Sexualized Minds

Child Sex Offenders' Offense-supportive Cognitions and Interpretations

Inge Hempel

Illustration by: Jaap Hempel, 10 years old, drawn from *'The abduction and rape of Ganymede by Zeus'.*
Cover by: Designcy
Printed by: GVO drukkers & Vormgevers B.V. | Ponsen & Looijen, Ede, the Netherlands

On the Cover:
In Greek mythology, Ganymede is a young boy and described as the most beautiful of mortals. Zeus, king of the Gods, fell in love with Ganymede's thighs and came down in the form of an eagle to carry Ganymede to Mount Olympus to let him serve as cup-bearer to the gods.

The myth of Ganymede has been seen as a symbol of male homoerotic love, or pederasty, the relationship between an adult male and an adolescent boy. In ancient Greece, pederasty was a socially acknowledged relationship to teach the adolescent boy how to become a man.

ISBN/EAN: 978-90-6464-711-6

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Geseksualiseerde Gedachten

Delict-ondersteunende Cognities en Interpretaties onder Kindermisbruikers.

Proefschrift

ter verkrijging van de graad van doctor aan de
Erasmus Universiteit Rotterdam
op gezag van de
rector magnificus
Prof. dr. H. G. Schmidt
en volgens besluit van het College voor Promoties

De openbare verdediging zal plaatsvinden op
woensdag 27 november 2013 om 13.30 uur

door

Inge Sarah Hempel
Geboren te Rotterdam

Promotiecommissie

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Chapter 1

General Introduction

Introduction

A recent number of major controversial sexual abuse cases in the Netherlands caused great public and political interest in sex offenders. News about sexual offenses evokes intense emotional reactions among the public, especially when children are involved. Inherently, child sex offenders (CSOs) are most detested by society, and are at risk to be completely rejected by their environment throughout their lives. Children are vulnerable to maltreating behaviors by adults, and as a result may suffer from a wide range of long-term negative outcomes, including mental-health problems, behavioral problems, and deficits in educational achievement (Boden, Horwood, & Fergussen, 2007; Lansford et al., 2002; Perez & Widom, 1994). For example, victims of child sexual abuse are at risk to develop post-traumatic stress and depression, eating disorders, personality disorders, problems with self-esteem, problems with learning, high-risk sexual behaviors or to be sexually abusive to others (Maniglio, 2009).

Sexual offending against children is suggested to be the result of interactions between emotional, physical, and environmental vulnerabilities and experiences during childhood. Theoretical models have been developed to explicate the factors that are important in the onset, development and maintenance of sexual offending.

One factor that is suggested to contribute to sexual offending against children, are problematic attitudes and beliefs about sex with children, .i.e. *offense-supportive cognitions* (Abel, Becker, & Cunningham-Rathner, 1984; Marshall & Barbaree, 1990; Ward & Keenan, 1999). Offense-supportive cognitions (in the literature also referred to as 'cognitive distortions') are typically defined as 'maladaptive beliefs and attitudes, and problematic thinking styles that serve to deny, blame, excuse and minimize sexually abusive actions' (Bumby, 1996; Ward, 2000; Gannon, Ward, & Collie, 2007). CSOs are known to commonly articulate maladaptive beliefs about sex with children, justifying their sexually abusive behavior.

To fully explain the occurrence of sexual offending against children, studies have to empirically validate suggested risk factors and the role of these risk factors in the offending process. For example, it is still unclear how offense-supportive cognitions develop, and whether such cognitions serve a maintenance function in the offending process or a causative role. It is possible that offense-supportive cognitions result from sexual abuse experiences during childhood, or that they result from the offense itself to reduce cognitive dissonance. Additionally, while there has been an emergence in the literature into CSOs' self-reported offense-supportive cognitions, there is little empirical evidence that these offense-supportive cognitions are also held more unconsciously. An unconscious nature of offense-supportive cognitions could indicate that these cognitions have a profound character, which would complicate the treatability of such deviations and related abusive behavior.

Furthermore, although it is hypothesized that offense-supportive cognitions are related to the empathy and the interpretation process, leading to sexually abusive behavior towards children (Blake & Gannon, 2008; Ward & Beech, 2006; Ward & Casey, 2010), relationships between these constructs have remained largely unexplored.

To clarify the underlying mechanisms that contribute to the offending process of CSOs, this thesis aimed to extend the knowledge about CSOs' offense-supportive cognitions regarding sex with children, and to unravel the role of these offense-supportive cognitions in the offending process. This knowledge will clarify which cognitions and underlying mechanisms need to be the focus of treatment of CSOs, to prevent sexual offending against children.

First, we will first give a brief general overview of the prevalence rates of child sexual abuse, important risk factors for sexual offending against children, and the role of risk assessment in the prevention of reoffending. Second, the most acknowledged theories on sexual offending against children and on offense-supportive cognitions will be discussed, followed by our aims.

Sexual offending

Sexual abuse is a worldwide problem that occurs in every social class. In the Netherlands, almost 7000 sexual offenses are committed annually, of which 900 to 1000 by juvenile males (Brouwers & Smit, 2005; Van Wijk, Dorelijers & Bullens, 2007). A study covering 22 countries showed that 7.4% of men and 19.2% of women experienced some form of sexual abuse prior to the age of eighteen (Pereda, Guilera, Forns, & Gómez-Benito, 2009). In 2010, almost 4% of children in the US between the age of 0 and 17 were reported to authorities as being sexually abused in any way (US DHHS, 2010). This is equal to almost 275,000 children in the US annually. Remarkably, in 81% of the cases, the perpetrator was one of the parents or caregivers. Recent prevalence rates of child sexual abuse in the Netherlands showed that 9% of men and 31% of women reported some form of sexual abuse before the age of sixteen (De Haas, Van Berlo, Bakker, & Vanwesenbeeck, 2012). A Dutch study among 8000 adolescents revealed that 21% of boys en 41% of girls were at least once forced into a sexual act, ranging from kissing to anal penetration (De Graaf, Kruijer, Van Acker, & Meijer, 2012).

Although the prevalence rates of child sexual abuse are high, the vast majority of sex offenders will never be brought to justice. Many assaults are not reported to the police, either because of shame, or the assault took place in a relational situation. Official records indicate that 1% to 3% of the adult male population will eventually be convicted for a sexual offense (Marshall, 1997; Piquero, Farrington, Jennings, Diamond, & Craig, 2012). However, studies revealed that a larger number, that is 5% to 20% of males, admit at least one act of sexual aggression (Lisak & Miller, 2002; Rubenzahl & Corcoran, 1998). In a sample of 1,882 males between 18 and 71, 120 males (6.4%) met the criteria

for rape or attempted rape. Almost one-fifth of them also admitted the sexual abuse of a child, equivalent to 1.1% of the total sample (21 males; Lisak & Miller, 2002).

Males who have sexually offended against a child are often characterized as 'pedophiles'. However, the diagnosis 'pedophilia' only applies to a small group. According to the Diagnostic and Statistical Manual of Mental Disorders IV, 'pedophilia' is a psychiatric disorder in persons sixteen years or older, characterized by recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children (generally age 13 years or younger). Furthermore, the person has to be at least five years older than the victim (APA, 1994). Pedophilia can be diagnosed in the absence of sexual contact with children, and is not synonymous with sexual offending against children. How many males in the general population have a pedophilic preference is unknown. The maximum estimated prevalence of pedophilia is 5% (Seto, 2009).

In contrast to the prevailing belief that all CSOs are pedophilic, the vast majority of CSOs (80%) can be classified as generalists. They commit sexual offenses as part of their antisocial lifestyle, whereas 20% are specialists, committing sexual offenses only (Van Marle, Van Putten, & De Ridder, 1995). Studies mostly distinguish CSOs based on the type of offense they have committed, i.e. contact offenses or non-contact offenses. 'Contact CSOs' have committed sexual offenses against children that involved physical contact, for example child molesters or incest offenders. 'Non-contact CSOs' have committed sexual offenses against children that did not involve physical contact, for example exhibitionists or men who download and/or spread child pornography. In some of our studies, we will also make a distinction between contact CSOs and non-contact CSOs.

Risk factors and Risk Assessment

Most general risk factors for delinquency, such as antisocial orientation, prior violent offenses, and juvenile delinquency, also apply to the *total* population of sex offenders. However, CSOs constitute a heterogeneous group with different characteristics and risks of (re)offending (Hanson & Morton-Bourgon, 2005; Knight & Prentky, 1990; Robertiello & Terry, 2007). Risk factors are often divided in two groups; static and dynamic factors. Whereas static risk factors are factors that are usually not changeable through treatment (i.e. prior offenses), dynamic risk factors are (i.e. offense-supportive cognitions).

From a meta-analysis of 61 sexual offender recidivism studies, Hanson and Bussière (1998) concluded that sexual deviancy (e.g., deviant sexual preferences, prior sexual offenses) most strongly predicted sexual recidivism among CSOs and rapists. In their later meta-analysis, Hanson and Morton-Bourgon (2005) concluded that deviant sexual preferences and antisocial orientation were the major predictors of sexual recidivism for both adult and juvenile sex offenders. Furthermore, it was found that sex

offenders who committed new sexual offenses reported more offense-supportive cognitions than sex offenders who had not reoffended (Firestone et al. 1999; Hudson, Wales, Bakker, & Ward, 2002). Especially CSOs who have committed sexual offenses against children that involved physical contact (i.e. contact CSOs), seem characterized by higher levels of sexual deviancy and deviant beliefs and attitudes (Babchishin, Hanson, & Hermann, 2011) than CSOs who have committed sexual offenses against children that did not involve physical contact. We therefore hypothesize that a difference in level of offense-supportive cognitions might also distinguish contact CSOs from non-contact CSOs (**chapter 3 and 4**), clarifying the difference in type and severity of sexual offending against children.

Another risk factor for sexual offending against children is the experience of sexual abuse during childhood (Hanson & Slater, 1988; Hosser, Raddatz, & Windzio, 2007; Rivera & Widom, 1990). Widom and Maxfield (2001) found that a history of childhood abuse and neglect increased the odds of future criminality by 28 percent. Especially CSOs experienced child sex abuse more frequent than adult sex offenders (Jespersen, Lalumière, & Seto, 2009). The clinical observations of psychotherapists that a higher proportion of child sex offenders (CSOs) report having been sexually abused in childhood than men who have not committed such an offense, is known as the abused/abuser hypothesis (Groth & Burgess, 1977; Garland & Dougher, 1990).

The underlying process of this victim-to-victimizer cycle, which posits that victims of abuse are more at risk to repeat the behaviors they experienced during their own victimization (Ryan, 1989), is still unclear. It is hypothesized that childhood maltreatment result in biases in cognitive, emotional, and neurobiological development, leading to the development of aggression (Lee & Hoaken, 2007). Furthermore, according to Ward and Beech (2006), adverse social learning (i.e. imitating, modeling, and identification with maladaptive behavior of role models) during childhood have a significant influence on the development of neuropsychological functioning, resulting in the clinical symptoms evident in CSO. These clinical symptoms include offense-supportive cognitions. We hypothesize that sexual abuse experiences during childhood are related to elevated levels of offense-supportive cognitions by social learning, which could increase the risk on sexual offending (**chapter 3**).

The assessment of risk of sexual offending or reoffending is considered to be a key-element in the prevention of new sexual offenses. To make decisions about sanctions, referrals, or rehabilitation, actuarial and structured risk assessment instruments are superior to unstructured clinical judgments (Hanson, 2000; Hanson & Morton-Bourgon, 2009). These actuarial and structured risk assessment instruments encompass several empirically derived risk factors that are associated with sexual offending.

For the adult sex offender population, there has been progress in developing reliable actuarial risk assessment instruments (Epperson, Kaul, & Hesselton, 1999; Hanson & Thornton, 1999). For the juvenile sex offender population on the other hand, only a few risk assessment instruments have been developed, and just a small number of studies have examined the psychometric properties and predictive values of these instruments (Viljoen et al., 2008; Martinez et al., 2007; Hiscox, 2007). However, it has been estimated that juveniles are responsible for 30 to 50% of all child sexual abuse cases (Davis & Leitenberg, 1987; Becker, Kaplan, Cunningham-Rathner & Kavoussi, 1986), as deviant sexual behavior and fantasies can already begin in childhood and adolescence (Groth, Longo, & McFadin, 1982**;** Wieckowski, Hartsoe, Mayer,& Shortz, 1998). It is thus important to identify and treat these juveniles in an early stage, preventing the continuation of their sexually abusive behavior. This will include the early identification and treatment of offense-supportive cognitions, as the inclusion of dynamic risk factors such as 'pro-offending cognitions and attitudes' has been shown to increase the accuracy of risk prediction beyond static risk factors among the adult CSOs population (Beech, Erikson, Friendship, & Hanson, 2002; Hanson & Harris, 2000; Thornton, 2002). Therefore, in **chapter 2**, we will first review the literature on risk assessment instruments for juvenile sex offenders, focusing on the predictive accuracy of these instruments and the inclusion of dynamic risk factors, such as offense-supportive cognitions.

Theories of sexual offending against children and offense-supportive cognitions

In order to give full insight in the suggested role of offense-supportive cognitions in the offending process, we will briefly summarize a widely recognized integrated theory of sexual offending against children that has been build on earlier influential theories (Ward & Beech, 2006; for an overview of older theories see Box 1.1). This theory includes a discussion on the mechanisms that could lead to the development of offense-supportive cognitions. We will then discuss the two most acknowledged theories of offense-supportive cognitions (Abel, Becker, and Cunningham-Rathner, 1984; Ward & Keenan, 1999). In the literature these offense-supportive cognitions are also referred to as cognitive distortions') (see Box 1.2. for other theories of offense-supportive cognitions).

Ward and Beech's (2006) Integrated Theory of Sexual Offending

In 2006, Ward and Beech proposed an Integrated Theory of Sexual Offending (ITSO), integrating all aspects of sexual offending that explain the onset, development, and maintenance of sexual offending against children and adults. According to the ITSO, sexual offending occurs through the ongoing dynamic interaction of *biological* (genes, brain development), *ecological* (social, cultural and personal circumstances) and *neuropsychological* factors (perception, motivation, emotion, control).

Biological factors and social learning shape an individual's unique development of perceptions, motivations, emotions and control. For example, adverse social learning due to experiences of sexual abuse during childhood influences the developing child and the child's psychological functioning. The interaction between biological factors, social learning and neuropsychological systems generate the clinical symptoms evident in sex offenders: difficulties in identifying and controlling emotional states; social isolation, loneliness and dissatisfaction; offense-supportive cognitions; and deviant sexual fantasies and arousal. Ward and Beech (2006) consider empathy deficits to be subsumed under offense-supportive cognitions and emotional dysregulation difficulties. These clinical symptoms in turn lead to sexually abusive behavior. The maintenance and escalation of sexually abusive behavior is dependent of positive and negative reinforcement of that behavior, for example through the reduction of negative mood states or through punishment.

Box 1.1. Theories of sexual offending against children

Finkelhor's four Pre-Conditions model

Finkelhor (1984) was one of the first to propose a model for the typology of CSOs, and explained the occurrence of child sexual abuse (CSA) by four underlying factors: *emotional congruence* – sex with children is emotionally satisfying for the offender; *sexual arousal* – men who offend are sexually aroused by a child; *blockage* – due to a disability to meet sexual needs in a socially appropriate way, men have sex with children; and *disinhibition* – because of a loss of inhibition, these men behave in a way contrary to their normal behavior. Why some individuals develop a sexual interest in children is explained by the first three factors, the last factor explains why this interest manifests as sexually deviant behavior.

Before the abuse of a child occurs, four sequential pre-conditions must be satisfied: First, there must be a *motivation* to sexually abuse a child, arising from the first three factors 'emotional congruence', 'sexual arousal' and 'blockage'. The second pre-condition concerns *overcoming internal inhibitions*. For example, through the intake of alcohol or due to severe stress, internal inhibitions to abuse a child are overcome. Third, the offender must also *overcome external inhibitions*, for example after a lack of parental supervision. The last pre-condition involves *dealing with the possible resistance of a child* to the abuse, by giving presents to the child or by threatening.

Hall and Hirschman's Quadripartite model

Hall and Hirschman (1992) based their model of CSA on four factors that motivate sexual offending against children: physiological sexual arousal, cognitive appraisal, affective dyscontrol, and personality problems. Physiological sexual arousal, cognitive appraisal and affective dyscontrol are primarily state and situational dependent, whereas personality problems represent enduring vulnerability and trait factors. This model focuses on the synergistic interaction between the situational factors and vulnerability factors that produce sexual offending against children. Furthermore, the presence of one motivational precursor could affect the intensity of any of the other precursors, and may function as the catalyst for the act to occur.

Hall and Hirschman (1992) distinguished four types of CSOs based on their most influential motivational precursor that causes the person to exceed the threshold that usually inhibits the act. The first subtype is primarily driven by physiological sexual arousal, and assumed to be the most frequent of subtypes. This subtype is consistent with the pedophilic offender and is likely to have multiple child victims. The second subtype is motivated by deviant cognitive appraisals, e.g. incest offenders. The sexually abusive act is often preceded by an evaluation of the situation, and rarely encompasses physical violence. The third type is characterized by a negative affective state, acting opportunistically and impulsively rather than deliberately. Their acts are often reactions to life stressors. Other factors, such as alcohol use, also facilitate the affective states that disinhibit the person to offend. Finally, the last subtype is primarily motivated by developmentally related personality problems or disorders such as intellectual impairment, poor social skills and childhood physical or sexual victimization.

Marshall and Barbaree's Integrated theory

The multifactorial dynamic theory of Marshall and Barbaree (1990) explains the development, onset and maintenance of general sexual offending and CSA by the interaction between biological, psychological, social, cultural and situational factors. According to this theory, adolescence is a critical developmental stage in which enduring sexual scripts, interests and attitudes are acquired. Adolescent males need to discriminate aggressive impulses from sexual impulses, and inhibit aggressive tendencies during sexual experiences. This is especially challenging for adolescents who are particularly vulnerable due to insecure attachment, low self-esteem, poor coping style, inadequate interpersonal skills, and a lack of effective self-regulation and social competence.

These vulnerabilities are especially the result of early adverse developmental experiences, biological changes (release of hormones), and cultural norms about sex and gender roles. Moreover, situational disinhibitors such as drug abuse, the availability of a victim and the opportunity to offend also play a role in the risk of CSA. Individuals differ in their vulnerability to offend, but also in their resilience against offending, i.e. their abilities and skills that inhibit the impulse to offend. The maintenance of CSA is dependent on the positive and negative reinforcement of sexually abusing a child, and the acquisition of cognitions to legitimate their acts, i.e. offense-supportive cognitions.

Ward and Siegert's Pathways model

The Pathway model of Ward and Siegert (2002) is a comprehensive theory based on the strengths of the models of Finkelhor, Hall and Hirshmann, and Marshall and Barbaree. Ward and Siegert suggested that the clinical phenomena that characterize CSOs are the result of four distinct and interacting psychological mechanisms or pathways that causes specific outcomes or effects. These clusters are the main focus of treatment programs for CSOs.

The first etiological mechanism is through intimacy or social skill deficits. This is often the result of insecure attachment and early developmental adversities such as abuse and neglect, resulting in difficulties to develop intimate relationships.

The second mechanism that could result in sexual offending behavior is through dysfunctional sexual scripts. Sexual scripts are mental representations that facilitate the interpretation of intimate or sexual encounters, and guide subsequent sexual behavior. Distortions in sexual scripts, for example due to early sexual abuse experiences, may result in inappropriate sexual behavior.

Emotional dysregulation is the third mechanism that could cause the occurrence of CSA. Emotional self-regulation includes the monitoring, evaluation, selection, and adaptation of affective states and behavior to effectively and satisfactory achieve goals.

Fourth, offense-supportive cognitions increase the risk on sexual offending against children. The maladaptive beliefs and attitudes, and problematic thinking styles often expressed by CSOs facilitate and maintain sexually abusive acts. Ward and colleagues (1997) suggested that underlying schemata or implicit theories generate the offense-supportive cognitions evident in CSOs. These schemata guide information processing in favor of the distorted beliefs. Situations are interpreted in accordance with their own assumptions about children and sex, and offenders infer the victim's mental state, needs and desires, and predict their future behavior.

Finally, multiple dysfunctional mechanisms underlie the fifth etiological pathway. There are individuals with deficits in each of the four domains, and constitute 'pedophiles'. They have distorted sexual scripts and ideas about children's sexuality, resulting in sexual arousal towards children.

Abel's early theory of offense-supportive cognitions

Abel, Becker, and Cunningham-Rathner (1984) were the first to define offense-supportive cognitions in the sexual offending area. They referred to it as ‘internal processes, including the justifications, perceptions and judgments used by the sex offender to rationalize his child molestation behavior’ (Abel et al., 1989, p. 137). According to Abel these distorted cognitions result from the offense to reduce anxiety, guilt and loss of self esteem after committing a sexually abusive act, allowing the ongoing abuse of children. A few of the common offense-supportive cognitions held by CSOs are: 'a child who does not resist my sexual advances wants to have sex with me'; 'having sex with a child is a good way to teach the child about sex'; 'children do not tell others about having sex because they really enjoy the sexual activity and want it to continue' (Abel et al., 2004).

Ward's implicit theory of offense-supportive cognitions

Ward and colleagues argued that underlying networks of beliefs about sexual offending, i.e. ‘implicit theories’, produce the offense-supportive cognitions often uttered by sex offenders (Ward, 2000; Ward & Keenan, 1999). These implicit theories develop during childhood and precede the offense. According to Ward, implicit theories function like schemas for behavior and affect how offenders perceive, encode and interpret interpersonal cues. Based on their implicit theories, sex offenders make predictions about their victims’ desires and intentions, leading to distorted interpretations of the self, others, and the world, and eventually, to the offense (Ward, 2000; Ward & Keenan, 1999).

Ward and Keenan (1999) proposed five implicit theories that are important in the offending process: 1) *entitlement* – a core belief of superiority and the right to have sex with children. This theory is illustrated by claims such as “a person should have sex whenever it is needed”; 2) *dangerous world* – adults are rejective and children are more accepting, or everyone is hostile and others should be dominated. This is illustrated by claims as “children really know how to love you” or “I had to teach her a lesson”; 3) *uncontrollability* of sexual drive, exemplified by “I did it because I was sexually abused as a child”; 4) *nature of harm* – children who are sexually abused are relatively unharmed. A distortion associated with this theory includes “this will not hurt her in any way”; and 5) *children as sexual beings* – a child is a sexual being who is motivated by achieving pleasure, and capable of desiring and enjoying sex. This theory is illustrated by claims such as “she seduced me” or “he enjoyed it” (see Ward & Keenan, 1999). However, as Ward and colleagues stated: ‘people do not have direct access to the content and structure of their own cognition’ (Ward, Polaschek, & Beech,

2006, p. 116), and may not always be aware of such beliefs. Box 2. presents an overview of other theories of offense-supportive cognitions.

More recently, it has been hypothesized that when schemas are built up from deviant cognitions, it is suggested that ambiguities in social interactions are attended to and encoded in a maladaptive schema-supportive way (Blake & Gannon, 2008; Gannon & Polaschek, 2006; Ward, 2000; Ward et al., 1997; Ward & Keenan, 1999). Researchers have suggested that CSOs hold distorted views on social interactions with children (Stermac & Segal, 1989; Ward, Hudson, & Marshall, 1995). Misinterpreting children's behavior and intentions could lead to sexually abusive behavior towards children. However, there is little empirical knowledge about whether the interpretation process of CSOs is offense-supportive in nature and contributes to the offending process (**chapter 5 and 6**).

Furthermore, how individuals perceive child sexual abuse also depends on varying factors such as age of the perpetrator, perpetrator gender, victim gender and victim response (Broussard, Wagner, & Kazelskis, 1991; Dollar, Perry, Fromuth, & Holt, 2004; Sherril, Renk, Sims, & Culp, 2011; Stermac & Segal, 1989). While there has been an emergence in the literature concerning blame attribution and perceptions of child sexual abuse among community samples, there has been little empirical knowledge about the effects of victim response on CSOs' perceptions of child sexual abuse (**chapter 6**).

Box 1.2. Theories of Offense-supportive Cognitions (i.e. Cognitive Distortions)

Schema based model of sexual assault

The schema based model of sexual assault (Mann & Beech, 2003) focused only on a small part of the offending process, namely the role of schemas for behavior (i.e. patterns of emotions and cognitions that helps us organize social information and interpret the world around us). The model proposed that developmental experiences shape our schemas for behavior. These schemas interact with ambiguous or negative life events, and influence the way incoming information is processed. Information is processed in such a manner that the interpretation of information is in accordance with our schemas. Once activated, dysfunctional schemas due to adverse developmental experiences, generate cognitions that allow sexually offensive behavior.

For example, sexual abuse experiences during childhood may facilitate the development of maladaptive schemas and cognitions about children and sex in adulthood. Incoming information is processed consistent with these maladaptive schemas and cognitions, and ambiguous behavior of children might be interpreted in a sexual manner. This misinterpretation and sexualization of children's behavior might lead to the sexual abuse of a child.

Judgment model of cognitive distortions

In 2006, Ward, Gannon, and Keown presented a broader perspective on offense-supportive cognitions, and suggested on *how* the implicit theories that produce offense-supportive cognitions result in sexually abusive *actions.* They argued that offense-supportive cognitions reflect three types of judgments, *beliefs, values,* and *actions.*

Beliefs are defined as 'statements about the nature of self and the world (..) that purport to be true' (p. 325), and *values* refer to the primary goods individuals are trying to pursue and which motivate an individual's *actions*. Beliefs, values and actions interact dynamically and reflect an individual's personal, cultural and ecological environment.

According to this model, all individuals' judgments on how to act are driven by their personal beliefs (what is considered true) and values (what is considered desirable). When these beliefs are false and the individual pursues goals of little value, their actions might be harmful. Subsequently, beliefs and values in turn, are influenced by the consequences of one's actions. Offense-supportive cognitions stem from varying combinations of these types of judgments. However, not all offense-supportive cognitions stem from underlying enduring maladaptive beliefs, but may reflect temporary faulty reasoning and concluding, or may reflect impression management.

The extended mind theory of cognitive distortions

The most recent theory of offense-supportive cognitions is that of Ward and Casey (2010), the Extended Mind Theory (EMT). According to Ward and Casey, the EMT theory provides a deeper and better explanation of human cognitive functioning. Cognitive practices that are intended to interpret a situation, make inferences, solve problems, or plan actions, not only occur within the brain, but also depend on external components to achieve a certain cognitive task. These external components are for example the context, other people or the language that is used.

Whether cognitive practices are 'distorted' depends on the violation of ethical norms that are relevant to achieve a cognitive task in an acceptable manner. Statements of CSOs such as 'children benefit from sex with adults' means that their cognitive practice is distorted, as such statements violate norms of society. According to the EMT, offense-supportive cognitions are embedded in cognitive practices and are context dependent, meaning that these distortions are not necessarily stem from enduring beliefs. Furthermore, the cause of offense-supportive cognitions must be viewed in the broader social and cultural context in which the CSO lives.

Aims and outline of this thesis

To clarify the underlying mechanisms that contribute to the offending process of CSOs, this thesis aimed to extend the knowledge about CSOs' offense-supportive cognitions regarding sex with children, and to unravel the role of offense-supportive cognitions in the offending process.

The aim of this dissertation is sixfold:

1. To review the literature on risk assessment instruments for juvenile sex offenders, focusing on the predictive accuracy of these instruments and the inclusion of dynamic risk factors, such as offense-supportive cognitions (**chapter 2**).
2. To assess whether offense-supportive cognitions characterize child sex offenders in a distinctive and profound way, compared to non-offenders. We used two methods to measure offense-supportive cognitions: a) by self-report (**chapter 3**), and b) by an implicit information processing test (**chapter 4**).
3. To clarify the type and severity of sexual offending against children we assessed whether levels of offense-supportive cognitions could differentiate contact CSOs from non-contact CSOs (**chapter 3 and 4**).
4. To clarify the role of offense-supportive cognitions in the victim-to-victimizer cycle, we assessed whether sexual abuse experiences in childhood are related to elevated levels of offense-supportive cognitions, which could increase the risk on sexual offending (**chapter 3**).
5. To examine whether elevated levels of offense-supportive cognitions among CSOs are related to lower levels of empathy and to more distorted interpretations of child molestation incidents by CSOs **(chapter 5)**.
6. To examine the impact of victim response on CSOs' interpretations of child molestation incidents compared to non-offenders **(chapter 6)**.

Chapter 2

Review of risk assessment instruments for juvenile sex offenders: What is next?

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***International Journal of Offender Therapy and Comparative Criminology*, 2011, 57(2): 208-228**

Abstract

Risk assessment is considered to be a key element in the prevention of recidivism among juvenile sex offenders (JSOs), often by imposing long-term consequences based on that assessment. The authors reviewed the literature on the predictive accuracy of six well-known risk assessment instruments used to appraise risk among JSOs: the Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II), Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (J-SORRAT-II), Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), Juvenile Risk Assessment Scale (JRAS), Structured Assessment of Violent Risk in Youth (SAVRY), and Hare Psychopathy Checklist: Youth Version (PCL:YV). Through a systematic search, 19 studies were reviewed. Studies showed differences in the predictive accuracies for general, violent, and sexual recidivism, and none of the instruments showed unequivocal positive results in predicting future offending. Not unexpectedly, the accuracy of the SAVRY and PCL:YV appeared to be weaker for sexual recidivism compared with specialized tools such as the J-SOAP-II or the ERASOR. Because of the rapid development of juveniles, it is questionable to impose long-term restrictions based on a risk assessment only. New challenges in improving risk assessment are discussed.

Introduction

Juvenile sex offenders (JSOs) are regularly assessed by clinicians in the juvenile justice system on their risk of reoffending. Risk assessment is considered to be a key element in the prevention of recidivism, often by imposing long-term consequences on JSOs based on that assessment. To make decisions about sanctions, referrals, or rehabilitation, actuarial and structured risk assessment instruments are superior to unstructured clinical judgments (Hanson, 2000; Hanson & Morton-Bourgon, 2009). For the adult sex offender population, there has been progress in developing reliable actuarial risk assessment instruments (Epperson, Kaul, & Hesselton, 1999; Hanson & Thornton, 1999). However, in the last decades, only a few risk assessment instruments have been developed specifically for JSOs, and the literature on these instruments is limited. The purpose of this review is to give an overview of the literature on the predictive accuracy of risk assessment instruments among JSOs.

Sexual Offending

Until 20 years ago, studies on sexual offending were mainly focused on adults. Sexual behavior of juveniles was seen as experimental or developmental curiosity (Veneziano & Veneziano, 2002). However, juveniles are responsible for a considerable percentage of sexual offenses. In 2008, 15% of the arrests for forcible rape in the United States were on account of juveniles aged below 18 years (Federal Bureau of Investigation, 2008). These arrests included assaults and attempts of rape by force or threat of force, but did not include statutory rape (without force) or other sex offenses. Alongside the lack of indictments and not having enough evidence to proceed with an arrest, the 15% arrest rate is likely to be an underrepresentation of the actual juvenile sex offending rate.

Several attempts were made to classify JSOs. However, these attempts were mostly intuitively derived and have not been empirically validated (Hendriks, 2006; Veneziano & Veneziano, 2002). Most researchers are tempted to adapt models and methods for categorization and prediction that have proven to be reliable with adult offenders to juvenile offenders (Caldwell, 2002; Worling, 2001). For example, similar to the adult sex offender population, juveniles who offend against children (child molesters) are compared with those who offend against peers or adults (rapists). However, few meaningful differences have been found between juvenile child molesters and juvenile rapists, and researchers question the categorization based on victim age (Hagan & Cho, 1996; Hsu & Starzynski, 1990; Worling, 2001). Regarding personality, however, four distinct subtypes of JSOs are suggested based on cluster analysis of Minnesota Multiphasic Personality Inventory profiles (see Smith, Monastersky, & Deisher, 1987; Worling, 2001).

Reoffending among JSOs is not limited to sex offenses only. Caldwell (2010) examined recidivism studies that included a total of 11,219 JSOs. Within a mean follow-

up period of 5 years, he found a mean base rate of 7.08% for sexual reoffending and a much higher mean base rate for general reoffending (43.4%). In a 20-year prospective follow-up study, the base rates for sexual (9%), nonsexual violent (22%), nonviolent (28%), and general reoffending (38%) were significantly lower for juveniles who participated in specialized treatment, relative to a comparison group (21%, 39%, 52% and 57% base rates, respectively; Worling, Litteljohn, & Bookalam, 2010). Prentky et al. (2010) found that there is also a difference within the adolescent population, with notably higher sexual recidivism rates for preadolescent boys (25%-28%) than for adolescent boys (14%-16%). However, the ages of the preadolescent boys ranged from 3 to 11, and their “offenses” were coded by evidence of highly sexualized, age inappropriate behavior.

Specialized treatment is focused on reducing risk for reoffending. The focus of the empirical literature has largely been on the identification of individual risk predictors, and when used in isolation, these risk predictors are typically weak (Prentky, Pimental, Cavanaugh, & Righthand, 2009). In addition, risk factors for JSOs are often extrapolated from the adult literature, not empirically validating them for the JSO population. However, a number of risk factors have been empirically linked to sexual reoffending among JSOs.

Seto and Lalumière (2010) conducted a meta-analysis on studies comparing male JSOs with male juvenile non-sex offenders on general delinquency risk factors or factors identified in special explanations of juvenile sex offending. Special factors are different from the factors that explain the offenses of other juvenile delinquents. They found many similarities between general delinquency risk factors for offending in both groups (e.g., measures of personality traits), but these factors alone were not sufficient to understand why a juvenile commits a sexual offense rather than a nonsexual offense. Special explanations suggest a role for sexual abuse history, exposure to sexual violence, other abuse or neglect, social isolation, early exposure to sex or pornography, anxiety, and low self-esteem. Especially notable was that JSOs reported more atypical sexual fantasies, behaviors, or interests, or were more often diagnosed with a paraphilia. Seto and Lalumière (2010) suggested that atypical sexual fantasies, behaviors, or interests should be given more prominence in theories of juvenile sex offending as they might be regarded as risk factors.

Risk assessment is the examination of possible risks for reoffending based on factors that are empirically related to reoffending. Risk assessment instruments differ in their combination of risk factors, resulting in different predictive accuracies. The purpose of this review is to give an up-to-date overview of the literature on the predictive accuracy of risk assessment instruments among JSOs. We will examine the six instruments that have generated the most research - the Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II), Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (J-SORRAT-II), Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), Juvenile Risk

Assessment Scale (JRAS), Structured Assessment of Violent Risk in Youth (SAVRY), and Hare Psychopathy Checklist: Youth Version (PCL:YV)—and give an overview of the predictive validities for sexual, violent (nonsexual), and general reoffending. Finally, we will discuss the characteristics of the instruments that might be associated with higher levels of predictive accuracy as well as new methods for risk assessment. For a summary of the scales and contents of the instruments, see Table 1.

Risk Assessment Instruments for JSOs

Risk assessment has developed from unstructured clinical or professional judgments to actuarial methods, and finally to structured professional judgments (SPJs). Actuarial prediction involves a strictly evidence-based selection of risk factors empirically related to criminal behavior. The SPJ approach provides guidelines for assessing risk in a systematic and structured manner, based on empirically supported risk factors, while permitting professional flexibility to consider unique characteristics of individual cases. SPJ is a model of decision making that underlies many of the successful risk assessment measures (Douglas, Ogloff, & Hart, 2003).

One of the most commonly used measures in the United Sates with JSOs is the J-SOAP-II (Prentky & Righthand, 2003). The J-SOAP-II is an empirically informed guide for the systematic review and assessment of a uniform set of risk factors that has been associated with sexual and violent offending. It is designed to be used for boys in the age range of 12 to 18 years who have been adjudicated for sexual offenses as well as nonadjudicated youths with a history of sexually coercive behavior. The J-SOAP-II results in a total score. As at this point there are no cutoff scores available for categories of risk, scores from J-SOAP-II should not be used in isolation when assessing risk. Although not developed for that purpose, the 12 dynamic items of the J-SOAP-II might be used for assessing treatment needs and progress because of their changeability during the treatment process. This instrument is mandatory in two states in the United States and is often used to impose long-term consequences on JSOs. According to Prentky and Righthand (2003), the interrater reliability for all items is good to excellent, ranging from .75 to .91, with an average of .83. McCoy (2007), however, found interrater reliabilities ranging from .39 to .99. The internal consistency alphas ranged from .68 to .85 (McCoy, 2007; Prentky & Righthand, 2003).

Table 1. Risk assessment instruments for juvenile sex offenders: Scales and contents

Instrument	J-SOAP-II	J-SORRAT-II	ERASOR	JRAS	PCL:YV	SAVRY
Scales / factors	1. Sexual drive/ sexual preoccupation	1. Offending history and characteristics	1. Sexual interests, attitudes and behaviors	1. Antisocial	1. Interpersonal	1. Historical
	2. Impulsive/ antisocial behavior	2. Abuse history	2. Historical sexual assaults	2. Sexual deviance	2. Affective	2. Social contextual
	3. Intervention	3. School history	3. Psychosocial functioning	3. Adult rapist	3. Antisocial	3. Individual/ clinical
	4. Community stability/ adjustment	4. Treatment history	4. Family/ environmental functioning		4. Behavioral	4. Protective
			5. Treatment			
Content scales	1. Sexual offence history, sexual drive and preoccupation	1. Number of adjudications, and number of victims	1. Deviant preoccupations and atttitudes, unwillingness to alter deviancy	1. History of antisocial acts, substance abuse, response to treatment, SO specific therapy, residential support, employment/ educational stability	1. Impression management, grandiose sense of self worth, lying, manipulation	1. Early initiation and history of violence, criminality of parents
	2. Past serious school and behavior problems	2. Past victimization experiences	2. Number of victims, type of victim, male victim	2. Degree of contact, number of offenses/ victims, duration of offensive behavior, victim gender	2. Callousness, lack of remorse, shallow affect	2. Peer rejection & delinquency, limited education skills of parents
	3. Treatment motivation and taking responsibility	3. Special education and school discipline	3. Antisocial orientation, lack of relationships, poor self-regulation	3. Degree of force, age of victim, victim selection	3. Stimulation seeking, impulsivity, irresponsibility, parasitic orientation, lack of goals	3. Substance abuse, anger management
	4. Current adjustment to community	4. Completion of sex offender treatment	4. Problematic family environment		4. Poor anger control, early behavior problems, criminal behavior	4. Pro-social involvement, strong social support, strong attachment & bonds to positive figures, strong commitment to school
			5. No development of prevention strategies, incomplete SO treatment			

Note. J-SOAP-II = Juvenile Sex Offender Assessment Protocol-II; J-SORRAT-II = Juvenile Sexual Offence Recidivism Risk Assessment Tool-II; ERASOR = Estimate of Risk of Adolescent Sexual Offence Recidivism; JRAS = Juvenile Risk assessment Scale; PCL:YV = Psychopathy Checklist: Youth Version; SAVRY = Structured Assessment of Violent Risk in Youth. SO = Sex Offender

Another widely used instrument is the J-SORRAT-II (Epperson, Ralston, Fowers, & DeWitt, 2005), an actuarial risk assessment instrument for male juveniles between 12 and 18 years who have offended sexually. The interrater reliability of .89 falls in the excellent range (Viljoen et al., 2008). Ralston (2008) found an interrater reliability of .96 and an internal consistency of .99.

Worling and Curwen's (2000) ERASOR was modeled after the Historical, Clinical, Risk Management-20 and Sexual Violence Risk-20 (adult risk assessment instruments; Boer, Hart, Kropp, & Webster, 1997; Webster, Douglas, Eaves, & Hart, 1997) and is a SPJ tool to assess risk of sexual violence among juveniles aged 12 to 18 years. The final risk estimate derived from using the ERASOR is short term (i.e., maximum 1 year) and should not be used to address questions related to long-term risk. The ERASOR has 9 identified static items, but the majority of the items (16) tap dynamic risk factors. Worling (2004) suggested that the ERASOR may assist clinicians to discriminate juveniles who have, for the first time, been detected for their sexual offenses from those who have sexually reoffended despite being sanctioned by an adult for a prior sexual assault. As with the J-SOAP-II, parts of the ERASOR might be used for assessing treatment needs and progress. The ERASOR has adequate to excellent interrater reliability and internal consistency (Viljoen, Elkovitch, Scalora, & Ullman, 2009; Worling, 2004). For the ERASOR total score, McCoy (2007) found adequate interrater reliabilities (.86-.88) and an acceptable internal consistency for the pretreatment rating (α = .79) but unacceptable for the posttreatment rating (α = .38).

The JRAS (based on the Registrant Risk Assessment Scale [RRAS] for adult offenders; Hiscox, Witt, & Haran, 2007; New Jersey Attorney General's Office, 2006) is a SPJ Scale developed for JSOs. The JRAS differentiates between low risk, moderate risk, and high risk that is tapped by nine static items and five dynamic items. Three factors account for 49% of the variance of recidivism risk (see Table 1). Limited psychometric properties are available, but Hiscox et al. (2007) found an interrater reliability of .66.

Although not specifically developed for estimating risk of sexual offending, the SAVRY (Borum, Bartel, & Forth, 2003) is sometimes used, in addition to other instruments, for assessing risk among JSOs. The SAVRY is a SPJ assessment designed to assess violent risk. Nevertheless, it can also be used to predict recidivism among juveniles who have sexually offended (Viljoen et al., 2008). The SAVRY consists of one static scale and two dynamic scales (Borum et al., 2003). In addition to these factors, the SAVRY is also includes protective factors. The interrater reliability is .91 (Viljoen et al., 2008). The risk (.82) and protective factor (.73) scores had good internal consistency (Borum et al., 2003).

The PCL:YV (Forth, Kosson, & Hare, 2003) is a SPJ assessment designed to measure psychopathy traits among juveniles aged 12 to 18 years. Psychopathy traits are seen as a risk factor for future violent offending (Hare, 1999), and the PCL:YV has also

been used to predict recidivism among JSOs. To score the PCL:YV a semi-structured interview and additional information from available judicial files are required. Forth and Burke (1998) reported acceptable levels of internal consistency across several studies (α = .75-.89). The PCL:YV also has acceptable rates of interrater reliability (intra-class correlation coefficient of .93; Caldwell, Ziemke, & Vitacco, 2008).

Methods

Sample

This study included retrospective and prospective studies on the predictive validity of risk assessment instruments for JSOs. A search of five electronic databases (PubMed, National Criminal Justice Reference Service, Web of Science, PiCarta, and Scopus) using the following keywords *risk assessment, recidivism, predictive validity, young sex offenders, JSOs, juvenile delinquency, J-SOAP-II, J-SORRAT, ERASOR, JRAS, SAVRY, and PCL:YV* yielded 296 articles. Inclusion was restricted to studies that estimated the predictive validity of structured risk assessment instruments for JSOs. The predictive validity criterion variable was restricted to a measure of recidivism such as rearrests and readjudication. Titles and abstracts were then examined to select articles that met these criteria. Of the 296 articles, 277 failed to meet these criteria, yielding a total of 19 published and unpublished articles that were used in this review. We have to note that there might be a publication bias favoring studies reporting significant results.

Effect Size Coding

Two effect sizes for risk assessment studies are suggested in the literature: point biserial correlation (*r*) and area under the curve (AUC) statistic from receiver operator characteristic curve analysis (Rice & Harris, 2005). The AUC statistic reflects the predictive validity of a given assessment instrument. AUC values range from 0 to 1, where 0 is perfect negative prediction, .5 is prediction at chance level, and 1 is perfect positive prediction. An advantage of using the AUC statistic is that its value is independent of the base rate of recidivism, selection ratios, and distributions in the tested sample (Harris et al., 2003). When available, the AUC, *r*, and Cohen's *d* will be reported, based on the base rates that were found in the studies. When provided, AUC values and *r* were directly adopted from studies and converted to Cohen's *d*, using the formula (Equation 1) from Rosenthal (1991) and Swets (1986). In these formula *r* is the point biserial correlation, *d* is Cohen's *d*, *p* is the base rate*,* and *q* is *1-p.*

$$d = \frac{r}{\sqrt{pq(1 - r^2)}} \quad (1)$$

Results

Table 2 presents the number of participants, the follow-up period, and the base rates of recidivism found in each study.

Table 2. Base rates of recidivism

Authors	*N*	Follow-up (years)	% sexual recidivism	% violent (nonsexual) recidivism	% general recidivism
Caldwell, Ziemke, and Vitacco (2008)	91 jso[a] 174 jo[b]	4-8	12.1[a] 11.6[b]	N/A	69.0[a] 88.4[b]
Elkovitch, Viljoen, Scalora, and Ullman (2008)	166	1-12	8.4	10.2	20.5
Epperson, Ralston, Fowers, and DeWitt (2005)	636	12.5	19.8	N/A	N/A
Gretton, McBride, Hare, O'Shaughnessy, and Kumka (2001)	220	1-8	15.0	30.0	50.9
Hecker, Scoular, Righthand, and Nangle (2002)	54	10-12	11.1	37.0	N/A
Hiscox, Witt, and Haran (2007)	231	3-13	16,5	51,5	N/A
Martinez, Flores, and Rosenfeld (2007)	60	N/A	13.3	N/A	20.0
McCoy (2007)	128	N/A	5.6	56.0	57.8
Morton (2003)	77	5.6	17.0	26.0	52.0
Powers-Sawyer and Miner (2009)	96	1-15	N/A	N/A	N/A
Parks & Bard (2006)	156	4-16	6.4	30.1	N/A
Prentky et al. (2010)	336[c] 223[d]	7	24.7[c] 13.9[d]	N/A	N/A
Rajlic and Gretton (2010)	286[e] 128[f] 140[g]	6.6	9.4[e] 7.0[f] 12.9[g]	33.9[e] 21.1[f] 59.3[g]	43.4[e] 26.6[f] 64.3[g]
Ralston (2008)	566	N/A	12.4	N/A	N/A
Skowron (2005)	110	4	18.0	36.0	71.0
Viljoen et al. (2008)	169	12	8.3	12.7	42.8
Viljoen, Elkovitch, Scalora, and Ullman (2009)	193	7.2	8.3	13.0	42.0
Waite et al. (2005)	256	10	4.7	38.3	57.4
Worling (2004)	136	1	N/A	N/A	N/A

Note. N/A = not available; [a] = Juvenile sex offenders, [b] = Juvenile offenders who have never been charged for a sexual offence; [c] = Pre-adolescent sample; [d] = Adolescent sample; [e] = Total sample of adolescent sex offenders; [f] = Adolescent sex offenders with sex offences only; [g] = Delinquent adolescent sex offenders.

Table 3 presents the predictive validities (AUC values) and correlations (if provided) and Cohen's *d* of the instruments for sexual, violent (nonsexual), and general recidivism.

Regarding the J-SOAP-II, results are mixed for the total J-SOAP-II and the individual subscales. The total score on the J-SOAP-II was a significant predictor of sexual recidivism (Martinez, Flores, & Rosenfeld, 2007; Prentky et al., 2010; Rajlic & Gretton, 2010), nonsexual recidivism (Rajlic & Gretton, 2010), and general recidivism (Martinez et al., 2007). However, other studies found that the total J-SOAP-II score did not predict reoffending of any type (Caldwell et al., 2008; McCoy, 2007; Viljoen et al., 2008). Furthermore, instrument- informed clinical judgments based on the J-SOAP-II and the SAVRY also did not predict sexual or nonsexual violence (Elkovitch, Viljoen, Scalora, & Ullman, 2008).

Several studies found that the Sexual Drive/Sexual Preoccupation Scale significantly predicted sexual recidivism (Hecker, Scoular, Righthand, & Nangle, 2002; Prentky et al., 2010; Rajlic & Gretton, 2010), whereas others did not (Caldwell et al., 2008; Martinez et al., 2007; McCoy, 2007; Parks & Bard, 2006). According to Viljoen et al. (2008), this subscale was associated with sexual aggression *during* treatment but not *after* treatment. This subscale was not able to predict nonsexual recidivism (Powers-Sawyer & Miner, 2009; Rajlic & Gretton, 2010) or general recidivism (Martinez et al., 2007). McCoy (2007) even found a negative correlation of the Sexual Drive/Sexual Preoccupation Scale with general recidivism.

Although more studies found that the Impulsive/Antisocial subscale was not able to predict sexual recidivism (Caldwell et al., 2008; Hecker et al., 2002; Martinez et al., 2007; Prentky et al., 2010; Rajlic & Gretton, 2010), McCoy (2007) and Parks and Bard (2006) found that it was. This subscale was also able to predict nonsexual violent recidivism (Caldwell et al., 2008; Rajlic & Gretton, 2010) and general recidivism (Martinez et al., 2007; Waite et al., 2005), but Powers-Sawyer and Miner (2009) found that *the* Impulsive/ Antisocial subscale *was a poor predictor for nonsexual violent recidivism and nonsexual general recidivism.*

The Intervention and the Community Stability/Adjustment Scale predicted sexual (Caldwell et al., 2008; Martinez et al., 2007; Prentky et al., 2010, Rajlic & Gretton, 2010), nonsexual (Rajlic & Gretton, 2010), and general recidivism (Martinez et al., 2007), but this was not found in the studies of Parks and Bard (2006) and Hecker et al. (2002).

In their risk prediction, some studies differentiated between subtypes. Mixed-type offenders scored higher on the Impulsive/Antisocial Scale, Intervention Scale, and Total Scale of the J-SOAP-II than child molesters and peer or adult molesters. On the Sexual Drive/Preoccupation Scale, mixed-type offenders scored higher than child molesters, who scored higher than peer or adult molesters (Parks & Bard, 2006). Rajlic and Gretton (2010) differentiated between juveniles with a history of general offending and juveniles

with a sex offense only. The J-SOAP-II predicted sexual recidivism for the sex-only group and nonsexual recidivism for juveniles with a history of general offending.

Very little research has been done on the predictive validity of the J-SORRAT-II. Epperson and colleagues (2005) noted that the J-SORRAT-II is able to predict sexual reoffending very well. However, the predictive validity was based on the exact same sample that was used to develop the instrument. Ralston (2008) extended this sample with independent participants and found a lower but significant predictive validity for sexual recidivism. A total independent sample showed that this instrument did not predict reoffending of any type (Viljoen et al., 2008).

The results on the ERASOR are also equivocal. Several studies found the ERASOR to be a moderate to strong predictor of sexual, nonsexual, and general recidivism (Morton, 2003; Rajlic & Gretton, 2010; Skowron, 2005; Worling, 2004). However, Morton (2003) used a modified version of nine ERASOR items to obtain significant results for sexual recidivism, otherwise no significant results were found. In the study of Rajlic and Gretton (2010), the ERASOR predicted sexual and nonsexual recidivism for the sex-offense-only group but not for the juveniles with a history of general offending. In contrast to these findings, Viljoen et al. (2009) and McCoy (2007) did not find support for the validity of this measure to predict recidivism of any type. SPJs, however, nearly reached significance in predicting sexual reoffending (Viljoen et al., 2009). So far, no study has been able to use the ERASOR as it was originally developed by Worling and Curwen (2000), resulting in different findings.

The JRAS moderately predicted sexual and nonsexual recidivism in a group of young males who were adjudicated for a sexual offense (Hiscox et al., 2007). The antisocial factor moderately predicted sexual and nonsexual recidivism. However, the sexual deviance factor did not predict sexual or nonsexual recidivism (Hiscox et al., 2007). In another study (Caldwell et al., 2008), the JRAS failed to predict sexual, nonsexual violent, or general reoffending.

Two studies have examined the predictive value of the SAVRY for reoffending of JSOs (Elkovitch et al., 2008; Viljoen et al., 2008). As mentioned earlier, Elkovitch et al. (2008) found that instrument-informed clinical judgments based on the J-SOAP-II and SAVRY did not significantly predict sexual and nonsexual violence. Total scores on the SAVRY did not predict *serious* nonsexual violent offending (defined as at least one violent felony charge; Viljoen et al., 2008). In addition, it was not able to predict violent felonies or violent misdemeanors, sexual violent reoffending, or reoffending of any type. Only the historical scale was able to predict any nonsexual violent reoffending (Viljoen et al., 2008).

The PCL:YV was a moderate to strong predictor of nonsexual and general recidivism (Caldwell et al., 2008; Gretton, McBride, Hare, O'Shaughnessy, & Kumka, 2001; Parks & Bard, 2006; Viljoen et al., 2009). The PCL:YV could not predict sexual

recidivism. Only Caldwell et al. (2008) found the total score of the PCL:YV to be predictive of new sex offense charges. This result might be due to extremely high PCL:YV scores (i.e., more than 34) of juveniles who sexually offended in the follow-up period.

Parks and Bard (2006) examined the PCL:YV for predicting sexual and nonsexual recidivism, resulting in a three-predictor model for sexual recidivism that included the Impulsive/Antisocial Scale of the J-SOAP-II and the Interpersonal factor and Antisocial factor of the PCL:YV. A two-factor predictor model for nonsexual recidivism included the Behavioral factor and Antisocial factor of the PCL:YV. Neither of the J-SOAP-II nor PCL:YV total scores was identified as a predictor of sexual recidivism; however, the PCL:YV total was identified as a predictor of nonsexual recidivism. Parks and Bard found higher scores on the PCL:YV among mixed-type offenders as compared with those who exclusively offend sexually against children or peers/ adults. However, they did not further examine the predictive validity of the PCL:YV for each of the offender types.

Table 3. Predictive Validity of the J-SOAP-II for Sexual, Violent (nonsexual), and General Recidivism

Instrument	Authors	Scale	Sexual recidivism			Violent (nonsexual) recidivism			General recidivism		
			AUC	*d*	*r*	AUC	*d*	*r*	AUC	*d*	*r*
J-SOAP-II	Caldwell, Ziemke, and Vitacco (2008)	Total	—	0.246	.08	—	—	—	—	—	—
		3	—	0.529*	.17*	—	—	—	—	—	—
	Elkovitch, Viljoen, Scalora, and Ullman (2008)	Total[a]	.44	0.216	−.06	.58	0.265	.09	.53	0.199	.08
	Hecker, Scoular, Righthand, and Nangle (2002)	1	.79*	—	—	—	—	—	—	—	—
	Martinez, Flores, and Rosenfeld (2007)	Total	.78*	0.960	.31*	—	—	—	.76**	0.904	.34**
		1 and 2	.63*	0.386	.13	—	—	—	.68	0.673	.26*
		3 and 4	.86***	0.324	.41**	—	—	—	.74**	0.874	.33*
	McCoy (2007)	Total	.60	0.705	.16	—	—	—	.50	0.020	.01
	Parks and Bard (2006)	1	—	0.123	−.03	—	0.109	−.05	—	—	—
		2	—	1.284	.30*	—	0.109	.05	—	—	—
		3	—	0.082	.02	—	0.153	−.07	—	—	—
	Powers-Sawyer and Miner (2009)	1 and 2	.75*	—	—	.57	—	—	—	—	—
		1	.72	—	—	.46	—	—	—	—	—
		2	.64	—	—	.64	—	—	—	—	—
	Prentky et al. (2010)	Total	.80*[b]	—	—	—	—	—	—	—	—
			.83*[c]								
	Rajlic and Gretton (2010)	Total	.69**[d]	—		.77***[d]	—	—	—	—	—
			.80*[e]	—	—	.62[e]	—	—	—	—	—
			.51[f]	—	—	.74*[f]	—	—	—	—	—
	Viljoen et al. (2008)	Total	.54	—	—	.56	—	—	.56	—	—
	Waite et al. (2005)	2	NA								

(continued)

Table 3. (continued)

Instrument	Authors	Scale	Sexual recidivism			Violent (nonsexual) recidivism			General recidivism		
			AUC	*d*	*r*	AUC	*d*	*r*	AUC	*d*	*r*
J-SORRAT-II	Epperson, Ralston, Fowers, and DeWitt (2005)	Total	.79*								
	Ralston (2008)	Total	.64*								
	Viljoen et al. (2008)	Total	.53	—	—	.56	—	—	.54	—	—
ERASOR	McCoy (2007)	Total	.50	0.087	−.02	—	—	—	.46	0.163	−.08
	Morton (2003)	Total	.74**[g]	—	—	—	—	—	.65*	—	—
	Rajilc and Gretton (2010)	Total	.71***[d]			.71***[d]			—		
			.86*[e]	0.19***		.64*[e]		.07			
			.54[f]	0.02		.58[f]		.03			
	Skowron (2005)	Total	.71*	—	—	.64*	—	—	.67*	—	—
	Viljoen, Elkovitch, Scalora, and Ullman (2009)	Total	.60			.56			.53		
	Worling (2004)	Total	.72*	—	—	—	—	—	—	—	—
JRAS	Caldwell et al. (2008)	Total	<.50	0.00	.00	—	—	—			
	Hiscox, Witt, and Haran (2007)	Total	—	0.409*	.15**	—	0.495*	.24**			
		1	.669*	—	—	.699*	—	—			
		2	.542	—	—	—	—	—			
SAVRY	Elkovitch et al. (2008)	Total[a]	.44	0.216	−.06	.58	0.265	.09	.53	0.199	.08
	Viljoen et al. (2008)	Total	.53	0.218	.06	.58	0.456	.15	.58	0.307	.15
PCL:YV	Caldwell et al. (2008)	Total	—	1.20***	.36***	—	—	—	—	—	—
	Gretton, McBride, Hare, O'Shaughnessy and Kumka (2001)	Total	.550	0.253	.09	.607**	0.422	.19**	.642**	0.516	.25**
	Parks and Bard (2006)	Total	—	—	—	—	0.175	.08***	—	—	—

(continued)

Table 3. (continued)

Instrument	Authors	Scale	Sexual recidivism			Violent (nonsexual) recidivism			General recidivism		
			AUC	*d*	*r*	AUC	*d*	*r*	AUC	*d*	*r*
		1	—	1.575	.36*	—	0.022	−.01	—	—	—
		2	—	0.082	−.02	—	0.153	.07	—	—	—
		3	—	0.535	−.13	—	0.219	.10*	—	—	—
		4	—	2.000	−.44*	—	0.539	.24***	—	—	—
	Viljoen et al. (2009)	Total	.49			.71**			.63*		

Note: J-SOAP-II = Juvenile Sex Offender Assessment Protocol-II; J-SORRAT-II = Juvenile Sexual Offence Recidivism Risk Assessment Tool-II; ERASOR = Estimate of Risk of Adolescent Sexual Offence Recidivism; JRAS = Juvenile Risk Assessment Scale; SAVRY = Structured Assessment of Violent Risk in Youth; PCL:YV = Hare Psychopathy Checklist:Youth Version. AUC = area under the receiver operator characteristic curve; *d* = effect size based on base rates.

[a]Clinical judgments based on the SAVRY; J-SOAP-II.

[b]Preadolescent higher risk sample.

[c]Adolescent higher risk sample.

[d]Total sample.

[e]Adolescent sex offenders with sex offenses only.

[f]Delinquent adolescent sex offenders.

[g]Modified prediction based on nine ERASOR items.

*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

This study reviewed six measures commonly used for risk assessment in JSOs: the J-SOAP-II, J-SORRAT-II, ERASOR, JRAS, SAVRY, and PCL:YV. In search of their qualities, we gave an overview of literature on the predictive validities of risk assessment instruments for sexual, nonsexual, and general reoffending. Although some of the instruments seem promising for risk assessment among JSOs, there is no one instrument that shows unequivocal positive results in predicting future offending among this population. Not unexpectedly, the results obtained by the SAVRY and PCL-YV for sexual recidivism appeared to be weaker than specialized tools such as the J-SOAP-II or the ERASOR. Nonsexual, that is, violent and general recidivism among JSOs, can best be predicted by the ERASOR or the PCL:YV. As little research has been done on the J-SORRAT-II and JRAS, it is too early to draw conclusions about the predictive accuracy of these instruments. Note that studies that found a significant predictive validity for an instrument were often conducted by the individual or group that had developed the measure. More independent research is needed to draw objective conclusions.

Although it is one of the most commonly used measures in the United Sates with JSOs, the results of the J-SOAP-II were mixed across studies, a problem that also applies to the other instruments. Mixed results might have been influenced by differences in procedures or samples: was it based on an actuarial approach or on a structured clinical judgment; the mean age of the sample; the index offenses for which the JSOs were adjudicated; the type of sample (incarcerated, community, never charged); the follow-up times, and whether the follow-up time commenced immediately after the risk assessment, or after a period of incarceration or treatment; and the definition of recidivism. Most of the instruments currently used are SPJs, with a partially subjective interpretation of the risk by a clinician. Mixed findings might also be due to low rates of sexual reoffending, which may make sexual reoffending challenging to predict. Furthermore, it is important to notice that results vary when differentiating between subtypes. Bartosh, Garby, Lewis, and Gray (2003) suggested that taking adult offender type into account might increase predictive accuracy. This is also likely to be true for the juvenile population. However, the attempts to classify JSOs were mostly intuitively derived and have not been empirically validated (Hendriks, 2006; Veneziano & Veneziano, 2002).

More knowledge about how the instruments differ may shed light on why one instrument is a good predictor of recidivism and another instrument is not. One explanation for the promising predictive validity of the ERASOR is that, in contrast to the other instruments, this instrument focuses more on dynamic than on static risk factors. Unlike static risk factors (e.g., offense history), dynamic risk factors are factors that are amenable to deliberate interventions (e.g., substance abuse, unemployment). It would seem that a risk assessment instrument mainly based on dynamic risk factors can pick

up small improvements in risk factors such as sexual interests and social functioning of sex offenders. This is the reason that this risk estimate is short term and should not be used to address questions related to long-term risk. Furthermore, the ERASOR includes more items assessing cognitive factors and sexual deviance. Dynamic risk factors such as atypical sexual fantasies, behaviors or interests, and unwillingness to alter deviant sexual interests or attitudes have been shown to be important in the initiation and maintenance of sexual offending behavior among JSOs and elevate the risk of sexual offending (Hunter, Goodwin, & Becker, 1994; Seto & Lalumière, 2010). However, more studies need to confirm this finding, especially as we do not know what factors are related to the persistency of sexual offending. In contrast, other instruments, particularly the J-SORRAT-II, focus more on the history of offenders with respect to behavioral problems and offenses, which are static factors.

The Sexual Deviance subscale of the JRAS did not predict recidivism (Hiscox et al., 2007). This is remarkable because sexual deviance is regarded as a potentially important risk factor among adults and juveniles (Beech & Ford, 2006; Hanson & Morton-Bourgon, 2009; Langstrom & Grann, 2000; Seto & Lalumière, 2010; Ward, 2000; Ward & Keenan, 1999). However, examination of the JRAS Scales shows that static and quantitative items like degree of contact, number of sexual offenses or victims in the past, duration of offensive behavior, and victim gender comprise the sexual deviance scale while sexual deviance is mostly regarded as a dynamic and qualitative concept. Besides, there seems to be a problem with the definition of sexual deviance. This is particularly true in children. As paraphilias do not apply to children under 16, what, then, can be regarded as deviant and as predictive of persistent sexual behavior? Although their items are static, the developers of the JRAS explained the lack of predictability by the possibility that sexual deviance and identities among juveniles have not been completely formed. Furthermore, sexual deviance may only be a predictor in some subtypes among sex offenders but not in all. As the study by Hiscox et al. (2007) used a sample of mixed-type offenders, this may be an alternative explanation as to why the sexual deviance factor did not predict recidivism.

Another problem of the JRAS Scale, and of the scales of other instruments, is that the validity of the scales is mainly based on low-risk samples, and the inclusion of items is mostly based on their proven predictive value in adults. Risk factors for JSOs are often extrapolated from the adult literature instead of empirical determination. The development of the JRAS, for example, was initially based on a rational analysis, reviewing items of the RRAS and reaching consensus on what criteria needed to be modified or added to make the scale more suitable for juveniles (Hiscox et al., 2007).

The J-SOAP-II variables were developed after reviews of the literature that covered five areas, including risk assessment or outcome studies of adult sex offenders, and risk assessment studies on mixed populations of adult offenders (Prentky &

Righthand, 2003). The PCL:YV and ERASOR are also based on adult risk assessment instruments. Risk assessment might be beneficial to the juvenile, for example, when assessing its urgent treatment needs. However, the extrapolation of juvenile risk factors from the adult literature may lead to inaccuracies in the prediction of risk. Juveniles are still developing their personality, cognitions, and moral judgment, processes that reflect considerable plasticity (Nelson & Bloom, 1997). Nevertheless, based on the assessment, long-term consequences, e.g. restrictions, are imposed on JSOs, assuming that sex offending in juveniles is something immutable and caused by stable internal traits. For example, the clinical use of the PCL:YV might lead to the assumption that a person has many traits of psychopathy and must therefore be at high risk for reoffending, as psychopathy is regarded as untreatable. Yet, from the time of their offense, there are still many possible developmental pathways, and no one knows what causes persistent sexual offending. Often, scales are not sensitive to child and adolescent development and to mutable and unstable traits. The developmental processes are viewed as being irrelevant once a juvenile has engaged in sexual misconduct, evaluating them as adults. If the assessments are used to make important decisions, we should be at a point where there is consensus about what causes the onset and persistency of sexual offending in juveniles. Clearly, this is not the case, but still judgments are based on these uncertainties.

To conclude, the predictive validities of the risk assessment instruments for JSOs are still insufficient to accurately predict recidivism. It is difficult to assess the risk accurately when this is based on changing risk factors because of the rapid development of juveniles. Therefore, a significant proportion of uncertainty remains. Because of this uncertainty, it is highly questionable whether it is ethical to impose long-term consequences on juveniles based on these assessments. So, how can risk predictions be improved? To this end, three recommendations can be made.

First, there is a need for reliable and valid typologies for JSOs. While knowing that there are differences between types of JSOs, we do not know what the shared factors are, what discriminates them, or how to define each type while excluding others. Studies need to clarify what dynamic forces influence the onset of sexual offending and what causes persistency. Discriminating between subtypes might contribute to a better understanding of certain etiological pathways of offending as well as specific treatment needs for subtypes of JSOs based on the factors that are most susceptible for intervention. Furthermore, such discrimination is likely to improve the successfulness of the risk predictions and the derived decisions for referrals or rehabilitation (Hendriks, 2006; Worling, 2001).

Second, although the emphasis of risk assessment is now based on empirically derived factors and SPJ, more attention should be paid to the psychological representatives of atypical sexual fantasies, behaviors, or interests as risk factors, such

as cognitive distortions (distorted fantasies, paraphilias, distorted thoughts, and interpretations), deviant sexual arousal patterns and preferences, sexual preoccupations, and intimate sexual behavior. As Seto and Lalumière (2010) stated, the differences found between male JSOs and male juvenile nonsex offenders might indicate possible relationships with sexual offending. However, these variables are now underexposed in risk assessment instruments but might also be valuable in assessing JSOs. Nevertheless, we have to be careful with the evaluation of atypical sexual fantasies, behaviors, or interests in juveniles, as juveniles are still in a developmental phase, and no clear definitions of “atypical” or “deviant” are available. Therefore, studies need to examine whether these factors are indeed strongly related to the onset of sexual offending among juveniles and which factors cause persistent sexual offending.

Finally, other ways of assessing sexual risk than assessments based only on items and clinical impressions should be developed, and, as juveniles are rapidly developing, there is a need for reliable measures concerning short-term risk. Risk assessment may be expanded by the introduction of psychiatric, psychological, and biopsychological measurement tasks on reactive behavior on certain sexual cues. We believe that much can be gained by measuring implicit cognitions and associations about sex, estimated by implicit association tests (e.g., Greenwald, McGhee, & Schwartz, 1998). Brown, Gray, and Snowden (2009) found differences between types of adult offenders in implicit associations between children and sex. This association was present in pedophilic offenders irrespective of their denial of offense history. Furthermore, the measurement of viewing time (Glasgow, Osborne, & Croxen, 2003) could also be useful in the assessment of sexual interests. Viewing time is the length of time spent viewing an image of a person and has been reported to be significantly correlated with sexual interest in adults (Harris, Rice, Quinsey, & Chaplin, 1996). In a study of Worling (2006), viewing time significantly differentiated juveniles who assaulted male children from juveniles who assaulted other individuals. Spoken or read vignettes describing situations of sexual activities or by operations in a virtual reality setting might also be helpful in detecting sexual preoccupations and risks. These are promising methods for the adult population, and studies should examine their value for the JSO population. Using these new measures alongside existing assessment instruments may greatly improve the accuracy of risk assessment and treatment.

Chapter 3

The abused abuser: The relation between sexual abuse experiences during childhood and offense-supportive cognitions among child sex offenders

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Submitted for publication

Abstract

This study was designed to examine the childhood sexual abuse experiences of contact child sex offenders (CSOs), non-contact CSOs and non-offenders, and whether these experiences predict higher levels of offense-supportive cognitions regarding sex with children. Twenty male non-contact CSOs, 47 male contact CSOs and 40 male non-offenders were compared on self-report measures of child sexual abuse (CSA) and offense-supportive cognitions. The results confirm that the proportion of CSOs that report having been sexually abused in childhood (42.2%) is larger than the proportion of non-offenders that report having been sexually abused in childhood (15%). This high proportion was mainly caused by the proportion of contact CSOs (48.9%). Contact CSOs did not differ from non-contact CSOs (26.3%), and non-contact CSOs did not differ from non-offenders. Furthermore, contact CSOs reported higher levels of offense-supportive cognitions regarding sex with children than non-contact CSOs and non-offenders. However, these elevated levels of offense-supportive cognitions could not be explained by the experience of sexual abuse during childhood, or other types of abuse. These results support the abused abuser hypothesis, and the theory that offense-supportive cognitions are post-hoc rationalizations to justify the offense. Mental health services should be more aware and trained to notice any signs of CSA and should have more permission to intervene to break the victim-to-victimizer cycle. Finally, it is crucial to timely recognize and treat offense-supportive cognitions that could lead to sexual reoffending.

Introduction

Theories about the etiology of child sexual abuse suggest a contributing role of the offenders' own sexual abuse experiences during childhood (Ward & Siegert, 2002; Ward & Beech, 2006). The clinical observations of psychotherapists that a higher proportion of child sex offenders (CSOs) report having been sexually abused in childhood than of men who have not committed such an offense, is known as the abused/abuser hypothesis (Garland & Dougher, 1990). The underlying process of the abused/abuser hypothesis, or victim-to-victimizer cycle, is unclear. The aim of the present study is to shed more light on this underlying process by examining the relationship between being sexually abused in childhood and holding maladaptive cognitions about children and sex that justify sexually offensive behavior (i.e. offense-supportive cognitions).

Children are vulnerable to maltreating behaviors by adults, and, as a result, may suffer from a range of negative outcomes throughout their lives. These outcomes include mental-health problems, behavioral problems, and deficits in educational achievement (Boden, Horwood, & Fergussen, 2007; Lansford et al., 2002; Perez & Widom, 1994). In 2009, 4.3% of children in the US experienced some form of maltreatment. Of them, 78.3% were neglected, 17.8% were physically abused, and 9.5% were sexually abused. In 81% of the cases, the perpetrator was one of the parents or caregivers (US DHSS, 2010). For men, the community sample prevalence rates of child sexual abuse (CSA) vary between 3% and 29%, with a mean of 10% (Bakker et al. 2009; Finkelhor, 1994; Pereda, Guilera, Forns, & Gómez-Benito, 2009).

Among the negative outcomes of childhood victimization is the risk of becoming a victimizer oneself (Hanson & Slater, 1988; Hosser, Raddatz, & Windzio, 2007; Rivera & Widom, 1990). Widom and Maxfield (2001) found that a history of childhood abuse and neglect increased the odds of future criminality by 28 percent. A recent study supported this finding, with a higher prevalence of physical and sexual criminality (Odds Ratio of 2.56 and 2.28, respectively) for children who were abused or neglected than for those who were not (McIntyre & Widom, 2011).

Not only are victims of abuse more likely to offend, they also tend to exhibit the same type of criminal behavior they had experienced during their childhood, use the same abuse strategy that was used to them, and have victims that are reflective of their own victim characteristics (Veneziano, Veneziano, & LeGrand, 2000; Burton, 2003). For example, a history of CSA is found to be related to non-normative sexual behaviors (Kendall-Tackett, Williams, & Finkelhor, 1993; Putnam, 2003) and increases the risk for sexual offending, whereas physical abuse and neglect victims are more at risk for violent offending (e.g. Burton, 2003; Lindsay, Law, Quinn, Smart, & Smith, 2001; Rossegger, Endrass, Urbaniok, Vetter, & Maercker, 2011). Among male sex offenders, the prevalence rate of CSA is higher than among male non-sex offenders and non-offenders, and varies between 13% and 35% (Glasser et al., 1996; Hanson & Slater, 1988;

Jespersen, Lalumière, & Seto, 2009; Rossegger et al., 2011). Especially CSOs experienced CSA more often than rapists (Jespersen et al., 2009). Furthermore, Seto and Lalumière (2010) conducted a meta-analysis on 31 studies into the sexual abuse histories of adolescent sex offenders, and found that 29 studies showed a more frequent sexual abuse history among adolescent sex offenders than among adolescent non-sex offenders.

The underlying process of this victim-to-victimizer cycle, which posits that victims of abuse are more at risk to repeat the behaviors they experienced during their own victimization (Ryan, 1989), is unclear. Burton (2003), and Jespersen and colleagues (2009), state that a third factor, e.g. learning and modeling, might account for this relationship. The association between CSA and sexual offending might be explained by Bandura's social learning theory (1977) (Burton, 2003; Jespersen et al., 2009). As a process of social learning, a basic set of schemas about the world and the self are formed. Mann and Beech (2003) defined schemas as structures that contain beliefs and attitudes that are developed as a result of trying to make sense of early life experiences. By observing, imitating and modeling others we guide our own behavior, either favorable or unfavorable to the commission of crime (Akers, 1985). Adverse social learning during childhood has a significant influence on the development of neuropsychological functioning, resulting in the clinical symptoms evident in CSOs: emotional problems, social difficulties, deviant arousal and offense-supportive cognitions (Ward & Beech, 2006). As a result of developmental adversities such as CSA, maladaptive schemas may be developed that generate maladaptive cognitions about children and sex, allowing sexually offensive behavior (Mann & Beech, 2003; Young, Klosko, & Weishaar, 2003; Zlotnick et al., 1996).

These maladaptive cognitions about sex with children, i.e. offense-supportive cognitions, are problematic thinking styles that serve to deny, blame, excuse and minimize sexually abusive behavior (Abel, Becker, & Cunningham-Rathner, 1984; Bumby, 1996; Ward, 2000; Ward & Casey, 2010). Offense-supportive cognitions are assumed to be one of the important factors in the offending process, as they could facilitate and maintain sexual offending against children (Abel et al., 1984; Abel et al., 1989; Bumby, 1996; Keown, Gannon, & Ward, 2010; Marziano, Ward, Beech, & Pattison, 2006; Stermac & Segal, 1989).

There is much debate on the role of these deviant cognitions in the offending process, i.e. whether they serve a causative role or a maintenance function. Whereas Abel and colleagues have suggested that offense-supportive cognitions are post-offense rationalizations to reduce cognitive dissonance (Abel et al., 1984; Abel et al., 1989), others have suggested that these cognitions have preceded the offense (Mann & Beech, 2003; Ward, 2000; Ward & Keenan, 1999). According to Ward (Ward, 2000; Ward & Keenan, 1999), such deviant cognitions developed in childhood, for example due to

sexual abuse experiences. These cognitions have clustered together into a network of beliefs (i.e. schemas or 'implicit theories'), that produce the offense-supportive cognitions often articulated by CSOs. When schemas are built up from deviant cognitions, ambiguities in social interactions are attended to and encoded in a maladaptive schema-supportive way, leading to the sexual abuse of a child (Blake & Gannon, 2008; Gannon & Polaschek, 2006; Ward, 2000; Ward et al., 1997; Ward & Keenan, 1999).

Studies have indeed found that CSOs endorse significantly more offense-supportive cognitions than rapists, offender controls or community controls (Abel et al., 1989; Bumby, 1996; Keown, Gannon, & Ward, 2008; Stermac & Segal, 1989). Furthermore, within CSOs subtypes, contact CSOs could be distinguished from non-contact CSOs based on their higher levels of deviant beliefs and attitudes (Babchishin, Hanson, & Hermann, 2011)

Current study

In sum, studies have shown that there is a relation between CSA and sexual offending against children. Ward and Beech (2006) proposed that adverse social learning is one of the processes that produce the offense-supportive cognitions that are important in the initiation and maintenance of sexual offending against children. The relationship between CSA and sexual offending against children might thus be mediated by these offense-supportive cognitions regarding sex with children. However, the role of offense-supportive cognitions in this relationship has not been studied so far. Furthermore, because contact CSOs can be distinguished from non-contact CSOs based on their higher levels of offense-supportive cognitions (Babchishin et al., 2011), it is possible that contact CSOs have experienced more CSA than non-contact CSOs. This difference in the experience of CSA may not only explain the difference in offense supportive cognitions between contact and non-contact CSOs, but also the difference in type and severity of offending. If CSA is predictive of offense supportive cognitions, this could be an indication that offense-supportive cognitions *precede* sexual offending. Understanding the processes underlying the initiation, maintenance, and justification of sexual offending against children, is a vital prerequisite to the development of successful prevention and treatment programs.

Our hypothesis were as follows: first, we hypothesized that the proportion of contact CSOs that report a history of CSA will be higher than the proportion of non-contact CSOs and non-offenders that report a history of CSA. Second, we hypothesized that participants who experienced CSA will report more offense-supportive cognitions than participants without a history of CSA. Accordingly, we hypothesized that a history of CSA will predict higher levels of offense-supportive cognitions. Finally, we hypothesized that CSOs will report more offense-supportive

cognitions than non-offenders, and that contact CSOs will report more offense-supportive cognitions than non-contact CSOs.

Methods

Participants

Participants were 67 male CSOs and 40 male non-offenders. CSOs were recruited from three forensic psychiatric outpatient and day treatment centers and from three penitentiary institutions in the Netherlands. Non-offenders (age: *M* = 35.6, *SD* = 18) were recruited through an advertisement at the Erasmus University Medical Center and internet advertising. Non-offenders were eligible if they had no prior convictions. CSOs comprised 42 pedophilic offenders, 5 incest offenders,17 child pornography offenders and 3 exhibitionists. For this study, CSOs were then classified as a contact CSO (*N* = 47; age: *M* = 48.8, *SD* = 13.6) if they (a) were currently in treatment or imprisoned for a sexual offense against a child under 16 years of age in which there was physical contact, and (b) had never committed any sexual offenses against an adult, or as a non-contact CSO (*N* = 20; age: *M* = 47.6, *SD* = 12.3) if they (a) were currently in treatment or imprisoned for downloading and/or spreading child pornography or for exhibitionism aimed at children aged 16 years or younger, and (b) had never committed a sexual offense against a child or adult in which there was physical contact. Table 1 illustrates the demographics of the different groups.

Materials

The *MOLEST Scale* (Bumby, 1996) was developed to measure offense-supportive cognitions of CSOs regarding sex with children. Thirty-eight statements such as ‘sometimes victims initiate sexual activity’ are scored on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Responses yield a total score ranging from 38 to 152, with higher scores indicating more distortions concerning sexual activities with children. Bumby (1996) reported excellent internal consisteny (α =.97), and test-retest reliability (*r* =.84). This scale has been translated and validated in Dutch (De Doncker, Van Beek, Decoene, Luyten, & Koeck, 2003). In our sample, the internal consistency was excellent (α =.93).

Table 1. Demographics for the different groups

	Non-contact CSOs (n=20)	Contact CSOs (n=47)	Non-offenders (n=40)
Ethnicity	*%*	*%*	*%*
Dutch	100	100	97.5
Other	0	0	2.5
Education			
Lower education	15	27.7	2.5
Middle education	55	48.9	57.5
Higher education/University	25	19.2	40
Other/ unknown	5	4.3	0
Social Status			
Single	45	34	32.5
Married/living with partner	35	29.8	30
Living with family	5	12.7	27.5
Other/ unknown	15	23.4	10
Children			
Yes	35	51.1	25
No	65	46.8	75
Unknown	0	2.1	0
Income			
Unemployment welfare	5	8.5	7.5
Pension fund	10	14.9	12.5
Other social welfare	5	36.2	5
Student grant	0	2.1	42.5
Employed, minimum income	15	8.5	7.5
Employed, modal income	40	23.4	7.5
Employed, 2x modal income	10	0	7.5
Employed, >2x modal income	5	2.1	5
Unknown	10	4.3	5

Note. CSOs = child sex offenders

The *Childhood Trauma Questionnaire* (CTQ; Bernstein & Fink, 1998; Dutch translation: van den Hazel & Didden, 2009) is a 28-item self-report inventory that provides a brief, reliable, and valid screening for histories of abuse and neglect. The CTQ has five clinical scales inquiring five types of maltreatment – emotional neglect, emotional abuse, physical neglect, physical abuse and sexual abuse. Each type of maltreatment is represented by five statements such as “during my childhood, I believe I have been sexually abused”. These statements are rated on a 5-point Likert scale ranging from 1 (*never true*) to 5 (*very often true*), resulting in a total scale score ranging from 5 to 25. Higher scores on the scales indicate more maltreatment. There is also a three-item minimization/denial scale which detects the underrepresentation of maltreatment. Because the Dutch translation of the statement "during my childhood I have been

molested by someone" was multi interpretable on what kind of molestation was questioned, we excluded this item from the sexual abuse scale. The internal consistency of the CTQ ranged from .66 to .92 across a range of samples, and a test-retest reliability of .79 to .86. (Bernstein & Fink, 1998; Scher, Stein, Asmundson, McCreary, & Forde, 2001). In our sample, the internal consistency of the sexual abuse scale was excellent (α =.92). The internal consistencies of the other scales were .84 for both the emotional abuse scale and the emotional neglect scale, .90 for the physical abuse scale and .60 for the physical neglect scale.

Based on the items of the CTQ sexual abuse scale, a the definition of a history of CSA is any form of sexual touching by another person or coercion to sexually touch them, coercion to watch or engage in sexual activities, experience of threat if they did not cooperate in a sexual activity, and being sexually abused (score 6 or higher on the sexual abuse scale).

Procedure

This study was part of a larger assessment battery into cognitions of CSOs. In the treatment centers and prisons, CSOs were approached by their psychologists to inform them about the study, and to ask them to participate voluntarily. CSOs were guaranteed that noncooperation had no consequences for their treatment process or prison placement. In addition, they were informed that their responses would not be communicated to their treatment staff or to authorities. To recruit a non-offender population, advertisements were placed on different internet sites that were directed at a broader public and at the Erasmus University Medical Center. Non-offenders were eligible if they had no prior convictions. All participants provided written informed consent and had adequate reading skills to complete the standard self-report measures. CSOs were tested at the institution where they were in treatment or imprisoned, non-offenders were tested in the Erasmus Medical Center. Permission was given by the Medical Ethics Review Committee (METC) of the Erasmus Medical Center Rotterdam.

Statistical analyses

Confounding variables

Variables that could possibly confound outcome effects are social desirability, minimization/denial on childhood trauma, age, educational level, and other types of abuse or neglect than sexual abuse, i.e. emotional abuse, emotional neglect, physical abuse, and physical neglect. For a variable to be included as a control variable in the main analyses it must be a) related to the dependent variable (offense-supportive cognitions) in the same direction in all groups (assumption of homogeneity of regression slopes), and b) independent of the experimental effect (group) (Lord, 1967, 1969; Miller

& Chapman, 2001). We tested these variables on the two assumptions mentioned above.

Statistical analysis

To test for normality of the scores, Kolmogorov-Smirnov tests were performed. Scores on the MOLEST scale ($D(105) = .07$, $p > .05$) and the Social Desirability Scale ($D(99) = .07$, $p > .05$) were both normal, whereas scores on the Childhood Trauma subscales were significantly non-normal: sexual abuse ($D(104) = .37$, $p < .05$), emotional abuse ($D(100) = .20$, $p < .05$), emotional neglect ($D(103) = .11$, $p < .05$), physical abuse ($D(104) = .38$, $p < .05$), physical neglect ($D(102) = .19$, $p < .05$), and minimization/denial on childhood trauma ($D(103) = .13$, $p < .05$).

Descriptive statistics were used to describe the characteristics of the sample, and to indicate percentages of individuals being abused. To examine differences between the proportion of contact CSOs, non-contact CSOs and non-offenders that report a history of sexual abuse, Chi-square tests were performed. To compare contact CSOs, non-contact CSOs and non-offenders on the CTQ subscales (sexual abuse, emotional abuse, emotional neglect, physical abuse, and physical neglect), Kruskall Wallis tests were performed. To test whether participants who experienced CSA will report more offense-supportive cognitions than participants without a history of CSA, an independent t-test is performed. To test differences in levels of offense-supportive cognitions between CSOs and non-offenders, an independent t-test is performed, and to test the differences in levels of offense-supportive cognitions between contact CSOs, non-contact CSOs and non-offenders, analyses of (co)variance were performed. Finally, a regression analysis was performed to test whether a history of CSA predicts higher levels of offense-supportive cognitions. All analyses were two tailed, and the alpha was set on .05. Post-hoc tests were Bonferroni corrected.

Results

Confounding variables

No correlation was found between the Social Desirability Scale and the MOLEST scale ($r = .02$, *ns*), nor between educational level and the MOLEST scale ($R^2 = .05$, $p > .05$). Finally, the CTQ scales were unrelated to the MOLEST scale as well: emotional abuse ($r_s = .03$, *ns*), emotional neglect ($r_s = .01$, *ns*), physical abuse ($r_s = -.10$, *ns*), and physical neglect ($r_s = .10$, *ns*), and minimization/denial on childhood trauma ($r_s = -.02$, *ns*). However, a correlation was found between age and the MOLEST scale ($r = .24$, $p < .05$), and the assumption of homogeneity of regression slopes has been met for age. Groups differed significantly on age, ($H(2) = 15.40$, $p < .05$), social desirability ($F(2,98) = 9,65$, $p < .001$) and educational level ($X^2 = 22.77$, $p < .001$). No differences were found

between contact CSOs, non-contact CSOs and non-offenders in their experiences of emotional abuse ($H(2) = 3.18$, $p > .05$), emotional neglect ($H(2) = 3.13$, $p > .05$), physical abuse ($H(2) = 0.44$, $p > .05$), or physical neglect ($H(2) = 4.78$, $p > .05$;). They also did not differ on the minimization/denial scale ($H(2) = 0.30$, $p > .05$) However, as the assumption of homogeneity of regression slopes has not been met for the CTQ scales, and the assumption of independency of the experimental effect (group) is violated for age, social desirability and educational level, we will not included these variables in the analysis, as we will not be able to 'control for' these preexisting differences (Miller & Chapman, 2001).

History of childhood sexual abuse

The hypothesis that the proportion of contact CSOs that report a history of CSA will be higher than the proportion of non-contact CSOs and non-offenders was confirmed. More than forty percent of the CSOs (42.2%) reported the experience of some form of sexual abuse during childhood, which was a higher proportion than the proportion of non-offenders (15%; $X^2 = 10.18$, $p < .01$). This high proportion among CSOs is mainly caused by contact CSOs, with almost half of the contact CSOs reporting the experience of sexual abuse during childhood (48.9%). However, this proportion was not significantly higher than the proportion of non-contact CSOs (26.3%; $X^2 = 2.79$, *ns*). Non-contact CSOs also did not differ from non-offenders ($X^2 = 1.09$, *ns*). Accordingly, contact CSOs, non-contact CSOs and non-offenders significantly differed on the sexual abuse scale, ($H(3) = 10.96$, $p < .01$; see Table 2). Mann-Whitney U tests were used to follow up these findings, and all effects are reported at a .025 level of significance. Contact CSOs showed higher levels on the sexual abuse scale than non-offenders ($U = 577.0$, $z = -3.33$, $p < .01$), but did not differ from non-contact CSOs ($U = 501.0$, $z = 1.18$, *ns*). Non-contact CSOs did not show higher levels on the sexual abuse scale than non-offenders ($U = 319.5$, $z = -1.35$, *ns*).

Table 2. Mean and standard deviations on the self-reports for the different groups

	Non-offenders		**Non-contact CSOs**		**Contact CSOs**	
	N	**mean (*sd*)**	***N***	**mean (*sd*)**	***N***	**mean (*sd*)**
CTQ SA	40	4.98 (*2.92*) [a]	19	6.63 (*4.84*)	45	7.69 (*4.68*) [b]
MOLEST	38	63.95 (*13.54*) [a]	20	68.75 (*14.04*) [a]	47	79.28 (*15.99*) [b]

Note. CSOs = child sex offenders; CTQ= Childhood Trauma Questionnaire; SA= Sexual Abuse Scale; [a] significantly differs from [b] at $p < .025$.

Childhood sexual abuse and offense-supportive cognitions

The hypothesis that participants who experienced CSA would report more offense-supportive cognitions than participants without a history of CSA was not confirmed. An independent t-test showed that participants who reported a history of CSA did not report more offense-supportive cognitions (M = 74.52, SD = 16.18, n = 33) than participants who did not report a history of CSA (M = 70.39, SD = 16.25, n = 69) (t(100) = -1.20, *ns*). This was also found when examined among CSOs only: CSOs who reported a history of CSA did not report more offense-supportive cognitions (M = 76.63, SD = 15.34, n = 27) than CSOs who did not report a history of CSA (M = 76.14, SD = 16.79, n = 37) (t(62) = -12, *ns*). Accordingly, the hypothesis that a history of CSA predicts higher levels of offense-supportive cognitions was not confirmed when examined among all participants (β = -.03, R^2 = .00, *ns*), nor when examined among CSOs only (β = -.15, R^2 = .02, *ns*). Among CSOs only, the model was marginally significant (β = -.28, R^2 = .08, p = .066). These results did not differ when the variables physical abuse, physical neglect, emotional abuse and emotional neglect were included in the model. However, the hypothesis that CSOs would report more offense-supportive cognitions than non-offenders was confirmed (t(103) = -3.94, p < .001), as well as the hypothesis that contact CSOs would report more offense-supportive cognitions than non-contact CSOs and non-offenders (F(2,104) = 11.79, p <.001; see Table 2). Pairwise comparisons revealed that contact CSOs reported more offense-supportive cognitions than non-contact CSOs and non-offenders. Non-contact CSOs and non-offenders did not differ in their reported levels of offense-supportive cognitions.

Discussion

Our findings support the abused/abuser hypothesis by showing that the proportion of CSOs that reported the experience of childhood sexual abuse (CSA) (42.2%) was higher than the proportion of non-offenders reporting such experiences (15%). A history of CSA was especially prevalent among contact CSOs (48.9%), but did not significantly differ from the proportion of non-contact CSOs (26.3%) that reported a history of CSA. Furthermore, contact CSOs reported more offense-supportive cognitions regarding sex with children than non-contact CSOs and non-offenders. However, although our results suggest the existence of a relationship between being a victim of CSA and sexual offending against children later in life, the experience of CSA could not explain the higher level of offense-supportive cognitions regarding sex with children found in contact CSOs, or the difference between contact or non-contact sexual offending against children.
The observed proportion of CSOs who reported a history of CSA is consistent with the literature on adult and adolescent sex offenders (Jespersen et al., 2009; Rossegger et al., 2011; Seto & Lalumière, 2010). The levels of CSA histories among both CSOs and

non-offenders are comparable or higher than the mean rates among offender and non-offender populations reported in other studies (Bakker et al., 2009; Finkelhor, 1994; Glasser et al., 1996; Hanson & Slater, 1988; Pereda et al., 2009; Rossegger et al., 2011). The variation in prevalence rates among different studies could be explained by variation in definitions of CSA, variation in research samples, or variation in methodologies. Although our design does not allow firm conclusions regarding the victim-to-victimizer cycle, our results do suggest that victims of CSA have a higher risk to sexually offend against a child than non-victims.

The finding that the experience of CSA, as well as other abuse experiences, were unrelated to the level of offense-supportive cognitions regarding sex with children, contradicts theories that suggest that developmental adversities produce maladaptive schemas and a variety of negative attitudes, emotions and beliefs towards other people (Mann & Beech, 203; Marshall & Barbaree, 1990; McCann, Sakheim, & Abrahamson, 1988; Weiss, Dodge, Bates, & Pettit, 1992; Ward & Beech, 2006; Wenniger & Ehlers, 1998; Zlotnick et al., 1996). For example, Ward and Beech (2006) suggested that through social learning, early developmental adversities such as CSA produce the clinical symptoms that are related to sexual offending. These symptoms include offense-supportive cognitions, which, according to Ward and Beech (2006), precede an offense.

CSOs reported more offense-supportive cognitions regarding sex with children than non-offenders. This was especially true among contact CSOs, who reported higher levels of offense-supportive cognitions than non-contact CSOs and non-offenders. This finding is in line with studies that have found that CSOs endorse significantly more offense-supportive cognitions than rapists, offender controls or community controls (Abel et al., 1989; Bumby, 1996; Keown et al., 2008; Stermac & Segal, 1989), and with a meta-analysis showing that contact CSOs could be distinguished from non-contact CSOs based on their higher levels of sexual deviancy and deviant beliefs and attitudes (Babchishin et al., 2011). Contact CSOs seem more distorted in their cognitions regarding sex with children, which may allow them to sexually offend, than non-contact CSOs. This finding could not be explained by differences in the experience of CSA or other childhood traumas, (i.e. experiences of physical abuse, physical neglect, emotional abuse or emotional neglect in childhood) between contact CSOs and non-contact CSOs. Furthermore, not all CSOs experienced CSA, but still showed elevated mean levels of offense-supportive cognitions. However, finding no significant difference in the experience of CSA between contact CSOs and non-contact CSOs might have been due to a small sample size of the non-contact CSO population. The proportion of contact CSOs who reported a history of CSA seems considerably higher (48.9%) than the proportion of non-contact CSOs (26.3%).

Nevertheless, our results do not support Wards hypothesis that CSA results in offense-supportive cognitions. Therefore, these findings indicate that offense- supportive

cognitions mainly are post-hoc rationalizations to justify sexually offending behavior. Our results support the theory of Abel and colleagues (1984, 1989), stating that these cognitions develop as a result of the contact offense itself to rationalize sexually offending behavior, and to prevent feelings of guilt and shame (Abel et al., 1989; Maruna & Mann, 2006). However, note that Hartley (1998) demonstrated that statements uttered by CSOs represent both pre-offense cognitions that reduce inhibition against offending, as well as post-offense cognitions that reduce feelings of responsibility and guilt. Furthermore, Saradijan and Nobus (2003) identified both pre-offense supportive cognitions, supportive cognitions during the offense, as well as post-offense supportive cognitions among clergies that sexually abused children. Therefore, other factors play a role in the development of such pre-offense supportive cognitions. Ward and Beech (2006) suggested different sets of causal factors to interact and produce the clinical symptoms that are related to sexual offending, and individuals are thought to differ in their vulnerability to develop offense-supportive cognitions that precede an offense. It is very plausible that both Abel's and Ward's theories are correct. Then, the development of offense-supportive cognitions may be considered a vicious cycle. Pre-existing distorted cognitions that once have led to an offense, could be followed by distorted cognitions to reduce cognitive dissonance from the offense. These post-offense cognitions in turn could strengthen earlier distorted cognitions and could precede new offenses.

As the underlying process of the victim-to-victimizer cycle could not be explained by elevated levels of offense-supportive cognitions regarding sex with children, other psychological processes are responsible. These could include processes such as 'turning passive into active' or 'enactment'. Victims of CSA could enact their own abuse experiences, and turn their passive position as a child into an active position as an adult, placing themselves in the role of the aggressor. This enactment is condoned by offense-supportive cognitions such as: "I will treat others, the way I have been treated." Note that, in our study, offense-supportive cognitions were assessed with a self-report measure that included items referring to sex between an adult and a child. Offense supportive cognitions that are mainly non-sexualized were not assessed in the present study. These are 'entitlement' (i.e. a core belief of superiority and the right to have sex with children), 'dangerous world' (i.e. adults are rejective and children are more accepting, or everyone is hostile and others should be dominated), and 'uncontrollability' (i.e. the offender could not control himself). It is possible that victims of CSA have developed non-sexualized offense-supportive cognitions that are hostile in nature, which could lead to the sexual abuse of a child.

Finally, a considerable proportion of those who have experienced CSA did not, and will not sexually offend. Lynskey and Fergusson (1997) suggest that the extent of paternal care or support in childhood, and the extent of affiliations with delinquent or substance abusing peers in adolescence influences the development of adjustment

difficulties after CSA. Runtz and Schallow (1997) found both social support and coping strategies to mediate the relationship between CSA and psychological adjustment.

This study has a few limitations. First, the assessment of childhood abuse experiences and offense-supportive cognitions relied on retrospective self-reports. Due to dissociation as a result of being maltreated, people do not always accurately remember being maltreated (Corso, Edwards, Fang, & Mercy, 2008; Brown et al., 2007). Although there is support for the validity of accurate recall of adverse childhood experiences (Hardt, 2004) this might have led to an underrepresentation of CSA. Furthermore, as deviant cognitive processes that result in offense-supportive cognitions are dynamic and context dependent, these cognitions might not always be activated (Ward & Casey, 2010), and thus may not have been expressed in the score on the self-report measure used. Additionally, although CSOs differed from non-offenders in the level of offense-supportive cognitions, it appears that CSOs were inclined to disagree less with offense-supportive statements than non-offenders, who, generally, strongly disagreed (see Arkowitz & Vess, 2003).

Second, a retrospective study design does not allow us to draw firm conclusions on the relationship between being a victim of sexual abuse and sexual offending against children later in life. Although support for the victim-to-victimizer cycle seems plausible on the basis of our study, only a prospective cohort design would allow such firm conclusions.

Third, small sample sizes of the non-contact CSOs group could have resulted in non-significant results between groups. Increasing sample size would produce more reliable conclusions about the differences between subtypes of CSOs and the origins of sexual offending.

Finally, further research is needed to establish the role of both sexualized and non-sexualized offense-supportive cognitions in the offending process, and whether these cognitions serve a causative role, a maintenance function, or both. Furthermore, the underlying process of the victim-to-victimizer cycle needs to be examined. Studies should focus on other factors that could mediate this relationship, such as emotional problems, social difficulties and deviant sexual arousal, as proposed by Ward and Beech in their Integrated Theory of Sexual Offending (2006). Furthermore, future studies should focus on more factors that could lead to sexual offending against children to develop an empirical model that explains these offending pathways. Understanding the processes underlying the initiation, maintenance, and justification of sexual offending against children, is a vital prerequisite to the development of successful prevention and treatment programs.

Conclusions and clinical implications

Findings of this study are in line with the abused/abuser hypothesis: the experience of childhood sexual abuse was more prevalent among CSOs than among non-offenders. Furthermore, especially contact CSOs are characterized by maladaptive cognitions regarding sex with children. However, our results could not support the theory of Ward and Beech (2006) that sexual abuse experiences during childhood lead to offense-supportive cognitions that precede sexual offending. The underlying process of the victim-to-victimizer cycle could therefore not be explained by elevated levels of offense-supportive cognitions that have resulted from the experience of CSA through social learning. Instead, our findings seem to support the early theory of Abel and colleagues (1984, 1989), that suggested that these cognitions develop as a result of the contact offense itself to rationalize sexually offending behavior, and to prevent feelings of guilt and shame.

Treatment programs for CSOs should focus more on the offense-supportive cognitions of CSOs. Offense-supportive cognitions were also present among CSOs who did not experience CSA and form a risk factor for sexual offending on itself. As offense-supportive cognitions increase the risk of sexual offending against a child, CSOs should be aware of these maladaptive thoughts, and learn that the needs and intentions of children do not involve sexual activities with adults. Additionally, risk assessments for CSOs should incorporate items relating to a history of CSA, as well as offense-supportive cognitions, to increase the accuracy of the estimated risk of reoffending.

Finally, it is important to break the victim-to-victimizer cycle to prevent future sexual abuse victims. Mental health services should be more aware and trained to notice any signs of abuse and should have more permission to intervene. As other studies have shown that social support and adequate coping strategies could help prevent difficulties in psychological adjustment or sexual offending after adverse childhood experiences (Runtz & Schallow, 1997), it is crucial to timely recognize victims of sexual abuse to reduce further physical and psychological harm, and to reduce the number of new victims of sexual abuse.

Chapter 4

Unraveling sexual associations in contact and non-contact child sex offenders using the Single Category – Implicit Association Test

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***Sexual Abuse: A Journal of Research and Treatment,* 2013, 25(5): 444-460.**

Abstract

Previous studies found associations between children and sex in child sex offenders (CSOs) using the Implicit Association Test (IAT). We used a modification of this task, the Single Category – Implicit Association Test (SC-IAT) to unravel child-sex associations in CSOs. Using the SC-IAT, we were able to test whether CSOs indeed hold stronger child-sex associations relative to adult-sex associations, compared to adult sex offenders and non-offenders. Furthermore, we examined whether contact CSOs differed from non-contact CSOs in their child-sex associations. The hypothesis that CSOs would have stronger child-sex associations, relative to their adult-sex associations, than adult sex offenders and non-offenders was confirmed. No difference between contact CSOs and non-contact CSOs was found. Although the Sex SC-IAT was able to distinguish CSOs from non-offenders, the sensitivity and specificity of the test was poor (AUC of .65) and needs refinement. The results of this study support the existence of a child-sex association as a distinctive characteristic of CSOs. These findings are discussed in the context of theories on deviant cognitions in CSOs and risk for sexual offending.

Introduction

Theories of sexual offending posit that cognitive distortions (CDs; i.e. offense-supportive cognitions) are important in the etiology of child sexual abuse, as they facilitate sexual offending against children (Marshall & Barbaree, 1990; Ward & Keenan, 1999). Abel, Becker, and Cunningham-Rathner (1984) were the first to define CDs in the sexual offending area. They referred to it as 'internal processes, including the justifications, perceptions and judgements used by the sex offender to rationalize his child molestation behavior' (Abel et al., 1989, p. 137). Nowadays, CDs related to sexual offending are typically defined as 'maladaptive beliefs and attitudes, and problematic thinking styles that serve to deny, blame, excuse and minimize sexual abusive actions' (Bumby, 1996; Ward, 2000; Gannon, Ward, & Collie, 2007). However, as Ward and Casey (2010) have argued, "CDs" is a normative concept and whether cognitions are distorted depends on the violation of the ethical norms of a society. Therefore, the term "CDs" should be replaced by "deviant cognitive processes". These deviant cognitive processes, or problematic thinking styles, including the cognitive content, belief structures, information processing and social processes, result in cognitive products (Ward & Casey, 2010). These products are reflected by the statements regularly uttered by sex offenders to rationalize their abusive actions (Ward, Polaschek, & Beech, 2005; Gannon et al., 2007).

There is much debate on the purpose of these deviant cognitions, whether they serve a maintenance function in the offending process or a causative role. Whereas Abel and colleagues proposed that these deviant cognitions resulted from the offense to reduce cognitive dissonance or from the realisation that their sexual interests are not in accordance with society's norms (Abel et al., 1984; Abel et al., 1989), Ward and colleagues suggested that deviant cognitions are the product of underlying 'implicit theories' that were developed during childhood and preceded the offense (Ward, 2000; Ward, Hudson, Johnston, & Marshall, 1997; Ward & Keenan, 1999). These implicit theories are hypothesized to be schematic associations that may contribute to offending behavior as well as to utterances and other surface products that can be seen as distorted. Ward and Keenan (1999) proposed five implicit theories used by CSOs to make propositions about the victims' desires and intentions, which are important in the initiation and maintenance of child sexual abuse: 1) *entitlement* – a core belief of superiority and the right to have sex with children. This theory is illustrated by claims such as "a person should have sex whenever it is needed"; 2) *dangerous world* – adults are rejective and children are more accepting, or everyone is hostile and others should be dominated. This is illustrated by claims as "children really know how to love you" or "I had to teach her a lesson"; 3) *uncontrollability* of sexual drive, exemplified by "I did it because I was sexually abused as a child"; 4) *nature of harm* – children who are sexually abused are relatively unharmed. A distortion associated with this theory includes "this will not hurt her in any way"; and 5) *children as sexual beings* – a child is a sexual being who

is motivated by achieving pleasure, and capable of desiring and enjoying sex. This theory is illustrated by claims such as “she seduced me” or “he enjoyed it” (see Ward & Keenan, 1999).

Several studies that used explicit self-reports or interviews have found evidence that CSOs indeed hold deviant cognitions about children and sex (Bumby, 1996; Marziano, Ward, Beech, & Pattison, 2006). For example, through the administration of interviews, evidence was found for the presence of all five of Ward’s implicit theories in CSOs (Keown, Gannon, & Ward, 2010; Marziano, et al., 2006). Furthermore, CSOs endorsed significantly more deviant cognitions than rapists, offender controls or community controls (Abel et al., 1989; Bumby, 1996; Keown et al., 2010; Stermac & Segal, 1989). Moreover, subtypes of CSOs could be distinguished based on their levels of reported deviant cognitions. For example, higher levels of deviant cognitions were found in high-deviant CSOs and CSO who wanted sexual activity with children than in low-deviant CSOs and CSOs who wanted to avoid sexual activity with children (Beech, 1998; Bickley & Beech, 2002). A recent meta-analysis confirmed that contact SOs (*N* = 1,342; predominantly CSOs) could be distinguished from non-contact SOs (*N* = 4,844; predominantly CSOs) based on higher levels of sexual deviancy and deviant beliefs and attitudes (Babchishin, Hanson, & Hermann, 2011). Furthermore, a study comparing 505 non-contact CSOs to 526 contact CSOs found higher levels of deviant cognitions and deviant victim empathy within contact CSOs (Elliott, Beech, Mandeville-Norden, & Hayes, 2009). In line with this, higher levels of deviant cognitions were found in contact CSOs compared to non-contact CSOs (Hempel, Buck, Goethals, & Van Marle, submitted).

Although explicitly reported deviant cognitions were found in CSOs, CSOs may largely be unaware of their deviant cognitions, or they might hide, deny, or minimize them (Ward & Keenan, 1999). As Ward and colleagues stated: ‘people do not have direct access to the content and structure of their own cognition’ (Ward et al., 2005, p. 116).

Because much social cognition occurs in an implicit mode (Greenwald & Banaji, 1995), it is difficult to measure these deviant cognitions using self-reports. Therefore, measures have been developed to measure cognitions indirectly. However, several studies that tried to overcome the problem of self-report, could not confirm the existence of implicit theories or deviant cognitions among CSOs using information processing measures (Keown, Gannon & Ward, 2008a, 2008b, 2010).

The Implicit Association Test

Because people do not have direct access to the content and structure of their own cognitions, other methods have been developed to measure cognitions in a more indirect manner. One such method is the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). The rationale behind the IAT is that it measures attitudes indirectly

through the association someone has of two attitude categories (e.g. child vs. adult) with an evaluative category (e.g. sex vs. not sex) (Greenwald et al., 1998). The IAT has regularly been used in different fields of psychology to measure diverse constructs, including prejudice and stereotypes (Amodio & Devine, 2006; Rudman, Greenwald, Mellott, & Schwartz, 1999), consumer preferences (Maison, Greenwald, Bruin, 2004), and self-esteem (Karpinski, 2004). The IAT possesses satisfactory psychometric properties and is less susceptible to social desirability or faking than self-report (Asendorpf, Banse, & Mücke, 2002; Banse, Seise, & Zerbes, 2001; Kim, 2003).

Measuring sexual associations with the IAT revealed deviant associations between children and sex in CSOs, irrespective of their explicit denial of offense history (Brown, Gray, & Snowden, 2009). Furthermore, with the IAT, Mihailides, Devilly, and Ward (2004) found associations in CSOs that were in line with Ward's *children as sexual beings, entitlement* and *uncontrollability* implicit theories. Also, based on the child-sex associations in CSOs found by the IAT, researchers were able to distinguish CSOs from non-sex offenders and non-offenders (Brown et al., 2009; Gray, MacCulloch, Brown, Smith, & Snowden, 2005; Mihailides et al., 2004; Nunes, Firestone, & Baldwin, 2007; Van Leeuwen et al., 2009). Additionally, Snowden, Wichter and Gray (2008) showed that the IAT almost perfectly classified heterosexual and homosexual men based on their sex preference associations (area under the curve = 0.97). Therefore, as heterosexuality and homosexuality are assumed not to be related to or result from specific beliefs, the associations measured with the IAT could also be more directly related to sexual interest rather than to belief systems.

In the example of an IAT with two attitude categories (e.g. child vs. adult) and two evaluative categories (e.g. sex vs. not sex) however, it is not clear whether a low score indicates the presence of a child-sex association, the presence of a adult-non-sex association, the lack of a child-non-sex association, and/or the lack of an adult-sex association. For this reason, researchers suggested that for some research questions it is more useful to indirectly measure attitudes towards only one single attitude category. By providing only one evaluative category for one attitude category and eliminating the opposite evaluative category for the other attitude category, it is clearer which association is more present in an individual relative to the other association (Blanton & Jaccard, 2006; Karpinski & Steinman, 2006). The Single Category - Implicit Association Test (SC-IAT; Karpinski & Steinman, 2006) is designed to measure the association between two attitude categories (e.g. child vs. adult) in relation to a single evaluative category (e.g. sex).

Current study

The primary goal of this study was to indirectly measure the association between children-versus-adults and sex in CSOs compared to sex offenders against adult women

(ASOs) and non-offenders, using a Sex SC-IAT. Finding a child-sex association in CSOs with the SC-IAT would be a more precise indication that CSOs indeed hold a stronger association between children and sex, relative to their adult-sex association. Furthermore, so far, studies have not examined the sexual associations of non-contact CSOs compared to contact CSOs. According to Ward's *child as sexual beings* theory, high levels of deviant cognitions lead to the sexualization of children's behavior, increasing the risk of contact offending. Differences in levels of deviant sexual associations could explain the differences in offending behavior between non-contact and contact CSOs, suggesting different treatment and management approaches. We compared non-contact CSOs to contact CSOs and included ASO and non-offenders as control groups. We hypothesized that CSOs would have stronger child-sex associations relative to their adult-sex associations, than adult sex offenders and non-offenders. Secondly, the child-sex association would be stronger among contact CSOs than among non-contact CSOs. Furthermore, the ability of the Sex SC-IAT to distinguish CSOs from non-offenders was examined.

Finally, as part of a first exploration on the concept of 'seduction', we included a Seduction SC-IAT as well. When children are viewed as sexual beings, contact CSOs might also think the child incited the abuse through seduction, proceeding to the actual abuse of a child. We hypothesized that contact CSOs would associate seduction with children, whereas non-contact CSOs, ASOs and non-offenders would associate seduction with adults.

Methods

Participants

A total of 40 male non-offenders and 78 male sex offenders (SOs) participated. Non-offenders (age: *M* = 35.6, *SD*= 17.9) were recruited using an advertisement at the Erasmus Medical Center and internet advertising and were eligible if they had no prior convictions. SOs were recruited from three forensic psychiatric outpatient and day treatment centers and three penitentiary institutions in the Netherlands. The SOs comprised of 65 CSOs (46 child molesters, 16 child pornography offenders and 3 exhibitionists) and 13 sex offenders against adult women (ASOs) (7 assaulters, 3 rapists, 2 exhibitionists and 1 frotteur). These classifications were adopted from the institutions where SOs were treated or imprisoned. For this study, SOs were then classified as a non-contact CSO (*N* = 19; age: *M* = 47.1, *SD* = 12.5) if they (a) were currently in treatment or imprisoned for downloading and/or spreading child pornography or for exhibitionism aimed at children aged 16 years or younger, and (b) had never committed a sexual offense against a child or adult in which there was physical contact. SOs were classified as a contact CSO (*N* = 46; age: *M* = 49.1, *SD* = 13.7) if they (a) were currently in treatment or imprisoned for a sexual offense against a child under 16 years of age in

which there was physical contact, and (b) had never committed any sexual offenses against an adult. SOs were classified as an ASO (*N* = 13; age: *M*= 37.3, *SD*= 16.2) if they (a) were currently in treatment or imprisoned for a sexual offense against a woman and (b) had never committed any sexual offenses against a child. None of the offenders had prior histories of sex offenses against both children and adults. Almost half of the CSOs had female victims (48.3%), 45% had male victims and 5% had both male and female victims. Table 1 illustrates the demographics of the offender and non-offender groups.

Table 1. Demographics for the non-offender and offender groups

	Non-offenders (n=40)	**Non-contact CSOs** (n=19)	**Contact CSOs** (n=46)	**ASOs** (n=13)
Ethnicity	*%*	*%*	*%*	*%*
Dutch	97.5	100	100	76.9
Other	2.5	0	0	23.1
Education				
No formal	0	0	0	7.7
Elementary school	0	0	8.7	7.7
Lower education	2.5	15.8	19.5	30.8
Middle education	57.5	57.9	47.8	46.2
Higher education/University	40	26.4	19.5	0
Unknown	0	0	4.3	7.7
Social Status				
Single	32.5	47.4	32.6	38.5
Relation/married/living with partner	30	42.2	30.4	23.0
Living with family	27.5	5.3	13.1	15.5
Imprisoned	0	0	6.6	15.5
Other/ unknown	10	5.3	17.3	7.6
Children				
Yes	25	36.8	47.8	23.1
No	75	63.2	50	69.2
Unknown	0	0	2.2	7.7
Income				
Unemployment welfare	7.5	5.3	8.7	15.4
Pension fund	12.5	10.5	15.2	7.7
Other social welfare	5	5.3	34.8	30.8
Student grant	42.5	0	2.2	7.7
Employed, minimum income	7.5	15.8	8.7	7.7
Employed, modal income	7.5	42.1	23.9	23.1
Employed, 2x modal income	7.5	10.5	0	0
Employed, >2x modal income	5	5.3	2.2	0
Unknown	5	5.3	4.3	7.7

Note. CSO = child sex offender; ASO = adult sex offender

Materials

The *Single Category - Implicit Association Task* paradigm (SC-IAT; Karpinski & Steinman, 2006) was used to design a Sex SC-IAT and a Seduction SC-IAT. Selection of the stimulus words was based on stimuli used in the IATs of other researchers (Gray et al., 2005; Mihailides et al., 2004) and on pretesting. Eleven men without prior offending histories anonymously categorized a list of 50 child and adult related words, and 47 seduction and sex related words. Words were rated on a 0 to 100 continuum scale, indicating the representativeness of a word for that category. For a word to be representative of one specific category, a score of at least 70 was needed, against a score lower than 30 for the other category. For example, the word 'orgasm' had a mean score of 2.7 on 'seduction' and of 71.8 on 'sex', and was included in the category 'sex'; the word 'lust' scored high on both categories and was therefore not suitable for our study. Words that represented more than one category were eliminated. Then, the words that most reflected the categories were matched with the number of characters and syllables. This ensured that differences in response latencies were not caused by words that were not equal in reading time. This resulted in 15 adult and 14 child words, and 9 seduction and 11 sex words (see appendix A).

Each SC-IAT consists of two stages, both consisting of 24 practice trials followed by 72 test trials (see Table 2). On a computer screen, the attitude categories (child and adult) are presented in the upper left and upper right corners of the screen, and one evaluative category (sex or seduction) is presented underneath one of the attitude categories. Stimulus words represented either an attitude category or the evaluative category.

After the presentation of a fixation cross, these stimulus words appeared in a random order in the middle of a computer screen. Participants had to categorize these words as quickly as possible into the different categories by pressing the 'q' key on the computer keyboard for the left category or the 'p' key for the category on the right. For example, in the first stage of the seduction SC-IAT, child words were categorized on the *q* key and adult or seduction words were categorized on the *p* key. This is called the *congruent condition* (Blocks 1 and 2, see table 2), assuming most people have an association between adult and seduction, and between adult and sex, rather than between children and seduction, and children and sex.

The stimulus word remained on the screen for 1500 ms, unless the participants responded within this time interval. Participants were instructed to respond as quickly as possible. Following each response, participants were given feedback: a green square with the word 'correct' or a red square with the word 'incorrect' appeared in the middle of the screen for 500 ms. After feedback presentation the next trial started.

In the second stage, the left response-key was assigned to child and seduction or sex words, and the right response-key was assigned to adult words. This is called the

incongruent condition (Blocks 3 and 4), assuming most people do not have an association between child and seduction, nor between child and sex. The order in which the conditions were presented was counterbalanced. Faster response latencies were expected for the congruent condition, than for the incongruent condition. The difference score between the reaction times of these two conditions is the so-called IAT effect – indicated by a *D*-score – and gives an indication of the strength of the association between the attitude category and evaluative category (Greenwald et al., 1998). A larger IAT effect indicates a stronger association.

Table 2. Seduction SC-IAT and Sex SC-IAT trials

Block	Trials	Function	Left-key response	Right-key response
1	24	Practice	Child words	Adult words + seduction / sex words
2	72	Test	Child words	Adult words + seduction / sex words
3	24	Practice	Child words + seduction / sex words	Adult words
4	72	Test	Child words + seduction / sex words	Adult words

Procedure

Participants were seated at a desk with a Toshiba Pentium 4 computer using E-prime software. The SC-IAT tasks were presented on the computer and participants first completed the Seduction SC-IAT and then the Sex SC-IAT. The computer recorded reaction times (RTs) and response accuracy and inaccuracy. SOs were tested at the institution where they were in treatment or imprisoned. Non-offenders were tested at the Erasmus University Medical Center. Participation was voluntary and SOs were guaranteed that noncooperation had no consequences for their treatment process or prison placement. In addition, they were informed that their responses would not be communicated to their treatment staff or to authorities. All participants at least completed elementary school to be able to process words that were presented to them and to complete the SC-IAT tests, and all provided written informed consent. Permission was given by the Medical Ethics Review Committee (METC) of the Erasmus Medical Center Rotterdam.

Data reduction and Statistical analyses

To obtain a *D*-score, we used the improved algorithm of Greenwald, Nosek, and Banaji (2003). Because the 24 practice trials in each stage were truly practice, data from the practice blocks were discarded (Blocks 1 and 3; see Karpinski & Steinman, 2006). Trials with latencies higher than 10,000 ms were eliminated. Participants for whom more than 10% of trials had latency less than 300 ms were excluded from analysis, resulting in the elimination of 3 participants for the sex SC-IAT and 1 for the seduction SC-IAT. Error responses were replaced with the block mean plus an error penalty of 2 times the block SD. The average response times of Block 2 (i.e. adult-seduction or adult-sex) were subtracted from the average response times of Block 4 (i.e. child-seduction or child-sex). This quantity was divided by the pooled standard deviation of all correct response times within Blocks 2 and 4. Positive *D*-scores indicated greater associations between adult and sex or between adult and seduction relative to child and sex or child and seduction. Negative *D*-scores indicated greater associations between child and sex or between child and seduction relative to adult and sex or adult and seduction. A *D*-score of zero represents no association.

To test for normality, a Kolmogorov-Smirnov test was performed. Scores on the Sex IAT ($D(114) = .07$) and Seduction IAT ($D(116) = .04$) were normally distributed. *D*-scores of non-contact CSOs, contact CSOs, ASOs and non-offenders were analyzed using descriptive analyses and compared using analysis of variance. We also tested whether we could distinguish CSOs from non-offenders by using the *D*-score as predictor of group membership in Receiver Operator Characteristic (ROC) Curve analyses (Hanley & McNeil, 1982). The Area Under the Curve (AUC) statistic from ROC analysis reflects the predictive validity of a given assessment instrument and represents how well one can categorize a person at an individual level, based on the test result taking both true and false hits into account. AUC values range from 0 to 1, where 0 is perfect negative prediction, .5 is prediction at chance level and 1 is perfect positive prediction. All analyses were two tailed, and the alpha was set as .05. Effect sizes are reported for the independent t-test – denoted as *r* (Pearson correlation coefficient), and for analyses of variance – denoted as ω (omega).

Results

Reliability. To determine the reliability of both SC-IATs, we divided each SC-IAT into two mutually exclusive subsets of trials and calculated a D-score separately for each half. A measure of internal consistency was obtained by calculating the correlation between these scores (Greenwald et al., 2003), yielding a moderate level of internal consistency for the Sex SC-IAT ($r = .67$) and a low level for the Seduction SC-IAT ($r = .36$). Subgroups did not differ in the levels of internal consistency. Due to the low level of internal

consistency of the Seduction SC-IAT, we decided to refrain from further analyses of this task.

Sex SC-IAT. Mean reaction times for responses to child, adult and sex stimuli are shown in Fig. 1. *D*-scores were calculated for the Sex SC-IAT (see Fig. 2).

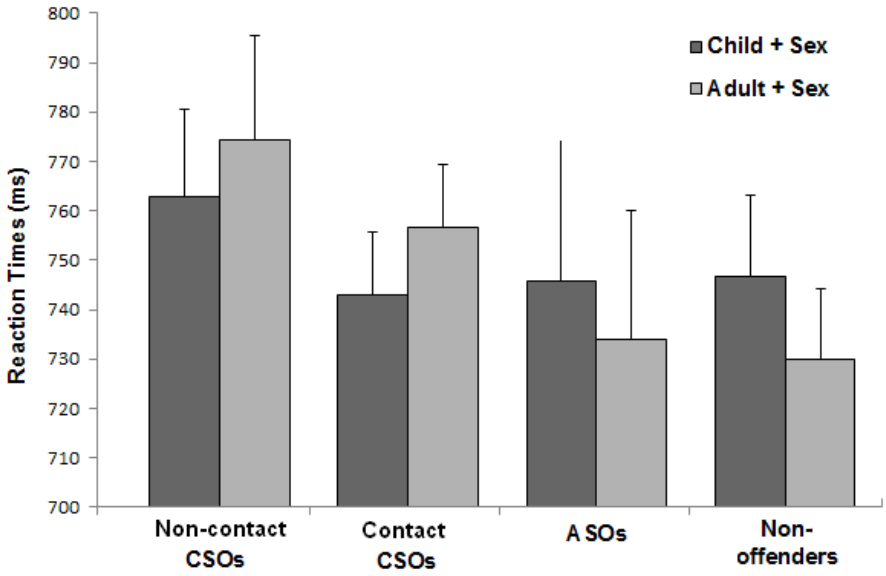

Figure 1. Mean reaction times in milliseconds for responses to the child-sex and adult-sex combination blocks

Our hypothesis that CSOs have stronger child-sex associations relative to their adult-sex associations than ASOs and non-offenders was partly confirmed. *D*-scores differed between CSOs, ASOs and non-offenders ($F(2,111) = 3.39$, $p < .05$, $\omega = .20$). Post hoc comparisons using the Hochberg's GT2 test indicated that the *D*-score of CSOs ($M = -.099$, $SE = .052$) differed significantly from *D*-scores of non-offenders ($M = .099$, $SE = .058$), $p = .042$, $r = .24$. On average, CSOs responded faster when child and sex words shared the same response key, whereas non-offenders responded faster when adult and sex words shared the same response key. This indicates that CSOs associated children with sex more than they associated adults with sex, whereas non-offenders associated adults with sex more than they associated children with sex. *D*-scores of ASOs ($M = .066$, $SE = .107$) did not differ from CSOs or non-offenders. They also associated adults with sex more than they associated children with sex.

The hypothesis that the child-sex association would be stronger among contact CSOs than among non-contact CSOs was not confirmed. There were differences at trend level between non-contact CSOs (M = -.073, SE = .070), contact CSOs (M = -.109, SE = .067), ASOs and non-offenders ($F(3,110) = 2.28$, p = .083, ω = .18). However, post-hoc analyses only revealed differences at trend level between contact CSOs and non-offenders, p = .097, r =.25. No differences were found between contact CSOs, non-contact CSOs and ASOs, or between non-contact CSOs, ASOs and non-offenders.

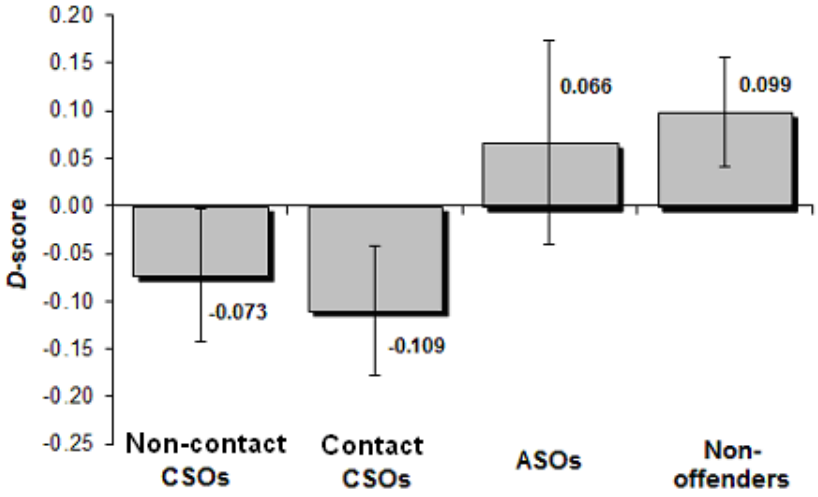

Figure 2. *D*-scores on the Sex-IAT. A positive score indicates an association between adult and sex, a negative score indicates an association between child and sex.

Finally, in line with our hypothesis, the Sex SC-IAT was able to distinguish a CSO from a non-offender, although the sensitivity and specificity was poor. The *D*-score from the Sex SC-IAT produced an AUC of 0.65 (SE = .055, p <.05). Analyses on log transformed response latencies or with an error penalty of 600ms (Greenwald et al., 2003) yielded similar results.

Discussion

Our findings support the existence of the child-sex association among CSOs found in earlier studies (Brown et al., 2009; Gray et al., 2005; Mihailides et al., 2004; Nunes et al., 2007). The Sex SC-IAT showed that CSOs associated children with sex more than they associated adults with sex, whereas ASOs and non-offenders associated adults with sex, more than they associated children with sex. The associations differed significantly between CSOs and non-offenders. However, the Sex SC-IAT showed poor sensitivity

and specificity in identifying CSOs from non-offenders, with an AUC of .65. Contrary to our hypothesis, no difference was found between non-contact CSOs and contact CSOs in their child-sex associations. The moderate level of internal consistency of the Sex SC-IAT (r = .67) was comparable to the level of internal consistency found by Karpinski and Steinman (2006).

Although associations may reflect some post-offense associations that developed in response to the offense experiences of CSOs, the child-sex association found in CSOs support the implicit theory proposed by Ward and Keenan (1999) that a child is viewed as a sexual being. According to Mihailides and colleagues (2004), the existence of this micro-cognitive implicit association among CSOs indicates the ascription of sexuality onto children. The authors state that these results are potentially informative of the relationship between implicit semantic constructs, deviant cognitions, and sexual offending behavior, as it has been suggested that deviant cognitions are the product of underlying implicit schematic associations and preceded the offense (Ward & Keenan, 1999; Ward, 2000).

Whereas Mihailides and colleagues (2004) suggested that the child-sex association among CSOs indicates the ascription of sexuality onto children, the SC-IAT effect may also be more directly related to sexual interest rather than to distorted belief systems. A study of Ó Ciardha and Gormly (2011), using a pictorial-modified Stroop task to measure sexual interest of CSOs, showed that both non-offenders and CSOs responded in a pattern consistent with their self-reported sexual orientations. This view might also explain our finding that there were no differences between contact CSOs and non-contact CSOs regarding their child-sex associations, as both types of offenders are assumed to have sexual interest in children. However, a contact CSO might also view a child as seductive, therefore proceeding to contact offenses. Unfortunately, the internal consistency of the Seduction SC-IAT was too low to draw any reliable conclusions from it to clarify the difference in offending behavior. Concerning a child-sex association, it was found that among contact CSOs, having such association was related to a greater risk for reoffending (Nunes et al., 2007). Yet, it is not clear if the existence of a child-sex association among non-contact CSOs is also a risk for future contact offending. This question may be addressed in future studies to further clarify the sexual interests and underlying beliefs of contact CSOs and non-contact CSOs.

To our knowledge, this is the first study that used a single attitude category in measuring the child-sex associations of CSOs. The child-sex association held by CSOs, or their lower than normal adult-sex association, was also detected with the SC-IAT, suggesting this is a robust finding. The omission of a relative preference for another attitude category simplified the interpretation of the results. In our study, a negative score indicated greater child-sex associations, relative to adult-sex associations, whereas the results of an IAT could be interpreted in multiple ways: the presence of a child-sex

association, the presence of an adult-non-sex association, the lack of a child-non-sex association, and/or the lack of an adult-sex association. Using a SC-IAT instead of an IAT excludes the assessment of an adult-non-sex association and a child-non-sex association, which makes the interpretation easier. This further confirms the robustness of the child-sex association, or the lack of an adult-sex association. However, there were serious problems with the sensitivity and specificity of the test that dramatically needs improvement. An alternative promising measure of implicit preferences would be the Implicit Relational Assessment Procedure (IRAP; Barnes-Holmes et al., 2006). Dawson, Barnes-Holmes, Gresswell, Hart, and Gore (2009) used this measure to provide further evidence for Ward and Keenan's (1999) *children as sexual beings* implicit theory and found the IRAP to be more effective at identifying differences in implicit beliefs between CSOs and non-offenders than a cognitive distortion questionnaire. Also, the bias towards adults as sexual and children as nonsexual was significantly impaired in CSOs.

This study has a few limitations and we have to be cautious with our conclusions. First, sample sizes were fairly small, especially for the non-contact CSOs and ASOs, which may have resulted in a lack of power to detect differences between groups. Secondly, although the SC-IAT produced a significant AUC of .65, this is still too poor since the number of false alarms with this test is too high to reliably make inferences about someone's sexual associations using this instrument. This discriminative ability is lower than traditional bi-polar child-sex IATs (for example the AUC of 0.73 reported by Gray et al., 2005). Future research should focus on refinements and improving the specificity and sensitivity of the test to be able to distinguish between subtypes of CSOs. Furthermore, to determine the sexual associations, or sexual interest, of CSOs, the addition of another reliable instrument is needed.

Furthermore, although we distinguished between non-contact CSOs and contact CSOs to reduce the heterogeneity of CSOs, within population heterogeneity was still present in terms of number of victims, gender of victims and age of the victims. For example, Brown and colleagues (2009) showed that hebephilic CSOs (victims aged 12 to 15) did not hold child-sex associations, whereas pedophilic CSOs (victims aged less than 12 years) did. Possibly, hebephilic CSOs do not view their victims as children, since pubertal children show secondary sex characteristics. However, excluding hebephilic CSOs from our sample (51.2%) did not change the results, nor did these groups differ in their child-sex association. Furthermore, our sample comprised more CSOs with female victims (48.3%) than other studies. For example, 80% of the pedophilic sample in the study of van Leeuwen and colleagues (2009) reported a preference for boys. Almost half of the sample of Nunes and colleagues (2007) consisted of CSOs with male victims (48.1%), whereas 22% had female victims and 29.1% had both male and female victims. Studies showed that the recidivism risk of CSOs with male victims is higher than for those who prefer girls or both (Hanson & Bussière, 1998; Proulx, Pellerin, McKibben,

Aubut, & Ouimet, 1997), and victimizing males is correlated to deviant sexual preferences (Freund & Watson, 1991). Although heterogeneity of samples might have influenced the results, Gray and colleagues (2005) suggested that nonspecific differences between the groups (e.g. intelligence, motivation, age), did not explain the differences on the IAT. They compared CSOs to non-pedophilic offenders on a child-sex IAT and on a control IAT and found differences in associations between the two groups on the child-sex IAT, but not on the control IAT. Furthermore, according to Brown and colleagues (2009), differences are also not a result of any cognitive confound.

Finally, the low internal consistency of the Seduction SC-IAT might be due to the stimulus material. The words may have reflected a more generalized construct, as opposed to a *sexual* seduction construct which we intended to measure. The concept of 'seduction' is also more abstract than the concept of 'sex', and therefore more difficult to operationalize and measure. This might especially be true for CSOs, as they are generally less socially competent than non-offenders (Kalichman, 1991). Due to this, participants might have needed more time to categorize the seduction words, resulting in more faults and inconsistencies in responding, lowering the consistency of the Seduction SC-IAT. Furthermore, the lowered consistency of both SC-IATs compared to statistics reported for traditional formats might also be explained by the SC-IAT requiring less cognitive demand. This might also have resulted in lowered concentration and more inconsistencies in responding tendencies**.**

Conclusions and clinical implications

The results of this study, together with findings of previous studies, suggest that holding a child-sex association is a distinctive characteristic of CSOs compared to non-offenders. The child-sex association, or the lack of an adult-sex association, held by CSOs was also detected with the SC-IAT, suggesting this is a robust finding. The SC-IAT is a non-invasive and non-intrusive method that is easy to administer and is easier to interpret than the IAT. Although the SC-IAT was not able to detect differences in sexual associations that could explain differences in offending behavior among non-contact and contact CSOs, it is a promising tool that could potentially be used in settings where screening of a participant's possible pedophilic associations is desirable. However, for this purpose, its specificity and sensitivity to detect a CSO from a non-offender should further be refined and improved. Then, the SC-IAT might serve as a valuable tool *in addition* to risk assessment or other assessments. Prospective studies should focus on utility of the SC-IAT as a predictor of sexual recidivism. Finally, future studies should focus on the differentiation of meaningful subtypes of sex offenders to enhance our understanding of the etiology of different offending behavior.

Chapter 5

Interpreting child sexual abuse: Empathy and offense-supportive cognitions among child molesters

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Submitted for publication

Abstract

Researchers have suggested that child sex offenders (CSOs) hold distorted views on social interactions with children. Misinterpreting children's behavior and intentions could lead to sexually abusive behavior towards children. It is further suggested that the interpretation process is influenced by CSOs' offense-supportive cognitions and levels of empathy. To examine the relationships between these three constructs, forty-seven CSOs completed self-reports on offense-supportive cognitions and empathy. Furthermore, vignettes were developed to assess the interpretation of social interactions between a male and a child that ended in sexual contact. We found that CSOs' cognitions that justify sexual offending against children affect how CSOs interpret behavior of children. The importance of the treatment of such cognitions is further highlighted by our study, as offense supportive cognitions seem to diminish the threshold for sexual assault, by assigning more cooperation and willingness of the victim in a child molestation incident.

Introduction

There is an ongoing discussion on the role of offense-supportive cognitions, empathy deficits and the interpretation of interpersonal cues in the offending process of child sex offenders (CSOs). Although 'these concepts are often described, reviewed, and studied in relative blissful isolation from one another' (Blake & Gannon, 2008, p. 34), it is hypothesized that these constructs are related to each other, resulting in sexually abusive behavior towards children (Blake & Gannon, 2008; Ward & Casey, 2010). For example, deficits in empathy and offense-supportive cognitions could distort the interpretation of interpersonal cues and information, increasing the risk of offensive behavior (Marshall, Hudson, Jones, & Fernandez, 1995; Ward, Hudson, Johnston, & Marshall, 1997; Ward, Polaschek, & Beech, 2005). While there has been an emergence in the literature concerning self-reported empathy and offense-supportive cognitions among CSOs, there has been little empirical evidence that deficits in empathy and offense-supportive cognitions are reflected in distorted interpretations of hypothetical child molestation incidents, which could lead to sexually abusive behavior.

CSOs have been found to hold distorted views on social interactions with children (Stermac & Segal, 1989; Ward, Hudson, & Marshall, 1995). This could result in faulty interpretations of social situations with children. Interpretation is the process of giving meaning to social events and cues. It enfolds a causal analysis of the event that has occurred, inferences about the intent of the other person and evaluation of goal attainment (Crick & Dodge, 1994). It is hypothesized that CSOs are deficient in their ability to process interpersonal cues, leading to distorted interpretations and socially incompetent behavior (McFall, 1990). These distortions are thought to be influenced by multiple situational, environmental, physical, psychological, and historical factors (Geer, Estupian, & Manguno-Mire, 2000; Ward, Gannon, Keown, 2006).

One of the factors that are hypothesized to influence CSOs' interpretation of interpersonal cues are offense-supportive cognitions (Ward, 2000; Ward & Keenan, 1999). Offense-supportive cognitions are deviant cognitions, or problematic thinking styles, that serve to deny, blame, excuse and minimize sexually abusive behavior (Abel, Becker, & Cunningham-Rathner, 1984; Bumby, 1996; Ward, 2000; Ward & Casey, 2010). CSOs are known to articulate a range of offense-supportive cognitions to justify their sexually abusive actions (Bumby, 1996; Keown, Gannon, & Ward, 2010; Marziano, Ward, Beech, & Pattison, 2006). For example, CSOs made significantly more statements reflecting beliefs that children are sexual beings, that children are unharmed by sexual abuse, and that sexual abuse is uncontrollable, than offender controls (Keown et al., 2010).

According to Ward, offense-supportive cognitions cluster together into a network of beliefs (i.e. schemas or 'implicit theories') that guide future behavior. These schemas or implicit theories underlie the predictions made by the child molester about their

victims' desires and intentions, and affect how CSOs perceive, encode and interpret interpersonal cues. However, it has also been proposed that these deviant cognitions are post-offense rationalizations to reduce cognitive dissonance that have resulted from the offense (Abel et al., 1984; Abel et al., 1989; Maruna & Mann, 2006).

To date, we have not been able to demonstrate empirically whether offense-supportive cognitions actually precede sexual offending (Maruna & Mann, 2006), or result from the offense itself, or both. Gannon, Ward and Collie (2007) stated that researchers need to demonstrate that distorted beliefs lead to the misinterpretation of social information, to support the concept of implicit offense-supportive cognitions that exist prior to an offense. Stermac and Segal (1989) were the first to examine CSOs' interpretations by using vignettes with descriptions of child molestation incidents. The vignettes varied in the degree of sexual contact, and the child's response to that contact. CSOs endorsed more offense-supportive cognitions than rapists and non-offenders. Furthermore, CSOs viewed more benefit for the children of having sexual contact with an adult, viewed more complicity on the child's part in the initiation of sexual contact, and attributed less responsibility to the adult. Although Stermac and Segal (1989) assessed offense-supportive cognitions as well, they did not relate the two concepts to each other.

Studies that did examine this relationship did not find support for the hypothesis that offense-supportive cognitions lead to the interpretation of children's behavior in a sexual manner (Keown, Ward, & Gannon, 2008). For instance, Gannon, Wright, Beech and Williams (2006) did not find that CSOs are guided in their interpretations by their offense-supportive cognitions, nor did CSOs differ in their interpretations from inmate controls. However, this might be explained by the fact that all CSOs in this study were intrafamilial CSOs, who are suggested to hold offense-supportive cognitions to a lesser extent than extrafamilial CSOs (Ward, 2000; Hayashino, Wurtele, & Klebe, 1995).

Besides offense-supportive cognitions and interpretations, empathy is also supposed to play a role in the offending process. Empathy encompasses both cognitive and affective processes, and refers to the ability to understand, as well as share another's emotional state or context (Cohen & Strayer, 1996). According to Marshall and colleagues (1995), the empathy process includes four stages: 1) recognition of the emotional state of another, 2) perspective taking (i.e. comprehension of another's frame of reference), 3) replication of the other's emotional response, and 4) response decision or empathic responding. Marshall and colleagues (1995) stated that the failure to recognize the distress of a person would allow the continuation of harmful behavior, including offending behavior.

In line with Marshall and colleagues (1995), Jolliffe and Farrington (2004) found that deficits in cognitive empathy are more strongly related to offending than deficits in affective empathy. However, for sex offenders these relationships were much weaker. Possibly this results from the fact that CSOs do not have general empathy deficits, but

only show deficits in empathy when it comes to their own abuse victims (Fernandez, Marshall, Lightbody & O'Sullivan, 1999; Marshall, Hamilton, & Fernandez, 2001; Polaschek, 2003). It has been proposed that 'empathy deficits in sex offenders are no more than a distortion about the harmful consequences of their abuse' (Marshall, Anderson, and Fernandez, 1999, p. 85), and the result of 'a distorted view of the responses displayed by victims during and after the abuse' (Marshall et al., 2001, p. 124). In this light, empathy deficits might better be viewed as a part of the distorted cognitive processes that result in offense-supportive cognitions (Marshall et al., 2001). However, Ward, Polaschek and Beech (2006) stated that deficits in empathy should already be present prior to the offense because the offender had already taken some steps toward the abuse, before the distress of a victim could be recognized. Lower levels of cognitive and affective empathy towards victims of sexual abuse have been found to be related to more offense-supportive cognitions in CSOs. Furthermore, CSOs were also less likely to recognize victim harm than non sex offenders and non-offenders (Marshall et al., 2001).

Current study

Questions remain whether offense-supportive cognitions and empathy are related to CSOs' interpretation processes. It is important to unravel cognitive and affective processes that contribute to the offending process of CSOs. As offense-supportive cognitions and empathy deficits are hypothesized to affect how CSOs perceive, encode and interpret interpersonal cues (Marshall et al., 1995; Ward et al., 1997), distorted interpretations of interpersonal cues in child molestation incidents could further lead to sexually offensive-behavior. Information processing theory predicts that CSOs who are characterized by empathy deficits (prior to the offense; Ward et al., 2000), and who hold offense-supportive cognitions (which was found in a recent study of Hempel, Buck, Goethals and Van Marle (*submitted*) with the same sample of contact CSOs that will be participating in this study), will attend to schema-consistent information leading to distorted interpretations of children's behavior. These distorted interpretations could increase the risk of sexually offending against a child. Defining which factors are related and important in this process is crucial for defining treatment targets of CSOs and the prevention of new sexual offenses. We hypothesized that higher levels of offense-supportive cognitions will be related to more distorted interpretations of child molestation incidents. Furthermore, we hypothesized that lower levels of cognitive and affective empathy are related to higher levels of offense-supportive cognitions and to more distorted interpretations of child molestation incidents.

Methods

Participants

A total of 47 CSOs participated in this study. CSOs were sampled from three forensic psychiatric outpatient and day treatment centers and three penitentiary institutions in the Netherlands. CSOs were included if they (a) were currently in treatment or imprisoned for a sexual offense against a child under 16 years of age in which there was physical contact, and (b) had never committed any sexual offenses against an adult. All CSOs were of Dutch ethnicity. Half of the CSOs had male victims only, 45.7% had female victims only and 4.3% had both male and female victims. Only 10.6% were intrafamilial offenders (i.e. offenders who sexually abused a child that is related to the family), and 89.4% were extrafamilial offenders (i.e. offenders who sexually abused a child that is not related to the family). Of the CSOs, 8.9 % completed elementary school only, 19.9% completed lower vocational education, 51.2 % completed middle vocational education, and 20 % of the CSOs completed higher vocational education or university. At the time of this study, a third of the CSOs were married or living with a partner (32.6 %), 37.2% were single and living alone, 13.9% were living with their family, and 16.3% were detained or lived in an assisted living residence for ex-detainees. Almost half of the CSOs had children (47.8 %). Of them, 45.5% lived with their children.

Materials

To measure offense-supportive cognitions regarding sex with children, the *MOLEST Scale* was used (Bumby, 1996; Dutch translation and validation: De Doncker, Van Beek, Decoene, Luyten, & Koeck, 2003). Thirty-eight statements such as ‘sometimes victims initiate a sexual activity’ are scored on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Responses yield a total score ranging from 38 to 152, with higher scores indicating more distortions concerning sexual activities with children. Bumby (1996) reported excellent internal consistency (α =.97), and test-retest reliability (r =.84). In our sample, the internal consistency was excellent (α =.91).

In order to measure affective and cognitive empathy, the *Basic Empathy Scale* (BES) was used (Jolliffe & Farrington, 2006; Dutch translation and validation: Van Langen, Stams, & Van Vugt, 2009). This self-report measure is based on four basic emotions: anger, sadness, fear, and happiness, and assesses both the ability to feel or sympathize with someone’s emotions (affective empathy) and the ability to understand another’s emotional state (cognitive empathy) (Cohen & Strayer, 1996; Jolliffe & Farrington, 2006). The cognitive empathy scale includes nine statements such as “I often understand how someone feels, before they tell me”, and the affective empathy scale includes eleven statements such as “I do not feel anything when a friend is sad”. These statements are rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5

(*strongly agree*), resulting in a total scale score ranging from 20 to 100. Higher scores indicate higher levels of empathy. A confirmatory factor analysis revealed satisfactory reliability (α = .79 and .85 for cognitive empathy and affective empathy, respectively; Jolliffe & Farrington, 2006). Van Langen and colleagues (2009) found comparable results in their study of 1,789 adolescents and young adults (α = .72 and .81 for cognitive empathy and affective empathy, respectively). In our sample, the internal consistency for the cognitive scale was good with α = .85, and marginal for the affective scale α = .67.

Eight *vignettes* were developed to assess the interpretation of child molestation incidents between an adult male and a child that ended in sexual contact. Vignettes were based on clinical case descriptions examined by Stermac and Segal (1989), and studies about the modus operandi of CSOs by Elliot, Brown and Kilcoyne (1995) and Lang and Frenzel (1988). Each vignette described a situation between an adult male and a child between eight and twelve years old, which ended in sexual contact. The vignettes varied in the child's emotional response: crying, refusing, passive, or giggling. The gender of the child varied in the vignettes, depending on the sexual preference of the participant. An example of a vignette is a follows:

'Annie's parents are going on a night out. Peter, a close friend of the family, has offered to babysit Annie. After the parents have explained where Peter can find everything, they leave. Annie is upstairs, playing. Peter asks if she shouldn't be in bed already but Annie wants to stay up for a little while. "Shall I bathe you?" "I've already taken a bath yesterday" she says. "It is fresher when you also do it now too." Peter fills the bath-tub and helps Annie into it. Peter touches her vagina. "Do you like it this way?" Annie giggles a little bit and looks down.'

Questions following each vignettes resembled three types of offense-supportive cognitions that CSOs often hold and were adopted from Stermac & Segal, (1989): *child responsibility* (Do you think that the man was responsible for what happened? Do you think the child was responsible for what happened?); *complicity by the child* (Do you think the child wanted this to happen? Do you think the child enjoyed what happened?); *benefit for the child* (Do you think that the child could benefit from this experience? Do you think the child could be harmed from this experience?). These questions had to be answered on a 5-point Likert scale ranging from 1 - *not at all* to 5 – *definitely*, resulting in three dimension scores, adult responsibility, complicity by the child and benefit for the child. Higher scores represented more distorted interpretations. The internal consistency of the vignettes was excellent with α = .95.

Procedure

This study was part of a larger assessment battery on cognitions of CSOs that was approved by the Medical Ethics Review Committee (METC) of the Erasmus University Medical Center Rotterdam. All participants provided written informed consent that warranted voluntarily participation without any consequences of noncooperation for the treatment process or prison placement. In addition, CSOs were informed that their responses would not be communicated to their treatment staff or to authorities, and that withdrawal during the assessment did not have any consequences for treatment or sentencing decisions. CSOs were tested at the institution where they were in treatment or imprisoned, non-offenders were tested at the Erasmus University Medical Center.

Statistical analyses

To test for normality of the scores, Kolmogorov-Smirnov tests were performed. Scores on the MOLEST scale (W(47) =.09), and the BES affective scale (W (29) = .10) were normal, whereas scores on the vignettes scales (child benefit: W (41) = .19; child responsibility: W (42) = .33; child complicity: W (42) = .29), and on the BES cognitive scale (W (28) = .16) were significantly non-normal ($p < .05$). To examine the relationships between empathy, offense-supportive cognitions and the interpretation of child molestation incidents, (non-)parametric correlational analysis were performed. For variables that did not meet the normality criterion, Spearman correlations were performed. All analyses were one tailed, and the alpha was set on .05.

Results

Table 1 shows that, in line with our hypothesis, moderate positive associations were found between the level of offense-supportive cognitions and the interpretation of child benefit ($r_s = .32$, $p < .05$), child responsibility ($r_s = .43$, $p < .01$), and child complicity ($r_s = .34$, $p < .05$). This indicates that CSOs' higher levels of offense-supportive cognitions were related to the interpretation of more child benefit, more child responsibility and more child complicity in hypothetical child molestation incidents.

Furthermore, a moderate association was found between lower levels of cognitive empathy and higher levels of offense-supportive cognitions ($r_s = -.40$, $p < .05$), and between lower levels of cognitive empathy and to the interpretation of more child responsibility ($r_s = -.37$, $p < .05$). Contrary to our hypothesis, no association was found between cognitive empathy and the interpretation of child benefit or child complicity. Further, no associations were found between affective empathy and both offense-supportive cognitions, and the interpretation of child benefit, child responsibility or child complicity.

Table 1. The relationship between empathy, offense-supportive cognitions and interpretation (*N*=47)

	Offense-supportive Cognitions	Cognitive Empathy	Affective Empathy
Offense-supportive Cognitions	1		
Cognitive Empathy	-.40*	1	
Affective Empathy	-.02	.73**	1
Child Benefit	.32*	.03	-.01
Child Responsibility	.43**	-.37*	-.09
Child Complicity	.34*	-.26	.06

Discussion

This study showed that the interpretation of child molestation incidents by child sex offenders (CSOs) is related to their levels of offense-supportive cognitions, but not to their levels of cognitive or affective empathy. However, lower levels of cognitive empathy were related to higher levels of offense-supportive cognitions, and to more distorted views on child responsibility in child molestation incidents.

Our findings are in line with Ward's theory that networks of offense-supportive cognitions (i.e. implicit theories) underlie the predictions made by the child molester about their victims' desires and intentions, and affect how CSOs interpret interpersonal cues. These offense-supportive interpretations in turn could lead to the sexual abuse of a child. In this light, one tends to view offense-supportive cognitions as preceding an offense. However, it is very well possible that the offense supportive cognitions measured in this study, were developed after an offense, subsequently distorting interpretation processes in the future, leading to new sexual offenses. Our results do indicate that, once offense-supportive cognitions have been developed, either before the offense or after the offense, such cognitions increase the risk of sexual offending against children by faulty interpretations of children's behavior.

The relation between lower levels of cognitive empathy and higher levels of offense-supportive cognitions among CSOs is partly in line with the findings of Marshall and colleagues (2001), who found that lower levels of cognitive empathy towards victims of sexual abuse were related to more offense-supportive cognitions. We found that this relationship holds for cognitive empathy in general as well. Additionally, problems with understanding another's emotional state or context (i.e. less cognitive empathy) were not only related to more offense-supportive cognitions, but also to the interpretation of more child responsibility in child molestation incidents. It is also in line with the Ward's

hypothesis (Ward et al., 2006) that deficits in empathy are present prior to the offense because the offender had already taken some steps towards the abuse, before the distress of a victim could be recognized. However, affective empathy was not related to offense-supportive cognitions or the interpretation of child molestation incidents at all. This implies that the ability to share another's emotional state is independent of someone's offense-supportive cognitions or of how someone eventually interprets a social situation.

CSOs might not be deficient in general empathic abilities, but only show deficits in empathy when it comes to their own abuse victims (see also Fernandez et al., 1999; Marshall et al., 2001; Polaschek, 2003). It is also possible that CSOs are not deficient in empathy when they are in a neutral state, and as a result, the interpretation process might also not be distorted. For example, according to Gannon and Polaschek (2006) and Ward and Casey (2010), the internal belief systems that offenders hold might be distorted, however, the external context might influence how, or whether, these internal beliefs are expressed behaviorally. This context dependency may also hold for empathy or the interpretation process, which might only be deficient when a CSO is sexually aroused (Ward et al., 2006), or elicited in a real-life situation. For example, stress, sexual arousal, or intoxication might lead to increased cognitive load for the CSO, and information might then be processed in a schema-consistent way, instead of carefully and logically (Ward et al., 1997). Additionally, a hypothesized social interaction with a described emotion does not allow a CSO to actually feel the child's emotion, explaining the absence of relations between empathy and the interpretation process.

This study has a few limitations. This study took place in a neutral setting, however, it is possible that the expression of distorted cognitions and empathy deficits into behavior is indeed context dependent. Furthermore, questions about empathy, offense-supportive cognitions and interpretations were general, and not related to the offenders' own victim(s) or offense experience(s). However, CSOs have been found to be more distorted when they talked about their own offense (Neidigh & Kropp, 1992).

Conclusions and clinical implications

Results of this study suggest that CSOs' cognitions that justify sexual offending against children affect how CSOs interpret behavior of children. Once offense-supportive cognitions have been developed, either before an offense or after an offense, such cognitions seem to diminish the threshold for sexual assault, by facilitating distorted interpretations, e.g. assigning more cooperation and willingness of the victim, in a child molestation incident. Although the current focus of sex offender treatment programs is already at detecting and restructuring offense-supportive cognitions and distorted schemas, the importance of changing such cognitions is further highlighted by our study. Such cognitions could increase the risk of sexual offending against children by faulty

interpretations of children's behavior. Treatment programs should also focus on changing the distortions with respect to the interpretation of children's behavior. Clinicians should detect which faults CSOs make in their interpretations, what is driving these faulty interpretations, and offer multiple alternative interpretations of children's behavior. Furthermore, as offense-supportive cognitions and empathy deficits might only be activated in certain risk situations, it is important to detect which contextual factors then have resulted in the sexual abuse of a child, and identify situational aspects for treatment (Ward & Casey, 2010).

To further clarify the role of offense-supportive cognitions, empathy and the interpretation process in the offending process of CSOs, future studies should examine these constructs in more realistic situations or with more realistic test stimuli. For example, by showing videos or by virtual reality situations in which the offenders are sexually aroused, cognitive processing might be more strongly driven by maladaptive schemas, offense-supportive cognitions or empathy deficits, than in experimental settings. This way, we can identify more carefully the processes that lead to an offense, and aim treatment at prevention of the activation of such processes.

Chapter 6

Interpreting child sexual abuse: The impact of victim response

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In Revision, *Journal of Child Sexual Abuse*

Abstract

It has been suggested that child sex offenders (CSOs) are generally guided by cognitions that are offense-supportive in nature to interpret social interactions with children, leading to the sexual abuse of a child. However, there is little empirical knowledge about whether the interpretation process of CSOs is offense-supportive in nature and contributes to the offending process. Vignettes describing sexual contact between a male and a child were developed to explore the effects of ambiguous (i.e. giggling, passive) and non-ambiguous (i.e. crying, refusing) victim's response, on CSOs' and non-offenders' interpretations of child molestation incidents, and whether CSOs interpreted these child molestation incidents in an offense-supportive way. A total of 60 CSOs and 40 non-offenders participated in this study. Results showed that CSOs did not differ in their interpretations of child molestation incidents from non-offenders, and were not influenced by the victim's emotional response in a different way than non-offenders. Overall, ambiguous child responses were associated with more child complicity, more child benefit and more child responsibility than unambiguous child responses. Our results indicate that the interpretation process of CSOs is not offense-supportive in nature and that other factors or motives play a role in the offending process. These findings will be discussed in the context of theories on offense-supportive cognitions and interpretations in CSOs. Finally, implications for public education about sexual abuse will be presented.

Introduction

"If she had told me that she did not want it, I would not have taken the step to proceed". Such statements illustrate frequently heard explanations of child sex offenders (CSOs) for the continuation of their sexually abusive behavior. Even community samples sometimes held child victims co-responsible for their own abuse (Broussard & Wagner, 1988; McCauley & Parker, 2001; Waterman & Foss-Goodman, 1984). While there has been an emergence in the literature concerning blame attribution and perceptions of child sexual abuse (CSA) among community samples, there has been little empirical knowledge about the effects of victim response on CSOs' perceptions of CSA.

How individuals perceive CSA depends on varying factors such as age of the perpetrator, perpetrator gender, victim gender and victim response (Broussard, Wagner, & Kazelskis, 1991; Dollar, Perry, Fromuth, & Holt, 2004; Sherril, Renk, Sims, & Culp, 2011; Stermac & Segal, 1989). Studies have found that individuals in general are apparently influenced by the victims' response, and view 'encouraging' children (i.e. smiling or cooperating without any resistance) as experiencing less harm, and as sharing more responsibility with the adult than passive or resisting children. Furthermore, children who were passive were held more responsible than children who were resisting (Broussard & Wagner, 1988; Brousard et al., 1991; Ford, Schindler, & Medway, 2001). Waterman and Foss-Goodman (1984) found that a major reason to blame a victim of sexual abuse was the failure to resist the sexual advances of the adult. Broussard and Wagner (1988) suggested that men might have equated ‘encouraging behavior’, for example smiling, with sexual consent. Although children often react in a passive way to sexual abuse (Summit, 1983), paradoxically, people expect children to actively resist sexual advances of adults (Waterman, & Foss-Goodman, 1984).

The tendency to blame victims especially holds for CSOs (Neidigh & Krop, 1992; Stermac & Segal, 1989). CSOs are known for their cognitions that justify sexual offending, i.e. offense-supportive cognitions (Abel et al., 1989; Bumby, 1996; Hempel, Buck, Goethals, & Van Marle, *submitted*; Keown, Gannon, & Ward, 2010; Stermac & Segal, 1989). These offense-supportive cognitions serve to deny, blame, excuse and minimize sexually abusive behavior (Abel, Becker, & Cunningham-Rathner, 1984; Bumby, 1996; Ward, 2000; Ward & Casey, 2010). Offense-supportive cognitions are reflected by statements as “she seduced me” or “he enjoyed it” (Ward & Keenan, 1999). For example, Neidigh and Krop (1992) examined 101 CSOs and found that offense-supportive cognitions such as “she did not say no, so it must be ok with her” contributed to the offenses and were used by CSOs to justify their abusive behavior.
According to Ward (2000), and Ward and Keenan (1999), these offense-supportive cognitions cluster together in schemas, or ‘implicit theories’, that guide future behavior. These distorted schemas in turn could affect how offenders perceive, encode and interpret interpersonal cues and social interactions. When schemas are built up from

maladaptive cognitions, ambiguities in social interactions are attended to and encoded in a maladaptive schema-supportive way, leading to the sexual abuse of a child (Blake & Gannon, 2008; Gannon & Polaschek, 2006; Ward, 2000; Ward et al., 1997; Ward & Keenan, 1999; Ward & Siegert, 2002).

Stermac and Segal (1989) were the first to examine CSOs' offense-supportive cognitions and interpretations using descriptions of child molestation incidents. These descriptions varied in the degree of sexual contact and the victim's response. It was found that CSOs reported more offense-supportive cognitions, attributed more responsibility to the child, saw more complicity on the child's part in the initiation of sexual relationships, and saw more benefit for children than rapists and non-offenders. This was especially true when the child was smiling. Furthermore, contrary to rapists and non-offenders, CSOs were less affected by the victim's responses in their interpretations of these child molestation incidents (Stermac & Segal, 1989). This is in line with the theory that the victim's mental state, needs and desires are interpreted in accordance with the offender's offense-supportive schemas, or 'implicit theories', about children and sex (Ward and Siegert, 2002). Although, this theory was not tested directly by Stermac and Segal (1989), a recent study did find support for this theory (Hempel, Buck, Van Vught, & Van Marle, *submitted*). They found that CSOs' higher levels of self-reported offense-supportive cognitions were related to the interpretation of more child benefit, more child complicity, and more child responsibility in hypothetical child molestation incidents. However, other studies did not find offense-supportive interpretations by CSOs (Gannon, Wright, Beech, & Williams, 2006; Keown, Gannon, & Ward, 2008). For example, Gannon and colleagues (2006) did not find that CSOs are guided in their interpretations by their offense-supportive cognitions, nor did CSOs differ in their interpretations from inmate controls.

In sum, there is still little empirical knowledge about whether the interpretation process of CSOs is offense-supportive in nature and contributes to the offending process (i.e. increase their risk of offending). Possibly, CSOs indeed stand out with respect to false interpretations of child molestation incidents, especially when the response of the victim is ambiguous (being silent or giggling; the latter may reflect nervousness) rather than unambiguous (crying or saying no). To clarify the offending process of CSOs and to substantiate the empirical knowledge on cognitive factors that could distort the interpretation of CSOs, we conducted a study comparable to the study of Stermac and Segal (1989), exploring the effects of victim's response on CSOs' and non-offenders' interpretations of child molestation incidents. We hypothesized that CSOs will attribute more child responsibility, view more child complicity and view more child benefit in hypothetical child molestation incidents than non-offenders, especially when the victim's response is ambiguous.

Methods

Participants

A total of 60 male CSOs (age: *M* = 48.1, *SD* = 13.7) and 40 non-offenders (age: *M* = 35.6, *SD* = 17.9) participated in this study. CSOs were recruited from three forensic psychiatric outpatient treatment centers and three penitentiary institutions in the Netherlands. Non-offenders were recruited through an advertisement at the Erasmus University Medical Center and internet advertising. CSOs were included if they (a) were currently in treatment or imprisoned for the sexual abuse of a child, for downloading and/or spreading child pornography or for exhibitionism aimed at children aged 16 years or younger. The total group of CSOs included 38 child molesters, 5 incest offenders, 14 child pornography offenders and 3 exhibitionists. Of the child molesters and incest offenders, 22 had male victims, 18 had female victims, 2 had both male and female victims, and 1 had unknown victims.

Of the CSOs, 23.4% completed lower vocational education, 53.3 % completed middle vocational education, and 21.7 % of the CSOs completed higher vocational education or university. At the time of this study, 35% of the CSOs were married or living with a partner, 38.4% were single and living alone, 10% were living with their family, and 16.8% were detained or lived in an assisted living residence for ex-detainees. Almost half of the CSOs had children (45%).

Of the non-offenders, 2.5% completed lower vocational education, 57.5 % completed middle vocational education, and 40 % of the non-offenders completed higher vocational education or university. At the time of this study, 30% of the non-offenders were married or living with a partner, 32.5% were single and living alone, 27.5% were living with their family, and 10% lived in a student home. Twenty-five percent of the non-offenders had children.

Materials

Vignettes. To assess the interpretation of child molestation incidents, eight *vignettes* were developed. Vignettes were based on clinical case descriptions examined by Stermac and Segal (1989), and studies about the modus operandi of child molesters by Elliot, Brown and Kilcoyne (1995) and Lang and Frenzel (1988). Each vignette described a situation between an adult male and a child between eight and twelve years old, which ended in sexual contact. The vignettes varied in the child's emotional response, including two ambiguous reactions (giggling and being passive) and two clearly unambiguous reactions (crying and saying “no”, i.e refusing). The gender of the child varied in the vignettes, depending on the sexual preference of the participant. An example of a vignette is a follows:

'Annie's parents are going on a night out. Peter, a close friend of the family, has offered to babysit Annie. After the parents have explained where Peter can find everything, they leave. Annie is upstairs, playing. Peter asks if she shouldn't be in bed already but Annie wants to stay up for a little while. "Shall I bathe you?" "I've already taken a bath yesterday" she says. "It is fresher when you also do it now too." Peter fills the bath-tub and helps Annie into it. Peter touches her vagina. "Do you like it this way?" Annie giggles a little bit and looks down.'

Questions following each vignette resembled three types of offense-supportive cognitions that CMs often hold (adopted from Stermac & Segal, 1989): *child responsibility* (Do you think that the man was responsible for what happened? Do you think the child was responsible for what happened?); *complicity by the child* (Do you think the child wanted this to happen? Do you think the child enjoyed what happened?); *benefit for the child* (Do you think that the child could benefit from this experience? Do you think the child could be harmed from this experience?). These questions had to be answered on a 5-point Likert scale ranging from 1 - *not at all* to 5 – *definitely*, resulting in three scores. Higher mean scores represented more distorted interpretations of the situation, that is more child complicity, more child responsibility, and more child benefit. The internal consistency of the vignettes was excellent with $\alpha = .96$.

To control for a social desirable response bias, the *Marlowe-Crowne Social Desirability Scale* (MCSDS; Crowne & Marlowe, 1960) was used. The MCSDS is a 33-item self report that measures 'the need of a person to obtain approval by responding in a culturally appropriate and acceptable manner' (Crowne & Marlowe, 1960, p. 353). Statements such as "I always try to practice what I preach" are rated 0 (*false*) or 1 (*true*). Total scores range from 0 to 33. Higher scores indicate more social desirable response tendencies. The MCSDS is independent of psychopathology and the authors reported an internal consistency of .88 and a test-retest reliability of .89.

Procedure

This study was approved by the Medical Ethics Review Committee (METC) of the Erasmus University Medical Center Rotterdam, and was part of a larger assessment battery into cognitions of CSOs. In the treatment centers and prisons, CSOs were approached by their psychologists to inform them about the study, and to ask them to participate voluntarily. CSOs were guaranteed that noncooperation had no consequences for their treatment process or prison placement. In addition, they were informed that their responses would not be communicated to their treatment staff or to authorities, and that withdrawal during the assessment did not have any consequences for treatment or sentencing decisions. To recruit a non-offender population, advertisements were placed on different internet sites that were directed at a broader

public. Also, advertisements were placed in the Erasmus University Medical Center. Non-offenders were eligible if they had no prior convictions. After agreement to participate, participants were informed by the researcher and they provided written informed consent. All participants had adequate reading skills to complete the standard self-report measures. They completed the questionnaires individually in a private room. CSOs were tested at the institution where they were in treatment or imprisoned, non-offenders were tested in the Erasmus Medical Center.

Statistical analyses

Confounding variables

Variables that could possibly confound outcome effects are a social desirable answer tendency, age, and educational level. For a variable to be included as a control variable in the main analyses it must be a) related to the dependent variable (interpretation scores) in the same direction in all groups (assumption of homogeneity of regression slopes), and b) independent of the experimental effect (group), and (Lord, 1967, 1969; Miller & Chapman, 2001). We tested these variables on the two assumptions mentioned above.

Statistical analysis

Descriptive statistics were used to describe the characteristics of the sample.
The main analyses for the vignettes was a mixed design repeated measures analysis of variance with one between subjects variable (group), and one within subjects variables (victim response), comprising a two (Group) × four (Victim Response) factorial analyses of variance. All analyses were two tailed, and the alpha was set as .05. Post-hoc tests were Bonferroni corrected.

Results

Confounding variables. No correlation was found between the social desirability scale (MCSDS) and the interpretation scales (child benefit: r_s = -.02; child responsibility: r_s = -.05; child complicity r_s = -.05, p>.05). Furthermore, no correlation was found between age and the interpretation scales (child benefit: r_s = -.01; child responsibility: r_s = -.02; child complicity r_s = .01, p>.05). Educational level was also unrelated to child benefit (R^2 = .02, p>.05), and to child complicity (R^2 = .05, p>.05), but was related to child responsibility: R^2 = .08, p<.05. Furthermore, groups differed significantly on social desirability (CSOs M = 19.89, SD = 4.04; non-offenders M = 16.0, SD = 4.79; t(93) = 4.28, p <.001), age, (U = 666.0, z = 3.76, p< .05), and educational level (X^2 = 20.42, p <.001). Because the assumptions for the inclusion of confounds were not met for social desirability, age, and educational level, these variables were not included as control variables.

Interpretation vignettes. The repeated measures ANOVA revealed no significant main effects of group, indicating that in general, CSOs did not differ from non-offenders in their interpretation of child complicity ($F(1,97) = 1.16$, $p > .05$), child responsibility ($F(1,97) = 1.19$, $p > .05$), or child benefit ($F(1,96) = .17$, $p > .05$; see Table 1).

There was a significant main effect of victim response on the interpretation of child complicity ($F(3,291) = 31.84$, $p < .001$), child benefit ($F(3,288) = 33.18$, $p < .001$), and child responsibility ($F(3,291) = 7.77$, $p < .001$) by both CSOs and non-offenders (see Table 2). Post-hoc pairwise Bonferroni-corrected comparisons revealed that situations in which a child giggled in response to a sexual touch, were associated with more child complicity than situations in which a child responded passively, cried or refused. Subsequently, situations in which a child responded passively were also associated with more child complicity than situations in which a child cried or refused. The interpretation of child complicity did not differ between a situation in which a child was crying or in which a child was refusing.

Furthermore, situations in which a child giggled in response to a sexual touch, were also associated with more child benefit than situations in which a child responded passively, cried or refused. Subsequently, situations in which a child responded passively were associated with more child benefit than situations in which a child cried. Remarkably, situations in which a child was refusing were associated with more child benefit than situations in which a child was crying, but did not differ from situations in which a child was passive.

Finally, situations in which a child giggled or was passive in response to a sexual touch were associated with more child responsibility than situations in which a child was crying. The interpretation of child responsibility did not differ between a situation in which a child was crying or in which a child was refusing, or between situations in which a child was giggling, being passive, or was refusing.

No group × victim response interactions were found for child complicity ($F(3,291) = 2.74$, $p = .067$), child responsibility ($F(3,291) = .58$ $p = .628$), or child benefit ($F(3,288) = 1.87$, $p = .14$).

Table 1. Means and standard errors of groups on the interpretation of child molestation incidents

	CSOs *M* (*SE*)	**Non-offenders** *M* (*SE*)
Child Complicity	1.22 (0.42)	1.16 (0.52)
Child Responsibility	1.18 (0.36)	1.12 (0.43)
Child Benefit	1.55 (0.70)	1.50 (0.84)

Note. CSOs = child sex offenders.

Table 2. Means and standard errors of different levels of emotional child responses on the interpretation of child molestation incidents

	Child Giggling *M* (*SE*)	**Child Passive** *M* (*SE*)	**Child Crying** *M* (*SE*)	**Child Refusing** *M* (*SE*)
Child Complicity	1.40 (.050) [1]	1.27 (.052) [2]	1.05 (.029) [2,3]	1.04 (.035) [2,3]
Child Benefit	1.77 (.070) [1]	1.51 (.065) [2]	1.35 (.053) [2,3]	1.47 (.054) [2,4]
Child Responsibility	1.19 (.037) [1]	1.23 (.050) [1]	1.07 (.023) [2]	1.11 (.027)

Note. Within each row, numbers with different superscripts differ significantly from each other at p<.017 in a sequential order. Thus, numbers with superscript 1 differ from those with 2, numbers with superscript 2 differ from those with 3, etc.

Discussion

This study showed that overall, both child sex offenders (CSOs) and non-offenders associated ambiguous victim responses (i.e. giggling and being passive) with more child complicity, more child benefit and more child responsibility in hypothetical child molestation incidents than unambiguous victim responses (i.e. crying and/or refusing). This finding is in line with earlier findings (Broussard & Wagner, 1988; Brousard et al., 1991; Ford et al., 2001; Stermac & Segal, 1989; Waterman & Foss-Goodman, 1984). However, CSOs did not differ in their interpretations of child molestation incidents from non-offenders. Furthermore, CSOs were not influenced by the victim's response in a different way than non-offenders.

The finding that ambiguous responses were associated with more distorted interpretations of child molestation incidents than unambiguous responses, implies that ambiguous responses are interpreted in a more offense-supportive way than unambiguous responses. However, contrary to our hypothesis, CSOs were not influenced by the victim's response in a different way than non-offenders. When the victims response is ambiguous (e.g. giggling, which could be indicative of nervousness), individuals might think a child is more complying with the situation, experiences more benefit, and is more responsible for the sexual encounter with the adult than when a clear negative response is given, such as crying. Although children are not always able to express themselves efficiently and make their own choices, the emotional responses a child displayed when sexually touched by an adult, were perceived as informative of their desires, intentions and boundaries. Specifically, the child's responses to sexual situations influenced the interpretations of the participants. While children often react in a passive way to sexual abuse (Summit, 1983), paradoxically, people expect children to actively resist sexual advances of adults (Waterman, & Foss-Goodman, 1984). However, the

absence of a clear negative response that follows from sexually abusive behavior is not an indication of consent by the child, or more child responsibility.

The finding that CSOs did not differ from non-offenders in their interpretations of child molestation incidents is not in line with the results of Stermac and Segal (1989), or what would have been expected based on previous findings with many of the same CSOs and non-offenders that participated in this study (Hempel, Buck, Van Vught, & Van Marle, *submitted*; Hempel, Buck, Goethals, & Van Marle, *submitted*). In the latter two studies, CSOs showed higher levels of self-reported offense-supportive cognitions than non-offenders, and among CSOs, these offense-supportive cognitions were related to more distorted interpretations of child molestation incidents. Nevertheless, this study found that offense-supportive cognitions are not necessarily reflected in the interpretations made by CSOs. Moreover, the mean scores on the interpretation scales were low, indicating a low level of distorted interpretations. This may not be representative of non-convicted and untreated CSOs. At the time of this study, all CSOs were convicted and/or in treatment for their offense. Due to their conviction and treatment, they might have become more aware of their victim's actual feelings during the molestation incident, resulting in lower ratings on distorted interpretations. On the other hand, other studies also did not find that CSOs as compared to non-offenders or inmate controls, were driven by their offense-supportive cognitions in their interpretations of, or their beliefs about, child molestation incidents (Gannon et al., 2006; Keown et al., 2008).

These results together suggest that the interpretation process of CSOs is not offense-supportive in nature and might not contribute to the offending process. However, note that Gannon and Polaschek (2006) and Ward and Casey (2010) suggested that cognitive practices that result in offense-supportive cognitions are dynamic and context dependent. This context dependency may also hold for the interpretation process, which was now assessed in a neutral experimental setting. As CSOs are found to experience social skill deficits (e.g. as part of a pervasive developmental disorder) (Ward & Beech, 2006), and show immaturity in behavior settings (Kalichman, 1991), the interpretation process might only be deficient in real-life situations when social skills are needed. Stress, intoxication or sexual arousal due to the proximity of a child might also result in deficiencies in the interpretation process (Ward & Beech, 2006).

This study has a few limitations. First, this study took place in a neutral setting, however, the interpretation process might be context dependant (Gannon & Polaschek, 2006; Ward & Casey, 2010). Additionally, as CSOs have been found to be more distorted when they talk about their own offense, (Neidigh & Kropp, 1992), it is possible that offense-related interpretations were not detected because the descriptions of child molestation incidents did not represent the offending situations of the CSOs (Gannon & Polaschek, 2006). Further, we did not define the age of the perpetrator in the depicted

situation, however, it is suggested that age of the perpetrator may be an influential variable in what is seen as child sexual abuse. Previous studies rated perpetrators younger than 25 years of age as less sexually abusive than perpetrators above 25 years of age (Finkelhor & Redfield, 1984; Sherril et al., 2011). Participants in our study may have pictured the perpetrators as younger than 25 years. Finally, the operationalization of giggling as reflecting ‘nervousness’ may have failed, for even non-offenders interpreted this response as indicative of more child complicity. CSOs and non-offenders might have equated this response with ‘happiness’. Giggling was intended as a nervous giggle instead of a reaction indicating enjoyment. Future studies may show whether nervous giggles are indeed interpreted by non-offenders as indicating more child complicity. These studies may use another research design in order to more clearly represent the giggle as a nervous giggle. This may be accomplished by having participants listen to an audiotape describing the situation where an adult sexually touches a child, which is then followed by a picture or short film fragment showing the child's reaction.

Conclusions and clinical implications

Our results indicate that the interpretation process of CSOs is not offense-supportive in nature and that other factors or motives play a role in the offending process. For example, a lack of inhibition and control in response to specific (deviant) sexual stimuli might result in the achievement of sexual gratification. This desire for sexual gratification might be achieved despite the offenders’ full comprehension of the situation and the harmful consequences for their victims.

Future studies may shed more light on the contextual factors that have led to the sexual abuse of a child, and identify situational aspects for treatment (Ward & Casey, 2010). For example, the interpretation process of CSOs should be examined in more realistic settings or with more realistic test stimuli, i.e. videos or virtual reality. Expanding our knowledge on which factors contribute to sexual offending and which ones do not, will improve treatment aiming at the preventing of such deviant processes.

Although CSOs did not differ from non-offenders in their perceptions of child molestation incidents, clinicians should still detect whether deficiencies in the interpretation process did contribute to CSOs' own offenses, what was driving these interpretations, and offer multiple alternative interpretations of behavior. Furthermore, clinicians have to educate CSOs that non-resistance is not equal to complying, as children are immature and not capable to give consent, regardless of their emotional response.

Finally, there is a great need to educate the broader public about child sexual abuse, as male non-offenders were also influenced by ambiguous victim responses. Additionally, it is not only important to teach adults that children do not want sex,

regardless of their emotional response, it is also important to teach children how to react to sexual encounters with adults and to actively resist to unwanted physical contact. Children should be taught that they must give a clear negative response to an adult's request concerning sexual contact.

Chapter 7

General Discussion

Rationale

To clarify the underlying mechanisms that contribute to the offending process of child sex offenders (CSOs), this thesis aimed to extend the knowledge about CSOs' offense-supportive cognitions regarding sex with children, and to unravel the role of these offense-supportive cognitions in the offending process. This knowledge will clarify which cognitions and underlying mechanisms need to be the focus of treatment of CSOs, to prevent sexual offending against children. Furthermore, because early deviant cognitions about children and sex might result in a long career of sexual offenses against children (Groth et al.,1982; Wieckowski, et al., 1998), the early identification of juvenile sex offenders and their offense-supportive cognitions might prevent the continuation of their sexually abusive behavior. Therefore, we first reviewed the literature on risk assessment instruments for juvenile sex offenders, and the inclusion of dynamic risk factors in these instruments, such as offense-supportive cognitions. Subsequently, we studied a group of adult males who have been convicted and/or have been in treatment for a sexual offense against a child with regard to their offense-supportive cognitions and distorted interpretations of child molestation incidents. Additionally, we studied whether the experience of sexual abuse in childhood was related to higher levels of offense-supportive cognitions regarding sex with children. The main results of the studies will be discussed, followed by the strengths and limitations of the studies, and our conclusions. Finally, the implications of the studies and recommendations for future research will be presented.

Findings and interpretations

Risk assessment among juvenile sex offenders

The review of the literature on risk assessment instruments for juvenile sex offenders in chapter 2 revealed that the predictive accuracy of these instruments and the inclusion of dynamic risk factors, such as offense-supportive cognitions, is still limited. There was no instrument that showed unequivocal accuracy in predicting future sexual, non-sexual and general reoffending among juvenile sex offenders. Nevertheless, the assessment of risk is generally considered to be a key element in the prevention of recidivism, by imposing long-term consequences on juvenile sex offenders based on these assessments. However, by using mainly static risk factors for risk assessment, one incorrectly assumes that sexual offending in juveniles is immutable and mainly caused by stable internal traits. As juveniles are rapidly developing psychologically and physically, it is highly questionable whether it is ethically and psychologically justified to impose long-term consequences on juveniles based on these assessments. An accurate assessment of risk of reoffending among

juvenile sex offenders requires the inclusion of risk factors that are dynamic, or the development of reliable measures concerning short-term risk.

Offense-supportive cognitions among CSOs

In chapter 3 we aimed to assess whether offense-supportive cognitions characterize CSOs in a distinctive and profound way, compared to non-offenders. This was confirmed. CSOs reported more *explicit* offense-supportive cognitions than non-offenders. Compared to non-offenders, CSOs were more inclined to agree with statements such as 'Some children are willing and focused to have sex with an adult' or 'If children do not tell that they were involved in a sexual activity with an adult, it is probably because they liked it or because they do not worry about it'. These statements are commonly articulated by CSOs to rationalize and justify their sexually abusive actions (Ward & Keenan, 1999; Ward, 2000), or to reduce cognitive dissonance after the abuse (Abel et el., 1989). Box 7.1 presents an overview of our findings regarding statements, as measured by the MOLEST scale (Bumby, 1996), that CSOs tended to agree with more than non-offenders.

Box 7.1. Offense-supportive statements, as measured by the MOLEST scale (Bumby, 1996), that CSOs tended to agree with more than non-offenders.

'Some children are willing and focused to have sex with an adult'
'Some children behave in a seductive way'
'If children do not tell that they were involved in a sexual activity with an adult, it is probably because they liked it or because they do not worry about it'
'Children often create stories about people that sexually abuse them to get attention'

'Some people are not 'real' child abusers, they just lost control and made a mistake'
'Most of the time, the sexual abuse of a child is not planned, it just happens'
'A large proportion of men that have sexually abused a child did that because of stress, and the abuse helped to relieve the stress'
'Sometimes, child sex abusers suffer more, lose more or they hurt more than the children'
'If a person says to himself that he will never abuse a child again, he will probably not reoffend'

'I think child sex abusers are punished too harsh'
'The society makes more of child sexual abuse than it actually is'
'I think a sexual activity with a child is mostly wrong because it is against the law'
'Trying to avoid children is probably enough to prevent a child sex offender to reoffend'

The distinct and profound character of these offense-supportive cognitions was further confirmed by the use of an *implicit* information processing test, the Single Category-Implicit Association Test (SC-IAT) (chapter 4). This test was used to overcome the problem of social desirability with explicit self-reports. Whereas CSOs associated children with sex more than they associated adults with sex, non-offenders (as well as an extra control group of sex offenders against adult women) associated adults more with sex than they associated children with sex. Based on these child-sex associations, CSOs could be differentiated from non-offenders. These results are in line with previous studies using the traditional IAT (Brown et al., 2009; Gray et al., 2005; Mihailides et al., 2004; Nunes et al., 2007), however, the SC-IAT gives a more precise indication of which association an individual holds than the IAT (Karpinski & Steinman, 2006). Finding a child-sex association with another implicit measure (i.e. the SC-IAT) confirmed the robustness of the child-sex association found in CSOs.

The results described in chapter 3 and 4 are in line with theories that posit that offense-supportive cognitions are important in the etiology of child sexual abuse, due to the facilitating and maintaining nature of such cognitions (Marshall & Barbaree, 1990; Ward & Keenan, 1999). The offense-supportive cognitions about sex with children and the unconscious child-sex associations found in CSOs, support theories that CSOs view children as sexual beings, and ascribe sexuality onto children (Ward & Keenan, 1999; Mihailides et al., 2004). As it has been suggested that deviant cognitions are the product of underlying implicit theories that precede the offense (Ward, 2000), our results are potentially informative of the relationship between implicit semantic constructs, deviant cognitions, and sexual offending behavior (Mihailides et al., 2004). If an offender associates children with sex, this could be reflected by cognitions that are in line with the implicit theories that guide behavior, to justify sexually abusive behavior.

Offense-supportive cognitions as measured on an explicit level especially characterize contact CSOs, who have committed more serious sex offenses against children than non-contact CSOs. Contact CSOs reported more *explicit* offense-supportive cognitions than non-contact CSOs (chapter 3). Compared to non-contact CSOs, contact CSOs were more inclined to agree with statements such as: 'Sometimes, victims initiate a sexual activity' or 'If a person do not use violence to achieve sex with a child, it will not harm the child very much' (see Box 7.2). Noteworthy is that these statements mostly referred to actual sexual activities with children, which is in line with their contact offenses.

Box 7.2. Offense-supportive statements, as measured by the MOLEST scale (Bumby, 1996), contact CSOs tended to agree with more than non-contact CSOs

‘Sometimes, victims initiate a sexual activity’
‘Some children behave in a seductive way’
‘Sometimes children do not say ‘no’ to a sexual activity because they are curious to sex or enjoy it’
‘Children who are sexually abused by more than one person probably do something that attracts adults’

‘If a person do not use violence to achieve sex with a child, it will not harm the child very much’
‘A lot of children that are sexually abused do not experience any significant problems of the abuse’
‘Children who have been involved in a sexual activity with an adult will eventually overcome this, and go one with their lives’
‘If a child says that it feels good to be touched, the child probably enjoys it and it will not affect the child so much’

‘During sexual abuse of children, some men ask their victims what they like to please the child and to ensure the child feels good’
'Some men who sexually abuse children actually do not like doing so’

‘Some sexual relationships with children are similar to adult sexual relationships'

Our results are in line with a recent meta-analysis that found that contact CSOs could be distinguished from non-contact CSOs based on higher levels of sexual deviancy and deviant beliefs and attitudes (Babchishin et al., 2011). The difference in levels of offense-supportive cognitions contributes to the explanation of the difference between contact offending and non-contact offending. Contact CSOs seem more distorted in their beliefs about children and sex, proceeding to more serious offenses. However, findings with respect to offense-supportive cognitions assessed on an *implicit* level are not in line with the findings on an *explicit* level. Although it has been suggested that deviant cognitions are the product of underlying implicit theories that precede the offense (Ward, 2000), contact CSOs and non-contact CSOs did not differ in the strength of their underlying *implicit* child-sex associations (chapter 4). Therefore, these associations might not represent Ward and Keenan’s underlying implicit theories (1999) that are hypothesized to generate the offense-supportive cognitions found in CSOs. Holding a child-sex association might be more related to sexual interest rather than to distorted belief systems. The sexual interest of contact CSOs and non-contact CSOs in children seems similar, and holding an implicit child-sex association is not informative of the level of explicit offense-supportive cognitions, or the risk of contact offending.

The relation between sexual abuse experiences in childhood and offense-supportive cognitions

No relationship was found between sexual abuse experiences in childhood and elevated levels of offense-supportive cognitions regarding sex with children, that could have clarified the underlying mechanism of the victim-to-victimizer cycle described in other studies (Jespersen et al., 2009; Rossegger et al., 2011) (chapter 3). In our sample, the proportion of CSOs who reported the experience of childhood sexual abuse (CSA) (42.2%) was higher than the proportion of non-offenders (community sample) reporting such experiences (15%). The abuse ranged from being sexually touched by another person or coercion to sexually touch them, coercion to watch or engage in sexual activities, experience of threat if they did not cooperate in a sexual activity, to sexual abuse. A history of CSA was especially prevalent among contact CSOs (48.9%), but did not significantly differ from the proportion of non-contact CSOs that reported a history of CSA (26.3%).

Although our results supported the abused/abuser hypothesis, the experience of CSA could not explain CSOs' elevated levels of offense-supportive cognitions regarding sex with children, which could have led to sexual offending against children. The experience of CSA could also not explain the difference between contact and non-contact sexual offending against children. However, finding no significant difference in the experience of CSA between contact CSOs and non-contact CSOs (nor in the experience of physical abuse, physical neglect, emotional abuse or emotional neglect), might have been due to the small sample size of the non-contact CSO population (n = 20). It is possible that contact CSOs did experience more CSA than non-contact CSOs, as the proportion of contact CSOs who reported a history of CSA seems considerably higher (48.9%) than the proportion of non-contact CSOs (26.3%).

The finding that the experience of CSA, as well as other abuse experiences, were unrelated to the level of offense-supportive cognitions regarding sex with children, contradicts theories that suggest that developmental adversities produce maladaptive schemas and a variety of negative attitudes, emotions and beliefs towards other people (Mann & Beech, 2003; Marshall & Barbaree, 1990; McCann et al., 1988; Weiss et al., 1992; Ward & Beech, 2006; Wenniger & Ehlers, 1998; Zlotnick et al., 1996). For example, Ward and Beech (2006) suggested that through social learning, early developmental adversities such as CSA produce the clinical symptoms that are related to future sexual offending. Children commonly copy the behavior of their supposed role models. By learning and modeling, victims of child sexual abuse are likely to develop early maladaptive schemas about themselves and intimacy, reflected by offense-supportive cognitions that guide their future sexual behavior and precede an offense (Ward & Keenan, 1999; Ward & Beech, 2006; Zlotnick et al., 1996).

However, our results could not support Ward's hypotheses. That is, our findings indicate that sexual abuse experiences in childhood do not increase the risk of developing deviant cognitions about sex with children that could lead to sexual abuse. However, it is also possible that victims of CSA have developed non-sexualized offense-supportive cognitions that are hostile in nature that could lead to sexual abuse. These hostile offense-supportive cognitions include ‘entitlement’ (i.e. a core belief of superiority and the right to have sex with children), ‘dangerous world’ (i.e. adults are rejective and children are more accepting, or everyone is hostile and others should be dominated), and ‘uncontrollability’ (i.e. the offender could not control himself) (Ward & Keenan, 1999).

Furthermore, processes such as 'turning passive into active' or 'enactment' could also explain the victim-to-victimizer cycle described in other studies (Jespersen et al., 2009; Rossegger et al., 2011). Victims of CSA could enact their own abuse experiences, and turn their passive position as a child into an active position as an adult, placing themselves in the role of the aggressor. This enactment is condoned by offense-supportive cognitions such as: "I will treat others, the way I have been treated." Possibly, future studies with larger samples indeed show that a higher proportion of contact CSOs were sexually abused than non-contact CSOs. Then, contact CSOs may be more characterized by such hostile cognitions that could precede contact sexual offending against children.

The interpretation of child sexual abuse and its relation to offense-supportive cognition and empathy

After finding self-reported offense-supportive cognitions among CSOs, questions arose whether such cognitions are also related to lower levels of empathy and to distorted interpretations of child molestation incidents. It is hypothesized that these constructs are related to each other, resulting in sexually abusive behavior towards children (Blake & Gannon, 2008; Ward & Casey, 2010). The results in chapter 5 showed that CSOs’ explicit cognitions that justify sexual offending against children affect how CSOs interpret the behavior of children. Offense-supportive cognitions seem to diminish the threshold for sexual assault, by assigning more cooperation and willingness of the victim in child molestation incidents. Furthermore, understanding another’s emotional state or context to a lesser extent (i.e. lower levels of cognitive empathy) was related to both more offense-supportive cognitions, and to the interpretation of more child responsibility in child molestation incidents. Our findings are in line with Ward’s theory that networks of offense-supportive cognitions (i.e. implicit theories) underlie the predictions made by the child molester about their victims’ desires and intentions, and affect how CSOs interpret interpersonal cues (Ward, 2000).

Although a relationship between elevated levels of offense-supportive cognitions and more distorted interpretations of child molestation incidents among CSOs was found,

the interpretation of child molestation incidents eventually did not differ between CSOs and non-offenders (chapter 6). However, overall, both CSOs and non-offenders associated ambiguous victim responses (i.e. giggling and being passive) with more distorted interpretations of child molestation incidents than unambiguous victim responses (i.e. crying and/or refusing) (chapter 6). Other studies found that more responsibility on the child was placed for reasons as that "the child should have resisted" (Waterman & Foss-Goodman, 1984), or when individuals perceived the abuse as not real abuse (Broussard & Wagner, 1988). However, giggling and a passive response could also be indications of nervousness, and not knowing what happens or how to respond. However, despite the fact that children are not always able to express themselves efficiently and to make their own choices, the emotional responses of the child were perceived as informative of their desires, intentions and boundaries by both CSOs and non-offenders. While children often react in a passive way to sexual abuse (Summit, 1983), paradoxically, people expect children to actively resist sexual advances of adults (Waterman, & Foss-Goodman, 1984).

These results together suggest that assigning more willingness, more benefit and more responsibility to a child victim on itself is not enough to proceed to a sexual offense against a child. Moreover, the ratings of both CSOs and non-offenders on the interpretation scales were quite low. This suggests that the interpretation process of CSOs, compared to that of non-offenders, is hardly distorted, and might not contribute to the offending process. Thus, other factors or motives play a role. For example, a lack of inhibition and control in response to specific (deviant) sexual stimuli might result in the achievement of sexual gratification. This desire for sexual gratification might be achieved despite the offenders' full comprehension of the situation and the harmful consequences for their victims.

On the other hand, it is possible that the interpretation process is indeed distorted and guided by offense-supportive cognitions, but only in real-life situations. Gannon and Polaschek (2006) and Ward and Casey (2010) suggested that cognitive practices that result in offense-supportive cognitions are dynamic and context dependent. This context dependency may also hold for the interpretation process, which was now assessed in a neutral experimental setting. The interpretation process might only be deficient in real-life situations when social skills are needed. Stress, intoxication or sexual arousal due to the proximity of a child might also result in deficiencies in the interpretation process (Ward et al., 2006). Additionally, during this study, all CSOs were convicted and/or in treatment for their offense. Due to their conviction and treatment, they might have become more aware of their victim's actual feelings during the molestation incident, resulting in lower ratings on distorted interpretations.

Offense-supportive cognitions: pre- or post-offense?

There is much debate on the role of offense-supportive cognitions in the offending process, i.e. whether they serve a causative role or a maintenance function. Although answering this question was beyond the scope of this thesis, some results could be potentially informative of whether such cognitions develop prior to a *first* sexual offense (Mann & Beech, 2003; Ward, 2000; Ward & Keenan, 1999), of resulted from the offense to reduce cognitive dissonance (Abel et al., 1984; Abel et al., 1989).

Summarizing our results on offense-supportive cognitions regarding sex with children as relevant to this discussion, we found that:
1) The experience of CSA was unrelated to the level of offense-supportive cognitions, and contact CSOs did not differ in their experiences of CSA, or other forms of abuse, from non-contact CSOs. This finding reduces the chance that these cognitions are caused by pre-offense experiences. **2)** CSOs are characterized by explicit offense-supportive cognitions, and, contact CSOs showed higher levels of explicit offense-supportive cognitions than non-contact CSOs. These findings imply that explicit offense-supportive cognitions are related to type of offense. Explicit offense-supportive cognitions either facilitate contact offenses, or contact CSOs may express more offense-supportive cognitions to reduce feelings of guilt and shame in response to their contact offense (Abel et al, 1984; Abel et al., 1989). **3)** Not all CSOs experienced CSA, but still showed elevated levels of offense-supportive cognitions, suggesting that a history of CSA is indeed not explanatory for the development of such cognitions. Integrating these findings, it is more likely to assume that the higher levels of offense-supportive cognitions in contact CSOs have resulted from the contact offense itself.

However, we also found that higher levels of offense-supportive cognitions were associated with more distorted interpretations of child molestation incidents. In this light, one tends to view offense-supportive cognitions as preceding an offense. This implies that offense-supportive cognitions facilitate distorted interpretations, which in turn may increase the risk on sexual offending. Nevertheless, this is a process that may occur/be present both pre- and post-offense. Thus, once offense-supportive cognitions have been developed, either before the offense or after the offense, such cognitions increase the risk of sexual offending against children by faulty interpretations of children's behavior.

As Saradijan and Nobus (2003) identified both pre-offense supportive cognitions, supportive cognitions during the offense, and post-offense supportive cognitions among clergies that sexually abused children, it is very plausible that both Abel’s and Ward’s theories are correct. Then, the development of offense-supportive cognitions may be considered a vicious cycle. Pre-existing distorted cognitions that once have led to an offense, could be followed by distorted cognitions to reduce cognitive dissonance from the offense, strengthening the pre-existing distorted cognitions. In sum, our findings

suggest that offense related cognitions as assessed in these studies (i.e. relating to sexual contact between an adult and a child) were not present pre-offense.

Strengths

The strengths of this thesis were that we used a multi-method approach to examine offense-supportive cognitions among child sex offenders (CSOs), and that we were able to compare these cognitions to non-offenders (community sample). Measuring offense-supportive cognitions using an information processing test besides a conventional self-report, allowed us to determine the different manifestations of offense-supportive cognitions in CSOs, and overcome the problem of social desirability. Especially the detection of an implicit child-sex association with a more specific information processing test, the Single Category-Implicit Association Test, which was not used earlier among CSOs, strengthened the view that CSOs' deviant beliefs and feelings towards children are manifested in CSOs in a more profound way.

Another important strength of this thesis is that, to our knowledge, this is the first study that examined the role of offense-supportive cognitions in the offending process by examining relationships between self-reported sexual abuse experiences during childhood and offense-supportive cognitions, as well as the relationship between offense-supportive cognitions, empathy and the interpretation of child molestation incidents. This empirical knowledge is essential in unraveling the processes that lead to offending, including the pathways through which offense-supportive cognitions can be developed.

Limitations

Findings of this thesis should be considered in light of several limitations. First, conclusions on the limited predictive accuracy of the risk assessment instruments for juvenile sex offenders are based on methodologically diverse studies, and the limited availability of data. Mixed results of the studies that were reviewed have been generated by differences in samples or procedures, or by different rates of sexual reoffending (e.g. low rates in studies that managed a short follow-up period). Furthermore, studies that found a significant predictive validity for an instrument were often conducted by the individual or group that had developed the measure itself. Although this does not mean that the findings are not reliable, it does mean that it has to be replicated and validated in other samples.

Second, although we used methods that were comparable to other studies, the assessment of offense-supportive cognitions and child sexual abuse experiences relied on retrospective self-reports. Possibly, due to dissociation as a result of being maltreated, people do not always accurately remember being maltreated (Corso,

Edwards, Fang, & Mercy, 2008; Brown et al., 2007). Although there is support for the validity of accurate recall of adverse childhood experiences (Hardt, 2004) this might have led to an underrepresentation of CSA histories. Furthermore, the reported level of offense-supportive cognitions could have been an underrepresentation of actual levels due to the hypothesized covert nature, and not having direct access to the content and structure of such cognitions. Furthermore, we did not assess offense supportive cognitions that are non-sexualized (e.g. uncontrollability, entitlement). However, despite the possible underrepresentation of CSA histories, the covert nature of deviant cognitions, and the fact that we did not assess all known implicit theories, we still found CSA histories and deviant cognitions in CSOs. Additionally, although CSOs differed from non-offenders in the level of offense-supportive cognitions, it appears that CSOs were inclined to disagree less with offense-supportive statements than non-offenders, who, generally, strongly disagreed (see Arkowitz & Vess, 2003).

Third, small sample sizes of the non-contact CSOs group could have resulted in non-significant results with respect to group differences. A larger sample size would produce more reliable conclusions about the differences between subtypes of CSOs and the origins of sexual offending.

Fourth, a retrospective study design does not allow us to draw firm conclusions on the relationship between being a victim of sexual abuse and sexual offending against children later in life. Although support for the victim-to-victimizer cycle seems plausible on the basis of our study, only a prospective cohort design would allow such firm conclusions.

Fifth, the experimental studies took place in a neutral setting, which could have resulted in undetected distortions in cognitive processes. According to Gannon and Polaschek (2006) and Ward and Casey (2010), cognitive processes that result in offense-supportive cognitions are dynamic and context dependent. If an offender holds distorted internal belief systems, the external context might influence how, or when, these internal beliefs are expressed behaviorally. This context dependency may also hold for the empathy or interpretation process, which might only be deficient in a real-life situation when social skills are needed, or when a CSO is stressed, intoxicated, or sexually aroused (Ward et al., 2006). This could cause a cognitive overload, and inherently, CSOs might process information in a maladaptive schema-consistent way. In a neutral state, it is possible that these cognitions are not activated, and hard to detect. Additionally, as CSOs have been found to be more distorted when they talk about their own offense experiences or victims, (Neidigh & Kropp, 1992), it is possible that offense-related beliefs were not triggered due to general descriptions of child molestation incidents (Gannon & Polaschek, 2006) that were presented in our vignettes. Finally, we were not able to address the different psychiatric diagnoses due to ongoing psychological assessments of the offenders, which resulted in postponed diagnoses.

Additionally, differences in other offense variables, etiological factors or personality factors that we did not address might explain differences between groups, or the development of offense-supportive cognitions. It is possible that some type of CSOs do not have active offense-supportive cognitions. For example, mentally retarded men who have offended against a child simply as a response to their sexual arousal, their lack of sexual knowledge, lack of social skills, and lack of control, might not hold offense-supportive cognitions. They may cognitively function as children, while they also experience sexual feelings. Their sexual feelings might be projected onto children of their own emotional level, thinking that these children also have the same sexual feelings. This means that they might not actively condone the offense with deviant cognitions.

Conclusions

The main conclusions that follow from this thesis are:

1. Risk assessment instruments for juvenile sex offenders are insufficient to accurately predict the risk on sexual, non-sexual and general reoffending. Due to the rapid development of juveniles, it is unethical to impose long-term consequences on juvenile sex offenders based on static risk assessment instruments only.
2. Child sex offenders are distinctively characterized by deviant cognitions about sex with children and by implicit associations between sex and children. Especially men who have committed a contact sexual offense against a child are more distorted in their cognitions than men who have committed a non-contact sexual offense against a child. Holding cognitions that justify child sexual abuse influences the way in which behavior of children is interpreted, increasing the risk of sexual offending against children. This highlights the profound character of offense-supportive cognitions, especially in contact CSOs, and the need for intensive treatment of these cognitions to prevent future offending.
3. The proportion of child sex offenders that has been sexually abused in childhood is almost three times larger than the proportion of non-offenders that was sexually abused in childhood. A history of childhood sexual abuse was especially prevalent among men who have committed contact sexual offenses against children.
4. Sexual abuse experiences in childhood are unrelated to deviant cognitions about sex with children, i.e. offense-supportive cognitions.
5. Offense-supportive cognitions regarding sex with children mainly are post-hoc rationalizations to justify sexually offending behavior and to prevent feelings of guilt and shame that have resulted from the offense.
6. Ambiguous child responses after a sexual touch are viewed as indicating that the child was more responsible, experienced more benefit, and was more complying with that sexual touch, than clear negative responses. Therefore, children should be taught how to respond clearly to reduce the chance that they will be sexually abused.

Implications and future research

Because of the rapid development of juveniles, the first implication and recommendation that follows from this thesis is that the emphasis of risk assessment among juvenile sex offenders should shift from the inclusion of empirically derived static factors to the addition of more dynamic risk factors. For both juveniles and adults, risk assessments may be expanded by the introduction of reliable and valid psychiatric, psychological, and biopsychological measurement of reactions to sexual cues. For example, with the use of implicit information processing tests, or with the use of virtual reality, the behavioral responses to sexual stimuli or simulated real-life situations with children could be detected. Furthermore, reliable measures concerning short-term risk should be developed, as these juveniles are still developing sexually and psychologically.

Second, detecting and restructuring of offense-supportive cognitions remains a target for treatment. The importance of changing such deviant cognitions is further highlighted by our study. The distinctive and profound character and manifestations of these offense-supportive cognitions, and the risk of misinterpreting children's behavior, complicates the changeability of such deviations. Therefore, intensive treatment is needed. Assessing deviant cognitions of CSOs during treatment could be helpful in the detection of their beliefs about children and sex. CSOs should be aware of these maladaptive thoughts and associations, and should be educated about the needs and intentions of children, that do not involve sexual activities with adults. Although CSOs did not differ from non-offenders in their perceptions of child molestation incidents, clinicians should still detect whether deficiencies in the interpretation process did contribute to CSOs' own offenses, what was driving these interpretations, and offer multiple alternative interpretations of behavior.

Third, to further clarify the role of offense-supportive cognitions, empathy and the interpretation process in the offending process of CSOs, future studies should examine these constructs in more realistic situations or with more realistic test stimuli. For example, by showing videos or by virtual reality situations in which the offenders are sexually aroused, cognitive processing might be more strongly driven by maladaptive schemas, offense-supportive cognitions or empathy deficits, than in neutral settings. This way, we can identify more carefully the processes that lead to an offense, and aim treatment at prevention of the activation of such processes.

Fourth, it is important to break the victim-to-victimizer cycle, (i.e. the abused/abuser hypothesis) to prevent sexual abuse victims from sexual offending. Mental health services, and, just as importantly, teachers, should be more aware and trained to notice any signs of being abused to alert professionals that can intervene. It is crucial to timely recognize victims of sexual abuse to reduce further physical and psychological harm, and to prevent the development of other non-sexualized hostile cognitions that could lead to offending. As sexual abuse experiences in childhood were

not related to elevated levels of offense-supportive cognitions regarding sex with children, other psychological processes are responsible for the victim-to-victimizer cycle. Studies should focus on the factors that could mediate this relationship, such as emotional problems, social difficulties and deviant sexual arousal, as proposed by Ward and Beech in their Integrated Theory of Sexual Offending (2006). Research is needed to unravel the role of both sexualized and non-sexualized offense-supportive cognitions in the offending process, and whether these cognitions serve a causative role, a maintenance function, or both.

Fifth, there is a great need to educate the broader public about child sexual abuse, as male non-offenders were also influenced by ambiguous victim responses. Ambiguous responses were interpreted in a more distorted way than non ambiguous responses. Additionally, it is not only important to teach adults that children do not want sex, regardless of their emotional response, it is also important to teach children how to react to sexual encounters with adults and to actively resist to unwanted physical contact. Children must be taught to give a clear negative response to an adult's request concerning sexual contact, and that they always should report such unwanted requests to their caregivers or teachers.

Sixth, future studies should clarify the differences between contact and non-contact CSOs to explain the difference in type and severity of (re)offending, to prevent more serious (i.e. contact) offending. Further discrimination between subtypes of CSOs, such as autistic offenders or antisocial offenders, might also contribute to a better understanding of different etiological pathways of offending as well as of specific treatment needs for each subtype, based on factors that are most susceptible for intervention. Regarding offense-supportive cognitions, it might be possible that not all subtypes are characterized by such cognitions, implicating different targets for treatment. Furthermore, such discriminations are likely to improve the successfulness of the risk predictions and the derived decisions for referrals or rehabilitation. This way, more serious offenses can be prevented. Furthermore, although a child-sex association among contact CSOs was related to a greater risk for reoffending (Nunes et al., 2007), it is not clear if the existence of a child-sex association among non-contact CSOs is also a risk for future contact offending.

Finally, there is a need to empirically validate models of sexual offending to clarify the process that leads to sexual offending against children. Understanding the processes underlying the initiation, maintenance, and justification of sexual offending against children, is a vital prerequisite to the development of successful prevention and treatment programs. To unravel the offending process, the influence of the interpretation and empathy processes on sexual offending should be further examined, as well as relationships between other factors that are related to sexual offending. These factors include biological (genes, brain development), ecological (social, cultural and personal

circumstances) and neuro-psychological factors (perception, motivation, emotion, control), and the clinical symptoms evident in CSOs (social difficulties, emotional problems, sexual arousal) (Ward & Beech, 2006). For example, the process that is activated or inactivated between the moment of sexual arousal, which potentially activates offense-supportive cognitions, and the sexual abuse of a child, involves ‘control’. Although a CSO might be characterized by offense-supportive cognitions, these cognitions not necessarily have to lead to an offense. Future studies may examine the deficits in control among CSOs, that could further explain their abusive behavior.

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Summary

Introduction

Sexual offending against children is suggested to be the result of interactions between emotional, physical, and environmental vulnerabilities and experiences during childhood. Theoretical models have been developed to explicate the factors that are important in the onset, development and maintenance of sexual offending against children. One factor that is suggested to contribute to the offending process of child sex offenders (CSOs) is having problematic attitudes and beliefs about sex with children, .i.e. *offense-supportive cognitions* (Marshall & Barbaree, 1990; Ward & Beech, 2006; Ward & Siegert, 2002). Offense-supportive cognitions are typically defined as 'maladaptive beliefs and attitudes, and problematic thinking styles that serve to deny, blame, excuse and minimize sexually abusive actions' (Bumby, 1996; Ward, 2000; Gannon, Ward, & Collie, 2007).

To fully explain the occurrence of sexual offending against children, studies have to empirically validate suggested risk factors and the role of these risk factors in the offending process. For example, it is still unclear how offense-supportive cognitions develop, and whether such cognitions serve a maintenance function in the offending process of child sex offenders (CSOs), or a causative role. It is possible that such deviant cognitions about sex with children resulted from sexual abuse experiences in childhood, or from the offense itself to reduce feelings of guilt and shame. Additionally, while there has been an emergence in the literature concerning CSOs' self-reported offense-supportive cognitions, there is little empirical evidence that these offense-supportive cognitions are also held in a more unconscious way. Furthermore, although it is hypothesized that offense-supportive cognitions are related to the empathy and the interpretation process leading to sexually abusive behavior towards children (Blake & Gannon, 2008; Ward & Beech, 2006; Ward & Casey, 2010), relationships between these constructs have remained largely unexplored.

Finally, because early deviant cognitions about sex with children might result in a long career of sexual offenses against children (Groth et al.,1982; Wieckowski, et al., 1998), the early identification and treatment of offense-supportive cognitions among CSOs might prevent the continuation of their sexually abusive behavior. Especially CSOs who have committed sexual offenses against children that involved physical contact (i.e. contact CSOs), seem to be characterized by higher levels of sexual deviancy and deviant beliefs and attitudes, than CSOs who have committed sexual offenses against children that did not involve physical contact (e.g. child pornography offenses; Babchishin et al., 2011). Holding offense-supportive cognitions might therefore be a risk for contact sexual offending against children.

Aims

To clarify the underlying mechanisms that contribute to the offending process of CSOs, this thesis aimed to extend the knowledge about CSOs' offense-supportive cognitions regarding sex with children, and to unravel the role of these offense-supportive cognitions in the offending process. This knowledge will clarify which cognitions and underlying mechanisms need to be the focus of treatment of CSOs, to prevent sexual offending against children.

In **Chapter 1**, we presented a brief general overview of the prevalence rates of child sexual abuse, important risk factors for sexual offending against children, and the role of risk assessment in the prevention of reoffending. Furthermore, the most acknowledged theories on child sexual abuse and offense-supportive cognitions were discussed, followed by our aims:

1. To review the literature on risk assessment instruments for juvenile sex offenders, focusing on the predictive accuracy of these instruments and the inclusion of dynamic risk factors, such as offense-supportive cognitions.
2. To assess whether offense-supportive cognitions characterize child sex offenders in a distinctive and profound way, compared to non-offenders. We used two methods to measure offense-supportive cognitions: a) by self-report, and b) by an implicit information processing test.
3. To clarify the type and severity of sexual offending against children we assessed whether levels of offense-supportive cognitions could differentiate contact CSOs from non-contact CSOs.
4. To clarify the role of offense-supportive cognitions in the victim-to-victimizer cycle, we assessed whether sexual abuse experiences in childhood are related to elevated levels of offense-supportive cognitions, which could increase the risk on sexual offending.
5. To examine whether elevated levels of offense-supportive cognitions among CSOs are related to lower levels of empathy and to more distorted interpretations of child molestation incidents by CSOs.
6. To examine the impact of victim response on CSOs' interpretations of child molestation incidents compared to non-offenders.

Methods

To review the literature on risk assessment instruments for juvenile sex offenders, retrospective and prospective studies were included that estimated the predictive validity of structured risk assessment instruments for juvenile sex offenders. The predictive validity criterion variable was restricted to a measure of recidivism such as rearrests and readjudication.

For the experimental studies, 20 male non-contact CSOs, 47 male contact CSOs and 40 male non-offenders participated. CSOs were recruited from three forensic psychiatric outpatient and day treatment centers, and from three penitentiary institutions in the Netherlands. Non-offenders were recruited using an advertisement at the Erasmus Medical Center and using internet advertising. Non-contact CSOs were included if they a) were currently in treatment or imprisoned for downloading and/or spreading child pornography or for exhibitionism aimed at children aged 16 years or younger, and (b) had never committed a sexual offense against a child or adult in which there was physical contact. Contact CSOs were included if they (a) were currently in treatment or imprisoned for a sexual offense against a child under 16 years of age in which there was physical contact, and (b) had never committed any sexual offenses against an adult. Non-offenders were eligible if they had no prior convictions. All participants completed self-report measures concerning offense-supportive cognitions, childhood sexual abuse experiences and empathy. Furthermore, an implicit information processing test, the Single Category-Implicit Association Test (SC-IAT), was used to assess underlying implicit associations between children and sex. Finally, vignettes were developed to assess the interpretation of social interactions between an adult male and a child that ended in sexual contact.

Findings

The review of the literature on risk assessment instruments for juvenile sex offenders in **Chapter 2** revealed that the predictive accuracy of these instruments and the inclusion of dynamic risk factors, such as offense-supportive cognitions, is still limited. There was no instrument that showed unequivocal accuracy in predicting future sexual, non-sexual and general reoffending among juvenile sex offenders. Nevertheless, the assessment of risk is generally considered to be a key element in the prevention of recidivism, by imposing long-term consequences on juvenile sex offenders based on these assessments. However, by using mainly static risk factors for risk assessment, one incorrectly assumes that sexual offending in juveniles is immutable and mainly caused by stable internal traits. However, as juveniles are rapidly developing psychologically and physically, it is highly questionable whether it is ethically and psychologically justified to impose long-term consequences on juveniles based on these assessments. An accurate assessment of risk of reoffending among juvenile sex offenders requires the inclusion of risk factors that are dynamic, or the development of reliable measures concerning short-term risk.

In **Chapter 3,** we assessed whether contact CSOs, non-contact CSOs and non-offenders differ in their self-reported childhood sexual abuse (CSA) experiences, and whether these experiences predicted higher levels of self-reported offense-supportive cognitions regarding sex with children. Results showed that the proportion of CSOs that reported the experience of CSA (42.2%) was almost three times higher than the

proportion of non-offenders reporting such experiences (15%). A history of CSA was especially prevalent among contact CSOs (48.9%), but did not differ from the proportion of non-contact CSOs (26.3%). Furthermore, CSOs reported more offense-supportive cognitions regarding sex with children than non-offenders. This was especially true among contact CSOs, who reported higher levels of offense-supportive cognitions than non-contact CSOs and non-offenders. However, the experience of CSA was unrelated to the level of self-reported offense-supportive cognitions.

The next step was to study whether the self-reported offense-supportive cognitions among contact CSOs and non-contact CSOs were also reflected by more unconscious, implicit associations between children and sex **(Chapter 4).** Whereas CSOs associated children with sex more than they associated adults with sex, non-offenders (as well as an extra control group of sex offenders against adult women) associated adults more with sex than they associated children with sex. No difference was found between non-contact CSOs and contact CSOs in their child-sex associations. Although the SC-IAT was able to distinguish CSOs from non-offenders based on the strength and direction of their associations, the SC-IAT showed a poor sensitivity and specificity in distinguishing these groups (AUC of .65). Nevertheless, these results confirm the robustness of the child-sex association among CSOs.

After finding self-reported offense-supportive cognitions and implicit child-sex associations in CSOs, questions arose whether such cognitions are also related to lower levels of empathy and to more distorted interpretations of child molestation incidents, which could lead to sexual offending against children. The results in **Chapter 5** showed that CSOs' explicit cognitions that justify sexual offending against children affect how CSOs interpret behavior of children. Offense supportive cognitions seem to diminish the threshold for sexual assault, by assigning more cooperation and willingness of the victim in child molestation incidents. Furthermore, understanding another's emotional state or context to a lesser extent (i.e. lower levels of cognitive empathy) was related to more offense-supportive cognitions, as well as to the interpretation of more child responsibility in child molestation incidents.

In the final study (**Chapter 6**), we explored the effects of victim's response on CSOs' and non-offenders' interpretations of hypothetical child molestation incidents, and whether contact CSOs and non-offenders differed in the way they interpreted these child molestation incidents. This study showed that overall, both CSOs and non-offenders associated ambiguous victim responses (i.e. giggling and being passive) with more child complicity, more child benefit and more child responsibility than unambiguous victim responses (i.e. crying and/or refusing). However, contact CSOs did not differ in their interpretations of child molestation incidents from non-offenders. Furthermore, CSOs were not influenced by the victim's response in a different way than non-offenders.

Discussion and implications

In **Chapter 7**, the main findings of the studies were discussed, and interpreted in the light of the literature on offense-supportive cognitions and theories of sexual offending against children. After a discussion of the strengths and limitation of the studies, the main conclusions that followed from this thesis are:

1. Risk assessment instruments for juvenile sex offenders are insufficient to accurately predict the risk on sexual, non-sexual and general reoffending. Due to the rapid development of juveniles, it is unethical to impose long-term consequences on juvenile sex offenders based on static risk assessment instruments only.
2. Child sex offenders are distinctively characterized by deviant cognitions about sex with children and by implicit associations between sex and children. Especially men who have committed a contact sexual offense against a child are more distorted in their cognitions than men who have committed a non-contact sexual offense against a child. Holding cognitions that justify child sexual abuse influences the way in which behavior of children is interpreted, increasing the risk of sexual offending against children. This highlights the profound character of offense-supportive cognitions, especially in contact CSOs, and the need for intensive treatment of these cognitions to prevent future offending.
3. The proportion of child sex offenders that has been sexually abused in childhood is almost three times larger than the proportion of non-offenders that was sexually abused in childhood. A history of childhood sexual abuse was especially prevalent among men who have committed contact sexual offenses against children.
4. Sexual abuse experiences in childhood are unrelated to deviant cognitions about sex with children, i.e. offense-supportive cognitions.
5. Offense-supportive cognitions regarding sex with children mainly are post-hoc rationalizations to justify sexually offending behavior and to prevent feelings of guilt and shame that have resulted from the offense.
6. Ambiguous child responses after a sexual touch are viewed as indicating that the child was more responsible, experienced more benefit, and was more complying with that sexual touch, than clear negative responses. Therefore, children should be taught how to respond clearly to reduce the chance that they will be sexually abused.

The clinical implications of these conclusions are focused on the improvement of risk assessment instruments for juvenile sex offenders, and on the need for intensive treatment of offense-supportive cognitions that characterize CSOs.
First, reliable measures concerning short-term risk should be developed for the juvenile sex offender population. Additionally, because these juveniles are still developing sexually and psychologically, the emphasis should shift from the inclusion of empirically derived static factors to the addition of more dynamic risk factors.

Second, the detecting and restructuring of offense-supportive cognitions in CSOs remains a target for treatment. The importance of changing such deviant cognitions is further highlighted by our study. The profound character of these offense-supportive cognitions and the risk of misinterpreting children's behavior, could lead to sexual offending. The different manifestations of deviant cognitions and associations among CSOs complicates the changeability of such deviations, and intensive treatment is needed.

Third, to further clarify the role of offense-supportive cognitions, empathy and the interpretation process in the offending process of CSOs, future studies should examine these constructs in more realistic situations or with more realistic test stimuli. For example, by showing videos or by virtual reality situations in which the offenders are sexually aroused, cognitive processing might be more strongly driven by maladaptive schemas, offense-supportive cognitions or empathy deficits, than in neutral settings. This way, we can identify more carefully the processes that lead to an offense, and aim treatment at prevention of the activation of such processes.

Fourth, there is a great need to educate the broader public about child sexual abuse, as ambiguous victim responses could lead to distorted interpretations about children's intentions and boundaries. Additionally, it is not only important to teach adults that children do not want sex, regardless of their emotional response, it is also important to teach children how to react to sexual encounters with adults, and to actively resist to unwanted physical contact. Children must be taught to give a clear negative response to an adult's request concerning sexual contact, and that they always should report such unwanted requests to their caregivers or teachers.

Finally, although it is beyond the scope of this thesis, it is important to break the victim-to-victimizer cycle, (i.e. the abused/abuser hypothesis) to prevent sexual abuse victims from sexual offending. Mental health services, and, just as important, teachers, should be more aware and trained to notice any signs of abuse to alert professionals that can intervene. It is crucial to timely recognize victims of sexual abuse to reduce further physical and psychological harm, and to prevent the development of other non-sexualized hostile cognitions that could lead to offending.

Several recommendations for future research are given. Future studies should clarify the differences between contact and non-contact CSOs to explain the difference in type and severity of (re)offending, to prevent more serious (i.e. contact) offending. Further discrimination between subtypes of CSOs, such as autistic offenders or antisocial offenders, might also contribute to a better understanding of certain etiological pathways of offending as well as specific treatment needs for each subtype, based on factors that are most susceptible for intervention.

There is also a need to empirically validate models of sexual offending to clarify the process that leads to sexual offending against children. Understanding the processes

underlying the initiation, maintenance, and justification of sexual offending against children, is a vital prerequisite to the development of successful prevention and treatment programs. To unravel the offending process, the influence of the interpretation and empathy processes on sexual offending should be further examined, as well as relationships between other factors that are related to sexual offending. These factors include biological (genes, brain development), ecological (social, cultural and personal circumstances) and neuropsychological factors (perception, motivation, emotion, control), and the clinical symptoms evident in CSOs (social difficulties, emotional problems, sexual arousal).

Samenvatting

Introductie

Seksueel misbruik van kinderen wordt verondersteld het resultaat te zijn van interacties tussen kwetsbaarheden en ervaringen in de kindertijd, en emotionele-, fysieke- en omgevingsfactoren. Er zijn meerdere theoretische modellen ontwikkeld om de factoren die bijdragen aan het ontstaan en het in stand houden van kindermisbruik te verduidelijken. Het hebben van problematische houdingen en opvattingen over seks met kinderen die kindermisbruik rechtvaardigen, ofwel *delict-ondersteunende cognities*, is één factor die verondersteld wordt bij te dragen aan het delict proces van kindermisbruikers (Marshall & Barbaree, 1990; Ward & Beech, 2006; Ward & Siegert, 2002). Delict-ondersteunende cognities worden omschreven als onaangepaste houdingen en opvattingen, en problematische denkstijlen die worden gebruikt om kindermisbruik te ontkennen, te externaliseren, te minimaliseren en te rechtvaardigen (Bumby, 1996; Ward, 2000; Gannon, Ward, & Collie, 2007).

Om het ontstaan van kindermisbruik te kunnen verklaren moeten de risicofactoren en de rol van deze risicofactoren in het delict proces onderzocht worden, en empirisch gevalideerd worden. Het is bijvoorbeeld nog onduidelijk hoe deze delict-ondersteunende cognities zich ontwikkelen, en of dergelijke afwijkende cognities een oorzakelijke rol in het delict proces hebben, of een onderhoudende rol. Zo is het mogelijk dat afwijkende cognities over seks met kinderen het gevolg zijn van eigen seksueel misbruikervaringen in de kindertijd, of het gevolg zijn van een eigen delict, om gevoelens van schuld en schaamte te verminderen.

Ondanks dat er sprake is van een opkomst in de literatuur over zelfgerapporteerde delict-ondersteunende cognities onder kindermisbruikers, is er daarnaast weinig empirisch bewijs dat deze delict-ondersteunende cognities ook op een meer onbewust niveau aanwezig zijn. Tevens zijn veronderstelde relaties tussen delict-ondersteunende cognities en processen als empathie en interpretatie van gedrag, die kunnen leiden tot kindermisbruik, nog nauwelijks onderzocht (Blake & Gannon, 2008; Ward & Beech, 2006; Ward & Casey, 2010).

Vergeleken met hands-off kindermisbruikers (mannen die geen fysiek seksueel contact hebben met een kind, bijvoorbeeld downloaders van kinderpornografie), lijken vooral hands-on kindermisbruikers (mannen die fysiek seksueel contact hebben met een kind) te worden gekenmerkt door afwijkende cognities met betrekking tot seks met kinderen (Babchishin et al., 2011). Het hebben van delict-ondersteunende cognities kan daarom tevens een risico vormen voor het plegen van hands-on delicten. Omdat vroegtijdige afwijkende cognities over seks met kinderen kan resulteren in een lang traject van kindermisbruik (Groth et al., 1982; Wieckowski, et al., 1998), zou de vroege identificatie en behandeling van delict-ondersteunende cognities onder kindermisbruikers kunnen voorkomen dat het misbruik wordt voortgezet.

Doelen

Om de onderliggende mechanismen die bijdragen aan het delict proces van kindermisbruikers te verduidelijken, is ons onderzoek erop gericht de kennis over kindermisbruikers' delict-ondersteunende cognities over seks met kinderen uit te breiden, en om de rol van deze delict-ondersteunende cognities in het delict proces te verhelderen. Met die kennis kan verder worden gespecificeerd welke cognities en onderliggende mechanismen de focus van de behandeling van kindermisbruikers moet zijn, om kindermisbruik in de toekomst te kunnen voorkomen. In **hoofdstuk 1** hebben we een kort algemeen overzicht gegeven van de literatuur aangaande de prevalentie van kindermisbruik, belangrijke risicofactoren voor kindermisbruik, en de rol van risicotaxatie bij de preventie van recidive. Daarnaast zijn erkende theorieën over kindermisbruik en delict-ondersteunende cognities besproken, gevolgd door onze onderzoeksdoelen:

1. Een review van de literatuur geven over de voorspellende waarde van risicotaxatie-instrumenten voor jeugdige zedendelinquenten. Hierbij wordt tevens bekeken of dynamische risicofactoren, zoals delict-ondersteunende cognities, zijn opgenomen in deze instrumenten.
2. Onderzoeken of kindermisbruikers worden gekarakteriseerd door delict-ondersteunende cognities die hen onderscheiden van niet-delinquenten. We gebruikten twee methoden om delict-ondersteunende cognities te meten: a) door zelfrapportage, en b) door een impliciete informatieverwerkingstest.
3. Inzicht krijgen in het verschil in ernst en type kindermisbruik door te onderzoeken of hands-on kindermisbruikers kunnen worden onderscheiden van hands-off kindermisbruikers op basis van de ernst van hun delict-ondersteunende cognities.
4. Inzicht krijgen in de rol van de delict-ondersteunende cognities in de 'van slachtoffer-naar-dader cyclus' door te onderzoeken of eigen seksueel misbruikervaringen in de kindertijd gerelateerd zijn aan verhoogde ernst van delict-ondersteunende cognities, wat het risico op kindermisbruik kan verhogen.
5. Onderzoeken of verhoogde ernst van delict-ondersteunende cognities onder kindermisbruikers gerelateerd zijn aan lagere niveaus van empathie en aan verwrongen interpretaties van misbruiksituaties.
6. Onderzoeken wat de invloed is van de emotionele respons van een slachtoffer tijdens een misbruiksituatie op de interpretatie van deze situatie door kindermisbruikers en niet-delinquenten.

Methode

Voor de review van de literatuur over risicotaxatie-instrumenten voor jeugdige zedendelinquenten includeerden we retrospectieve en prospectieve studies die de predictieve validiteit van gestructureerde risicotaxatie-instrumenten voor jeugdige zedendelinquenten hebben beoordeeld. Het criterium voor het bepalen van de predictieve validiteit werd beperkt tot een maat van recidive, zoals nieuwe arrestaties en nieuwe vonnissen.

Aan de experimentele studies hebben 20 mannelijke hands-off kindermisbruikers, 47 mannelijke hands-on kindermisbruikers en 40 mannelijke niet-delinquenten deelgenomen. De kindermisbruikers zijn geworven via drie forensisch psychiatrische poliklinieken, en via drie penitentiaire inrichtingen in Nederland. Niet-delinquenten zijn geworven via een advertentie in het Erasmus Medisch Centrum en via een advertentie op internet. Hands-off kindermisbruikers werden geïncludeerd als zij a) in behandeling waren of gevangen zaten voor het downloaden en/of verspreiden van kinderporno, of voor exhibitionisme gericht op een kind onder de 16 jaar, en (b) nooit een seksueel delict hebben gepleegd jegens een kind of volwassene waarin er fysiek contact plaatsvond. Hands-on kindermisbruikers werden geïncludeerd als zij (a) in behandeling waren of gevangen zaten voor een seksueel delict jegens een kind onder de 16 jaar waarin er lichamelijk contact plaatsvond, en (b) nooit een seksueel delict hebben gepleegd jegens een volwassene. Niet-delinquenten werden alleen geïncludeerd wanneer zij geen eerdere veroordelingen hadden. Alle deelnemers vulden zelfrapportage vragenlijsten in betreffende delict-ondersteunende cognities over seks met kinderen, seksueel misbruikervaringen tijdens de kindertijd, en empathie. Daarnaast werd een impliciete informatieverwerkingstest afgenomen, de Single Category-Implicit Association Test (SC-IAT), om onderliggende impliciete associaties tussen kinderen en seks te meten. Ten slotte werden vignetten ontwikkeld en afgenomen om de interpretatie van sociale interacties tussen een volwassen man en een kind die eindigen in seksueel contact, te kunnen meten.

Resultaten

Uit de review van de literatuur over risicotaxatie-instrumenten voor jeugdige zedendelinquenten in **hoofdstuk 2** is gebleken dat de predictieve waarde van deze instrumenten en de inclusie van dynamische risicofactoren zoals delict-ondersteunende cognities nog beperkt is. Er is niet alleen gekeken naar seksuele recidive, maar ook naar recidive met betrekking tot andere delicten. Er was geen instrument dat consistent in staat was toekomstige seksuele, niet-seksuele en algemene recidive onder jeugdige zedendelinquenten nauwkeurig te voorspellen. Desondanks worden deze risicobeoordelingen over het algemeen beschouwd als een belangrijk element in de

preventie van recidive onder jeugdige zedendelinquenten. Zo worden mede op basis van deze risicobeoordelingen beslissingen genomen met betrekking tot het opleggen van lange straffen en maatregelen. Echter, doordat de beoordeling van het risico op recidive vooral gebeurt op basis van statische (d.w.z. onveranderbare) risicofactoren, gaat men er ten onrechte van uit dat het plegen van seksuele delicten door jeugdigen onveranderlijk is, en vooral wordt veroorzaakt door stabiele interne karaktertrekken. Wegens de snelle psychische en lichamelijke ontwikkeling van jeugdigen is het echter zeer de vraag of het ethisch en psychologisch verantwoord is om lange termijn gevolgen op te leggen op basis van deze risicobeoordelingen. Een nauwkeurige beoordeling van het recidiverisico onder jeugdige zedendelinquenten vereist de inclusie van dynamische risicofactoren zoals delict-ondersteunende cognities, of de ontwikkeling van betrouwbare metingen van het risico op de korte termijn.

In **hoofdstuk 3** hebben we onderzocht of hands-on kindermisbruikers, hands-off kindermisbruikers en niet-delinquenten verschilden in hun seksueel misbruikervaringen tijdens de kindertijd. Daarnaast keken we of deze misbruikervaringen gerelateerd waren aan ernstiger niveaus van zelfgerapporteerde delict-ondersteunende cognities. De resultaten toonden aan dat het deel van de totale groep kindermisbruikers (hands-on en hands-off) dat een geschiedenis van seksueel misbruik rapporteerde (42,2%) bijna drie keer hoger was dan het deel van de niet-delinquenten dat een geschiedenis van seksueel misbruik rapporteerde (15%). Vooral hands-on kindermisbruikers rapporteerden dat zij als kind zelf seksueel misbruikt zijn (48,9%), maar dit deel was niet significant groter dan het deel van de hands-off kindermisbruikers dat rapporteerde zelf seksueel misbruikt te zijn (26,3%). Het niet vinden van een significant verschil tussen hands-on en hands-off kindermisbruikers in seksueel misbruikervaringen kan mogelijk verklaard worden door een te kleine groep hands-off kindermisbruikers.

Wel rapporteerde de totale groep kindermisbruikers (hands-on en hands-off) meer delict-ondersteunende cognities over seks met kinderen dan niet-delinquenten. Dit verschil werd vooral veroorzaakt door de hands-on kindermisbruikers, die ernstiger niveaus van delict-ondersteunende cognities rapporteerden in vergelijking met hands-off kindermisbruikers en niet-delinquenten. Er bestond echter geen relatie tussen het ervaren van seksueel misbruik in de kindertijd en het niveau van zelfgerapporteerde delict-ondersteunende cognities over seks met kinderen.

De volgende stap was te onderzoeken of de zelfgerapporteerde delict-ondersteunende cognities onder kindermisbruikers ook weerspiegeld werden in onbewuste, impliciete associaties tussen kinderen en seks (**hoofdstuk 4**). Hieruit bleek dat kindermisbruikers (zowel hands-on als hands-off) kinderen meer met seks associeerden dan dat zij volwassenen met seks associeerden. Niet-delinquenten (en een extra controlegroep bestaande uit verkrachters van volwassen vrouwen) daarentegen associeerden volwassenen meer met seks dan dat zij kinderen met seks associeerden.

Hoewel de gebruikte impliciete associatietest (de SC-IAT) in staat was de kindermisbruikers te onderscheiden van niet-delinquenten op basis van de sterkte en richting van hun kind-seks associatie, toonde de SC-IAT een lage sensitiviteit en specificiteit in het onderscheiden van deze groepen (AUC van .65). Desondanks bevestigen deze resultaten het robuuste karakter van de kind-seks associaties die zijn gevonden onder kindermisbruikers.

Na het vinden van delict-ondersteunende cognities en impliciete kind-seks associaties onder kindermisbruikers, ontstond de vraag of dergelijke cognities ook gerelateerd zijn aan lagere niveaus van empathie en aan verwrongen interpretaties van misbruiksituaties, welke zouden kunnen leiden tot (herhaald) kindermisbruik. De resultaten uit **hoofdstuk 5** laten zien dat cognities die het misbuik van kinderen rechtvaardigen van invloed zijn op hoe kindermisbruikers het gedrag van kinderen interpreteren. Delict-ondersteunende cognities lijken de drempel naar kindermisbruik te verlagen, door het toekennen van meer medewerking en bereidwilligheid van het kind in een misbruiksituatie. Bovendien was het minder goed begrijpen van andermans emotionele toestand of context (d.w.z. lagere niveaus van cognitieve empathie) gerelateerd aan ernstiger niveaus van delict-ondersteunende cognities, alsmede aan het toekennen van meer verantwoordelijkheid van het kind bij het ontstaan van misbruiksituaties.

In de laatste studie (**hoofdstuk 6**) onderzochten we wat de invloed was van de emotionele respons van een slachtoffer tijdens een misbruiksituatie op de interpretatie van deze situatie door kindermisbruikers en niet-delinquenten. Zowel kindermisbruikers als niet-delinquenten associeerden ambigue, oftewel onduidelijke, emotionele reacties van kinderen tijdens misbruiksituaties (d.w.z. giechelen en passief zijn) met meer instemming van het kind, met meer verantwoordelijkheid van het kind, en met meer positieve gevolgen voor het kind, dan niet-ambigue negatieve emotionele reacties (d.w.z. huilen en weigeren). Kindermisbruikers verschilden niet in de manier waarop zij de misbruiksituaties interpreteerden van niet-delinquenten. Bovendien werden kindermisbruikers niet op een andere manier beïnvloed door de emotionele respons van een kind tijdens misbruiksituaties dan niet-delinquenten.

Discussie en implicaties

In **hoofdstuk 7** zijn de belangrijkste resultaten besproken en geïnterpreteerd in de context van de beschikbare literatuur betreffende delict-ondersteunende cognities en theorieën over kindermisbruik. Na een discussie over de sterke en zwakke punten van de studies, werden de belangrijkste conclusies van dit proefschrift besproken:

1. Risicotaxatie instrumenten voor jeugdige zedendelinquenten zijn onvoldoende nauwkeurig in het voorspellen van seksuele, niet-seksuele en algemene recidive. Wegens de snelle ontwikkeling van jeugdigen is het onethisch om jeugdige

zedendelinquenten lange-termijn consequenties op te leggen op basis van deze statische risicobeoordelingen alleen.

2. Kindermisbruikers onderscheiden zich van niet-delinquenten met betrekking tot hun cognities die seks met kinderen rechtvaardigen, d.w.z. delict-ondersteunende cognities, en hun impliciete associaties tussen seks en kinderen. Vooral mannen die hands-on misbruik hebben gepleegd zijn meer gestoord in hun cognities over seks met kinderen dan mannen die hands-off misbruik hebben gepleegd. Het hebben van cognities die kindermisbruik rechtvaardigen beïnvloedt de manier waarop het gedrag van kinderen wordt geïnterpreteerd, wat het risico op kindermisbruik kan verhogen. Dit benadrukt het diepliggende karakter van de delict-ondersteunende cognities, vooral bij hands-on kindermisbruikers, en de noodzaak van intensieve behandeling van deze cognities om recidive te voorkomen.
3. Het deel van de kindermisbruikers dat zelf seksueel misbruikt is als kind, is bijna drie keer groter dan het deel van de niet-delinquenten dat seksueel misbruikt is als kind. Vooral mannen die hands-on kindermisbruik hebben gepleegd rapporteerden dat zij als kind zelf seksueel zijn misbruikt.
4. Seksueel misbruikervaringen in de kindertijd zijn niet gerelateerd aan cognities die seks met kinderen rechtvaardigen, d.w.z. delict-ondersteunende cognities.
5. Delict-ondersteunende cognities zijn voornamelijk post-hoc rationalisaties om kindermisbruik te rechtvaardigen en gevoelens van schuld en schaamte die het gevolg zijn van het misbruik te voorkomen.
6. Ambigue, ofwel onduidelijke emotionele reacties van kinderen die volgen op een seksuele aanraking, worden gezien als aanwijzingen dat het kind mede verantwoordelijk was, meer positieve gevolgen ervaarde, en meer instemmend was met de seksuele aanraking dan duidelijke, negatieve reacties die volgen op een seksuele aanraking. Kinderen moet daarom geleerd worden hoe zij duidelijk moeten weigeren, om zo de kans dat ze seksueel misbruikt zullen worden, te verminderen.

De klinische implicaties van deze conclusies zijn gericht op de verbetering van risicotaxatie-instrumenten voor jeugdige zedendelinquenten, en op de noodzaak van een intensieve behandeling van delict-ondersteunende cognities die kindermisbruikers karakteriseren.

Ten eerste moeten er voor de populatie jeugdige zedendelinquenten betrouwbare risicotaxatie instrumenten worden ontwikkeld, die gericht zijn op het meten van korte-termijn risico's. Omdat deze jeugdigen zich nog psychisch en lichamelijk (seksueel) ontwikkelen, moet de nadruk verschuiven van de inclusie van statische risicofactoren naar de inclusie van dynamische risicofactoren.

Ten tweede, de opsporing en de omvorming van delict-ondersteunende cognities bij kindermisbruikers is een doel op zichzelf voor de behandeling. Het diepliggende karakter van deze delict-ondersteunende cognities en het risico op het verkeerd interpreteren van gedrag van kinderen kunnen leiden tot kindermisbruik, wat de noodzaak van intensieve behandeling benadrukt.

Ten derde, om de rol van delict-ondersteunende cognities, empathie en interpretaties in het delictproces van kindermisbruikers verder te verduidelijken, zouden toekomstige studies deze constructen in meer realistische situaties of met meer realistische teststimuli moeten onderzoeken. Wellicht wordt de cognitieve verwerking sterker gedreven door delict-ondersteunende cognities, verwrongen interpretaties, en tekorten in empathie, wanneer kindermisbruikers seksueel opgewonden zijn. Deze seksuele opwinding kan experimenteel opgewekt worden middels virtual reality of door het tonen van seksueel getint beeldmateriaal. Op deze manier kunnen we de processen die leiden tot een strafbaar feit zorgvuldiger identificeren, en de behandeling richten op het voorkomen van de activering van dergelijke processen.

Ten vierde is er een grote noodzaak om het bredere publiek te onderwijzen over seksueel misbruik van kinderen, aangezien ambigue, onduidelijke emotionele reacties van kinderen tijdens misbruiksituaties kunnen leiden tot verwrongen interpretaties over de intenties en de grenzen van kinderen. Daarnaast is het niet alleen belangrijk om volwassenen te leren dat kinderen geen seks willen, ongeacht hun emotionele reactie, maar ook om kinderen te leren hoe zij moeten reageren op seksuele confrontaties met volwassenen, en hoe zij zich actief kunnen verzetten tegen ongewenst fysiek contact. Kinderen moet worden geleerd duidelijke negatieve reacties te geven op ongewenste verzoeken betreffende seksueel contact, en dat ze dergelijke ongewenste verzoeken altijd aan hun verzorgers of docenten melden.

Daarnaast is het belangrijk om de 'van slachtoffer-naar-dader cyclus' (d.w.z. de misbruikte-misbruiker hypothese) te doorbreken om nieuwe slachtoffers van seksueel misbruik te voorkomen. De bewustwording onder de geestelijke gezondheidszorg en, net zo belangrijk, onder leraren, moet groter worden met betrekking tot eventuele tekenen van misbruik, zodat zij professionals tijdig kunnen waarschuwen.

Ten slotte worden enkele aanbevelingen voor toekomstig onderzoek gegeven. Toekomstige studies zouden de verschillen in type en ernst tussen hands-off en hands-on kindermisbruik verder moeten verduidelijken om zo het plegen van ernstiger (d.w.z. hands-on) delicten te voorkomen. Daarnaast kan een verdere subtypering onder kindermisbruikers, zoals bijvoorbeeld autistische daders of antisociale daders, bijdragen aan een beter begrip van bepaalde etiologische paden die leiden tot kindermisbruik en hun specifieke behandelbehoeften. De behandeling kan vervolgens worden aangepast op de factoren die het meest vatbaar zijn voor interventie onder bepaalde subtypes.

Er is tevens behoefte aan empirisch gevalideerde modellen over seksueel delictgedrag, om de verschillende processen die leiden tot kindermisbruik met elkaar in verband te kunnen brengen en hun relatieve sterkte daarin te bepalen. Inzicht krijgen in de processen die ten grondslag liggen aan het ontstaan, de continuering, en de rechtvaardiging van kindermisbruik, is een essentiële voorwaarde voor de ontwikkeling van succesvolle preventie- en behandelingsprogramma's. Om het delictproces te kunnen ontrafelen, moet de invloed van processen als empathie en interpretatie op het delictproces verder worden onderzocht, evenals de relaties tussen andere factoren die gerelateerd zijn aan seksueel delictgedrag. Deze factoren omvatten biologische (genen, vroege en late ontwikkeling van de hersenen), ecologische (sociale, culturele en persoonlijke omstandigheden), en neuropsychologische factoren (perceptie, motivatie, emotie, controle), en de klinische symptomen die aanwezig zijn in kindermisbruikers (sociale problemen, emotionele problemen, seksuele opwinding).

About the author:

Curriculum Vitae
Publications
and
PhD Portfolio

Curriculum Vitae

Inge Sarah Hempel was born on January 9th, 1983 in Rotterdam. From 2004 she studied Psychology at the Erasmus University Rotterdam. In 2007 she obtained her MSc degree in Educational and Developmental Psychology. After obtaining her MSc degree, she worked as a researcher at the Erasmus MC, studying the criminal careers of juvenile delinquents. From 2008, she worked on forensic care programs for delinquents with a mandatory hospital order (TBS) at the Expertise Centre of Forensic Psychiatric (EFP) in Utrecht. In January 2009, in cooperation with the EFP, she started her part-time PhD project on offense-supportive cognitions among child sex offenders at the Erasmus Medical Center. In 2010 she worked as a psychologist at ‘Het Dok’, a forensic psychiatric outpatient and day treatment centre. At 'Het Dok', she was mainly involved with the treatment of sex offenders for three days a week, and with the further implementation of her PhD project at the Erasmus MC for two days a week, until the end of 2011. After a fulltime appointment at the Erasmus MC, she worked on a research project at the Adviescollege Verloftoetsing TBS (AVT) from July 2012. The AVT is an independent organization that examines all requests for leave for serious delinquents with a mandatory hospital order (TBS). This study focuses on how the risk management for sex offenders with a TBS order is being arranged.

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Buck, N., **Hempel, I. S.**, & Van Marle, H. J. C. The presence of both versions of the dangerous world implicit theory among child molesters as assessed with an implicit measure: a first study. (*Submitted*).

Dutch publications

Hempel, I. S., Buck, N., & Van Marle, H. J. C. (2009). *De PIJ voorbij: Een onderzoek naar de justitiële en psychiatrische vervolgcontacten na een PIJ-maatregel.* In: T. I. Oei & M. S. Groenhuijsen (2009). *De forensische psychiatrie en haar grensgebieden - actualiteit, geschiedenis en toekomst* (pp. 207). Deventer: Kluwer.

Hempel, I. S., Buck, N., & Van Marle, H. J. C. (2008). *De PIJ voorbij: Een onderzoek naar de justitiële en psychiatrische vervolgcontacten na een PIJ-maatregel.* Rotterdam: Erasmus MC. Rapport DJI.

Hempel, I. S., & Van Marle, H. J. C. (2013). *Risicomanagement in de verlofpraktijk. Part 1 Zeden.* Rotterdam: Erasmus MC. Rapport Adviescollege Verloftoetsing TBS (AVT).

PhD Portfolio

Name PhD student: Inge Hempel **Erasmus MC Department**: Psychiatry **Research School**: NIHES	**PhD period**: January 2009- June 2013 **Promotor:** Prof. dr. H.J.C. van Marle **Co-promotor**: Dr. N.M.L. Buck

1. PhD training	**Year**	**Workload (ECTS)**
General academic and research skills - Classical Methods for Data-analysis - Biomedical English Writing and Communication	2010 2011	5.7 4.0
Other - Basisaantekening Psychodiagnostiek **-** Het Dok forensische poli- en dagkliniek.	2011	10.0
International conferences and presentations - 9th Conference of the International Association of Forensic Mental Health Services (IAFMHS), Edinburgh, Scotland (Presentation) - 10th Conference of the IAFMHS, Vancouver, Canada (Presentation) - 11th Conference of the IAFMHS, Barcelona, Spain (Presentation) - 12th Conference of the IAFMHS, Miami, Florida, USA (Poster presentation) - 13th Conference of the IAFMHS, Maastricht, The Netherlands (Presentation)	 2009 2010 2011 2012 2013	 1.0 1.0 1.0 1.0 1.0
2. Teaching activities		
	Year	**Workload (ECTS)**
- Supervising Master's theses (3 MSc theses) - Supervising medical students writing a review ('tweedejaars keuzeonderwijs')	2010 - 2013 2012 - 2013	5.0 1.0
Total (ECTS)		**30.7**

Stellingen

Stellingen behorende bij het proefschrift

1. Risicotaxatie instrumenten voor jeugdige zedendelinquenten blijken de kans op recidive onvoldoende te kunnen voorspellen. Jeugdigen zijn lichamelijk en psychologisch nog in ontwikkeling en beslissingen over het al dan niet opleggen of verlengen van een straf of maatregel kan daarom niet worden gebaseerd op een risicotaxatie instrument alleen. (*dit proefschrift*)

2. Kindermisbruikers kunnen onderscheiden worden van gezonde mannen op basis van hun cognities die kindermisbruik rechtvaardigen, d.w.z. delict-ondersteunende cognities. Tevens associëren kindermisbruikers kinderen meer met seks dan dat zij volwassenen met seks associëren. (*dit proefschrift*)

3. In dit onderzoek is het gedeelte kindermisbruikers dat zelf op enig manier seksueel misbruikt is bijna drie keer zo groot als het gedeelte mannen zonder delictverleden dat zelf op enige manier seksueel misbruikt is. Vooral mannen die een seksueel delict hebben gepleegd waarbij daadwerkelijk fysiek contact met een kind plaatsvond zijn vaker zelf seksueel misbruikt. (*dit proefschrift*)

4. Cognities die kindermisbruik rechtvaardigen, d.w.z. delict-ondersteunende cognities, zijn niet gerelateerd aan eigen seksueel misbruik ervaringen tijdens de kindertijd. (*dit proefschrift*)

5. Onduidelijke emotionele reacties van kinderen die volgen op een seksuele aanraking, worden zowel door kindermisbruikers als door gezonde mannen gezien als een aanwijzing dat het kind ermee instemde, dat het kind mede verantwoordelijk was, en dat het kind er voordeel van ondervond. Kinderen moet daarom worden geleerd heel duidelijk negatief te reageren om de kans dat ze seksueel misbruikt worden te verkleinen. (*dit proefschrift*)

6. Libidoremmende medicatie zou niet alleen opgelegd moeten worden op basis van een medische indicatie, maar ook op basis van een veiligheidsindicatie.

7. De bemoeienis van verzekeringen met de zorg voor psychiatrische patiënten maakt dat geld belangrijker wordt dan de juiste diagnose, en leidt tot een verslechtering van de dossiervorming en wetenschappelijk onderzoek.

8. De overmatige blootstelling aan seks in de media leidt onder de huidige generatie jeugdigen tot een verkeerde voorstelling van seksualiteit en relaties, wegens het ontbreken van elk voorbeeld van intimiteit.

9. 'Nederlanders hebben nog steeds groot vertrouwen in de wetenschap, meer dan bijvoorbeeld in de Tweede Kamer, de rechtspraak of in kranten'. (Rathenau Instituut en Wetenschappelijke Raad voor het Regeringsbeleid, 02-07-2013).

10. Pestgedrag door leeftijdsgenootjes leidt niet alleen tot een verhoogde kans op zelfmoord, maar ook op het plegen van een zedendelict.

11. 'You may have to fight a battle more than once to win it'. (Margaret Thatcher)