn money, for example a fake online shop or a website that looks like “Kiwi bank” to get people’s account details.

Fake Online Profile	An online profile refers to a page set up by you on features like Facebook, Bebo or Twitter. It contains a description about you and your interests, might have some pictures of you, and allows you to become friends with other users, see their profile and contact them. A fake online profile is when you are not honest in your self-description, for example you might lie about your age, looks or gender.
Sexual Topics	Sexual topics can include various themes, you can have cybersex or telephone sex with this person, or you might discuss questions around sex, puberty, books or movies with sexual references.
Offline Contact (With A Child)	Offline contact with a child (a person younger than 18 years) exists if you met the child online but you started to extend your contact in the real world. This can include telephone calls, sending each other presents or letters.
Sexual Offence	A person is charged with a sexual offence if he or she has initiated sexual abuse, and it has been brought to police attention. Sexual abuse refers to any sexual contact to a person of any age who is not agreeing to this, as defined above.
Non-Sexual, Violent Offence	A non-sexual violent offence refers to all offences where violence was used but not in a sexual manner. This can include beating up someone, use of weapons, but also murder and manslaughter, or the threat to commit these crimes.
Non-Sexual, Non-Violent Offence	Non-sexual, non-violent crimes are offences that usually lack direct victim contact. This can be burglary, fraud, or arson.

Sexual Contact With A Child	<p>This refers to touching a child’s penis, vagina or breasts; making a child touch you; having oral sex with a child; having sexual intercourse (vaginal/anal) with a child; exposing your penis to a child; making a child watch sexual actions, either real or in pornography; making a child touch himself or herself; making a child perform sexual actions with another child or children; making a child perform sexual actions with an animal</p>
Sexual Offence	<p>A person is charged with a sexual offence if he or she has initiated sexual abuse, and it has been brought to police attention. Sexual abuse refers to any sexual contact to a person of any age who is not agreeing to this, as defined above.</p>
Legal Pornography	<p>Legal pornography is pornography that you can openly buy in a shop, such as Penthouse, Hustler or Playboy.</p>
Child Pornography	<p>Child pornography is pornography depicting a person younger than 18 years.</p>
Extreme Violence (Porn)	<p>Pornography with extreme violence shows people who are in pain or have pain inflicted on them, for example they are tied up, beaten up, whipped, or have wax put onto them.</p>
Necrophilia (Porn)	<p>Necrophilic pornography shows sexual actions with dead bodies or limbs of dead people.</p>
Bestiality (Porn)	<p>Pornography with bestiality shows sexual actions with animals.</p>
Possession, Display, Trading, And/Or Distribution Of	<p>In New Zealand, it is forbidden to possess child pornography, which includes downloading and saving of internet files, even if you destroy the material afterwards. Only clicking on an image when you are</p>

Child Pornography	surfing through the internet is already called “possession” as it leaves a little file on your computer. Display of child pornography happens when you show it to someone else or upload it on a webpage that others can see it. Trading means that you send your material to someone and they give you something back for it. Distribution of child pornography happens when you send it to other people, per news groups, mail, or email regardless if you receive money for it or not.
Digital Files	Digital files usually refer to computer material; it means that there is no hardcopy of the material available. This can be an image, video, or sound that you found on the internet or that was made with a digital camera. Digital text can be emails, chat histories or stories you found or created online.
Morphed Image	A morphed image usually combines two or more pictures from different sources. For example, legal adult pornography can be morphed with children’s head that it looks like the actors in the images are children. Even though they are artificially created, in New Zealand such images are still treated as child pornography and are illegal.
Online Newsgroup	A newsgroup is an internet community that is usually dedicated to one specific topic (“gardening”), or to one specific group (“Scouts in Palmerston North”). User usually have a password log-in and can use the group to discuss and exchange their interests. There are also many newsgroups referring to sexual topics, including child pornography.

Peer2peer	Peer-to-peer refer to online exchange situations where users either upload material that they want to share with other users (their “peers”) on a central server, or they allow access or partial access to their computer without using a server in between. This allows to search through someone else’s files and transfer the desired material on your own computer. Peer to peer systems can be anonymous or not.
File Exchange Programs	File exchange programs are used when a direct exchange between Internet users is not appropriate or not functional, for example because files are too large. Instead, the material is uploaded on a server that can be accessed by all users (open or anonymous, sometimes password-protected).
Means Of Access	Means of access refers to the locations where you got your child pornography from, e.g. From the internet, other users, etc
Offline Devices	Offline devices for your computer are devices where you do not need the internet to access them, such as disks, dvds, USB sticks, or external hard drives.
Sexually Arousing	Child pornography is sexually arousing for you when it turns you on, for example when it makes you think about having sex with the child or when you masturbate ("play with yourself") while you view it.

Appendix F: Ethical Approval for Main Study

- 1) Ethical Approval Letter: Community Study, data collection period 1
- 2) Ethical Approval Letter: Community Study, data collection period 2
- 3) Ethical Approval Letter: Prison Study, data collection period 1
- 4) Formal Approval Letter from the Department of Corrections

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2 December 2009

Hannah Merdian

Dear Hannah

Ethics Approval Application – #09:33

**Title: Development of a risk measure for online child pornography
Offenders – community study**

Thank you for your ethics application which has been fully considered and approved by the Psychology Research and Ethics Committee.

Please note that approval is for three years. If this project has not been completed within three years from the date of this letter, you must request reapproval.

If any modifications are required to your application, e.g., nature, content, location, procedures or personnel these will need to be submitted to the Chair of the Committee.

I wish you success with your research.

Yours sincerely

A handwritten signature in black ink that reads "R. Isler".

Dr Robert Isler
Convenor
Psychology Research and Ethics Committee
Department of Psychology
University of Waikato

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

9 November 2010

Hannah Merdian

Dear Hannah

Ethics Approval Application – #09:33

**Title: Development of a risk measure for online child pornography offenders-
community study**

I wish to advise that your request for a second round of data collection for the above project has been approved by the Psychology Research and Ethics Committee conditional on receipt of approval for the research applications submitted to the Department of Corrections.

Yours sincerely

A handwritten signature in black ink that reads 'R Isler'.

Dr Robert Isler
Convenor
Psychology Research and Ethics Committee
Department of Psychology
University of Waikato

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

26 November 2009

Hannah Merdian

Dear Hannah

Ethics Approval Application – #09:32

**Title: Development of a risk measure for online child pornography
Offenders – in prison study**

Thank you for your ethics application which has been fully considered and approved by the Psychology Research and Ethics Committee **pending receipt of approval letter from the Department of Corrections.**

Please note that approval is for three years. If this project has not been completed within three years from the date of this letter, you must request reapproval.

If any modifications are required to your application, e.g., nature, content, location, procedures or personnel these will need to be submitted to the Chair of the Committee.

I wish you success with your research.

Yours sincerely

A handwritten signature in black ink that reads 'R. Isler'.

Dr Robert Isler
Convenor
Psychology Research and Ethics Committee
Department of Psychology
University of Waikato



PRISON SERVICES
Head Office
Wellington

31 March 2010

Dear Hannah

Formal Approval of Specified Visitor Status

I am pleased to formally confirm your approval as a specified visitor to Auckland Prison.

Your status as a specified visitor is for the purposes of undertaking research on 'Development of a risk measure for online child pornography offenders'.

This approval will be for the period 01/04/2010 to 31/12/2010, after which time a further approval will be required. During the period of this approval the following conditions apply:

1. You must provide a form of positive identification to the officer supervising entry to the prison.
2. You must bring this approval form (or any other document / identification approved by the Department of Corrections) to show to the officer supervising entry to the prison.
3. You must contact the prison in advance to arrange visits. You may visit Auckland Prison at any agreed time that is consistent with the approved purpose of your visits.
4. While on prison property you must comply with all directions given by prison staff relating to your movements around the prison.
5. To ascertain whether there have been any changes in your circumstances which may affect your specified visitor status, you may be asked by the Prison Manager to supply further information during the course of the approval.

B.09.02.F2

You may have access to prisoners and staff at any time if the visit is consistent with the approved purpose of the visit and the conditions of the approval. You can have interviews with prisoners in private (out of the hearing of any other person) unless you or the prisoner asks for a staff member to be present.

For your own benefit and welfare, please read and make yourself familiar with Regulation 95 of the Corrections Regulations 2005:

95. Specified Visitors not to receive money, gratuities, etc

- (1) A specified visitor must not receive any benefit, gift, gratuity, money or reward of any kind from or on behalf of a prisoner unless -
 - (a) it is money received from any other person to buy for a prisoner, as a gift, an item of authorised property nominated by the other person or the prisoner; or
 - (b) it is a gift (other than a gift of money) or a benefit (other than a monetary benefit), and the visitor has first obtained the written approval of the Prison Manager of the institution to receive it.
- (2) Without first obtaining the written approval of the Prison Manager, a specified visitor must not -
 - (a) trade with a prisoner; or
 - (b) enter into any agreement with a prisoner that confers or is intended to confer a benefit of any kind on any person.

You should also be aware that section 141 of the Corrections Act 2004 states that it is an offence to bring anything or cause anything to be brought into a prison, intending that it should come into the possession of a prisoner, any liquor, tobacco, money or letter, or any article or thing whatsoever.

This approval can be suspended, varied, revoked or new conditions imposed at the discretion of the Prison Manager at any time, in accordance with regulation 93(3) of the Corrections Regulations 2005.

If you need clarification on any aspects of your approval or a situation arises at the prison that you wish to discuss, please do not hesitate to seek advice from a staff member or a prison manager.

Yours sincerely



Harry Hawthorn
General Manager, Prison Services

Appendix G: Material for Participant Recruiting

- 1) Information Letter for Agencies (template)
- 2) Information Letter for Prison Inmates (template)
- 3) Information Letter for Community Participants (template)
- 4) Contact List for Community Participants

Development of a risk measure for offenders with online child sexual exploitation material

Department of
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Hamilton 3240

Hannah Merdian
h.merdian@gmail.com
ph: 09 5500929
mobile: 021 022 85406



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

[day]. [month], 2010

Kia ora,

My name is Hannah Merdian and I am a PhD student at the University of Waikato. I am currently developing a computer-based measure of risk variables for online child pornography offenders. I have just conducted an expert survey on online child pornography offending, and we are now in the preparation for the main study of my PhD.

I would like to ask you if you might be interested in participating in the main study with some of your clients.

What is this study about?

We have developed a test that may allow us to classify different types of child pornography offenders and their different risk groups. Before this test can be used, it needs to be validated on three samples (child pornography only, contact child sex offenders, and mixed – ideally 30 subjects per group). Subjects will come from in-prison sites and community, and testing should not exceed 30min per subjects. The study has obtained ethical approval by the University of Waikato.

I would be interested in individuals that approach you due to child pornography viewing, even if you only have a few. Child pornography occurs in a wide behavioural range, and I do not want to concentrate on convicted offenders only.

What exactly is this survey?

The survey consists of different items that were identified as potential risk variables for child pornography offenders. These items are based on a literature review as well as an expert survey conducted with national and international professional from customs, treatment centres, prison sites and the Department of Internal Affairs. The survey has been translated into plain English by a professional translator and was piloted on a volunteer subject.

How will the survey be administered?

The survey will be provided in a computerised version at a location of your choice, preferable the treatment centre. I can either provide laptops or upload the software on onsite computers. According to the preferences, I will either conduct the testing myself or I can train you or your staff members to conduct the test in order to diminish any client-contact with my person. After an initial introduction, the participant has time to complete the survey; there will be some break times but testing should not exceed 60min. It would be appreciated if standardised risk scores can be disclosed (if

available); this can only be done by a staff member and the researcher will not be informed of the participant's score.

How will client confidentiality be protected?

This study is **anonymous** and **confidential**. Every participant will be assigned a random number by the computer so it is **not possible that any personal information can be identified** after the session. All responses from each participant will be examined together to identify the value of the test items and to further improve the test.

Because of the anonymity, we are not able to give you any information about personal results but we will send a copy of all study outcomes to you.

Each subject **can withdraw consent at any time and stop the session**. However, once the survey is completed, we cannot separate individual information from everyone else's, so we cannot retrieve it anymore.

Some people might experience some distress or need to talk after the survey. It is up to you if you make yourself available for debriefing. However, the client will be provided with a list of registered counsellors who expressed an interest in child pornography cases.

What do I have to do?

You will be the initial point of contact with the client. The information sheet (attached), which outlines the purpose and content of the study, should be provided to every potential candidate; please do not put it on open display in waiting areas etc as some people might be disturbed by the content of the study. The candidate is asked to return the consent form to you. If you receive a positive reply, please contact me to arrange the testing sessions.

What if I don't want to participate?

It would be great if you could get in touch and inform me about your decision. If I do not hear back within four weeks after my initial contact, I will make a follow-up attempt before removing you from my list.

I am keen – how can I participate?

Please get in touch with me and we can clarify all comments and questions, and arrange the testing details. **Please let me know if you have any formal research approval processes**; I am happy to hand in a formal application.

Please do not hesitate to contact me with any questions or comments. Alternatively, you can contact my supervisors, Assoc Prof Doug Boer (<drdoug@waikato.ac.nz>), Dr Nick Wilson (<Nick.WILSON@corrections.govt.nz>) and Dr Jo Thakker (<jthakker@waikato.ac.nz>).

If you are not satisfied at any time during or after the research project, or receive complaints from the participants, you can contact me or my supervisors.

Alternatively, you may want to contact the Chairperson of the Department, Neville Robertson (email: scorpio@waikato.ac.nz; phone: 07 838 8300).

Many thanks,

Hannah Merdian
University of Waikato
Department of Psychology
h.merdian@gmail.com

Development of a risk measure for online child sexual abuse image offenders

Department of
Psychology

Prof. Doug Boer

Hannah Merdian

Gate 1 Knighton
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Private Bag 3105

Hamilton 3240



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

day. month, 2010

Kia ora,

Thanks a lot for taking the time to read this letter!

We have developed a new risk measure and are planning to test it at [prison unit] - and would need **your support** with this.

What is this study about?

As you might now, there are some people who use the internet to sexually offend, most frequently by viewing child pornography. There is not much research but it seems that there are differences between these internet offenders and other types of child sex offenders.

We have developed a test that may allow us to classify different types of child pornography offenders and their different risk groups. Before this test can be used, its value has to be tested on a number of people, child pornography offenders as well as contact child sex offenders - to see if there are differences between these offender groups.

If you are interested, we would like to involve you as a test participant, even if you do not have any experience with child pornography. The study has obtained ethical approval by the University of Waikato and the Department of Corrections.

What do I have to do?

If you decide to participate, you will be asked to answer some questions on a computer screen. The session will take about **30min** but you can take little breaks if you need them.

XX and XX at [prison unit] are available for you if you want to talk about your test experience afterwards.

What happens with my answers?

This study is **anonymous** and **confidential**. There is no way that the researcher will be able to match the answers you give, to your personal information. **No one can see your answers**; every participant will be assigned a random number by the computer so there is **no way that any personal information about you can be identified** after the session, hence nothing you disclose will have any consequences for you.

To get a better idea of risk, the [prison unit] will give us your risk scores for each participant. A staff member will insert them in the computer so we researchers are not informed about your risk score and we have no possibility to identify them later. No

staff member at [prison unit] can see the data on the computer during or after you complete the test.

All responses from each participant will be examined together to identify the value of the test items and to further improve the test. Because of the anonymity, we are not able to give you any information about your personal result but we will send a copy of all study outcomes to the [prison unit] for the information of study participants.

What if I don't want to participate?

There will be no consequences if you don't want to take part – it is completely your choice.

What if I change my mind?

If you decide to participate and then change your mind, **you can withdraw your consent at any time and stop the session**. However, once you completed the survey, we cannot separate your information from everyone else's, so we cannot retrieve it anymore.

I am keen – how can I participate?

If you wish to participate, please inform your group facilitator by XX.XX. If you have any more questions or comments, you can ask the researcher at the beginning of the test session – there will be time put aside only for this purpose.

Your participation in this study is **absolutely voluntarily**, and will have no impact on your future involvement with the correctional or treatment services or your management during your current sentence. Your contribution would be very valuable for this research project, and will help us to provide a better and more effective response to the problem of online child pornography.

Many thanks,

Hannah

Development of a risk measure for online child sexual abuse image offenders

Department of
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Hamilton 3240

Prof. Doug Boer

Hannah Merdian



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Day, Month, 2010

Kia ora,

Thanks a lot for taking the time to read this letter!

My name is Hannah Merdian and I am conducting a study in psychology for the University of Waikato. We have developed a new risk measure and [] is giving us the opportunity to test it with you.

What is the study about?

As you might now, there are some people who use the internet to sexually offend, most frequently by viewing child pornography. There is not much research but it seems that there are differences between these Internet offenders and other types of child sex offenders.

We have developed a test that may allow us to classify different types of child pornography offenders and their different risk groups. Before this test can be used, its value has to be tested on a number of people, child pornography offenders as well as contact child sex offenders - to see if there are differences between these offender groups.

If you are interested, we would like to involve you as a test participant, even if you do not have any experience with child pornography. Your insider knowledge is very important for this research, and we need as many participants as possible. The study has obtained ethical approval by the University of Waikato and the Department of Corrections, and was approved by [].

What do I have to do?

For the survey, you will be asked to answer some questions on a computer screen. The session will take about **45 minutes** but you can take little breaks in between. Of course, you will not have to view child pornography for this survey. Some of the questions are quite explicit and might be a little unsettling for you; they are similar to what you might have talked about in your group. Your therapist and a list of other professionals are available for you if you want to debrief the survey afterwards.

You can ask your group facilitator any questions that you have about the research. You can also send me an email on wakaitostudy@gmail.com and I get in touch with you.

A computer with the survey on it will be placed in a private area at [] between **the XX of XX and XX of XX**. If you decide to participate, please let your group facilitator know and he or she will arrange a time that suits you best.

What will happen with my answers?

This study is **anonymous** and **confidential**. **Your name and details will not be forwarded to me or anyone else outside []**. **No one can see your answers**; every participant will be assigned a random number by the computer so it is **not possible that any personal information about you can be identified** after the session, hence nothing you disclose will have any consequences for you. **No staff member at [] can see the data on the computer during or after you complete the test.**

All responses from each participant will be examined together to identify the value of the test items and to further improve the test. Because of the anonymity, we are not able to give you any information about your personal result but we will send a copy of all study outcomes to your group facilitator.

What if I don't want to participate?

There will be no consequences if you don't want to take part – it is completely your choice.

What if I change my mind later?

If you decide to participate and then change your mind, **you can withdraw your consent at any time and stop the session**. However, once you completed the survey, we cannot separate your information from everyone else's, so we cannot retrieve your answers anymore.

I am keen – how can I participate?

Just tell the team at [] and they are going to arrange a time with you. Please don't hesitate to discuss any issues with your group facilitator!

Your participation in this study is **absolutely voluntarily**, and will have no impact on your future involvement with correctional or treatment services. Your contribution would be very valuable for this research project, and will help us to provide a better and more effective response to the problem of online child pornography. I really need your help and am grateful for your interest in this study.

Many thanks,

Hannah Merdian

If you are not satisfied at any time during or after the research project, or receive complaints from the participants, you can contact me or my supervisors. Alternatively, you may want to contact the Chairperson of the Department, Neville Robertson (email: scorpio@waikato.ac.nz; phone: 07 838 8300).

Contact List

Some people who participate in the survey might have a reaction to it that makes them feel uncomfortable. They might feel low and depressed, or agitated and angry. Some people may find a change in their sleep or eating pattern without any obvious explanation.

Some people just start thinking about child pornography and would like to talk to someone about their personal experiences.

This may not happen immediately but may come up in the weeks or even months after the survey.

If you already know a counsellor or psychologist, and you feel safe talking to them, it might be a good idea to arrange an appointment with them. If you don't know any professional, here is a list of counsellors with experience or interest in the area of child pornography.

Lifeline (24h)

0800 543 354
phone counselling New Zealand-wide

Auckland

Mental Health Crisis (24h)

0800 800 717

Safe Network

09 377 9898
provides treatment for individuals with abusive sexual behaviours or interests
special groups for Maori and Internet offenders

Crispin Balfour

09 376 0302
Psychotherapist
Wellpark Avenue – Psychotherapy NZ
crispinbalfour@psychotherapynz.org

Nathan Gaunt

021 1212024
Registered Psychologist
Bellevue Health Centre - Bellevue Rd
nathan@psychogenix.co.nz

David Thomson

09 630 9507
Psychotherapist
Cairnhill Health Centre – 95 Mountain Rd
davidthomson@xtra.co.nz

Christchurch

Mental Health Crisis (24h)

0800 920 092

STOP

03 374 5010
provides treatment for individuals with abusive sexual behaviours or interests

Martin Visser

03 379 1843
Registered Clinical Psychologist
112 Edgeware Rd
martin.visser@clear.net.nz

Charlotte West

03 337 3659
Registered Clinical Psychologist
The Somerfield Center – 181 Selwyn St.
charlotte.west@orcon.net.nz

Bryan Wright

03 365 7776
Registered Psychologist
The Durham Centre - 110 Bealey Avenue
bryan.wright@xtra.co.nz

Dunedin

Mental Health Crisis (24h) 03 474
0999

Tara Clark

03 455 5622
Registered Clinical Psychologist
124 Musselburgh Rise
psycassc@es.co.nz

Brian Dixon

03 474 5155
Registered Clinical Psychologist
Delta Psychology – John Wickliffe House
– Princess St
brian.dixon@xtra.co.nz

Mary Fennessy

03 455 5018
Counsellor
South City Medical Centre
Cnr Hillside Road A& King Edward Street
map.fennessy@xtra.co.nz

Vanessa Hornal

03 455 5622
Counsellor
124 Musselburgh Rise
psycassc@es.co.nz

Hamilton**Mental Health Crisis (24h)**

0800 50 50 50

Safe Network

07 847 0555
provides treatment for individuals with
abusive sexual behaviours or interests

Ineke Castina

07 858 3211
Counsellor
Hamilton Family Therapy Centre –
15 Wellington Street
castina@xtra.co.nz

Alfred Frey

07 846 0608
Registered Psychologist
109 Ellicott Road
alfrey@clear.net.nz

Alison Rowe

07 839 6414
Counsellor
Psychotherapy Centre – London St

alisonrowe@xtra.co.nz

Palmerston North**Mental Health Crisis (24h)**

0800 653 357

WELLSTOP

06 356 9666
provides treatment for individuals with
abusive sexual behaviours or interests

Victor Soeterik

06 952 5560
Registered Clinical Psychologist
Victoria Medical Center – 482 Church St
vfw@clear.net.nz

Gill Stacey

06 357 0406
Counsellor/Therapist
Amesbury House - 25 Amesbury Street
gillstacey@ihug.co.nz

Wellington**Mental Health Crisis (24h)**

04 566 6999

WELLSTOP

04 566 4745
provides treatment for individuals with
abusive sexual behaviours or interests

Marian Leicester

04 939 0867
Counsellor
Harbour City Tower – 29 Brandon St
marian-l@ihug.co.nz

Rod Sandle

04 384 7236
Psychotherapist
29 Grass Street
rodsandle@clear.net.nz

Appendix H: Responses to Item Off11.1

Table H1: Verbatim Qualitative Responses to Item Off11.1 and their Thematic Interpretation

ID	Type	off11.1: Why do you think you had sexual contact with a minor?	Theme
5094	CSO	because I took on 4 step kids and there mother would let one jump into bed with me and she would play with my penis when the child was on the other side of me. and a lack of compassion from partner she was violent and abusive! the mother also hated her own daughter so she would stay at my house.	Blame attribution, No appropriate adult relationship, Opportunity
5142	CSO	i was sexually frustrated and under the influence	No appropriate adult relationship, Stress and sexual needs
5143	CSO	they were known to me and i took advantage of an opportunity	Opportunity
5144	CSO	i was sentence to 3years sexual violation on a minor	-
5145	CSO	curiosity and trying to win a friendship	No appropriate adult relationship, Curiosity
5146	CSO	To give up sniffing solvents and go to prison for to get help and to do a long term of sentence.	Escape from misery
5147	CSO	feelings of being less of a person than other adults Lack of an adult sex life with my wife	Self-esteem issues
5148	CSO	I was stressed out and lonely and developed a close relationship with a minor who had a crush on me. When she hit puberty I started looking at her as a woman and we slept together.	No appropriate adult relationship, Stress and sexual needs
5149	CSO	my upbringing was physical and sexual abuse	Own sexual trauma
5151	CSO	shy, lack of self-confidence and self-esteem, judgmental of myself, thought children not judgmental, didn't think I was good looking, had a hard time getting girlfriends as a teenager due to the previous things listed, distorted thinking, thought I wouldn't be rejected by children (like I was as a teenager), no sexual experience at all (including kissing and fondling) so didn't want to be judged by a female of my age by her previous sexual experiences and I thought that children were more approachable and less inclined to say no.	No appropriate adult relationship, Self-esteem issues, Sexual interest in minors

5153	CSO	self gratification	Stress and sexual needs
5155	CSO	isolation from adult company becoming attracted to young male family member under 16 years after knowing them for some time	No appropriate adult relationship
5156	CSO	both parties took part in the event as equals	Blame attribution
5243	CSO	unbalanced lifestyle	-
5244	CSO	low self esteem/confidence, health issues, a lack of communication with wife, family, friends, and distorted thoughts of (in the past from 7 years and 16 years, it was ok to fill around with one another sexually as this was done to me when I was 4 years old).	No appropriate adult relationship, Self-esteem issues, Stress and sexual needs, Own sexual trauma, Sexual interest in minors
5245	CSO	I saw my sexual acts with children at the time just playing around and not sex.	Sexual interest in minors
5246	CSO	my wife's demise low libido selfish needs	Blame attribution, No appropriate adult relationship
5247	CSO	because I chose to work and live where there was access to young females	Opportunity
5251	CSO	because they would look up to me as their older brother	Self-esteem issues
5341	CSO	I have always been more comfortable around younger people than with adults. This possibly is due to fear of being rejected by an adult in trying to form a relationship and younger people seemed to be (although not always).	No appropriate adult relationship, Self-esteem issues
5343	CSO	because I was intoxicated and under the influence of alcohol	Stress and sexual needs
5346	CSO	because I was not happy with my wife and was so lonely	No appropriate adult relationship
5347	CSO	because of the attraction to that person that I had	Sexual interest in minors
5348	CSO	self-centred, anger issues, saw victim as an adult, sexual pre-occupation, disregard for laws, impulsive	Stress and sexual needs

		behaviours, no sense of boundaries and unresolved issues of the past.	
5349	CSO	she told me she was 18 when the truth was she was 15	Blame attribution
5352	CSO	because they trusted me and the opportunity to offend occurred. I did not handle the death of my father very well and did not ask for help.	Stress and sexual needs, Opportunity
5353	CSO	I was single with a low self esteem, single parent with little or no parenting skills what so ever. I had a lack of empathy & sympathy for everyone because of my own upbringing and I was to pigheaded to except help from anyone including my own family plus I had the belief that noone cared about me .	Self-esteem issues
5451	CSO	DEPRSION	Stress and sexual needs
5060	CSO	At the time that is what I wanted and I told myself that it was alright.	Sexual interest in minors
5091	MO	sexual confusion, inappropriate behaviour through sexual abuse	Own sexual trauma
5154	MO	because I saw porn video at my younger teenagers and that what attract me to a younger age	Sexual interest in minors
5161	MO	I found her to be intelligent and attractive, I chose to have sexual contact with her. I was not currently in a sexual relationship with anyone at the time.	Sexual interest in minors
5242	MO	Because I didn't know anything different and because of my own sexual abuse I considered it normal behaviour until just a couple of years ago.	Own sexual trauma
5248	MO	At the time I saw them as a 'safer' option than contact with an adult male with less likelihood of being 'outed' as gay.	No appropriate adult relationship
5249	MO	Drunkenness intensified my desire to want sex and i took it out on young children when i couldnt find an adult to have sex with.	No appropriate adult relationship
5250	MO	I had an attraction to some underage girls and had problems communicating with my wife and family	Sexual interest in minors
5342	MO	because i was horny	Stress and sexual needs
5345	MO	i felt i loved them and they wanted to have sex with me like in a loving relationship	Sexual interest in minors

5350	MO	Attitudes gained as a child. Early sexualization. Cognitive distortions. because I wanted to relationship problems	Stress and sexual needs, Own sexual trauma, Sexual interest in minors
5351	MO	i did not accept my sexuality and found children gave me the intimacy missing in my life. i also didn't have many adult relationships as i grew up.	No appropriate adult relationship
5449	MO	Showing Love and Affection	Sexual interest in minors
5059	MO	my sexuality	Sexual interest in minors
5061	MO	Because of confusion around my sexuality.	Stress and sexual needs
5062	MO	because it was my sexual preference	Sexual interest in minors
5058	MO	Because I could not form a proper sexual relationship with an adult.	No appropriate adult relationship

Note. A dash indicates that no theme was identified to the response. All responses are maintained in their original format, including spelling mistakes and grammatical error.

Appendix I: Percentage Distributions on Variables

Table I1: Percentage and Median Scores on Items responded to by all Participants

Item	Item Content	CSEMOs	CSOs	MOs
Binary Variables ^a				
p01	In the last 5 years, have you moved more than once a year?	27	41	35
p02	In the last 5 years, have you changed your employment more than once every two years?	32	38	29
p03	Have you ever been diagnosed with a mental health problem?	50	31	18
(p08)	Never been in a relationship	36	28	18
(p08)	Been in more than 3 long-term relationships	27	28	24
p09	Have you ever struggled to find a partner for a relationship?	50	55	41
p10	Have you ever had sexual contact with someone even though you were in a relationship with someone else? This includes romantic kissing, touching each other or having sex with someone else.	41	55	94
p10.5	Have you ever been hit or beaten by your partner?	9	21	35
p11	Have you ever hit or beaten your partner?	9	21	35
p12	Have you ever paid for offline sexual behaviours or favours, such as for prostitutes or lap-dance?	36	41	35
p13	Have you ever done sex-tourism?	9	14	12
p14	In your childhood, did you mostly live with the same adults?	95	83	94
p15	In your childhood, have you always had enough food to eat?	91	79	65
p16	In your childhood, have you always had a place to sleep?	95	93	100
p17	In your childhood, did you feel that your parents or caregivers loved you?	86	69	76
p18	In your childhood, did you go to school most of the time?	95	83	82
	In your childhood, did you do any of these things:			
p19	Wagging school	55	62	71

p20	Suspension/expulsion from school	14	34	35
p21.1	Being bullied by others	82	59	59
p22	Bullied others	18	38	41
p21.2	Difficulties in making friends	45	48	53
p23	Stealing	36	59	59
p23.5	frequently lied or broken promises	50	59	53
p24	Running away from home	36	48	59
p25	Hurting yourself, like cutting, burning or hitting yourself	14	28	18
p28	Criminal activities, such as arson, destroying of property, or physical or sexual assault to a person	5	48	47
p26	In your childhood, have you been the victim of physical abuse?	36	59	71
p27	In your childhood, have you been the victim of sexual abuse?	41	55	53
ad01	In your daily behaviour, would you consider yourself irritable and aggressive more than other people?	18	21	18
ad02	In your daily behaviour, would you consider yourself responsible and conscientious more than other people?	73	62	77
ad03	In your daily behaviour, would you consider yourself impulsive, e.g it is not like you to plan ahead?	36	38	41
ad04	In your daily behaviour, do you think you like taking risks, for example driving too fast?	36	66	77
ad05	In your daily behaviour, is it easy for you to lie if it serves your purpose?	55	45	53
ad06	In your daily behaviour, do you have second thoughts or regret your behaviour more than other people?	59	59	65
ad07	Do other people see you differently from how you really are?	68	55	71
wsp01	Prior to your detection or treatment, did you have a digital camera?	50	35	53
wsp02	Prior to your detection or treatment, did you have a computer at home?	91	41	76
wsp03	Prior to your detection or treatment, did you have a printer at home?	77	38	65
wsp04	Prior to your detection or treatment, did you have a scanner at home?	59	28	59
wsp05	Prior to your detection or treatment, did you have a web-cam at home?	23	10	29
(wsp06)	Computer equipment, including software worth more than \$1,000	59	17	35

wsp07	In your job, did you work directly with children and teenagers, for example as a caretaker in school?	5	7	0
wsp08	Do you think you have more stress than other people of similar age and in similar position?	68	55	35
wsp09	Do you think you cope well with the stress in your life?	32	34	59
wsp10	In your private time, do you like spending time on your computer, for example for gaming, photography, or programming?	73	17	47
wsp11	In your private time, do you have a hobby where you have contact to children or teenagers, for example in scouts or sports clubs?	18	35	29
wsp12	In your private time, are you interested in fantasy or Science Fiction?	59	35	47
wsp13	In your private time, are you interested in second-life or third-person games?	23	17	29
wsp14	Have you ever accessed the Internet?	96	45	88
wsp19	Did you typically experience pleasure, excitement or relief when you were on the Internet?	77	7	29
wsp20	Since you started going online, has the time you spend online increased?	73	21	35
wsp21	Have you ever felt a loss of control when you are or were on the computer or online?	68	7	29
wsp22	Have you ever lied about the amount of time you spent on the computer/Internet?	59	3	29
wsp23	Have some of your offline relationships suffered because you spent more time on your computer/Internet?	50	0	24
wsp24	Have you ever experienced work problems because of the time you spent on your computer/Internet?	32	7	18
wsp25	Have you ever gotten less than 4h sleep in a night because you spent too long on the computer/Internet?	36	14	24
act01	Illegally downloading music, games or movies	55	21	47
act02	Creating fake websites	0	0	0
act03	Creating viruses, worms or Trojans	0	0	0
act04	Using someone else's credit card details	0	3	0
act05	Did you have a fake online profile, such as on facebook or twitter?	14	3	12

off18	Have you ever seen pornography that showed extreme violence?	55	10	53
off19	Have you ever seen pornography that showed necrophilia?	5	7	0
off19.5	Have you ever seen pornography that showed urination/ defecation?	86	21	59
off20	Have you ever seen pornography that showed bestiality?	68	14	59

Cognitive Distortions^b

Dis01	If a young child stares at my genitals it means the child likes what she (he) sees and is enjoying watching my genitals.	5 (5)	5 (7)	4 (35)
Dis02	A man is justified in having sex with his children or step-children, if his wife doesn't like sex.	5 (0)	5 (0)	5 (6)
Dis03	A child 13 or younger can make her (his) own decision as to whether she (he) wants to have sex with an adult or not.	5 (9)	5 (10)	4 (29)
Dis04	A child who doesn't physically resist an adult's sexual advances, really wants to have sex with the adult.	5 (5)	4 (10)	4 (24)
Dis05	If a 13 year old (or younger) child flirts with an adult, it means he (she) wants to have sex with the adult.	5 (5)	4 (10)	4 (29)
Dis06	Sex between a 13 year old (or younger child) and an adult causes the child no emotional problems.	5 (5)	5 (3)	4 (12)
Dis07	Having sex with a child is a good way for an adult to teach the child about sex.	5 (5)	5 (3)	4 (12)
Dis08	If I tell my young child (step-child or close relative) what to do sexually and they do it, that means they will always do it because they really want to.	5 (0)	4 (14)	4 (29)
Dis09	When a young child has sex with an adult, it helps the child learn how to relate to adults in the future.	5 (0)	5 (0)	4 (12)
Dis10	Most children 13 (or younger) would enjoy having sex with an adult, and it wouldn't harm the child in the future.	5 (5)	5 (7)	4 (18)
Dis11	Children don't tell others about having sex with a parent (or other adult) because they really like it and want it to continue.	5 (0)	4 (10)	4 (18)
Dis12	Sometimes in the future, our society will realize that sex between a child and an adult is all right.	5 (0)	5 (0)	4 (29)
Dis13	An adult can tell if having sex with a young child will emotionally damage	4 (27)	3 (45)	2 (53)

	the child in the future.			
Dis14	An adult just feeling a child's body all over without touching her (his) genitals is not really being sexual with the child.	5 (9)	4 (10)	4 (18)
Dis15	I show my love and affection to a child by having sex with her (him).	5 (5)	5 (10)	4 (23)
Dis16	It's better to have sex with your child (or someone else's child) than to have an affair.	5 (0)	5 (0)	4 (0)
Dis17	An adult fondling a young child or having the child fondle the adult will not cause the child any harm.	5 (5)	5 (0)	4 (18)
Dis18	A child will never have sex with an adult unless the child really wants to.	5 (5)	4 (14)	4 (41)
Dis19	My daughter (son) or other young child knows that I will still love her (him) even if she (he) refuses to be sexual with me.	3.5 (36)	4 (14)	3 (41)
Dis20	When a young child asks an adult about sex, it means she (he) wants to see the adult's sex organs or have sex with the adult.	5 (0)	4 (10)	4 (0)
Dis21	If an adult has sex with a young child it prevents the child from having sexual hang-ups in the future.	5 (0)	4 (3)	4 (6)
Dis22	When a young child walks in front of me with no or only a few clothes on, she (he) is trying to arouse me.	5 (0)	4 (7)	4 (6)
Dis23	My relationship with daughter (son) or other child is strengthened by the fact that we have sex together.	5 (5)	5 (0)	4 (18)
Dis24	If a child has sex with an adult, the child will look back at the experience as an adult and see it as a positive experience.	5 (0)	4 (3)	4 (18)
Dis25	The only way I could do harm to a child when having sex with her (him) would be to use physical force to get her (him) to have sex with me.	5 (5)	4 (17)	4 (35)
Dis26	When children watch an adult masturbate, it helps the child learn about sex.	5 (5)	4 (14)	4 (18)
Dis27	An adult can know just how much sex between him (her) and a child will hurt the child later on.	5 (14)	3 (31)	4 (35)
Dis28	If a person is attracted to sex with children, he (she) should solve that problem themselves and not talk to professionals.	5 (5)	5 (3)	5 (12)
Dis29	There is no effective treatment for child	4 (18)	4 (7)	4 (6)

	molestation.			
Dis30	Because men have higher sexual needs, it is not always possible to control sexual urges.	4.5 (14)	4 (14)	4 (35)
Dis31	Some people who have sex with children are not true "sex offenders" – they are out of control and make a mistake.	4.5 (9)	4 (31)	4 (24)
Dis32	Sexual thoughts about a child are not that bad because it does not really hurt the child.	4 (23)	4 (10)	4 (29)
Dis33	Just looking at a naked child is not as bad as touching and will probably not affect the child as much.	3 (36)	4 (10)	4 (29)
Dis34	Children who are molested by more than one adult probably are doing something to attract adults to them.	5 (5)	5 (14)	4 (24)
Dis35	For many men, sex offences against children are the result of stress and the offence helped to relieve the stress.	4 (32)	3 (28)	3 (35)
Dis36	Sometimes the offender suffers, loses or is hurt the most.	4 (18)	3 (24)	4 (24)
Dis37	I feel more comfortable with children than adults.	4 (23)	4 (21)	3 (29)
Dis38	Children are supposed to do what adults want and this might include serving their sexual needs.	5 (5)	5 (3)	4 (6)
Dis39	A person should have sex whenever it is needed.	4.5 (5)	4 (17)	4 (29)

Note. ^aPercentage scores of positive responders. ^bMedian scores of agreement. Percentage scores of responders in agreement (i.e., *strongly agree, agree*) are displayed in parentheses.

Appendix J: Distribution of Means on Variable Groups

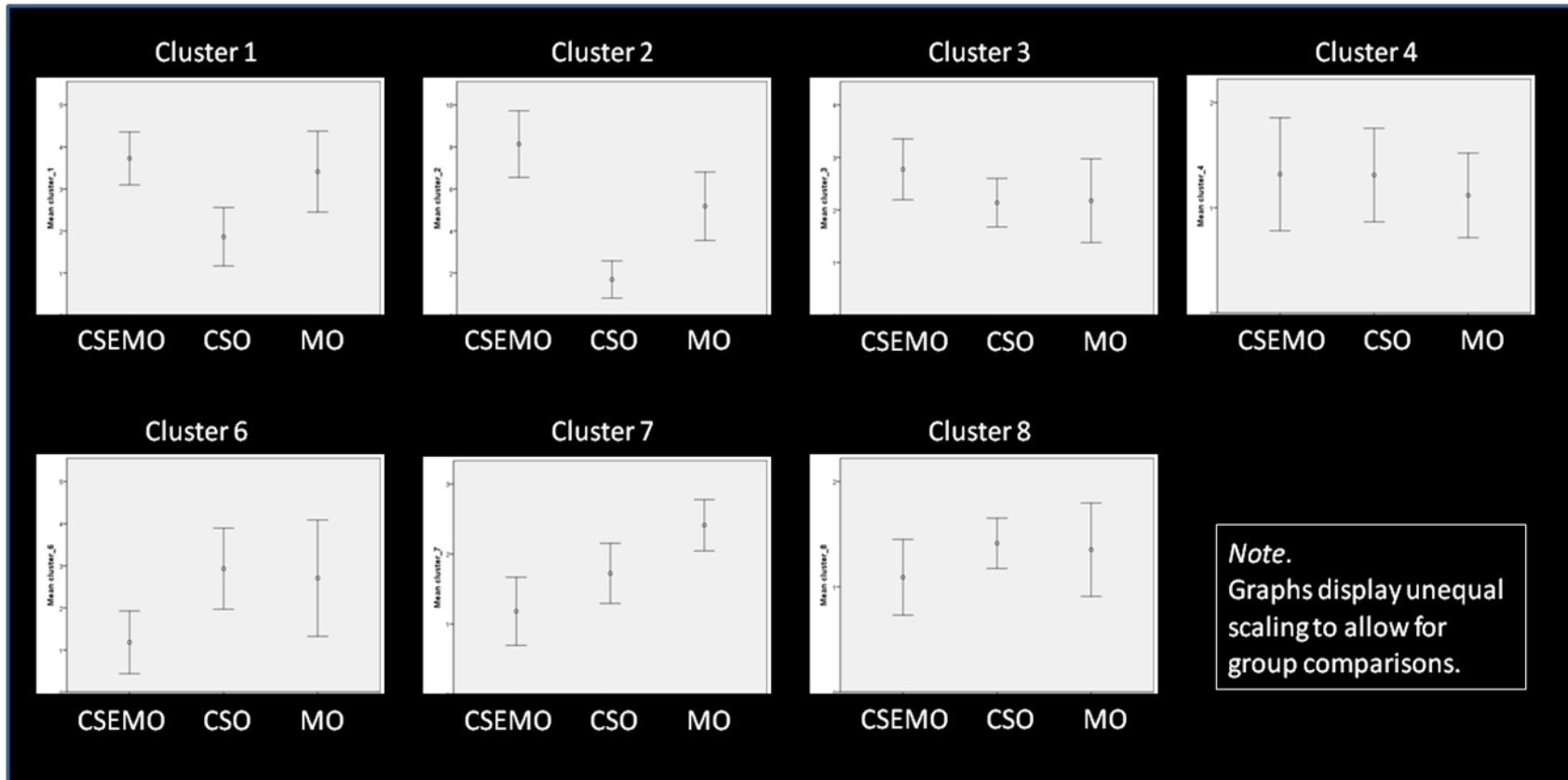


Figure J1: Distribution of means for offender types on variable clusters

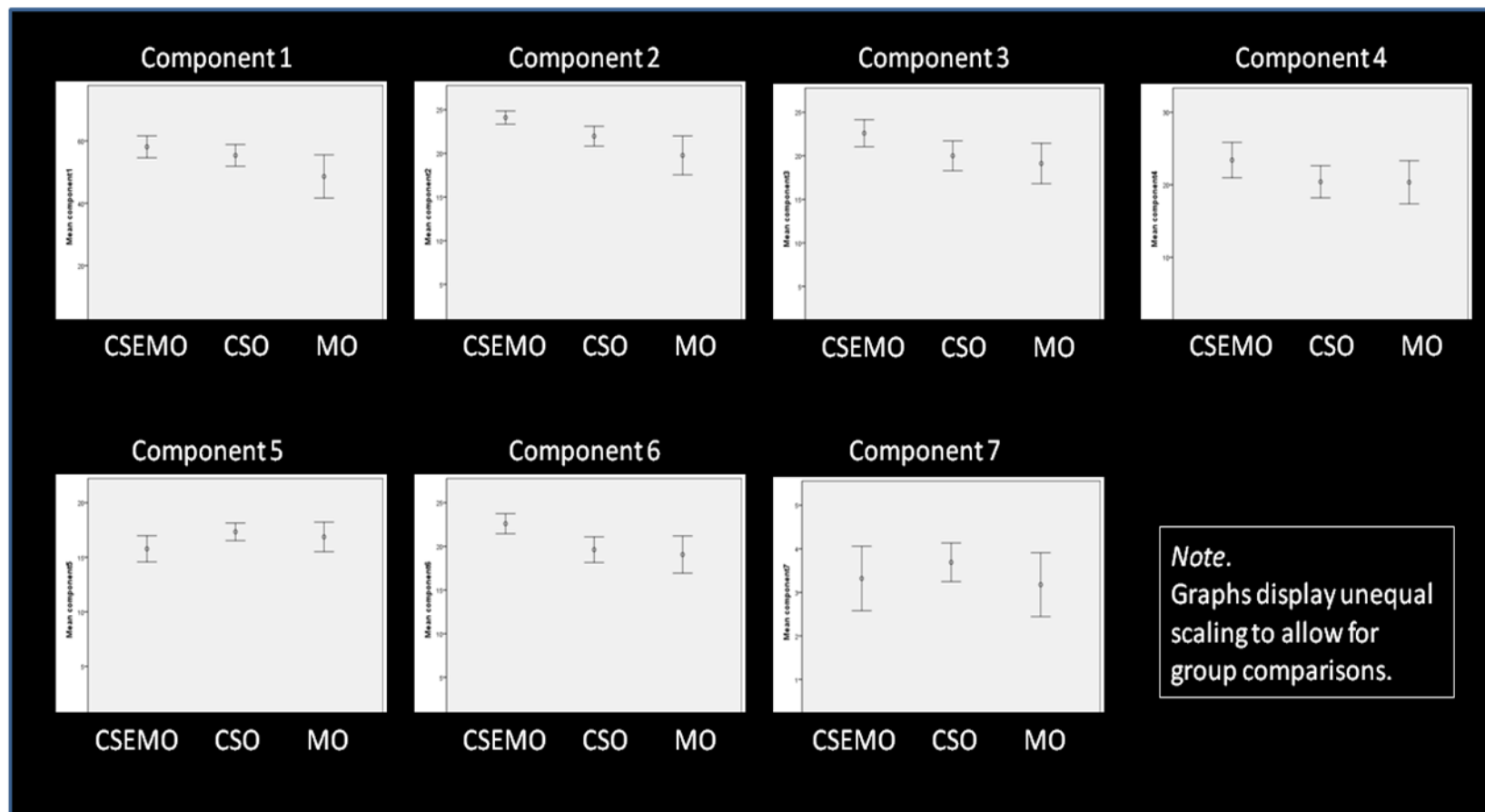


Figure J2: Distribution of means for offender types on components to cognitive distortions

Appendix K: Characteristics of CSEM Usage

Table K1: Characteristics Regarding Consumption of CSEM

Variables	Total <i>n</i> = 39	CSEMO <i>n</i> = 22	MO <i>n</i> = 17
Starting age and length / severity of offending			
Start age (years)	<i>M</i> =33.41 (<i>SD</i> =15.11)	<i>M</i> =35.64 (<i>SD</i> =15.57)	<i>M</i> =30.5 (<i>SD</i> =14.45)
Time span (years)	<i>M</i> =6.40 (<i>SD</i> =4.11)	<i>M</i> =5.65 (<i>SD</i> =4.34)	<i>M</i> =14.93 (<i>SD</i> =13.01)
CSEM conviction	43.59	63.64	16.67
Past CSEM convic.	5.13	9.09	
Fair penalty	76.47	71.43	100.00
Access to CSEM			
Location			
home	88.89	95.45	78.57
work	5.56		14.29
public	5.56	4.55	7.14
other	16.67	4.55	35.71
Online access			
www	74.36	86.36	58.82
chat rooms	79.31	84.21	70.00
chat rooms	27.59	21.05	40.00
newsgroups	34.48	31.58	40.00
p2p	48.38	52.63	40.00
PXT			
email	13.79	5.62	30.00
mail order	6.9	5.26	10.00
offl. contacts	10.34	15.79	
Change of access	24.14	26.32	20.00
Types of CSEM			
Digital images	84.21	95.45	68.75
Photographs	15.79	13.64	18.75
Digital videos	60.53	68.18	55.00
Video tapes/ DVD	10.53	9.09	12.50
Digital sound	2.63		6.25
Audio material	7.89	9.09	6.25
Digital text	47.37	54.55	37.50
Magazines/ books	18.42	13.64	25.00

Content of CSEM

Fictional material	51.28	63.64	35.29
Mostly male	35.90	22.73	52.94
Victims < 5 years	25.64	31.82	17.65
Infants	5.13	4.55	5.88
Preferences			
certain type	64.10	63.64	64.71
changed	32.00 (of above)	28.57 (of above)	36.36 (of above)
certain activity	33.33	31.82	35.29
changed	30.77 (of above)	42.86 (of above)	16.67 (of above)
COPINE			
Level 1	35.90	45.45	23.53
Level 2-4	66.67	77.27	52.94
Level 5	69/23	86.36	47.06
Level 6	94.87	100.00	88.24
Level 7	69.23	68.18	70.59
Level 8-9	66.67	68.18	64.71
Level 10 (sa.)	28.21	27.27	29.41
Level 10 (be.)	23.08	18.18	29.41

Engagement with CSEM collection

Added text	10.26	9.09	11.76
Time per week			
total CSEM	<i>Mdn</i> =16.25 hrs	<i>Mdn</i> =14.00 hrs	<i>Mdn</i> =4.5 hrs
sorting	<i>Mdn</i> =1 hr	<i>Mdn</i> =1 hr	<i>Mdn</i> =1 hr
Safekeeping			
saving	58.62	68.42	40.00
hard copies	31.03	31.58	30.00
hiding CSEM	62.07	68.42	50.00
Intoxicated during CSEM usage	48.28	42.11	60.00

Trading activities and Social involvement

Paid for CSEM	20.51	22.73	17.65
Earned money			
Shared material			
in total	25.64	27.27	23.53
online	20.51	22.73	17.65
showed material to adults	10.34	5.26	20.00
posted online	13.79	15.79	10.00

Social aspects			
contact w peadophiles	33.33	36.36	29.41
exchange of info. about children	25.64	22.73	29.41
increased acquaintance w CSEMOs	17.95	22.73	11.76
CSEM as contact aid	17.24	15.79	20.00
contact w CSEMOs	34.48	31.58	40.00
newsgroup member	10.34	5.26	20.00
childlover websites	25.64	18.18	35.29
Interactions with minors			
fake profile	12.82	13.64	11.76
contact minors	5.1	4.55	5.88

Note. The depicted figures are percentage scores unless labelled otherwise. Some percentage rates are measured on percentage of people who use the internet as a primary source of CSEM rather than overall sample size.

Appendix L: Qualitative Responses to Item Ad09

Table L1: Verbatim Qualitative Responses to Item Ad09 and their Thematic Interpretation

ID	Type	In what way is your online personality different?	Themes
5096	CSEMO	Online, I feel easier talking to people; even people I no offline. When I'm offline, I often feel more apprehensive talking to people. I'm afraid of being judged offline (though I have no reason for this). Online, if I'm talking to a complete stranger, I can talk to them about anything and not care what the topic is (even if it's completely inappropriate).	Desired me
5097	CSEMO	secretive, dirty, and hurtful to self	Dirty me
5098	CSEMO	Online is my fantasy life, not a profile as such but a reease from the world and my 'actual' life. This is where I allow myself to vent and not feel constrained by being what/who I think I need to be or people want me to be, escape from the day to day.	Forbidden me
5099	CSEMO	abusive on line that is, viewing child porn but not like that in life vey caring. would never hurt or touch anyone inappropriately	Dirty me
5101	CSEMO	more the "true me", rather than pretending to be "normal" in the eyes of society	Forbidden me
5102	CSEMO	more outgoing	Desired me
5152	CSEMO	if i have a relationship with someone I feel I can relate to them on a personal level then talk with someone I dont really know	(omitted - never been online)
5159	CSEMO	More outgoing. Able to just relax and chat or open up if in chat rooms or MSN etc. Did not have to hide or pretend to be anyone else. No concern about having to maintain good relationships with people etc - online contacts can come and go day to day.	Forbidden me
5162	CSEMO	My online personality is much more deviant	Dirty me
5164	CSEMO	Broke the law and viewed, down loaded child abuse images and videos, beatiality and other dehumanising material.	Dirty me
5443	CSEMO	Its a secret world where nobody gets hurt yet we can do what ever we like and have fantasies	-
5452	CSEMO	More opinionated and more sexualised (in sexual contexts).	Dirty me
5145	CSO	itry to as freindly aspossil e	(omitted - never been online)
5147	CSO	I am more open non line, I feel that i can be more myself, its almost as if societies constraints dont apply	Forbidden me

5153	CSO	my apperance my voice is softer	(omitted - never been online)
5243	CSO	moodswings	(omitted - never been online)
5246	CSO	i hide my emotions	(omitted - never been online)
5353	CSO	I tend to show people my good side and the total opposite when with friends or mates.	(omitted - never been online)
5091	MO	would be more sexually aggressive	Dirty me
5154	MO	I like to be honest and truefully to anyone that around me.	(omitted - never been online)
5242	MO	I tend to hide my true feelings.	Forbidden me
5345	MO	hiding things from family and friends	Forbidden me
5449	MO	False Persona	Desired me
5059	MO	I like to pretend by laughing making out every thing is good Im doing well Im easy going person.	Desired me
5062	MO	more sexually aggressive	Dirty me
5058	MO	I behave as society expects me to.	Forbidden me

Note. A dash indicates that no theme was identified to the response. All responses are maintained in their original format, including spelling mistakes and grammatical errors.

Appendix M: Qualitative Responses to Item CPa29

Table M1: Verbatim Qualitative Responses to Item CPa29 and their Thematic Interpretation

ID	Type	Why do you think you started with child pornography?	Theme
5092	CSEMO	Drugs made me not think properly, and was needing money to support my drugs and started selling adult porn, but was asked if i could sell child porn, collected it but never sold it	Financial motivation
5093	CSEMO	it made me feel good to see it hapen to someone els it remind me on how it felt when it was hapaning to me	Own sexual trauma
5096	CSEMO	During a time I was feeling very depressed, I started looking photography online. I came across one website with indecent images (along with normal images). Some of the comments had references to other indecent sites, so I would spend more and more time looking to see what I could find.	Curiosity and sexual exploration, Stress relief
5097	CSEMO	it makes me feel powerful and in control, which is something that was taken from me when I was abused by my school Counsellor when i was 13.	Own sexual trauma
5098	CSEMO	found it by accident when looking for other porn, shocked initially but then was intrigued enough to go back. I think I carried on as a way to control some positive/exciting feelings in a world that I felt I was drowning in due to stress from relationships, work, aprenting etc - essentially I wasnt coping and this was a means to receive a positive feeling I could control.	Curiosity and sexual exploration, Stress relief
5099	CSEMO	loneliness, wish to be loved, sex as reloef for stress, helo to relax sleep	Stress relief
5101	CSEMO	my sexual attraction was only towards children at the time.	Sexual interest in minors
5102	CSEMO	long story but i needed a distraction and nothing else worked cos I was not too bothered about it that is, booze. CP was, in my view, very disturbing and t acted as the best distraction	Stress relief
5152	CSEMO	Im not quite sure weather the video I watched were of children under the ages of 18 years old	-

5158	CSEMO	<p>Would previously view much adult pornography whilst online. Stumbled on three modelling child abuse images (girls naked but no sexual contact) by accident and found them arousing. Subsequently set out to track down more and more images and also stronger and stronger images. For various background historical reasons I must have been susceptible to finding such images arousing. Was also unemployed long term, in poor sexual health (completely impotent from illness), and suffering from ongoing and severe depression. Both online adult pornography and child abuse images gave me a strong fantasy base in which I could be away from my real life.</p>	<p>Own sexual trauma (?), Curiosity and sexual exploration, Stress relief</p>
5159	CSEMO	<p>Not sure. Was a progression from normal adult to asian and Russian modeling and then nude images. Eventually began to actively seek these sort of images rather than just view them when encountered.</p>	<p>Desensitisation to adult material</p>
5162	CSEMO	<p>to cope with the anxiety and stress of my life at the time, I used porn and deviant porn as mental relief, my porn got more and more deviant as time went past</p>	<p>Stress relief, Desensitisation to adult material</p>
5163	CSEMO	<p>My lack of social skills, and learning that I was gay at the start of high school, and thinking something was wrong with me. (which led me to avoid contact with others if possible)</p>	<p>Stress relief</p>
5164	CSEMO	<p>30 years of using pornography to deal with emotional stress and a feeling of helplessness. Lack of sexual experience and the belief that children because of their own lack of experience wouldn't reject me. The gradual escalation from normal adult material to more extreme material (dehumanising) after first accessing the internet, that I used it to cope with emotional and stressful situations. Followed by viewing younger and younger women, girls and preteen, that is, child modeling and cartoons showing extreme adult and other abusive subject matter.</p>	<p>Stress relief, Sexual interest in minors, Desensitisation to adult material</p>
5442	CSEMO	<p>curiosity to see the development of the young girl into the young woman. I collected photos of girls posing on their own.</p>	<p>Sexual interest in minors</p>
5443	CSEMO	<p>Being sexually impotent led me to search out new means of attaining an erection, like most visual subjects I viewed this did not help me at all</p>	<p>Curiosity and sexual exploration</p>
5444	CSEMO	<p>Because I'd always had an interest and because it was forbidden, yet easy to find.</p>	<p>Sexual interest in minors, Statement against authority</p>
5445	CSEMO	<p>Loneliness and boredom, leading to use of online porn, which over time gravitated to looking at</p>	<p>Curiosity and sexual</p>

		images of teenage girls.	exploration
5446	CSEMO	just found it	-
5447	CSEMO	stress leading to depression leading to failed relationship leading to more stress and anxiety and increased depression.	Stress relief
5448	CSEMO	Inquisitive	Curiosity and sexual exploration
5452	CSEMO	Sexual frustration, self comforting, rebellion against authority, and early exposure to illegal pornography (approx age 14).	Stress relief, Sexual interest in minors, Statement against authority
5091	MO	adult porn was boring and started going into more younger and younger porn	Desensitization to adult material
5161	MO	I was sent an email from someone i met online in a chat room. The email contained sexual abuse images of children and adults. I was told it was the man and his girlfriend. I did not know that it was child abuse images at the time. I did not seek out images myself.	Curiosity and sexual exploration
5242	MO	Because it was normal for me to do so as I knew nothing different, which is due to my wn sexual abuse.	Own sexual trauma
5248	MO	by pure chance accessed a site which contain it, therefore curiosity made me go further although it didn't have an arousal effect with me - I have never found pono of any description caused me to get aroused - I seem to need the physical presence for that to occur.	Curiosity and sexual exploration
5249	MO	Not applicable.	-
5250	MO	stress and anxiety. seeing child and adult porn made me feel better.	Stress relief
5342	MO	sexual arousal	Sexual interest in minors
5345	MO	i was attracted to young boys	Sexual interest in minors
5350	MO	because of an attractionto children	Sexual interest in minors
5351	MO	i only looked on one occassion and never lookoked again as i was too scared of detection. they were free still images of boys aged about 10-12 standing naked either normal or with erections. i was curious and just wanted to have a look. i didn't get hooked but could have easily.	Sexual interest in minors

5449	MO	progresssed from mainstream pornography, to teens, then children. Exploring a fantasy about children finding their sexuality, thought it was real and that they enjoyed it.	Sexual interest in minors, Desensitiation to adult material
5059	MO	because of there age group	Sexual interest in minors
5061	MO	Confusion around my sexuality and feelings of hate.	Curiosity and sexual exploration
5062	MO	because it was my sexual preference at the time and i didnt think i could change that.	Sexual interest in minors
5058	MO	Curiosity and sewxual interest	Curiosity and sexual exploration, Sexual interest in minors

Note. A dash indicates that no theme was identified to the response. All responses are maintained in their original format, including spelling mistakes and grammatical errors.

Appendix N: Dendrogram of Offender Classification

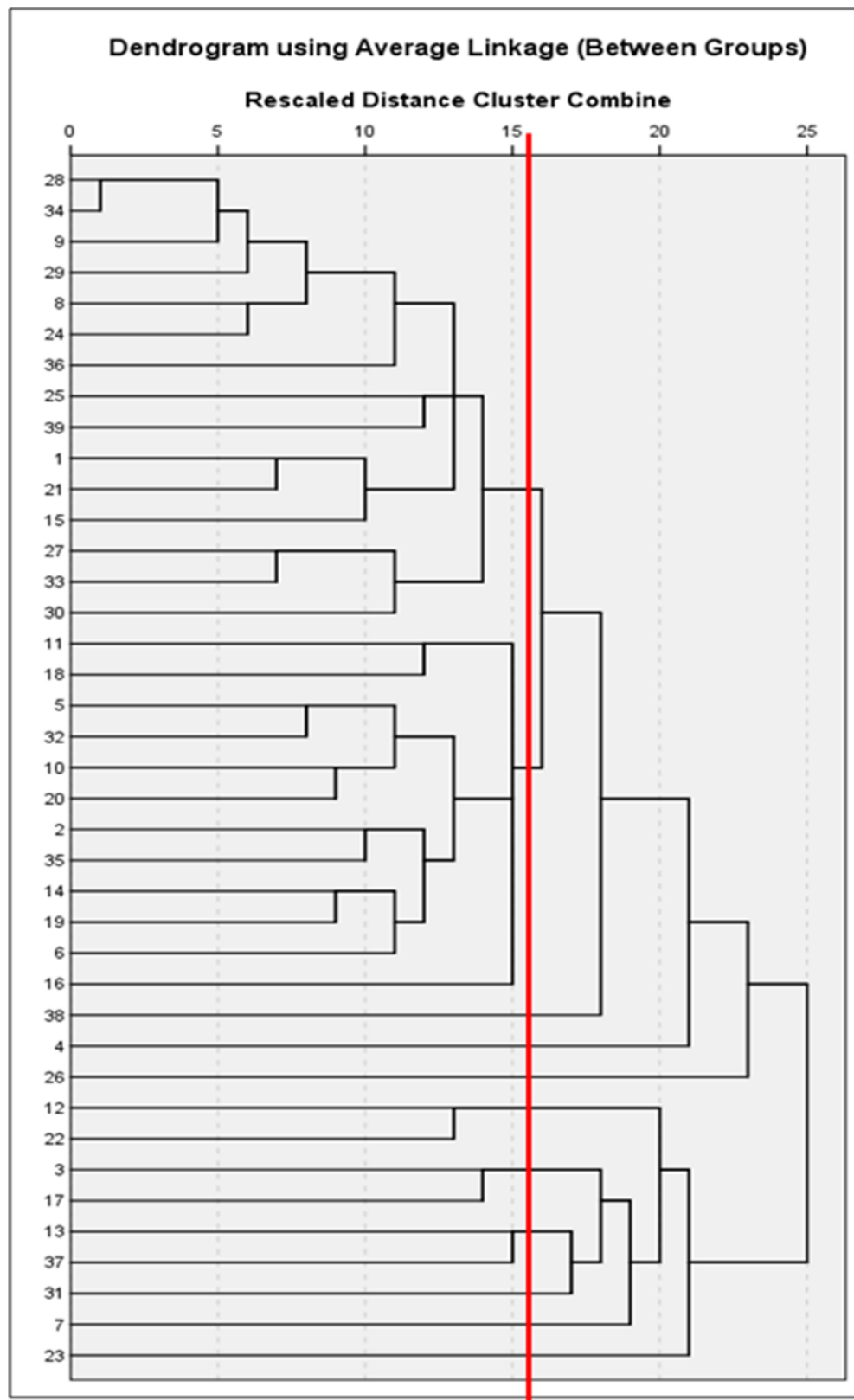


Figure N1: Dendrogram using SMC for offender classification with the vertical line indicating the cut-off point

Appendix O: Descriptive Information on Offender Subgroups

Table O1: Descriptive Information on Offender Subgroups

Variables	Group 1	Group 2	Group 3	Group 4	Group 5
Offender type	5 CSEMOs, 10 MOs	10 CSEMOs, 2 MOs	CSEMOs	CSEMOs	1 CSEMO, 1 MO
CSEM conviction	26.67%	58.33% (1 reconvicted)	(✓)	(✓)	(✓)
CSEM type					
Digital images	66.67%	100%	✓	✓	✓
Photos	13.33%				✓
Digital video	33.33%	75.00%	(✓)	(✓)	✓
Video	20.00%				
Sound	6.67%				
Digital text	13.33%	50%	✓	✓	(✓)
Magazines	26.67%	8.3%		(✓)	
Content of CSEM					
Fictional	13.33%	83.33%	✓	✓	(✓)
Preferably male	46.67%		(✓)		✓
Young children/ infants		25%	✓		(✓)
Defined preferences	40%	58.33%	✓	✓	✓
COPINE scale levels					
Level 1	13.33%	25%		✓	✓
Level 2-4	46.67%	83.33%		✓	✓
Level 5	40%	91.67%		✓	✓
Level 6	86.67%	100%	✓	✓	✓
Level 7	46.67%	75%	✓	(✓)	✓
Level 8-9	40%	75%	✓	(✓)	✓
Level 10 (sadistic)	6.67%	25%	(✓)	(✓)	(✓)
Level 10 (bestiality)	6.67%	16.67%	✓		(✓)

Engagement with CSEM

Paid for CSEM	6.67%	16.66%			(✓)
Shared		8.33%	✓	(✓)	✓
Increase in CSEM contacts		16.66%	(✓)	(✓)	
Hours per week	mdn = 3	mdn = 10	10h, 12h	37.5h, 30h	22h, 5h
Sorting collection	mdn = 0	mdn = 1	1h, 1h	1.5h, 5h	5h, 5h
Saved on external device	6.67%	66.67%	(✓)	✓	✓
Created hard-copies	13.34%	8.33%		✓	✓
Hidden		66.67%	✓	✓	✓

Source of CSEM

www	26.67%	83.33%	(✓)	✓	✓
Chat	6.67%		✓	(✓)	(✓)
Newsgroup	6.67%	33.33%		✓	
File sharing	6.67%	25%	✓	✓	✓
Email	6.67%			(✓)	
Online supply/mail	6.67%	8.83%			
Offline contacts	6.67%			(✓)	

Social networking

Online contact with minors					
Online contact with adults sexually interested in children	20.00%	41.67%	✓	✓	✓
Online contact with other CSEMOs	6.67%	8.33%	✓	✓	(✓)

Motivation for offending					
Material sexual arousing	13.33%	100%	✓	✓	✓
Financial incentive	6.67%				
Own sexual trauma		16.66%			
Curiosity and sexual exploration	26.67%	33.33%		(✓)	(✓)
Stress relief	13.33%	41.67%	✓	(✓)	(✓)
Sexual interest in minors	26.67%	25%	(✓)	(✓)	
Desensitization to adult material		25%	(✓)		
Statement against authority			(✓)	(✓)	

Note. ✓: both offenders; (✓): one of the offenders

Appendix P: Figures on Group Comparisons

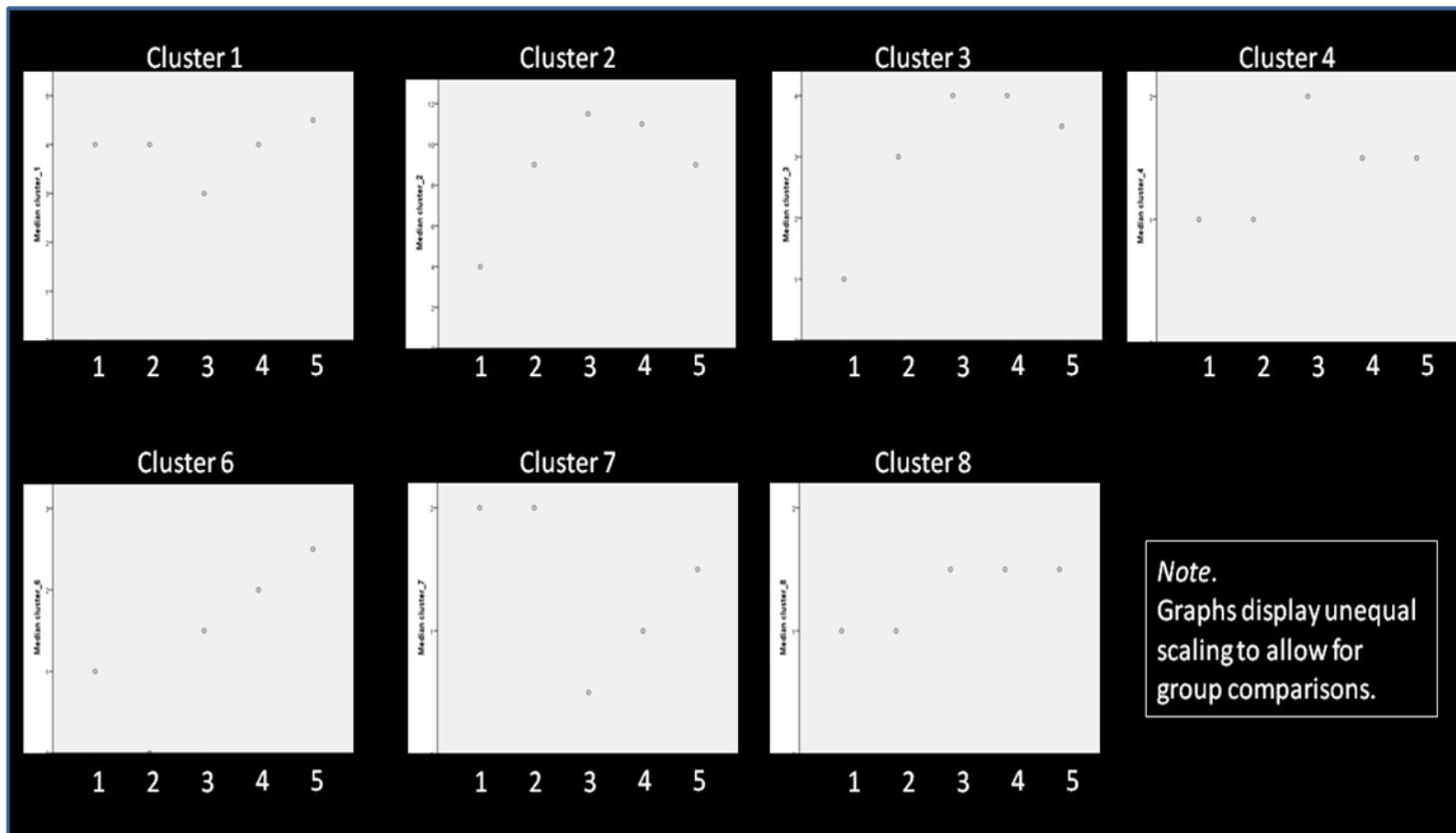


Figure P1: Distribution of medians for offender groups on Cluster 1-8

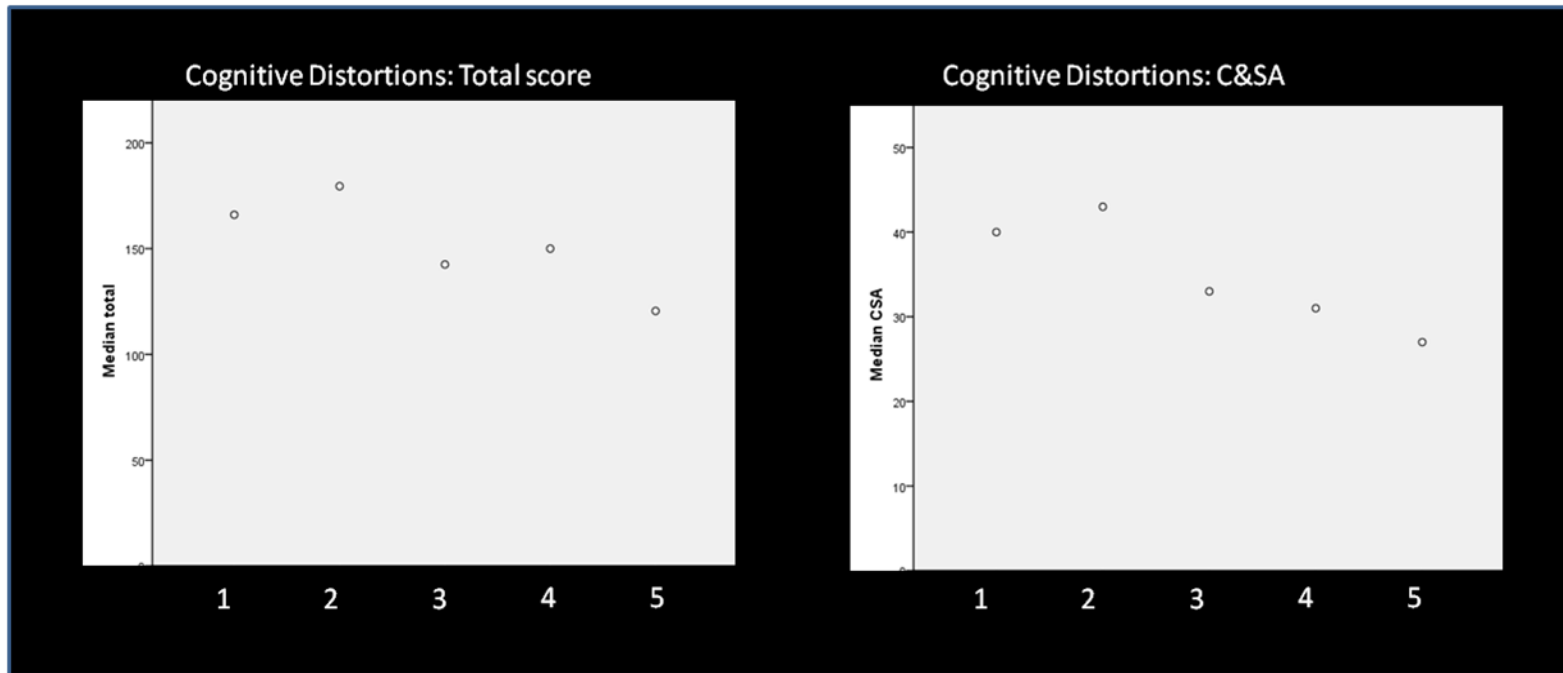


Figure P2: Distribution of medians for offender groups on total score of cognitive distortions and items belonging to subscale C&SA. Graphs display unequal scaling to allow for group comparisons.

Appendix Q: Variable Categories for MDS Interpretation

Table Q1: Variable Categories and their Descriptions as an Aid to MDS Interpretation

Category	Items
Having had or attempted to have a contact sex offence with minor	off06 As an adult, have you ever had sexual contact with a person younger than 16 years?
	act06-10 Used the internet to get in contact with minors
	act12 Have you ever exchanged information about children with other adults on the internet?
Social contact with adults with a sexual interest in minors	act11 Have you ever had online contact with other adults who are sexually interested in children?
	act12 Have you ever exchanged information about children with other adults on the internet?
	CPa02 Have you shared your child pornography material with other people?
	CPa04 Since starting using child pornography, did you increase the number of people you know who are also interested in child pornography?
	CPa09 Did you get some of your child pornography material through other users in chat rooms?
	CPa10 Did you get some of your child pornography material from online newsgroups?
	CPa12 Did you get some of your child pornography material via email from other users?
	CPa21 Did you show your child pornography to other adults?
	CPa22 Did you post child pornography online so that other users can view it?
	CPa23 Would you agree that child pornography helped you to meet other adults online?
	CPa24 Did you have online conversations with other child pornography users?
	CPa25 Have you been a member of an online newsgroup that was related to child pornography?

Possession of digital material	CPt05	Digital images
	CPt07	Digital video files
	CPt11	Digital text files
Possession of visual material	CPt05	Digital images
	CPt06	Printed photographs
	CPt07	Digital video files
Possession of fantasy-based material	CPt11	Digital text files
	CPc01	Did you have child pornography that did not have real children in them, such as cartoons or morphed images?
	CPc09	Did some of your child pornography show children in situations where it is normal to be naked or in underwear, such as on the beach or on the bathtub?
	CPc10	Did some of your child pornography show children who pose for the camera, for example as they might pretend to be a model, a film star or a pornography actor/actress?
	CPc17	Did you have images of children that do not account as child pornography, such as from clothing catalogues or brochures?
Material preferences	CPc02	Did more than half of your child pornography show male children or male teenagers?
	CPc07	Did you prefer a certain sexual activity in your child pornography?
Possession of material with extreme content	CPc03	Did you have child pornography that showed children between 1 and 5 years?
	CPc14	Did some of your child pornography show children who are in pain, for example they are tied, bound, beaten or whipped?
	CPc15	Did some of your child pornography show children in sexual activities with an animal?
Engagement with CSEM	CPa07	How much time did you spend online with child pornography? (<i>measured as binary variable: 0 = below mdn, 1 = above mdn</i>)
	CPa16	How much time did you spend sorting and cataloguing your child pornography on your computer? (<i>measured as binary variable: 0 = below mdn, 1 = above mdn</i>)
	CPa17	Have you ever saved your child pornography to offline devices, such as USB sticks, disks or CDs?
	CPa19	Have you tried to hide your child pornography on your computer?

Distribution and trading of CSEM	CPa02	Have you shared your child pornography material with other people?
	CPa21	Did you show your child pornography to other adults?
	CPa22	Did you post child pornography online so that other users can view it?
	CPa25	Have you been a member of an online newsgroup that was related to child pornography?
	act13	Have you ever visited child-lover websites, such as NAMBLA?
Common means of access to CSEM	CPa06	Did you get most of your child pornography from the internet?
	CPa08	Did you get some of your child pornography material from the www, such as open websites?
	CPa11	Did you get some of your child pornography material through peer2peer or file exchange programs?
	wsp15	Child pornography accessed from home
<hr/>		
<i>Single items:</i>		
	wsp18	Child pornography access from 'other'
	CPt02	Have you ever been convicted of possession, display, trading, and/or distribution of child pornography?
	CPa20	Was child pornography sexually arousing for you?
<hr/>		

Acronyms

ABCS	Abel and Becker Cognition Scale (Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984)
ASRS	Automated Sexual Recidivism Scale (Skelton, Riley, Wales, & Vess, 2006)
AUC	Area Under the Curve (ROC analysis)
C&SA	Children and Sexual Activities Inventory (Howitt & Sheldon, 2007)
CA	Cluster Analysis
COPINE	Combating Paedophile Information Networks in Europe
CSEM	child sexual exploitation material
CSEMO	CSEM offender: individual who offended with possession, distribution, trading, and/or production of child sexual exploitation material
CSO	contact sex offenders with minor victim
DSA	Dispositional Sexual Affection
IBAQ	Internet Behaviours and Attitudes Questionnaire (O'Brien & Webster, 2007)
IDA	Initial Deviance Assessment (Thornton, 2002)
IMCAT-CU	Integrated Model for the Classification, Assessment, and Treatment of CSEM users
IRC	Internet Relay Chat
i-SOTP	Internet Sexual Offending Treatment Programme
KMO	Kaiser-Meyer-Olkin measure of sampling adequacy
MASA	Multidimensional Assessment of Sex and Aggression (Knight, Prentky, & Cerce, 1994)
MDS	Multidimensional Scaling
MMPI-2	Minnesota Multiphasic Personality Inventory – 2 (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989)
MnSOST-R	Minnesota Sex Offender Screening Tool Revised (Epperson, Kaul, & Hesselton, 1998)
MO	mixed offender: individual who offended with possession, distribution, trading, and/or production of child sexual exploitation material AND direct sexual contact with a minor
MSI	Multiphasic Sex Inventory (Nichols & Molinder, 1984)
N-JOV	National Juvenile Online Victimization Study
PCA	Principal Component Analysis
PCL-R	Psychopathy Checklist – Revised (Hare, 1991)
PIU	Pathological Internet Use (R. Davis, 2001)

RCT	Rational Choice Theory
RM2000	Risk Matrix 2000 (Thornton, Mann, Webster, Blud, Travers, Friendship et al., 2003)
ROC	Receiver Operating Characteristic
RRASOR	Rapid Risk Assessment for Sex Offender Recidivism (Hanson, 1997)
RSVP	The Risk for Sexual Violence Protocol (Hart, Kropp, Laws, Klaver, Logan, & Watt, 2003)
SBC	Sexual Behaviour Checklist (items available in Buschman, Bogaerts, Foulger, Wilcox, Sosnowski, & Cushman, 2010)
SFQ	Sexual Fantasy Questionnaire (G. Wilson, 1978)
SMC	Sokal and Micheler's Simple Matching Coefficient
SONAR	Sex Offender Need Assessment Rating (Hanson & Harris, 2001)
SORAG	Sex Offender Risk Appraisal Guide (Quinsey, Harris, Rice, & Cormier, 1998)
SPJ	Structured Professional Judgment
SSPI	Screening Scale for Pedophilic Interests (Seto, Harris, Rice, & Barbaree, 2004)
STEP	Sex Offender Treatment Evaluation Project (Beech, Fisher & Beckett, 1999)
SVR-20	Sexual Violence Risk-20 (Boer, Hart, Kropp & Webster, 1997)
UNICEF	United Nations Children's Fund
VRAG	Violence Risk Appraisal Guide (Harris, Rice, & Quinsey, 1993)
www	world wide web