

IMPLICIT THEORIES OF CHILD SEXUAL EXPLOITATION  
MATERIAL USERS: CAN THEY DIFFERENTIATE THOSE ALSO  
AT RISK OF CONTACT OFFENDING?

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## Abstract

Understanding the risk factors that contribute to contact offending among online sexual offenders is an important topic for both researchers and clinicians working with this population. The present study sought to validate a novel implicit theory (IT) framework developed by Bartels and Merdian (2016) designed to capture the common beliefs of child sexual exploitation material (CSEM) users and assess the risk of contact offending within this group. To achieve this, 29 CSEM offenders (i.e., those with a CSEM offence but no history of child sexual contact offending) and 30 mixed offenders (those with both a CSEM offence and child sexual contact offences) were rated using file data and compared on their endorsement of a combined set of 11 ITs (six CSEM ITs, five contact sexual offender ITs developed by Ward & Keenan, 1999).

Analyses showed that both groups endorsed CSEM ITs to a similar degree; however mixed offenders endorsed significantly more Contact ITs in comparison to CSEM offenders. Logistic regression identified two key ITs that were predictive of contact offending, Entitlement and Children as Sexual Beings. Overall this study supports the CSEM IT framework as being able to identify a number of common beliefs in CSEM users, and that the Contact IT framework may provide a way to identify CSEM users who are at risk of committing a child contact sexual offence. Implications for the assessment and treatment of CSEM users are discussed.

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## *Overview*

Child sexual exploitation material (CSEM) offending is a relatively new area of interest for both clinicians and researchers. Rising CSEM offending rates faced by both clinicians and police have prompted researchers to closely examine the level of risk in this group. Clinicians are primarily concerned with whether CSEM users are likely to continue committing CSEM offences, and/or if they are at risk of progression to contact sexual offending. One way in which these risks may be able to be partially differentiated is by focusing on the offender's endorsement of offence-supportive cognitions. Offence-supportive cognitions, also referred to as cognitive distortions, are often provided by offenders when referring to their offences and play an integral part in the offending cycle. The importance of these distortions is understood by clinicians and are often a key focus in the treatment of sexual offenders. However, the aetiological development of these distortions has received relatively little attention. In order to account for this discrepancy, Ward (2000) proposed a framework of 'implicit theories,' which are unconscious and stable beliefs that offenders hold which generate these cognitive distortions. The presence of a variety of unique implicit theories has been validated and adapted across different types of offender groups, both sexual and non-sexual, but as of yet no implicit theory framework has been validated for CSEM offenders. CSEM offenders have been shown to differ on demographic, social, and psychological factors in comparison to child sexual contact offenders (Babchishin, Hanson, & Hermann, 2011; Elliott, Beech, Mandeville-Norden, & Hayes, 2009; Webb, Craissati, & Keen, 2007), suggesting that these offenders represent a different population than contact sexual offenders. Despite this knowledge, CSEM offenders are still assessed using measures designed for contact offenders. In order to recognise the different aspects involved in CSEM offending, it has been suggested that a different set of implicit theories may underlie the cognitive distortions produced by CSEM users and contribute to their offending. This

research aims to address the knowledge gap in CSEM offenders by evaluating a new theoretical model proposed by Bartels and Merdian (2016) which describes five unique implicit theories held by users of CSEM.

This thesis is organised as follows. Firstly, a literature review is presented outlining the key existing research pertinent to this study. An overview of current CSEM and mixed offender (those who offend with both CSEM and child sexual contact offences) research is reviewed; following this, cognitive distortions and their relevance to both the offending process and treatment of sex offenders is examined. An overview of Ward's (2000) model of child sexual Contact ITs is then detailed, followed by the conceptual CSEM IT framework proposed by Bartels and Merdian (2016). The aims and hypotheses of the study are stated, followed by the methodology of the present study. The results of the analyses are then presented, followed by a discussion of the endorsement of CSEM and Contact ITs and their relationship with CSEM users.

## **Implicit Theories of Child Sexual Exploitation Material Users: Can They Differentiate Those Also at Risk of Contact Offending?**

The internet has become an essential component to people's lives. It allows individuals to engage with a wide range of information from the comfort and privacy of their own home, or from anywhere they choose. Included in this content is a wide range of sexually explicit material, accessible from a range of mediums including text, audio, and video. The use of the internet to access pornographic material can be partially explained by the accessibility, affordability, and anonymity that the internet provides (Cooper, 1998; Fisher & Barak, 2001). However, this setting also presents an opportunity for criminal activity. Child sexual exploitation material (CSEM), hereafter referred to as child pornography, has found a new avenue for distribution through online networks, which has resulted in an increasing number of individuals engaging with this material (Wolak, Finkelhor, & Mitchell, 2011). The use of CSEM is a concerning behaviour, as the consumption and production of CSEM causes immense psychological and emotional harm. Individuals who access CSEM directly or indirectly support the continued production of the material, which largely involves the abuse of children in order to provide content. The nature of the internet makes it incredibly difficult, if not impossible, for victims to remove evidence of their abuse, resulting in continued emotional trauma. In addition, there is a concern among clinicians and researchers that the use of CSEM may lead to future direct contact sexual offending against children (Eke, Seto, & Williams, 2010; Jenkins, 2001; McCarthy, 2010; Taylor & Quayle, 2003). Advances in technology such as faster internet speeds and more sophisticated distribution methods have increased the number of possible ways to access such material (Barak & Fisher, 2002; Turner, 2012). These factors, as well as the increasing number of individuals being processed by the criminal justice system for CSEM offences

(Wolak, Finkelhor, & Mitchell, 2012), have prompted both clinicians and researchers to take a closer look at understanding the people who engage with this material.

Much research on sexual offenders has focused on their justifications and excuses for their offending, often referred to as cognitive distortions. These are believed to reflect underlying beliefs and attitudes that contribute to their offending (Mann & Beech, 2003; Ó Ciardha & Ward, 2013), and are a core focus for treatment programmes of sex offenders (Bourduin, Henggeler, Blaske, & Stein, 1990; Marshall, Marshall, & Ware, 2009; Ward & Stewart, 2003). However, despite the substantial amount of knowledge on the content of these distortions, their origins are still debated. Some clinicians and researchers believe that cognitive distortions are the result of post-offence rationalisations in order to justify and maintain the offending behaviour (Abel et al., 1989; Gannon & Polaschek, 2005), however, an alternative explanation suggested by Ward (2000) is that cognitive distortions are generated prior to offending and are the product of underlying schemas, which Ward calls implicit theories (ITs). The IT framework incorporates elements of cognitive psychology to combine cognitive distortions under larger mental constructs (i.e., ITs). As a result, the individual cognitive distortions exhibited by sexual offenders are believed to stem from underlying ITs. ITs allow individuals to make sense of their social environment, in addition to being able to make predictions about future events (Ward, 2000). These ITs are believed to develop during early childhood, and while they may have served an adaptive purpose at the time, they become maladaptive when applied into other contexts. For example, a child may develop an IT to predict and explain abusive behaviours committed by his parents, which functions within that context, but when applied elsewhere it may result in the perception of hostile intent and aggressive behaviour of others (Ward, 2000). As the child matures, the ITs also incorporate sexual desires in order to explain behaviour. Ward and Keenan (1999) utilised this framework, proposing that the majority of cognitive distortions commonly

exhibited by child sexual contact offenders (CSCOs) can be attributed to five underlying ITs, titled: Dangerous World; Nature of Harm; Entitlement; Uncontrollability; and Children as Sexual Beings. Although these ITs can account for cognitive distortions produced by CSCOs, it is unclear if these ITs are relevant for online sexual offenders.

Users of CSEM have been noted for having a distinct profile in comparison to contact offenders. For example, they are more sexually deviant, less antisocial, and have less access to children (Babchishin, Hanson, & Van Zuylen, 2015; Babchishin, Merdian, Bartels, & Perkins, 2018). Bartels and Merdian (2016) suggested that in addition to these differences, CSEM users may hold ITs which are qualitatively different from the ITs of CSCOs. Bartels and Merdian analysed themes, cognitive distortions, and motivations present in research on CSEM offenders (CSEMOs) using a grounded theory approach and have suggested five implicit theories held by this group: Unhappy World; Self as Uncontrollable; Children as Sex Objects; Nature of Harm (CSEM Variant); and Self as Collector. A crucial element of these ITs is an underlying belief in the Reinforcing Nature of the Internet, which underlies each of these five ITs. In order to provide context to this model, a review of the prominent features of CSEM offending is described.

### **1.1. Child Sexual Exploitation Material Offending**

CSEM is defined as “any means of depicting or promoting the sexual exploitation of a child, including written or audio material, which focuses on the child’s sexual behaviour or genitals” (Gillespie, 2009, as cited in Merdian, Curtis, Thakker, Wilson, & Boer, 2013).

CSEM is commonly used to refer to visual images or videos that feature the sexual abuse of a child. However, as noted in the definition above, the term CSEM also encapsulates non-visual material such as written stories which describe sexual encounters involving minors (Merdian, 2012). Sexually abusive images involving children are often referred to as child

pornography, both by members of the general public and by researchers (Akdeniz, 2008). However, the label of pornography minimises the harmful nature of the images by indirect comparisons to adult pornography (Tate, 1992, as cited in Beech, Elliott, Birgden, & Findlate, 2008; Taylor & Quayle, 2003). Therefore, the term CSEM is used in emerging literature, and within this thesis, to reflect the abusive nature of this material.

Legally, CSEM is outlawed in most countries. In New Zealand, CSEM is prohibited under the Films, Videos, and Publications Classification Act 1993, which states: “A publication shall be deemed to be objectionable for the purposes of this Act if the publication promotes or supports, or tends to promote or support: the exploitation of children, or young persons, or both, for sexual purposes” (Films, Videos, and Publications Classification Act, 1993, s. 3[2]). In this definition, the use of the term publication has been extended to include both printed and electronic material, therefore extending this definition to encapsulate CSEM transferred and received over the internet.

Although it is impossible due to the nature of the internet to accurately estimate the precise number of individuals accessing CSEM (Quayle & Taylor, 2005), the Internet Watch Foundation (2018) found that the number of websites hosting CSEM increased from 57,335 in 2016 to 78,589 in 2017, a 37% increase in websites. In the same time frame, the number of images showing severe or extreme content (classified as images that depicted rape and sexual torture of children as opposed to non-penetrative images) has increased from 28% to 33%. These findings suggest that there is an increasing demand for both the further production of CSEM in addition to CSEM depicting more sexually explicit and/or abusive acts.

The viewing and use of CSEM is also strongly linked with pedophilia. Pedophilia is defined as “recurrent, intense, sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children (generally age 13 years or younger)” (American Psychiatric Association, 2013, p. 697). Although CSCOs are noted for

having a sexual interest in children (Whitaker et al., 2008), CSEM users have been found to be more pedophilic than contact offenders (Babchishin et al., 2015; Seto, Wood, Babchishin, & Flynn, 2012). This is believed to be due to the fact that CSCOs may sometimes offend against children due to opportunity as opposed to pedophilic interests, whereas CSEM users seek out and specifically attend to sexually explicit content involving children (Seto, 2013). For this reason, CSEM offending has been suggested to be a stronger diagnostic indicator of pedophilia than child contact sexual offending (Seto, Cantor, & Blanchard, 2006; Seto, 2010). Pedophilic interests are relevant to clinicians as they are recognised to be an important factor in the aetiology and maintenance of child contact sexual offending (Seto, 2017), in addition to being predictive of sexual recidivism (Hanson & Morton-Bourgon, 2005).

Concern around the viewing and distribution of CSEM often focuses on two primary issues, the material requiring the abuse of children to be produced, and the risk of those engaging with CSEM to progress to contact offending. In regards to the first concern, CSEM can be considered as evidence of sexual assault on a minor, as the production of the material requires that a person force a child to pose or perform in a sexualised way and then make a record of it (Taylor & Quale, 2003). The production of CSEM results in an ongoing cycle of harm due to the fact that the content is never fully erased, instead it remains a permanent record of the abuse that took place, causing the victims ongoing distress, anger, fear, and anxiety (Giblin, 2010; Palmer, 2005). The second issue around the use of CSEM lies in its relationship with child contact sexual offending. Clinicians are often concerned if the use of CSEM is a precursor to offenders progressing to contact sexual offending (Eke et al., 2010; Merdian et al., 2018; Webb et al., 2007). However, difficulties arise when trying to accurately predict the level of risk in this group. Traditional tools that measure risk of sexual reoffending have been shown to overestimate the risk posed by CSEM users (Osborn, Elliott, Middleton, & Beech, 2010). A newly developed actuarial risk measure specifically for CSEM users, the

Child Pornography Offender Risk Tool (CPORT; Seto & Eke, 2015) has demonstrated predictive validity in CSEMOs with a history of other offences, however it has not shown the ability to significantly predict reoffending risk with exclusive CSEMOs (Babchishin et al., 2018; Merdian et al., 2018). This presents a significant problem for risk assessment with CSEMOs, as CSEMOs often present without a history of prior offending (Wolak, Finkelhor, & Mitchell, 2005). These issues indicate that further research and knowledge of the specific risk factors for CSEM users is required to accurately ascertain the risk of reoffending within this group.

## **1.2. CSEM Offenders**

### **1.2.1. Demographics.**

Ethnicity comparisons have found that CSEMOs are significantly more likely to be Caucasian in comparison to CSCOs (Babchishin et al., 2015). A meta-analysis by Babchishin et al. (2011) found that only 8.2% of CSEMOs belonged to a racial minority in comparison to 35.4% of CSCOs. In terms of age, CSEMOs are younger in comparison to CSCOs, with the average age of a CSEMO being 38.6 in comparison to 43.6 for CSCOs (Babchishin et al., 2011; Babchishin et al., 2015). Additionally, CSEMOs on average have a higher income and achieve a higher level of education (Babchishin et al., 2015). However, these findings also may reflect characteristics of internet users in general rather than just CSEMOs, as younger age and greater levels of education are correlated with internet usage (Henshaw, Ogloff, & Clough, 2017; Seto, 2012). CSEMOs are also more likely to be employed than CSCOs, however they are less likely to be employed in comparison to normative controls from the general population (Babchishin et al., 2011; Babchishin et al., 2015). CSEMOs also experience more physical and sexual abuse during childhood, and are less likely to be married in comparison to normative controls (Babchishin et al., 2011).

### **1.2.2. Offending Variables.**

CSEMOs differ to CSCOs on several variables relating to offending. One common finding is that CSEMOs are more sexually deviant and pedophilic in comparison to CSCOs (Babchishin et al., 2011; Babchishin et al., 2015; Seto, 2006). However, CSEMOs also score lower on measures of cognitive distortions, victim empathy deficits, and emotional identification with children, and are less likely to have access to children in comparison to CSCOs (Babchishin et al., 2015). Some CSEMOs also have a history of contact offending; Seto, Hanson and Babchishin (2011) found in a meta-analysis of convicted CSEMOs that 12% had an official record of contact sexual offending, which increased to 55% when self-report data was available. This self-report statistic may be over-inflated due to incentives to report an offence during treatment programmes (Burgess, Carretta, & Burgess, 2012, as cited in Henshaw et al., 2017), or may be a reflection of the true level of offending in this population, as official recidivism data is believed to underestimate reoffending rates for sexual offenders (Gibbs, 2007; Seto et al., 2011). Reoffending rates for samples of CSEMOs are often relatively small, for example Seto et al. (2011) found in a sample of online offenders that 3.4% recidivated with a CSEM offence while 2.0% recidivated with a contact sexual offence within 1.5 to 6 years. However, when CSEM offenders are separated into subgroups of CSEMOs and mixed offenders (MOs; those with both CSEM and contact sexual offences), CSEM exclusive offenders (also known as “fantasy-driven”) show a 0.2% recidivism rate for child sexual contact and 1.6% for CSEM reoffending (Goller, Jones, Dittmann, Taylor, & Graf, 2016). These rates are considerably lower than offline sexual offenders, with sexual contact recidivism rates of between around eight and 11.5% (Hanson & Morton-Bourgon, 2009; Hanson, Thornton, Helmus, & Babchishin, 2016). Overall these findings show that CSEMOs are at a lower risk of reoffending in comparison to contact offenders, and have several barriers (e.g., less access to children, higher victim empathy) that

dissuade them from engaging in further offending. However, there are notable differences in risk between fantasy driven CSEMOs and MOs.

### **1.2.3. Mixed Offenders.**

MOs, sometimes referred to as dual offenders, are offenders who have been convicted of both a CSEM and a child contact sexual offence. MOs are similar to CSEMOs in some aspects, for example they are generally convicted around age 41 to 43 (Elliott, Beech, & Mandeville-Norden, 2013; Long, Alison, & McManus, 2013; McCarthy, 2010) and are predominantly Caucasian (Babchishin et al., 2015; McCarthy, 2010). However, MOs differ in comparison to CSEMOs in several ways. In terms of reoffending risk, MOs show a significantly higher recidivism rate in sexual reoffending compared to CSEMOs, at 2.6% for child sexual offences and 3.5% for CSEM offences (Goller et al., 2016). Other differences include MOs being more pedophilic, scoring higher on measures of cognitive distortions, having greater access to minors, and having more prior recorded offences (both violent and sexual; Babchishin et al., 2015).

### **1.3. Cognitive Distortions**

Distorted, offence supportive thinking patterns are widely acknowledged to be a key factor in the offending process for sex offenders (Hall & Hirschman, 1991; Marshall & Laws, 2003; Ward & Siegert, 2002). Both clinicians and researchers have provided extensive evidence of sex offenders' distorted thinking in relation to their offences (e.g., Abel, Becker, & Cunningham-Rathner, 1984). For example, in a study of incest offending between fathers and daughters, Phelan (1995) found that although the victims reported the sexual abuse as a negative experience, the majority of the fathers stated that the child initiated the abuse and/or found it to be an enjoyable experience. Online sex offenders also engage in these types of distortions, for example CSEMOs have been found to produce statements around the idea that

because they did not physically touch a child, they have not participated in the abuse of a child, ignoring the harm caused by being a consumer of CSEM (Taylor and Quayle, 2003). These statements are referred to as cognitive distortions (Abel et al., 1984). The term cognitive distortions originated from Beck (1963), where he used it to describe “idiosyncratic thought content indicative of distorted or unrealistic conceptualisations” (p. 324). The term was originally used in cognitive therapy literature, but was eventually used in sexual offender work to describe:

The justifications, perceptions and judgements used by the sex offender to rationalize his child molestation behavior . . . [that] appear to allow the offender to justify his ongoing sexual abuse of children without the anxiety, guilt and loss of self esteem that would usually result from an individual committing behaviors contrary to the norms of his society. (Abel et al., 1989, p. 137)

Currently, the most effective treatments for sex offenders utilise cognitive-behavioural methods to target dynamic risk factors, including cognitive distortions (Ly, Dwyer, & Fedoroff, 2018; Moster, Wnuk, & Jeglic, 2008; Sheldon & Howitt, 2007; Yates, 2013). However, despite being a central focus in the rehabilitation of sex offenders (Beech, Beckett, & Fisher, 1998; Hudson, Wales, Bakker, & Ward, 2002; O’Reilly, Carr, Murphy, & Cotter, 2010), the developmental origins of cognitive distortions have received little consideration. Several theories on how cognitive distortions develop and are maintained have been suggested (see Ó Ciardha & Ward, 2013 for a review); one of the most prominent and influential (Ó Ciardha, Gannon, & Ward, 2017) being Ward’s (2000) implicit theory (IT) framework.

#### **1.4. The Implicit Theories of Sexual Offenders**

Research on sex offenders has often placed a heavy focus on post offence cognitions, neglecting the underlying cognitive processes that initiate, maintain, and justify their sexual offending (Burn & Brown, 2006; Ward, Fon, Hudson, & McCormack, 1998). In response to this, the IT model of sexual offenders was proposed by Ward (2000), which states that cognitive distortions, rather than being independent and unrelated thoughts, are the product of underlying schemas which he titles ‘implicit theories’, which are used to “explain, predict, and interpret interpersonal phenomena” (Ward, 2000, p. 494). They are considered implicit as individuals are generally unable to articulate or express their content to others.

ITs are believed to have features which are similar to scientific theories, such as being made up of a number of coherent, interconnected beliefs and concepts. Another similarity is that ITs are used to explain human behaviour across different contexts and also to link these behaviours to underlying psychological states. Finally, ITs share a common feature with scientific theories in that they are used by individuals to interpret evidence. However, ITs are not scrutinised to the same degree as scientific theories, which are often subjected to hypothesis testing, data evaluation, and theory refinement (Ó Ciardha et al., 2017). Instead, IT holders will utilise confirmation bias, carefully selecting what is considered evidence and how it is to be interpreted, while contradictory evidence is either reinterpreted or disregarded (Ó Ciardha et al., 2017; Ward, 2000). As an example of this process, a woman acting in a friendly manner could be interpreted as her simply being friendly, however an offender holding a specific IT may instead interpret this behaviour as indicating she wants sex (Ward, 2000). Evidence that opposes the beliefs of an IT is often reinterpreted or rejected, however, when the evidence is too difficult to ignore the IT may be modified (Ward, 2000), suggesting that ITs may be changeable over the course of treatment. ITs function at several different levels; they may focus on individual victims, categories of

entities (such as women and children as a group), or contain broader assumptions about how others function and interact with the world around them.

The IT model of sexual offenders has succeeded in combining different cognitive distortion theories and unifying them within a single framework (Ó Ciardha & Ward, 2013), and has been applied to CSCOs (Beech, Parrett, Ward, & Fisher, 2008; Gannon, Hoare, Rose, Parrett, 2012; Marziano, Ward, Beech, & Pattison, 2006), rapists (Polaschek & Gannon, 2004), and intimate partner violence offenders (Weldon & Gilchrist, 2012). The IT framework was originally developed to capture the underlying beliefs of CSCOs. Based on scales used to measure cognitive distortions, Ward and Keenan (1999) developed five CSCO ITs that are believed to be linked to their cognitions. Ward and Keenan's (1999) five CSCO ITs are briefly described below.

## **1.5. Child Sexual Contact Implicit Theories**

### *Children as Sexual Beings*

This IT describes the belief that both adults and children are sexual beings, motivated by a desire for pleasure. Therefore, children have the same capacity as adults to make decisions on who they engage with sexually, when this occurs, and how their sexual needs will be fulfilled. This can then lead individuals who hold this IT to interpret children's behaviour in a sexual manner, for example, a child sitting on an adult's lap may be viewed as the child acting with sexual intent (Ward & Keenan, 1999). Due to the belief that children are innately sexual beings, sexual interactions with adults are believed to be harmless, and potentially beneficial to the child. Some examples of statements that reflect this IT are: "A child will never have sex with an adult unless the child really wants to" and "She didn't say no or tell, so it must be okay with her" (Ward and Keenan, 1999, p. 828).

### *Entitlement*

This IT describes the belief that certain individuals are more important than others, therefore permitting them to assert their needs above others. These needs are then expected to be accepted by those who are believed to be less important (Ward & Keenan, 1999). The source of entitlement may be based on factors such as gender, class, or age. An individual holding this IT may believe that men are “more powerful and important than children and women and, therefore, have the right to have their sexual needs met when they want and with whom they want” (Ward & Keenan, 1999, p. 828). This belief holds the needs and desires of the IT holder in high regard while dismissing or minimising the needs of others. Example statements generated by this IT include: “A man is justified in having sex with his children if his wife doesn’t like sex” and “A person should have sex whenever it is needed” (Ward & Keenan, 1999, p. 829).

### *Dangerous World*

This IT focuses on the idea that the world is a dangerous place and that others will behave in a hostile and selfish manner. This IT has two distinct variations. The first variant is where individuals believe that in order to survive in the world they must fight back and assert dominance over others. This can lead to punishing others who are perceived to inflict harm on the offender to strengthen their own authority, for example, they may sexually abuse women and/or children if they are viewed as a threat. The second variant suggests that, in contrast to the hostile nature of other adults, children are “reliable, accepting, and able to be trusted” (Ward & Keenan, 1999, p. 830). Children will not only provide unconditional support and love, but are also expected to satisfy the individual’s needs and desires, including those of a sexual nature. Example statements produced by this IT include: “I had to teach her

a lesson” and “Sex between children and adults is very loving” (Ward & Keenan, 1999, pp. 829-830).

### *Uncontrollability*

The Uncontrollability IT holds the idea that the world is uncontrollable; people have fixed emotions and desires, and events that occur are unable to be altered or influenced. Additionally, the nature of humans such as desires and needs is believed to be fixed from early learning experiences or genetics. This leads to the belief that the individual’s sexual desires are uncontrollable, and the only possible course of action is to act on these urges. Other external events may also be blamed for offending behaviour, such as it being the result of stress or drugs and alcohol. Example statements that reflect this IT include: “I did it because I was sexually abused as a child” and “I was high on drugs and alcohol at the time” (Ward & Keenan, 1999, p. 831).

### *Nature of Harm*

This IT is based on two beliefs: (1) that there are degrees of harm and (2) that sexual activity is beneficial and generally does not harm a person. The first belief looks at harm on a dimension, which features little to no distress on one end and extreme distress at the other. In terms of sexual activity, factors such as force used and the victim’s awareness of the abuse may influence the amount of harm caused (Ward & Keenan, 1999, p. 831). Therefore, circumstances such as the victim being asleep during the abuse or the perpetrator not engaging in physical violence are seen as mitigating factors. Individuals who hold this IT may then believe that their behaviour should not be judged harshly as they potentially could have engaged in a higher level of harm during the assault.

The second belief holds the idea that sex is inherently beneficial to everyone, and it is only other moderating factors (e.g., force used, other’s reactions, the individual being alert

or not) that can cause distress, rather than the sexual experience itself. This can lead to the view that sexual activity with children is unlikely to cause harm, and any distress from the event can be explained by the influence of moderating factors. Example statements generated by this IT may be: “Just fondling a child is not as bad as penetrating a child”, “She is too young to remember this or know what I am doing”, and “She is asleep so she will never know what I am doing” (Ward & Keenan, 1999, p. 832).

## **1.6. CSEM Implicit Theories**

As CSEMOs have been found to score lower on current measures of cognitive distortions (Babchishin et al., 2015) it has been suggested that CSEMOs may hold cognitive distortions which differ in terms of quality and content in comparison to contact sexual offenders (Henshaw et al., 2017), which may in turn suggest that CSEMOs endorse a set of unique implicit theories. Therefore, Bartels and Merdian (2016) have assessed current research on cognitive distortions evident in CSEMOs and put forward five ITs specific for this group. A unique feature of the ITs of CSEM users is a belief titled Reinforcing Nature of the Internet. This refers to an individual’s belief that the internet grants “infinite, immediate, anonymous, immersive, and social benefits” (Bartels & Merdian, 2016, p. 19). These benefits include being able to access information and resources easily, connecting and maintaining social relationships online, having the ability to remain anonymous, being able to immerse oneself in an online environment, and the limited skill required to use it. Bartels and Merdian note that this belief is not exclusive to CSEM users, but in fact the large majority of internet users hold similar ideas around the internet. For CSEM users however, this belief contextualises the five CSEM ITs in an online environment, which results in the internet being viewed as an effective tool to find, collect, and utilise CSEM material. Therefore, CSEM users are believed to also hold an underlying assumption about the reinforcing nature

of the internet. The five CSEM ITs are described below; descriptions of the ITs have been adapted from Bartels and Merdian (2016).

### *Unhappy World*

This IT describes the belief that the world is a negative place, both “limiting and unsatisfying” (Bartels & Merdian, 2016, p. 19), and the individuals who exist within are believed to be indifferent and rejecting of others. This can manifest into the belief that the individual holding this IT is detached from others and “incapable of forming close and meaningful relationships with others” (Bartels & Merdian, 2016, p.19). Bartels and Merdian note that this IT may not form a direct link to CSEM offending, however, when it is present in combination with other risk factors, such as a sexual interest in children, it may influence CSEM offending behaviour. Individuals holding this IT may engage in online behaviour such as joining CSEM communities or trading CSEM material online, in addition to other immersive online activities, to escape their real-life situation.

Emotional and intimacy deficits appear to be a significant problem for some CSEM users. Middleton, Elliott, Mandeville, and Beech (2006) found in a sample of 72 CSEM offenders that 33% displayed emotional dysregulation problems and 35% showed evidence of intimacy deficits. In comparison to contact sexual offenders, CSEMOs score higher on measures of emotional loneliness (Bates & Metcalf, 2007). Vulnerabilities in these areas may lead individuals to engage in online sexual behaviour to alleviate negative emotional states (Putnam, 2000). As a result, accessing pornography online (including CSEM) may function as a coping/soothing strategy for online offenders (Elliott & Beech, 2009). Statements that reflect this IT include, “My perception was that people were viewing me as a failure so, I mean, I isolated myself every minute that I could...” (Bartels, Merdian, & Rowland, 2016, p. 16) and “It was a little fantasy world for me... and it was so different from the mundane

existence I'd been leading. Here was something that was dangerous... it was exciting... it was new" (Taylor & Quayle 2003, p. 89).

### *Self as Uncontrollable*

This IT describes the belief that an individual's own behaviour is unchangeable and uncontrollable. Research on CSEMOs has found that they display greater self-control and a higher internal locus of control, while also exhibiting higher obsessive-compulsive features in comparison to contact offenders (Bates & Metcalf, 2007; Babchishin et al., 2015; Marshall, O'Brien, Marshall, Booth, & Davis, 2012). The combination of these findings has led to the Self as Uncontrollable IT, in which individuals believe that their behaviour is fixed, and that it is impossible to regulate or stop, therefore, they are unable to avoid viewing and engaging with CSEM. CSEM users holding this IT may describe themselves as 'obsessed' or 'addicted'. Statements that capture this IT include, "Once they've seen one image, that's it. They then will look for more. They can't help themselves" (Bartels et al., 2016, p. 17) and "[viewing CSEM was] my whole focus, my whole life, everything else was second nature" (Winder, Gough, & Seymour-Smith, 2015, p. 176).

### *Children as Sex Objects*

This IT describes the belief that children are objects that can be used in order to meet a person's sexual needs. Holders of this IT sexually objectify children, reducing them to their sexual appeal by focusing on their outward appearance (i.e., depersonalisation). This leads to the separation of children's body or body parts from their person, ignoring their agency and ability to think independently, in addition to a heightened focus on sexualised elements of CSEM, such as perceived attractiveness or specific body parts of the child. This IT is closely related to a sexual interest in children (Bartels & Merdian, 2016), which may result in contact sexual abuse when combined with other facilitating factors. However, CSEM users who hold

this IT but lack the desire or factors needed to offend via contact may instead view CSEM as an appropriate outlet for their desires. Statements which are congruent with this IT include, "...they might be living next door – it might have happened next door but because I don't know that, it's just something that I looked at" (Bartels et al., 2016 p. 13) and "because they were photographs... that kind of material... was in no way connected with the original act" (Quayle & Taylor, 2002, p. 344).

#### *Nature of Harm (CSEM Variant)*

This IT describes two distinct beliefs: (1) that CSEM users perceive their offending behaviour as causing minimal or no harm; and (2) that the degree of harm within images can vary. The first belief focuses on the idea that interacting with CSEM avoids physical contact with a child, placing it on the lower end of the harm dimension. From a legal perspective, the viewing, collecting, and trading of CSEM is considered a lesser offence than generating CSEM or engaging in contact sexual abuse. However, this IT focuses on the dismissive attitude held by some CSEM users towards the harm involved in being a consumer of these images, which perpetuates the continued abuse of minors in order to supply further CSEM. The second belief focuses on the degree of harm which appears in CSEM. According to this theory, not all children are harmed within CSEM, particularly when the activities depicted are seen as less extreme. For example, offences against older children are seen as less harmful than those against younger children, and activities that do not use physical force are also perceived as being on the lower end of the harm scale. These views focus on harm as a physical sensation, ignoring mental and emotional harm caused by CSEM production. Distortions around the nature of harm are particularly evident in CSEM communities, for example one senior member of an online CSEM community stated that:

the underlying rule in the channels [was that] ... nobody that came in was hurting their kids or hurting any kids. That we were all just looking and that's it ... we can get pics

that are already freely available we can trade them we can look at them but we don't touch any kids ever. (Taylor & Quayle, 2003, p. 138)

Another user disclosed similar thoughts on what was believed to be appropriate, stating "you didn't trade snuff or anything that showed kids actively being hurt" (Taylor & Quayle, 2003, p. 139). These statements provide support the idea that some CSEMOs hold a Nature of Harm IT, believing that some images are more acceptable than others, with a preference for images that avoid showing children in states of distress, harm, or injury.

### *Self as Collector*

This IT describes the belief that the possession of CSEM enhances the possessors' self-concept and social status. Holders of this IT view CSEM as a valuable commodity to trade and collect, sometimes even more so than its intended purpose to facilitate sexual arousal. Collecting CSEM has been identified as a behaviour that sometimes can occur independently from utilising the material for sexual purposes (Meridian et al., 2013), suggesting that some CSEM users gain additional benefits in collecting the material. Some CSEM users report that collecting CSEM can help increase one's social status, for example they may become more highly valued in the community for providing certain material, while others report that they gain satisfaction from finding an image for the sake of completing a collection (Carr, 2006; Taylor & Quayle, 2003). Statements that are related to this IT include: "So then I'd get more contacts and more friends and I'd build a bigger collection. So the bigger my collection got, people then ask me 'Oh, have you got this file?'" (Bartels et al., 2016, p. 14) and "You were hoping that someone would post something that you had a series of that had a few gaps" (Taylor & Quayle, 2003, p. 161).

## **1.7. Aim of Present Study**

The IT framework proposed for CSEM users by Bartels and Merdian (2016) potentially holds value in its ability to capture the underlying ITs held by CSEM users, explaining their unique cognitive distortions. However, presently only one other study (Bartels et al., 2016) has empirically tested the validity of the CSEM ITs. Although Bartels et al. (2016) did find support for the presence of these ITs in CSEM users, further validation is required to strengthen the reliability and robustness of the model.

In addition to validating the CSEM IT framework, the present study also seeks to examine the risk of contact offending from CSEM users, as this is a primary concern for professionals who work with this group (Babchishin et al., 2018; Merdian et al., 2016). Bartels and Merdian (2016) hypothesised that their CSEM ITs will be linked to fantasy-driven CSEM users who have no intention of committing a contact offence, while contact-driven users will endorse a combination of CSEM ITs and Ward and Keenan's (1999) Contact ITs. As such, the present study seeks to evaluate this claim, which will further inform researchers on the specific risks of contact sexual offending from this group.

### **1.7.1. Hypotheses.**

Three hypotheses have been proposed for the present study. The first goal of the study is to test the validity of the CSEM IT framework put forward by Bartels and Merdian.

Therefore, the first hypothesis is:

1. Evidence for the presence of CSEM ITs will be detected in both CSEMOS and MOs.

The CSEM IT framework is designed to capture the ITs of fantasy-driven CSEMOS who have no intention of contact offending. Based on this aim, our second hypothesis is that:

2. CSEMOs will show evidence of endorsing primarily the CSEM ITs proposed by Bartels and Merdian (2016); evidence of endorsing Ward and Keenan's (1999) Contact ITs will be comparatively smaller in this group.

Additionally, Bartels and Merdian proposed that contact-driven CSEM users will endorse a mixture of both CSEM and Contact ITs. As these CSEM users have engaged in contact offending, it is hypothesised that their endorsement of Contact ITs will be higher in comparison to CSEMOs. Therefore, in order to evaluate this hypothesis, the third prediction is:

3. MOs will show evidence endorsing the CSEM ITs proposed by Bartels and Merdian (2016) but comparatively higher levels of Ward and Keenan's (1999) Contact ITs than CSEMOs.

## **Method**

### **2.1. Participants**

The sample consisted of two groups: CSEM offenders without a contact conviction (CSEMOs), and mixed offenders (MOs) with both a CSEM and a child sexual contact conviction. Both groups of offenders received their index CSEM conviction in New Zealand between 1994 and 2013, and had a psychological assessment report prepared (e.g., at the request of the New Zealand Parole Board, and/or by the Department of Corrections Psychological Service to evaluate risk and identify treatment needs). A total of  $N=60$  offenders were selected for the sample, however one participant from the CSEMO group was excluded due to insufficient file information, making the total sample  $N=59$ . The average age of the overall sample was 42.76 years old ( $SD = 12.95$ ; range= 18-72). 86.4% identified as New Zealand European/Pākehā, 11.9% as Māori/Pacific Peoples, and 1.7% as Asian. Participants in both groups were approximately matched on age and ethnicity.

### 2.1.1. CSEMO Demographics.

The average age of the offenders in this group was 40.93 years old ( $SD= 14.59$  range= 18-72). 79.3% identified as New Zealand European/Pākehā, 17.2% as Māori/Pacific Peoples, and 3.4% as Asian. In terms of offence history, none of the offenders in this group had a previous sexual contact conviction, 3.4% had a previous sexual conviction, 6.8% had a previous violent conviction, and 27.6% had previous other convictions.

### 2.1.2. MO Demographics.

The average age of the offenders in this group was 44.53 years ( $SD= 11.11$  years, range= 19-71). 93.3% identified as New Zealand European/Pākehā and 6.6% as Māori/Pacific Peoples. In terms of offence history, 3.3% had a previous sexual contact conviction, 13.3% had a previous violent conviction, and 36.7% had previous other convictions.

### 2.1.3. Reoffending.

Reoffending rates across the sample were also described. Two recidivism outcomes were collected: the number of sexual contact offences committed after their initial index CSEM offence; and the total number of subsequent convictions after their index CSEM offence. Reoffending data is displayed in Table 1 below.

Table 1

*Reoffending Data for CSEMOs and MOs*

Group	# Reoffend: sexual contact (%)	Mean # of offences (contact)	# Reoffend: total (%)	Mean # of reoffences (total)
CSEM ( $N=29$ )	0 (0%)	-	8 (27.6%)	13.38 ( $SD=16.475$ )
Mixed ( $N=30$ )	7 (23.3%)	4 ( $SD = 3.512$ )	9 (30%)	21.88 ( $SD=31.119$ )

*Note.* Offence # range for each offence category are: CSEM (total)= 1-46; Mixed (contact)= 1-10; Mixed (total)= 2-95. Total reoffending categories include sexual contact reoffences.

## 2.2. Ethical Approval and Consent

Ethical approval for this study was granted from the University of Canterbury Human Ethics Committee. Additionally, Māori consultation was sought and given from the Ngāi Tahu Consultation and Engagement Group at the University of Canterbury. This research was also approved by the Department of Corrections in New Zealand.

## 2.3. Materials

### 2.3.1. Implicit Theory Coding Template.

In order to objectively rate the presence of each IT for each individual, a coding template was developed for the purposes of this study. This Implicit Theory Coding Template (ITCT; see Appendix) contains both the Ward and Keenan (1999) Contact ITs (*Children as Sexual Beings, Entitlement, Dangerous World, Uncontrollability, and Nature of Harm*) and the Bartels and Merdian (2016) CSEM ITs (*Unhappy World, Children as Sexual Objects, Nature of Harm (CSEM Variant), Self as Uncontrollable, Self as Collector*). Additionally, in order to test the hypothesis proposed by Bartels and Merdian, the “Reinforcing Nature of the Internet” belief was added to the template. Although it is not described as an IT, it is an underlying belief presumed to be present in CSEM users to contextualise these ITs in an online environment. Classifying the reinforcing nature of the internet as an IT is an appropriate method to measure this belief (H. Merdian, personal communication, 23 March, 2018). The coding template is rated on a 4 point scale ranging from -1 to 2 (details on this are explained further in section 2.4.2). In order for the independent rater to remain blind to the purposes of the study, references and citations to corresponding authors (e.g. Bartels & Merdian, 2016 and Ward & Keenan, 1999) for each IT were removed from the IT descriptions, which were also slightly modified when possible to be applicable to both CSEM and CSCOs without distorting the core idea that the IT encapsulates. The order in which the

ITs appear in the coding template was randomly assigned to maintain blindness to the hypotheses for the independent rater and to encourage both raters to carefully consult with the template throughout the rating process and avoid rater drift.

### **2.3.2. Psychological Reports.**

The psychological reports accessed for offenders consisted of CPS Assessment Reports, Prison Assessment Reports, Group Treatment Reports, New Zealand Parole Board Reports, and Extended Supervision Order reports. All available pre-treatment/early treatment reports were accessed that were relevant to the index CSEM offence of the offender, however there were some cases where these reports were not available, and ratings were conducted using post-treatment reports (13.8% CSEMOs and 13.3% of MOs). Except for these cases, post-treatment reports were not utilised in the rating process, and reports for other offences (e.g. reports on contact offending for MOs) were not utilised in this study.

## **2.4. Procedure**

### **2.4.1. Methodological Testing.**

A small pilot sample ( $N= 11$ ) was utilised to ensure that the information necessary to rate the ITs was going to be available in the type of reports that would be accessed in the second (main) stage of the study, and that the design of the template was appropriate and fit for purpose. Participants in the pilot sample fit the same criteria as those in the main sample except that their index offending occurred after 2013, excluding them from eligibility for the main sample (for which a three-year follow up was required). The pilot study was carried out by the lead researcher over three days. Following this period, a clinical trainee research assistant from the University of Canterbury was also trained in the use of the template by rating a small sample of the pilot sample with support from the lead researcher.

#### **2.4.2. Coding of Implicit Theories.**

The lead researcher accessed relevant reports of each offender and rated them individually using the ITCT. A randomised sub-sample of cases ( $n= 12$ ) were also rated by the research assistant for the purposes of assessing inter-rater reliability. The rating process involved assessing the relevant reports for evidence that could be considered IT-consistent with the IT frameworks proposed by Bartels and Meridan (2016) and Ward and Keenan (1999). Evidence included distorted thinking processes reported in the form of direct quotes from the offenders, or comments from trained clinical psychologists. During this process, the rater was blind to the offenders' group membership to minimise bias in the ratings.

Once all relevant evidence was collected, the offender was given a rating ranging between 0 to 2 on each of the 11 implicit theories listed in the ITCT. A '0' rating was used when there was no evidence that the offender held a particular implicit theory. A '1' rating was used when there was ambiguous evidence to support the presence of an IT. Statements such as "the offender holds distortions related to the nature of harm in viewing deviant material" may warrant such a rating, as it is unclear if the author's concept of "nature of harm" matches the definition given by Bartels and Meridian (2016) in their "Nature of Harm (CSEM Variant)" conceptualisation. However, additional supporting evidence may influence the final rating on the item. A '2' rating was used when there was clear evidence to support the presence of an IT. For example, a report may contain a statement such as "I'm not touching them" when referring to their CSEM viewing. This type of statement would be consistent with the "Nature of Harm (CSEM Variant)" conceptualisation and therefore may warrant a '2' rating on the item. However, ratings were not based on single statements, as all evidence within the reports was evaluated before making a final rating decision to ensure the scores reflected the themes that were present. In addition, a rating of -1 could be given if there was evidence that suggested the offender held the opposite belief of an IT. An example

of this would be if a file contained evidence that the offender believed they were responsible for their own actions, that they had a controllable self. This would warrant a '-1' rating on the "Self as Uncontrollable" IT.

## **2.5. Data Analysis**

### **2.5.1. Inter-Rater Reliability.**

The reliability of the IT ratings was also assessed to ensure that the methods used were accurate and reliable. Following the training period, the research assistant was given 12 cases (20% of the total sample size) that were also rated by the research rater to analyse the file information from the index CSEM offence, record and note any relevant evidence, and use the ITCT to rate each offender independently. The research assistant was blind to the purposes of the study and group allocation of the ITs (i.e., the rater was unaware of the intended target group of each IT). The inter-rater reliability of the ITCT scores was assessed using intraclass correlation coefficients (ICC).

### **2.5.2. T-tests.**

T-tests for independent means are used when determining if there is a significant difference between the means of two separate groups. In the present study, t-tests are used to determine if there was a significant difference in the overall endorsement of ITs, comparing the mean number of CSEM, Contact, and overall ITs endorsed between CSEMOs and MOs.

### **2.5.3. Chi-Square Analysis.**

The chi-square test of independence is used when trying to determine if there is a significant relationship between two categorical variables. The observed frequencies of cases in each group (CSEM/MO) per variable (IT) are compared with the number of cases predicted when there is no relationship between the variables (Aron & Aron, 1999). In the

present study, the chi-square test of independence was used to determine if there was a significant relationship between the frequency of each IT and sexual offender group.

#### **2.5.4. Logistic Regression.**

Binary logistic regression is used when predicting a dichotomous dependent variable using one or more independent variables. In the present study, logistic regression was used to predict whether offender group membership (either CSEM or MO) can be predicted using the 11 implicit theories rated on the ITCT. Logistic regression also produces an odds ratio which shows the odds of an individual (e.g. an offender) being in one group (CSEMO or MO) for each one-unit increase in the independent variable (e.g. IT). An odds ratio greater than 1 shows that the likelihood of an offender being a MO increases when the independent variable (ITs) increases, whereas an odds ratio less than 1 indicates the odds of an offender being a MO decreases when the independent variable increases (Menard, 2010). A receiver operating characteristic curve and the area under the curve was also reported as part of the logistic regression analysis. A receiver operating characteristic curve can be calculated from the prediction values produced for each offender by the logistic regression, and are used to analyse the sensitivity and specificity of the logistic regression model. The area under the curve can be used to analyse the amount of variation in the data explained by the model (Menard, 2010).

## **Results**

### **3.1. Inter-Rater Reliability**

As the ITCT is a novel measure developed for this study, inter-rater reliability was examined to ensure ratings were consistent between raters. Inter-rater reliability analyses were conducted through a two-way mixed ICC model, producing ICC values for the sub-sample of  $n=12$  cases that were scored by both raters. Table 1 presents the ICC values for all

11 ITs, separated between the Contact and CSEM ITs. High levels of agreement were shown across all 11 items of the scale, with perfect agreement for the Contact ITs and the CSEM Children as Sex Objects IT, and high levels of agreement for all other CSEM ITs (as per Landis & Koch's 1977 interpretive guidelines), excluding Reinforcing Nature of the Internet. Poor ICC values for this IT may reflect the low subject variance in this item; further considerations are made in the discussion section.

Table 2

*ICC Values for ITCT Items*

CSEM Implicit Theories	ICC	CI Lower	CI Upper
Unhappy world	.776*	.234	.935
Self as uncontrollable	.784**	.282	.937
Children as sex objects	1.000		
Nature of harm (CSEM variant)	.968***	.895	.991
Self as collector	.784**	.282	.937
Reinforcing nature of the internet	.000	-2.474	.712
Contact Implicit Theories	ICC	CI Lower	CI Upper
Children as sexual beings	1.000		
Entitlement	1.000		
Dangerous world	x		
Uncontrollability	1.000		
Nature of harm	1.000		

*Note.* \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . CI = confidence interval; CI set at 95%.

No ICC value for Dangerous world was calculated as both raters rated all cases as '0' in the sub-sample on this IT.

### 3.2. Implicit Theory Detection

Frequency data was collected for the purposes of examining the first hypothesis of the study, that the CSEM ITs proposed by Bartels and Merdian (2016) would be detected in the sample of CSEM users. In accordance with this, all five CSEM ITs were detected in the sample, with prevalence rates ranging from 11.9% to 32.2%. Prevalence rates among the sample for each IT are shown in Table 3 below. As can be seen, prevalence of the five Bartels and Merdian CSEM ITs ranged from 11.9% (Children as Sex Objects and Self as Collector)

to 32.2% (Unhappy World). However, Reinforcing Nature of the Internet was detected for only one individual in the sample (1.7%). Table 3 also shows the sample prevalence rates for the five Contact ITs proposed by Ward and Keenan (1999). Across the eleven ITs measured, the most frequently observed were Unhappy World and Uncontrollability, which were each present in 32.2% of the sample. Following this, the Nature of Harm (CSEM Variant) was observed in 28.8% of the sample, and Children as Sexual Beings in 25.4% of the sample.

Table 3

*Prevalence Rates of CSEM and Contact ITs*

CSEM Implicit Theories	-1	0	1	2	% 1 or 2
Unhappy world	0	40	6	13	32.2%
Self as uncontrollable	0	51	1	7	13.6%
Children as sex objects	0	52	5	2	11.9%
Nature of harm (CSEM variant)	2	40	4	13	28.8%
Self as collector	0	52	1	6	11.9%
Reinforcing nature of the internet	0	58	1	0	1.7%
Contact Implicit Theories					
Children as sexual beings	0	44	1	14	25.4%
Entitlement	0	52	2	5	11.9%
Dangerous world	0	48	5	6	18.6%
Uncontrollability	0	40	3	16	32.2%
Nature of harm	0	50	2	7	15.3%

*Note: N= 59.*

Data on the total number of ITs endorsed for each offender was also collected, which showed 5.1% endorsed zero ITs, 30.5% endorsed one IT, 35.6% endorsed two ITs, 20.3% endorsed three ITs, 5.1% endorsed four ITs, 1.7% endorsed five ITs, and 1.7% endorsed seven ITs.

### 3.3. Implicit Theory Prevalence Between Groups

Each group had a specific hypothesis in the present study. Hypothesis two was that CSEMOs would endorse primarily CSEM ITs, while the presence of Contact ITs would be comparatively minimal. Hypothesis three predicted that the MO group would endorse a

similar level of CSEM ITs as the CSEMO group; however, they would endorse significantly more Contact ITs. In order to test these hypotheses, IT endorsement was analysed across groups, and t-tests comparing the presence of ITs between groups and chi-square analyses were performed.

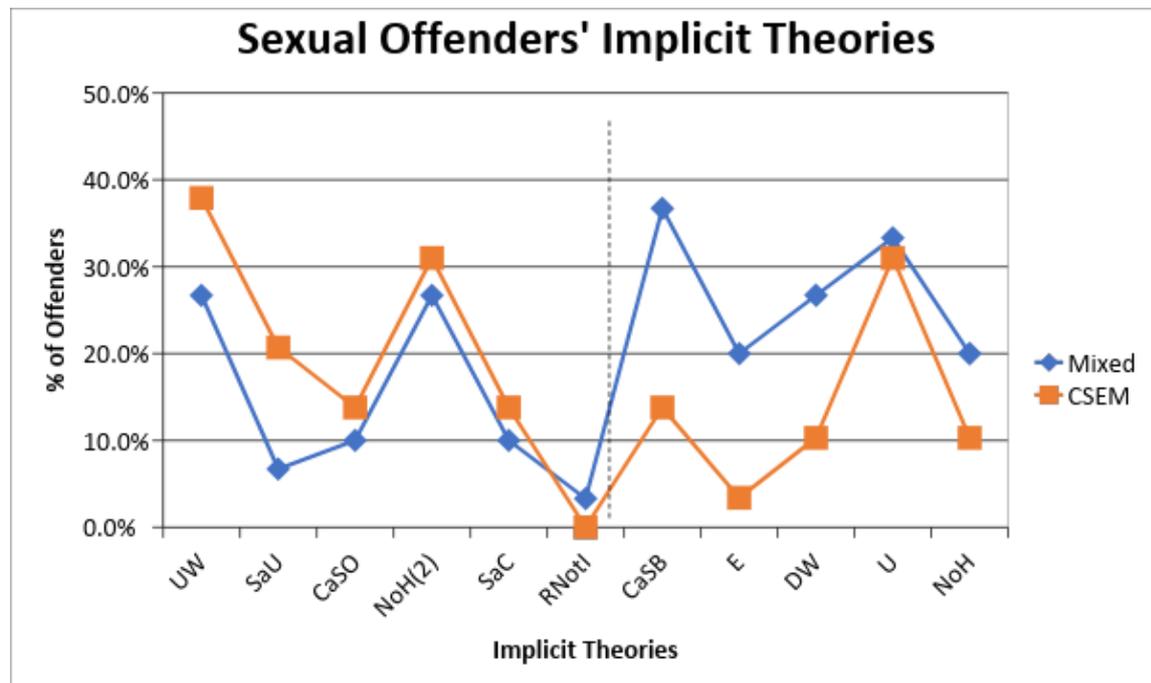


Figure 1. Prevalence rates of CSEM and Contact ITs in CSEMOs and MOs.

Note: CSEM = CSEMOs; Mixed = MOs; UW = Unhappy world; SaU = Self as uncontrollable; CaSO = Children as sex objects; NoH(2) = Nature of harm (CSEM variant); SaC = Self as collector; RNotI = Reinforcing nature of the internet; CaSB = Children as sexual beings; E = Entitlement, DW = Dangerous world; U = Uncontrollability; NoH = Nature of harm. The dotted black line separates the CSEM ITs (left of the line) from the contact sex offender ITs (right of the line).

To examine the overall level of endorsement between the two IT frameworks, three t-tests were performed. These t-tests examined between-group differences of overall number of ITs endorsed from each set (CSEM and Contact). To calculate this, each offender was given a total score of ITs for each individual IT that was found to be present for that individual, ranging from 0 to 6 for CSEM ITs, 0 to 5 for Contact ITs, and 0 to 11 on the combined total number of ITs they could potentially endorse. Results of the t-tests are displayed in Table 4.

Table 4

*Total CSEM, Contact, and Combined ITs Endorsed Between Groups*

<i>ITs</i>	CSEMOs (N=29)	MOs (N=30)	<i>t</i>	<i>p</i> (2-tailed)
CSEM	1.17 ( 1.136)	0.83 (1.177)	1.125	.265
Contact	0.69 (.761)	1.37 (.765)	-3.408	< .001
Combined	1.86 (1.156)	2.20 (1.297)	-1.055	.296

Results on the t-tests show a significant difference between CSEMOs and MOs on the Contact ITs, but similar levels of endorsement on CSEM ITs and total combined ITs. As demonstrated in Table 4, MOs endorsed significantly more Contact ITs in comparison to CSEMOs. Differences in individual IT endorsement between CSEMOs and MOs are explored below.

In order to see if any specific ITs were associated with the CSEM user type (either CSEMO or MO), chi-square tests of independence were performed. A significant chi-square value shows that there is a relationship between a particular IT and sexual offender type. Results of the chi-square analyses are displayed in Table 5 below.

Table 5

*Chi-square Tests of Independence for ITs Observed Among CSEMOs and MOs*

<i>ITs</i>	CSEMOs (n=29)	MOs (n=30)	Total (n=59)	$\chi^2$
<b>CSEM ITs</b>	<b>Frequency</b>	<b>Frequency</b>		
Unhappy world	11	8	19	0.857
Self as uncontrollable	6	2	8	2.474
Children as sex objects	4	3	7	0.203
Nature of harm (CSEM)	9	8	17	0.142
Self as collector	4	3	7	0.203
RNoTI	0	1	1	0.983
<b>Contact ITs</b>	<b>Frequency</b>	<b>Frequency</b>		
Children as sexual beings	4	11	15	4.069*
Entitlement	1	6	7	3.863*
Dangerous world	3	8	11	2.590
Uncontrollability	9	10	19	0.036
Nature of harm	3	6	9	1.063

*Note.* RNoTI = Reinforcing nature of the internet; \*  $p < .05$ .

Inspection of the chi-square values in Table 5 shows that all of the CSEM ITs, and three Contact ITs (Dangerous World, Uncontrollability, and Nature of Harm) were not significantly related to offender group. This indicates that for these ITs, both CSEMOs and MOs had similar prevalence rates. The ITs Children as Sexual Beings and Entitlement produced significant chi-square values, indicating that there is a significant difference in prevalence rate for these ITs. These findings supported the use of logistic regression to further explore the data.

### **3.4. Logistic Regression**

A binary logistic regression was used to test the association between Contact ITs and sexual offender group, and to test the strength of this association. Each of the five Contact ITs (Children as Sexual Beings, Entitlement, Dangerous World, Uncontrollability, and Nature of Harm) were entered as predictor variables in order to assess which ITs would contribute to the prediction of sexual offender type (CSEMO or MO).

A test of the full model conducted with the five Contact ITs as predictors was statistically significant compared to the constant only model  $\chi^2 (5, N= 59) = 14.469, p < 0.05$ , indicating that the five Contact ITs were able to distinguish between CSEMOs and MOs. The model correctly classified 75.9% of CSEMOs and 60.0% of MOs, for an overall success rate of 67.8%. Table 5 shows the regression coefficients, the odds ratios, and confidence intervals for each of the five Contact ITs as predictors.

Table 6

*Logistic Regression Predicting Group Membership by Contact Implicit Theories*

Contact IT	<i>B</i>	<i>SE B</i>	OR	95% CI for OR	
				Lower	Upper
Children as sexual beings	.734*	.362	2.084	1.025	4.238
Entitlement	1.785*	.882	5.960	1.057	33.599
Dangerous world	.874	.495	2.395	.908	6.322
Uncontrollability	.133	.329	1.142	.599	2.176
Nature of harm	.326	.437	1.386	.588	3.266
Constant	-.993*				
$\chi^2$	14.469*				
df	5				

*Note.* \* =  $p < .05$ ; OR = odds ratio, CI = confidence interval. A positive *B* value predicts belonging to the MO group.

Two Contact ITs were found to be significant predictors of belonging to the MO group, both in the regression analysis and the chi-square test results; these were Entitlement and Children as Sexual Beings. In order to analyse the predictive strength of these ITs, the odds ratios can be examined. Odds ratios determine the likelihood that a MO would hold a specific IT. The odds ratios displayed in Table 5 indicate that the odds of a MO holding the Entitlement IT was 5.96 times greater than a CSEMO, and that the odds of a MO holding the Children as Sexual Beings IT was 2.1 times greater than CSEMOs.

On the basis of these two ITs being significant predictors of group membership, a second binary logistic regression was performed using a nested model. The two significant ITs from the first model, Entitlement and Children as Sexual Beings, were entered as predictors in a binary logistic regression analysis, also predicting group membership. In the second logistic regression, Children as Sexual Beings remained a significant predictor of group membership ( $p < 0.05$ ). This model also performed significantly better than the constant only model,  $\chi^2 (2, N=59) = 10.594, p < 0.01$ , and was able to correctly classify 82.8% of CSEMOs and 53.3% of MOs, for an overall classification success rate of 67.8%.

As both models performed better than the constant only model and achieved similar total classification success, the two models were compared using the Akaike information criterion (AIC). AIC can be used to find the ‘best’ model by examining the balance between the number of predictors and goodness of fit (Chaurasia & Harel, 2012). The first model containing all the five Contact ITs produced an AIC value of 79.305, and the second model containing the two Contact ITs (Entitlement and Children as Sexual Beings) produced an AIC value of 77.181. Raw scores on the AIC cannot be interpreted meaningfully, therefore the difference between two scores are compared to determine if there is a difference in the nested models. The difference between the AIC values was 2.12, which suggests that the model containing all five Contact ITs provides a better fit for the data in comparison to the second model (Burnham & Anderson, 2003). Figure 2 shows a receiver operating characteristic (ROC) curve plotting the accuracy of using the Contact ITs to predict child contact sexual offending.

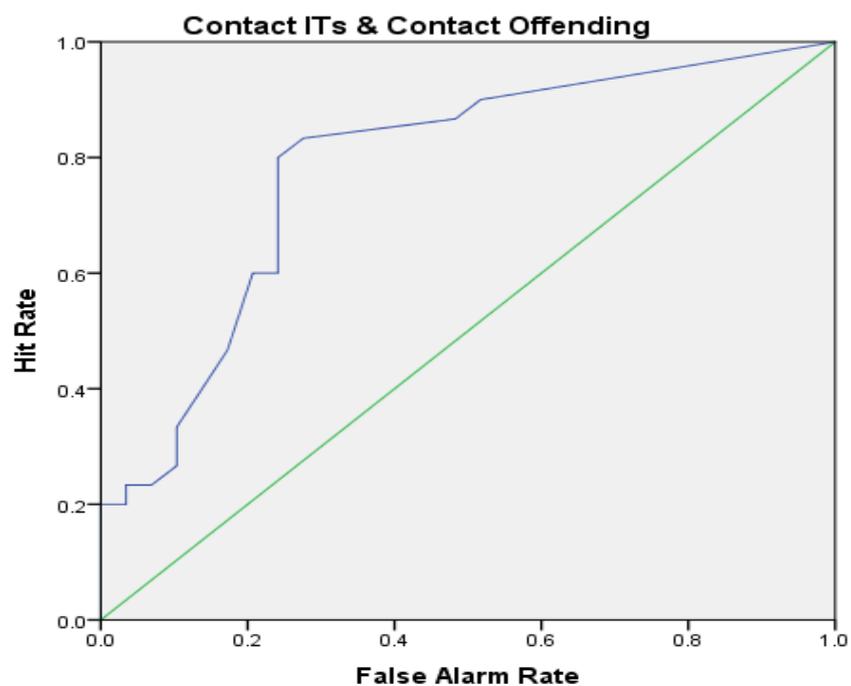


Figure 2. ROC using Ward and Keenan’s (1999) Contact ITs to predict contact offending.

The Contact ITs produced an area under the curve (AUC) of .783 ( $SE = .061$ ,  $p < .001$ , 95% CIs = [.663, .904]) which is a significant and large effect size (Rice & Harris, 2005), suggesting that the Ward and Keenan (1999) Contact ITs show some ability to distinguish between contact and non-contact offending in a sample of CSEM users.

## **Discussion**

### **4.1. Summary**

The aims of the study were to (a) evaluate if evidence supporting the presence of the CSEM ITs conceptualised by Bartels and Merdian (2016) can be observed in CSEM users file data; (b) assess if CSEMOs would endorse Bartels and Merdian's CSEM ITs and a comparatively smaller amount of Contact ITs than MOs; and (c) examine if MOs would hold a similar level of CSEM ITs but a comparatively larger amount of Contact ITs. To assess these aims, file-based data of CSEMOs and MOs consisting of pre-treatment psychological reports were analysed using the ITCT to assess the endorsement of ITs based on the two IT frameworks. The results of the study supported the validity of the CSEM IT framework; however there were a few unexpected findings in regards to the assessment of Ward and Keenan's (1999) Contact ITs. Analyses showed that the average number of Contact ITs endorsed was significantly higher for MOs, but not all individual Contact ITs significantly differed in comparison to CSEMOs. Further analyses found that two Contact ITs, Entitlement and Children as Sexual Beings, were able to discriminate between the two groups. These findings are discussed below.

### **4.2. The Implicit Theory Coding Template**

Before the aims of the study could be addressed, a coding template was required to objectively rate the offenders' files for evidence consistent with the descriptions of both IT

frameworks. The ITCT was a new tool designed specifically for the purposes of the present study, as to date there is no available measure to detect the presence of CSEM and Contact ITs. In order to ensure the ITCT was accurate, the study employed a second rater to independently double rate a subset of cases. Overall, the ICC values obtained excellent reliability, both for CSEM ITs and Contact ITs. However, there were some minor issues with the reliability data, in particular the ICC of the Reinforcing Nature of the Internet item was zero, indicating poor reliability with this item. Examination of the causes of this finding suggests that this may have been caused by low variability for this particular item. When assessing the scores of both raters, scores differed on only a single case; all other cases were zero. Therefore, the low subject variability on this item likely had a negative impact on the ICC values (Koo & Li, 2016). The issue of low subject variability was also apparent across the entire sample of offenders, as only 1.7% of participants showed evidence of this IT. The Reinforcing Nature of the Internet Belief is not considered exclusive to offenders (Bartels & Merdian, 2016, p. 18), as the majority of internet users share similar beliefs on the internet being a positive addition to their lives (Fox & Raine, 2014; InternetNZ, 2017), which suggests that the true prevalence rate of this IT should be higher. A possible explanation for the low rate of detection of this item is the method of data collection in the present study. The psychological reports used in the study to detect the ITs were designed to inform sentence management officers and clinicians of the risks and needs of each offender. Statements which reflect the Reinforcing Nature of the Internet belief, such as “The internet was a common thing for me” (Bartels et al., 2016, p. 12), may not have been deemed relevant for the purposes of assessment, which in turn caused the low rate of detection in the present study. Therefore, it is unlikely that the recorded rate of this belief detected in this study is a true estimate of its prevalence in the population.

Another issue which arose during the inter-rater reliability analyses with the ITCT was that no evidence of the Dangerous World IT was detected in the inter-rater sub-sample. This resulted in a lack of ICC values, as they could not be calculated for this item due to no variability in the scores. As there was no clear indication of the inter-rater reliability of this item, results of the main study should be interpreted cautiously.

Aside from these issues, the ITCT demonstrated high levels of inter-rater reliability between two raters. In addition, the ITCT was able to perform satisfactorily in the present study, enabling the coding of both CSEM and Contact ITs in a sample of combined CSEMOs and MOs.

#### **4.3. Identifying CSEM ITs in CSEM Users**

Consistent with hypothesis one, CSEM ITs were detected in both CSEMOs and MOs. This finding supports Bartels and Merdian's (2016) hypothesis that both fantasy-driven and contact-driven CSEM users will endorse CSEM ITs. Observational analyses revealed that endorsement was not equal among all ITs; 32.2% endorsed the Unhappy World IT; 28.8% endorsed the Nature of Harm (CSEM Variant) IT; 13.6% endorsed the Self as Uncontrollable IT; 11.9% endorsed the Children as Sex Objects IT; and 11.9% endorsed the Self as Collector IT. Therefore although the present study has found support for the CSEM IT framework, rates of endorsement on individual ITs appear to differ.

The most frequently endorsed CSEM IT was Unhappy World, which 32.2% of all CSEM users endorsed, and was equally endorsed between the two groups. The strong presence of the Unhappy World IT reflects a common characteristic of CSEM users in which users report difficulties with offline relationships, loneliness, stress, and self-esteem (Babchishin et al., 2015; Merdian et al. 2016; Sheldon & Howitt, 2007). These individuals often utilise the internet as a coping strategy, which allows them to distance themselves from

real life issues by engaging in immersive activities including online video games, interacting in online communities, and accessing pornography such as CSEM (Elliott, Beech, & Mandeville-Norden, 2013; Kettleborough & Merdian, 2017; Seto, Reeves, & Jung, 2010; Taylor & Quayle, 2003). The finding that both groups did not significantly differ on this IT is in line with current research showing that deficits in self-regulation (emotionally and sexually) and interpersonal skills have been found to be similar between CSEMOs and MOs (Babchishin et al., 2015; Babchishin et al., 2018). Notably, this finding also reflects a treatment need of CSEM users, as treatment programmes that address affective and interpersonal issues have demonstrated positive outcomes in these areas, with CSEMOs reporting lower levels of depression, stress, and anxiety following treatment, in addition to improvements in social competency (Beier et al., 2015; Gillespie et al., 2018).

The Nature of Harm (CSEM Variant) IT was also highly endorsed by both CSEMOs and MOs, with 28.8% of the total sample showing evidence of endorsing this IT. The relatively high prevalence rate of this IT in the sample suggests that distorted cognitions around the level of harm depicted in CSEM images, as well as the harm done by using this material, is a considerable issue for CSEM users. The high prevalence rate of this IT is a reflection of the commonly reported beliefs among users of CSEM that sexual fantasies, thoughts, and CSEM use are not problematic because the offender is not physically abusing a child (Howitt & Sheldon, 2007; Merdian et al., 2014; Taylor & Quayle, 2003). Tools such as the Internet Behaviours and Attitudes Questionnaire (IBAQ; O'Brien & Webster, 2007) are used to identify similar cognitive distortions produced by this IT, and treatment programmes currently attempt to reduce these distortions (Gillespie et al., 2018). This suggests that although it is not typically referred to as an IT in these contexts, the Nature of Harm (CSEM Variant) IT may already be a target in the assessment and treatment of CSEM users. Potentially, conceptualising this as an IT may help streamline these processes, enabling

clinicians to identify and treat a single underlying belief as opposed to multiple cognitive distortions (Drake, Ward, Nathan, & Lee, 2001).

The ITs Self as Uncontrollable, Children as Sex Objects, and Self as Collector showed comparatively lower levels of endorsement in the combined sample (ranging from 11.9% to 13.6%), suggesting that these may not be as widely applicable among the population of CSEM users. These ITs may reflect more individual needs of CSEM users; for example, a subset of CSEM users has been shown to derive satisfaction from the process of collecting CSEM, rather than their intended sexual function (Beech et al., 2008; Taylor & Quayle, 2003). In a sample of ten CSEMOs, Bartels et al. (2016) found that the Self as Collector IT was present in four of ten CSEM users, which was the lowest endorsed IT of all five CSEM ITs explored in their study. However, Bartels et al. also reported that evidence for the Self as Uncontrollable and Children as Sex Objects ITs were found in all ten CSEM users. This discrepancy between the present study and Bartels et al. may reflect methodological differences between the two studies. Bartels et al. utilised semi-structured interviews to gather evidence of ITs, whereas the present study rated ITs using file-based data. It may be that these ITs require more specific approaches or tools to uncover in CSEM users.

Overall, the detection of CSEM ITs in both CSEMOs and MOs highlights the similarities between the two groups of CSEM users, and also supports hypothesis one of the study. Bartels and Merdian's (2016) CSEM ITs appear evident across both groups to a similar degree. Of particular note was that both CSEMOs and MOs evidenced higher levels of Unhappy World and Nature of Harm (CSEM Variant) in comparison to other ITs. Thus, CSEMOs and MOs in general appear to be characterised by significant emotional and social issues, and utilise CSEM specific cognitive distortions that minimise the harm of their online offending.

#### **4.4. Prevalence of Contact ITs in CSEMOs**

Hypotheses two of the study was that CSEMOs would endorse comparatively lower levels of Ward and Keenan's (1999) Contact ITs relative to MOs. This hypothesis was partially supported. Although CSEMOs scored lower on their endorsement of total Contact ITs as expected, three individual Contact ITs (Dangerous World, Uncontrollability, and Nature of Harm) did not differ significantly in endorsement between CSEMOs and MOs.

The Dangerous World IT is based on the idea that the world is a dangerous and unforgiving place, and that other adults will act in an abusive manner towards the holder. However, there are two distinct paths in which the holder may choose to adapt in order to deal with this outlook. The first way is that the offender will punish or inflict harm on others in order to assert their own dominance over others. The second adaptation mechanism perceives other adults as unreliable, but children as trustworthy, compassionate, and reliable. There is evidence supporting the presence of this second adaptation mechanism in CSEM users, for example Sheldon and Howitt (2007) reported the following from a CSEMO, "I didn't trust adults ... because I've had so many knock backs ... children you can trust ... can give more acceptance and love than other adults" (p. 168). In a study of CSEMOs, MOs, and CSCOs, Merdian, Curtis, Thakker, Wilson, and Boer (2014) found that 23.53% of their sample agreed with the statement "I feel more comfortable with children than adults". These findings may provide a rationale as to why evidence for the Dangerous World IT was found within CSEMOs in the present study, as these distortions are more expressive of the pedophilic desires of CSEMOs. Future research in this area could benefit from separating the two adaptations of Dangerous World into separate beliefs in order to clarify these findings.

The presence of the Uncontrollability IT in the present sample was notable, as it was tied with Unhappy World as the most frequently endorsed IT across the entire sample. The finding of an Uncontrollability IT in CSEMOs is consistent with the results from a recent

study by Bartels et al. (2016). Bartels et al. noted in their study of 10 CSEMOs that all participants, in addition to other CSEM ITs, endorsed the Uncontrollability IT. This finding appears to highlight another similarity between CSEMOs and MOs in their CSEM use. However, it is important to note that a variety of sexual offenders blame external factors for their offending. Both rapists and sexual murderers state that their urges and emotions are uncontrollable, which then led to their offending behaviour (Beech, Fisher, & Ward, 2005; Polaschek & Gannon, 2004); female child sexual abusers have demonstrated evidence that they also hold an Uncontrollability IT (Beech et al., 2008); and the blame of drugs or alcohol as a factor in sexual offending is also not uncommon among offenders (Mann & Hollin, 2007; Scully & Marolla, 1984). Therefore, this may be an indication that the Uncontrollability IT is present among most sexual offenders, rather than it being an being shared between CSEM users and CSCOs. However, the present study found that this IT was tied for the most frequently endorsed IT among the entire sample. This pattern of endorsement highlights that the Uncontrollability IT is a common issue among CSEMOs, which appears to have been recognised by clinicians working with this group, as several treatment programmes for CSEMOs address their external locus of control (Gillespie et al., 2018; Middleton et al., 2009).

#### **4.5. Prevalence of CSEM and Contact ITs in MOs**

Hypotheses three of the study was that MOs would endorse similar levels of CSEM ITs but higher levels of Ward and Keenan's (1999) Contact ITs in comparison to CSEMOs. This hypothesis was met with overall support. MOs did not significantly differ in the frequency of endorsement on any of the CSEM ITs in comparison to CSEMOs, however they did endorse on average significantly more Contact ITs. This finding supports current research that has found MOs to be similar to CSEMOs on interpersonal and internet related variables,

however they score higher on measures of antisociality (e.g. prior offences), cognitive distortion scales, and have greater access to children (Babchishin et al. 2015). The finding that CSEM ITs apply to both these groups strengthens the validity of the CSEM framework applying to all users of CSEM, including those with or without a history of contact offending. This indicates that the typologies suggested by Merdian et al. (2013) of fantasy-driven and contact-driven CSEM users may equally endorse cognitive distortions specific to their CSEM offending.

As noted above, one area of difference between CSEMOs and MOs in the present study was their endorsement of Contact ITs. On the basis that Contact ITs were able to differentiate between offender type, further analyses were undertaken to ascertain the predictive value of individual Contact ITs. A logistic regression was performed to establish if any specific Contact ITs differentiate between a CSEM user having committed or not committed a contact sexual offence against a child (i.e., belonging to the MO group). This regression showed two significant predictors: the Entitlement and Children as Sexual Beings ITs. These results are similar to the responses found by Merdian et al. (2014) who noted that MOs showed significantly stronger endorsement of cognitive distortions around viewing children as sexual agents, entitlement to acting on their desires, and justification of their actions in comparison to CSEMOs. These areas of cognitive distortions in Merdian et al.'s study are linked to Ward and Keenan's Entitlement and Children as Sexual Beings ITs. Of particular note between these two predictors in the present study is the finding that a MO is almost six times more likely to hold the Entitlement IT in comparison to a CSEMO. This IT reflects a self-centred and antisocial view; the offender believes he should act in a self-serving way and view others as a means to satisfy their own needs. Current research shows a major risk factor for cross-over into contact sexual offending is the presence of antisocial tendencies (Babchishin et al., 2018; Eke et al., 2010; Seto & Eke, 2015). The Entitlement IT

may reflect these antisocial tendencies in offenders, and therefore appears to be a significant risk factor for CSEM users in committing child contact sexual offences.

An interesting finding when using the Contact ITs to predict contact offending is that it was the absence, rather than the presence, of the ITs that was able to distinguish between the two sexual offender groups. Despite MOs endorsing significantly more of the Contact ITs in comparison to CSEMOs, the model was able to better classify individuals as CSEMOs rather than MOs. This showcases the ability of the model to predict who will not engage in contact offending, rather than who will engage in contact offending, in a group of CSEM users. Predicting group membership using the second model (containing only the Entitlement and Children as Sexual Beings ITs) further highlights the functionality of the Contact ITs as predictors; this model performed better at classifying CSEMOs than the first model but much poorer at classifying MOs, which was only slightly better than chance. Therefore, the absence of Contact ITs in CSEM users may be an indicator of an offender being fantasy-driven as opposed to contact-driven, but the presence of Contact ITs may not perform as well at identifying CSEM users who are contact-driven. Additional risk factors, such as access to children (Babchishin et al., 2018), may prove more useful to identify CSEM users who could be classified as being contact-driven.

#### **4.6. Applications of the CSEM and Contact IT Frameworks for CSEM Users**

Support for the validity of the unique set of CSEM ITs found in the present study and in the study by Bartels et al. (2016) has several applications in the assessment and treatment of CSEM users. A notable issue in the assessment of CSEM users is the finding that CSEMOs tend to score lower on measures of cognitive distortions in comparison to contact sexual offenders (Babchishin et al., 2015). As these measures are often developed and based on contact sexual offending, it has been suggested that CSEMOs endorse cognitive

distortions that are specific to their offending, which are not picked up on traditional scales (Merdian et al., 2014). The continued use of these measures with this population has serious implications for the accuracy and validity of CSEMO risk assessment. Therefore, the incorporation of the CSEM IT framework may help strengthen or develop new tools that are appropriate for this specific group of offenders.

The CSEM IT framework is built from ITs that reflect the specific cognitive distortions commonly found in CSEMOs. Therefore, developing a CSEM IT based assessment may result in a more accurate measurement of the cognitive distortions of this group. This may help in the assessment of risk for CSEMOs, as a more accurate level of cognitive distortions for each offender could be obtained, but it may also help in developing appropriate treatment targets for clinicians to focus on. Despite the urging of researchers for a more unified construct (Ward, Polaschek, & Beech, 2006) the research and assessment of cognitive distortions has maintained an individual measurement focus (Gannon, Polaschek, & Ward, 2005; Mann & Beech, 2003). By utilising an IT based approach to treating cognitive distortions, this would reduce the number of individual distortions that need to be treated, help enhance the understanding of how cognitive distortions are developed and maintained, and could potentially result in more effective therapeutic change (Drake et al., 2001; Ward & Keenan, 1999). When utilising an IT framework during a treatment program with violent offenders, Polaschek, Calvert, and Gannon (2009) reported that both therapists and offenders responded positively to the inclusion of ITs in treatment, which provided a more streamlined and generalised approach to identifying and challenging cognitive distortions. Current treatment programmes for CSEMOs focus on addressing socio-affective functioning, emotional regulation, and cognitive distortions (Beier et al., 2015; Gillespie et al., 2018; Ly, Murphy, & Fedoroff, 2016; Middleton, Mandeville-Norden, & Hayes, 2009). These foci align with the beliefs encapsulated in the CSEM ITs, which may help integration of the

CSEM IT framework into existing treatment settings and also help identify some additional offence-specific needs (such as the Self as Uncontrollable IT) that can be addressed to help reduce offending. Supportive evidence for treating CSEM users based on CSEM ITs is reported by Merdian, Kettleborough, McCartan, and Perkins (2017), who utilised a strengths-based approach to treating CSEMOs incorporating the Good Lives Model (Ward, 2002). Merdian et al. demonstrated that targeting specific CSEM ITs over the course of treatment resulted in increased desistance from CSEM offending, demonstrating that targeting underlying ITs in treatment can result in positive outcomes for these offenders.

Recently it has been suggested that the risk of contact offending in this group can be categorised into two subtypes of CSEM users: fantasy-driven CSEM users and contact-driven CSEM users (Merdian et al., 2013). Fantasy-driven users primarily engage with CSEM material in order to facilitate their own sexual fantasies or collecting behaviour, while contact-driven CSEM users link their CSEM use to contact offending, for example by recording their contact abuse, using it as a substitute for contact offending, or utilising it to facilitate further contact offences (Merdian et al., 2018). Merdian et al. found that in a sample of 22 CSEMOs and 17 MOs, 81% of CSEMOs were classified as fantasy-driven CSEM users, while 64% of MOs were classified as contact-driven users. This distinction appears to suggest that CSEMOs are often categorised as fantasy-driven, while MOs are more likely to be classified as contact-driven. The endorsement of Contact ITs, particularly the Entitlement and Children as Sexual Beings ITs, in combination with other contact risk related variables, may be a way with which to differentiate between these two subtypes of CSEM users. In addition to identifying the different subtypes of CSEM users, the incorporation of both CSEM and Contact ITs may be useful when utilised in treatment settings. Expanding on the example set by Merdian et al. (2017), by incorporating both CSEM and Contact ITs into

treatment programmes with CSEM users, it may be possible to address both the risk of continued CSEM offending and the risk of contact sexual offending.

#### **4.7. Limitations**

The present study contained some limitations. Firstly, this study utilised a small sample of CSEM users. The study would have benefited from incorporating an additional comparison group of offline offenders (i.e., CSCOs) with no history of CSEM usage. The use of an offline contact group in future studies would have the potential to provide further evidence differentiating online and offline offenders on the basis of ITs. Some ITs and beliefs may be applicable to both online and offline offenders, therefore it is important to demonstrate which ITs are uniquely endorsed by online offenders. Additionally, the small sample size used in the study may have decreased statistical power, increasing the probability of a type II error during analyses (Nakagawa, 2004). To address these issues, future research should incorporate a comparison group of CSCOs and a larger sample size.

In terms of methodology, coding the ITs using file-based data may have been a limitation in the study. Research focusing on cognitive distortions and ITs often utilise either interviews or questionnaires to gather data (e.g. Bartels et al., 2016; Marziano et al., 2006; Merdian et al., 2014). These methods are able to directly assess the relevant information pertaining to the study, which may increase the rate of detection of these ITs. For example, Bartels et al. (2016) found that the presence of CSEM ITs in their sample of 10 CSEMOS ranged from 40% to 100% ( $M = 86.7\%$ ) whereas the present study only detected ITs in 1.7% to 32.2% ( $M=16.7\%$ ) of offenders. This difference may be attributable to the methodology employed in the present study. Our study utilised file-based data which is collected during routine assessment interviews with offenders. Clinician knowledge of ITs was unknown, and therefore information relevant to the purposes of this study may not have been included in the

report, resulting in an underestimate of the true prevalence rate of these ITs. In addition, some studies have found evidence that online offenders engage in impression management, presenting themselves in a desirable way to others (Bates & Metcalf, 2007), which may result in socially desirable responding and an underreporting of offence-relevant cognitions in the file-based data, especially during pre-treatment data gathering where offenders may not be as open during the initial interviews with clinicians.

However, this limitation may also be a strength of the study, as despite this limitation, our hypotheses were still supported. The detection of ITs using routinely collected file-based data reflects the robustness of the CSEM IT framework; cognitions relevant to these implicit theories can be detected without the need for specialised training, interviews, or interactions with offenders. This also highlights the relevance of these ITs, as the authors of the reports are aware of the importance of these cognitive distortions and the role that they play in offending, evidenced by the content of their reports. Widespread adoption of an IT framework or IT-based approach to dealing with offenders may then be a benefit for clinicians, which will help consolidate and streamline the content of these cognitive distortions while also providing a theoretical understanding of the aetiology of these beliefs.

Another limitation of the study was the lack of descriptive recidivism data for the offenders. Although the study was planned to ensure a three year follow up period was possible for each offender, recidivism data made available for the offenders was only described in terms of sexual contact reoffending and total reoffending. CSEMOs have shown low rates of contact sexual recidivism, but recidivism rates for further CSEM offending are comparatively higher (Seto et al., 2011). However, these findings support the current literature that CSEMOs are relatively low risk, as no CSEMOs in the sample had reoffended with a sexual contact offence within three years of their index CSEM offence. Given that a

clear risk for this group is the repeated use of CSEM, it would have also been beneficial to examine the relationship between IT endorsement and CSEM recidivism for offenders.

#### **4.8. Implications and Future Research**

The field of online sex offender research is still in its early stages, and as such has many areas that are not yet fully understood. Continued research on the unique characteristics of CSEM users is crucial in further understanding specific risk factors for this group, both around the risk of contact offending but also the risk of continued CSEM usage. The current study has indicated that CSEM users differ to some degree, and that themes of entitlement and a belief that children have sexual agency may play a key role in contact offending within this group. However, of particular note was the number of similarities between CSEMOs and MOs. This suggests that overall, CSEM users are defined more by their similarities than differences, and therefore may benefit from similar treatment programmes, for example those that focus on addressing interpersonal and emotional deficits. However, themes of sexual entitlement and a belief in the sexual agency of children may indicate a higher level of risk, and therefore a specific treatment need when dealing with some CSEM users.

The ITCT demonstrated reliability and validity within the study. Its use in the study demonstrates that a screening tool for ITs is feasible and can be integrated into routine risk assessment with offenders. The addition of such a tool may help streamline the identification of risks and needs as part of the risk-need-responsivity model (Andrews & Bonta, 2010). However, there were some issues in the present study when utilising the tool. Poor inter-rater reliability and low detection for the Reinforcing Nature of the Internet item suggests that this item requires additional fine-tuning to ensure that it can be used with file-based data. In addition, the -1 rating was only utilised on one IT (Nature of Harm CSEM Variant) for two offenders, which suggests an issue with this rating when used with this dataset. The -1 rating

was intended to show that the offender held a directly conflicting belief as per the description of an IT. The majority of file information used to make the ratings in this study consisted of pre-treatment or early-stage treatment reports. Without completing or making progress through therapy to address their distortions, it seems unlikely many offenders would meet the -1 criteria on these items. It may be possible to see more -1 ratings occurring if file-information was rated post-treatment. The assessment of change over treatment has been associated with reduced recidivism for sexual offenders against children (Beggs & Grace, 2011), therefore future research into the impact of change in endorsement of ITs may provide valuable information on effective treatments for online sexual offenders.

In conclusion, this study has provided evidence supportive of the CSEM IT framework by Bartels and Merdian (2016). These ITs are a significant step in identifying and understanding the underlying beliefs and attitudes of CSEM users which result in offending, as well as providing a theoretical understanding of the development of their unique cognitive distortions. In addition, the recognition of Ward and Keenan's (1999) Contact ITs in CSEM users may help researchers and clinicians address issues around the level of risk that this group poses, particularly in regards to contact sexual offending. Future research may investigate the use of this joint IT framework in order to develop appropriate assessment tools and treatment programmes aiming to reduce the incidence of CSEM offending.

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## Appendix

Note: Coding rules for the ITs in the ITCT are based on descriptions provided by Bartels and Merdian (2016) and Ward and Keenan (1999).

### Implicit Theory Coding Template

#### Background

Research into sex offenders often focuses on understanding the distorted thinking patterns around their offending behaviour. However, little research has focused on the underlying mechanisms behind these thoughts. Ward and Keenan (1999) suggested that, rather than being considered independent thoughts, that “sexual offenders’ cognitive distortions emerge from underlying causal theories about the nature of their victims” (p. 822). These theories, known as “implicit theories”, contain beliefs about the world and others and shape the way evidence is interpreted. For example, an individual may have an implicit theory that women are sexually promiscuous, and therefore interpret a woman’s friendly behaviour that she wants sex rather than it being a friendly gesture (Ward, 2000). Implicit theories are based on an individual’s own experiences rather than empirical evidence, therefore they are highly resistant to change (Ward & Keenan, 1999).

An offense-supportive implicit theory will contain assumptions about the nature of a victim, including assumptions around the abilities they may possess (e.g. is able to identify needs and to make his/her own decisions) and also describe the desires and beliefs generally found in that group (e.g. preferences in children). These implicit theories generate cognitive distortions, for example if an offender holds an implicit theory that “children are sexual beings” (described on p. 9), they may produce cognitive distortions such as “the child wanted sex” or “touching a child sexually can be a way of showing love and affection”. These distortions can be identified and then grouped into IT-consistent categories to provide a measure of support for the ITs.

#### Rating instructions:

Different implicit theories may share some overlapping ideas. It is therefore important when rating each implicit theory to attend to the specifics of each one while carrying out a rating. Each implicit theory should be rated in and of itself, without regard to the other implicit theories. Each implicit theory will be rated on a scale from -1 to 2. Values are defined below:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

## **(1) Unhappy World**

### General description of IT:

This implicit theory describes the belief that the world is a limiting and unsatisfying place. Individuals who endorse this implicit theory view the world as negative and depressing, with individuals in it being perceived as uninterested and/or rejecting. Individuals may also feel alone in the world, and be unable to connect with others in a close or meaningful way. As a result of this, individuals with this implicit theory may seek to create a more fulfilling identity elsewhere, for example through engaging with immersive communities (including online communities).

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

“I was just desperate to find some way of getting out of the shit life that I was in”

“I felt like I was a part of something”

“It shut out the part of my life I found difficult to deal with”

## **(2) Dangerous World:**

### General description of IT:

This implicit theory is based on the belief that the world is a dangerous place, and that others are likely to behave in a hostile manner, acting abusively and rejecting others in order to further their own interests. This implicit theory can lead to two variations of thinking.

### Variation 1:

In order to survive in this world, it is necessary to fight back by dominating and controlling other people. This involves punishing individuals who are perceived to inflict harm on the individual, especially if this allows the individual to strengthen their own position of authority. Beliefs and desires of others are a focus of this implicit theory, especially those that indicate malevolent intentions. Additionally, the individual perceives themselves as being able to retaliate against others.

### Variation 2:

Other people (particularly adults) are untrustworthy and rejecting, while children are considered to be reliable, accepting, and able to be trusted. Children are considered to be able to provide love and care for the individual, and they will never exploit or reject them. In contrast to the above variant, the individual believes they are incapable of direct retaliation or dominance over other adults.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT (variant 1):

“I did it to get revenge on her and her mother”

“They had to be taught a lesson”

“She had no right to question my authority”

“It was my way of punishing and controlling her”

### Examples of distorted statements generated by IT (variant 2):

“Children can give adults more acceptance and love than other adults”

“Children are innocent and want to please adults”

“You can’t trust adults”

“Kids really know how to love you”

“Sex between children and adults is very loving”

### (3) Nature of Harm 1:

This implicit theory is based on two core ideas;(1) that there are degrees of harm and (2) that sexual activity by itself beneficial and unlikely to cause harm. The first assumption looks at the idea that harm can range from little to no distress at one end to extreme distress at the other. Therefore, factors such as the amount of force used and the victim's awareness of the abuse can alter the level of harm. For example, an individual who is abused while sleeping is likely to suffer less than an individual who is abused while conscious throughout the experience (according to this theory). Therefore, offenders may believe they should not be judged too harshly as they could have harmed the victim more. The second idea is that sexual activity is a beneficial experience and, therefore, any negative experiences are attributed to external moderators (e.g. society's reaction to it) rather than the sexual experience itself. These two beliefs can lead to the belief that children are not harmed by sex with an adult, and that distress is most likely caused by additional violence or how others respond to the child's experience.

#### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

#### Examples of distorted statements generated by IT:

"This won't hurt or affect her in any way"

"This is not so bad, it's not really wrong"

"She is asleep so she will never know what I am doing"

"She is too young to remember this or know what I am doing"

"We are only touching, this isn't really sex"

"She is not my blood relation, so it's not so bad"

"Sex between a child and adult isn't harmful"

"It's better to have sex with your child than to have an affair"

"The only way a child could be harmed when having sex is by using physical force to get what they want"

"Many children who are sexually assaulted do not experience any major problems"

"Just fondling a child is not as bad as penetrating a child"

#### **(4) Entitlement:**

##### General description of IT:

This implicit theory describes the belief that some individuals are superior and more important than others. As a result of their superiority, these individuals have the right to assert their needs above others. The needs of others (i.e. victims) are ignored or viewed as only of secondary importance. Individuals who endorse this implicit theory may believe they are more important than others, and therefore have the right to sexually interact with children whenever they desire.

##### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

##### Examples of distorted statements generated by IT:

“Children are supposed to do what I want and serve my needs”

“I deserve a special treat and this will make me feel better”

“This is just a game, like doing a dare to see if I can get away with it”

“If I don’t do it someone else will, so it might as well be me”

“A man is justified in being sexual with children or looking at sexual images of children if his wife doesn’t like sex”

“I’m the boss in this family”

“People do what I tell them and that includes sex”

“Sometime in the future, our society will realize that sex between a child and an adult is alright”

“A person should be able to have a sexual release whenever it is needed”

## **(5) Self as Uncontrollable:**

### General description of IT:

This implicit theory describes the belief that one's offending behaviour is stable and unchangeable and that they are unable to stop or regulate their own behaviour. This can lead to belief that one is "addicted" or "obsessed" and unable to control themselves. It can also be linked to the idea of hoping an external factor will help them to stop (e.g., eventually being caught, finding a service that can help them). The core idea is that the individual perceives the stability of their own behaviour in a way that is unchangeable.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

"My offending was my whole focus, my whole life, everything else came second"

"I ended up falling back into old habits"

## **(6) Uncontrollability:**

### General description of IT:

This implicit theory focuses on the belief that there are processes and factors that underlie human behaviour that cannot be altered. The key assumption here is that the world is uncontrollable, therefore it is not possible to influence sexual desires. As a result, the only permissible action is to allow these desires to be acted upon. Sexual desires may be considered as being “external” to the offender, making them believe they are not responsible for their offending behaviour. Instead they direct blame to those responsible for their deviant sexual desires (e.g. the victim). Other factors such as stress, alcohol, or drugs may be blamed for the offending behaviour.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

“Some people are not ‘true’ child molesters, they are just out of control and made a mistake”

“For most people, if they hadn’t been sexually abused as a child they probably never would have behaved in a sexually inappropriate way with a child”

“Stress can cause people to sexually abuse children or access sexual child imagery”

“A lot of the time sexual assaults (or looking up child pornography) are not planned, they just happen”

“I did it because I was sexually abused as a child”

“I can’t control myself, so I’m not responsible”

“I was in a trance and it just happened”

“I was high on drugs and alcohol at the time”

## **(7) Nature of Harm 2:**

### General description of IT:

This implicit theory refers to two distinct ideas around the use of child sexual exploitation material (CSEM). The first is the view that CSEM viewing behaviour is on the lower end of the harm dimension based on the idea that interacting with CSEM avoids direct contact with a child. This can lead to a rejection of the label of “sex offender”, as despite being engaged in illegal activities they do not believe they are a “sexual offender”. The second way that this Nature of Harm implicit theory may emerge is through the perception of harm evident in the images they download. Individuals endorsing this implicit theory may seek out images which are less extreme or distressing. This conceptualisation of harm includes the belief that offences against younger children (within CSEM) are more harmful than those against older children, and that sexual acts that do not cause physical harm reflect a lower level of harm (e.g., posing versus sexual interaction with an adult). These perceptions focus on harm in the physical sense, while ignoring the emotional impact of the abuse.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

“At the end of the day all I’m doing is looking at them”

“I’m not a sex offender because I never harmed anyone during sex”

## **(8) Children as Sexual Beings:**

### General description of IT:

This implicit theory assumes that children are, similar to adults, sexual beings who are motivated by a desire for pleasure. Children are also thought of as being able to make informed decisions about when, with whom, and how their sexual needs will be fulfilled. They possess the knowledge to be able to make informed decisions about sexual activity with adults and are able to develop strategies designed to achieve sexual goals. This implicit theory can lead to individuals to interpret children's innocuous everyday behaviour as containing sexual preferences and intent (for example sitting on an adult's lap).

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

- “The child wanted sex”
- “The child seduced me”
- “The child was not harmed”
- “The child sought sex out”
- “She is flirting and teasing me, so she wants to do it”
- “We love each other, so this is okay”
- “Touching a child sexually can be a way of showing love and affection”
- “If a child looks at an adult's genitals, the child is probably interested in sex”
- “When a young child walks in front of me with no or only a few clothes on, she is trying to arouse me”
- “A child can make her own decision as to whether to have sex with an adult or not”
- “A child will never have sex with an adult unless the child really wants to”
- “Children are curious about sex and enjoy it”
- “Some young children are much more adult like than other children”
- “She didn't say no or tell, so it must be okay with her”
- “She is very mature for her age”
- “She said yes to my requests, so it must be okay.”

## **(9) Self as Collector:**

### General description of IT:

This implicit theory describes the belief that one's self-concept and social status is dependent on the possession of certain objects or collectibles. Individuals who hold this belief may collect different objects, and retain them for their 'social value' (e.g. value as a collectable item) rather than its 'ordinary value' (e.g. the intended purpose of the object).

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

“There was a thrill in collecting them”

“I just wanted to see how many different ones I could get”

## **(10) Children as Sex Objects:**

### General description of IT:

This implicit theory refers to the belief that children are objects that can be used to meet one's sexual needs. Individuals who endorse this implicit theory may dissociate children's body or body parts from their person. Through this perception, the child's capacity for making a decision is not considered; instead the child is viewed as an instrument for the sexual gratification of the individual.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

"It wasn't a person at all, they were only there to provide a sexual release"

"Sometimes to get a quick reaction, you look at the material and it's done"

"Because they were photographs... that kind of material... was in no way really connected with the original act"

## **(11) Reinforcing Nature of the Internet**

### General description of IT:

This implicit theory refers to an individual's belief that the internet grants infinite, immediate, immersive/absorptive, anonymous, and social benefits. Individuals who hold this IT believe that the internet offers numerous benefits, including being able to access information and resources easily, connecting and maintaining social relationships online, having the ability to remain anonymous, being able to immerse oneself in an online environment, and the limited skill required to use it.

### Rating Scale:

- 2: There is clear evidence that this implicit theory is present for the individual.
- 1: There is ambiguous evidence that this implicit theory is present for the individual.
- 0: There is no evidence that this implicit theory is present for the individual.
- 1: There is evidence that the individual believes the opposite of this implicit theory.

### Examples of distorted statements generated by IT:

“The internet makes it easy to access child pornography”

“It's normal to look at internet pornography, including child pornography”