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EFFECT OF SEXUAL AROUSAL ON CHILD SEX OFFENDERS' IMPLICIT AND  
EXPLICIT ATTITUDES TOWARDS CHILD SEXUAL ABUSE

by

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A thesis submitted to

The Faculty of Graduate and Postdoctoral Affairs

in partial fulfillment of the requirements for the degree of

Master of Arts

in

Psychology

Carleton University  
Ottawa, Canada

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*Your file* *Votre référence*  
ISBN: 978-0-494-71717-2  
*Our file* *Notre référence*  
ISBN: 978-0-494-71717-2

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## Abstract

Theories and empirical findings suggest that attitudes supportive of child sexual abuse (CSA) and sexual arousal may be associated with deviant sexual behaviour. An experimental design was used to investigate the effect of sexual arousal on child sex offenders' implicit and explicit attitudes towards CSA. Data was collected from 18 child sex offenders and 18 non-sex offenders from institutions in Canada. Participants were evaluated on two Implicit Association Tests (IAT) designed to assess implicit attitudes towards CSA, and two questionnaires that measure explicit attitudes towards CSA (Sex with Children Scale and CSA Semantic Differentials). Participants read an erotic or control story and then completed the measures a second time. Sexual arousal appears to be a strong emotional state. As hypothesized, when sexually aroused, child sex offenders' implicit attitudes became significantly more positive towards sex with girls. The IAT may be a viable supplement to self-report measures in forensic settings.

## Acknowledgements

I would like to express my warm and sincere gratitude to my supervisor, Dr. Kevin Nunes, Ph.D. He has been a source of constant support and guidance throughout the thesis process. His passion, dedication, and optimism have been of great inspiration. I am honored to have been given the opportunity to learn from him.

Thank you to my internal and external committee members, Dr. Craig Bennell, Ph.D., Dr. Shelley Brown, Ph.D., and Dr. Katharine Kelly, Ph.D., for their thoughtful feedback and suggestions. I wish to thank my thesis Chair, Dr. Connie Kristiansen, Ph.D. “You successfully passed.” I am truly thankful for those three words. I would also like to thank Carleton University and the Graduate Studies administrative staff.

I am deeply grateful to Dr. Yolanda Fernandez, Jan Looman, Ed Peacock, Grant Harris, Marnie Rice, Terry Chaplin, Erin McCormick, Ka-Hung Law, and Maureen Butler for reviewing my thesis proposal and assisting with data collection.

I would like to extend my heartfelt gratitude to a great friend and colleague, Chantal Hermann, M.A. Your constant direction, reassurance, and talent are valued. I cherish all the memories we have made. I also wish to thank Ian McPhail, M.A. and Kelly Babchishin, M.A. for their great insight and constructive wisdom.

I owe my loving appreciation to Derek Pasma, M.A. for his unwavering encouragement, commitment, and patience. Thank you to all my friends who constantly remind me of how important living a balanced life is. Renee Grenon, I am grateful for all the laughs and heartfelt advice. Lastly, and most importantly, I wish to express loving gratitude to my mother and father who have always been there for me and who have always trusted in my accomplishments. To them I dedicate this thesis.

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## Effect of Sexual Arousal on Child Sex Offenders' Implicit and Explicit Attitudes towards Child Sexual Abuse

Child sexual abuse is a serious problem that has profound implications for victims and communities (Hall & Hirschman, 1992). Approximately 8% to 25% of females and 5% to 9% of males report having been sexually abused as a child; however, the true extent of child sexual abuse is not known because it is thought to be largely under-reported (Hall & Hirschman, 1992). Children are at risk of being sexually abused by family members, individuals outside of the family, such as neighbors or teachers, and by strangers (Saunders, 2003). The abuse typically results in serious short- and long-term problems for the victim, such as depression, suicidal ideation, post-traumatic stress disorder, poor self-esteem, and sexual dysfunction (Arnou, 2004; Batten, Aslan, Maciejewski, & Mazure, 2004; Bensley, Van Eenwyk, & Wynkoop Simmons, 2003; Bonomi, Anderson, Rivara, & Thompson, 2007)

According to Finkelhor (1984), risk factors for the perpetration of initial sex crimes against children include emotional attachment with children, difficulties in normal relationships, and sexual arousal to children. In a recent meta-analytic review, Whitaker et al. (2008) categorized various risk factors from a number of sex offender studies and found differences between child sex offenders, non-sex offenders, and non-offenders in six different risk factor categories. These categories included: family history (e.g., history of abuse), externalizing behaviors (e.g., violence, delinquency), internalizing behaviours (e.g., depression, low self-esteem), maladaptive sexual behaviors (e.g., sexual interest in children, deviant sexual fantasies), problems in social deficits (e.g., social skills, empathy, loneliness), and attitudinal/cognitive variables (e.g., attitudes towards sexual abuse, rationalizations).

The development of sex offender research has been extensive over the past several decades and findings have resulted in a greater understanding of the offence process. However, important research gaps remain. Given the severity of the effects of victimization, the mixed evidence for the effectiveness of sex offender treatment (Marshall & Marshall, 2007), and varying rates of recidivism (Hanson & Morton-Bourgon, 2007), further exploration of these gaps is imperative.

While it is understood that attitudes help facilitate and maintain deviant behaviour (Beech & Ward, 2004; Finkelhor, 1984; Hall & Hirschman, 1992; Marshall & Barbaree, 1990) the relationship between attitudes and child sexual abuse is not yet well understood. Furthermore, with the understanding that strong emotional states are able to influence attitudes (see Gawronski & Lebel, 2008), it is important to understand how a situationally relevant emotional state such as sexual arousal affects child sex offenders' attitudes. Thus, the present study was designed to examine the effect of sexual arousal on attitudes towards child sexual abuse in institutionalized offenders.

### *Attitudes*

Attitudes are defined as cognitive evaluations (e.g., pleasant-unpleasant, harmful-beneficial, positive-negative) of objects, people, places, and events (Eagly & Chaiken, 1993; Petty & Brinñol, 2006; Stedman, 2002). Attitudes are composed of affective, behavioural, and cognitive elements and fulfill our psychological needs (e.g., reduce feelings of guilt), facilitate adaptation to the environment, and help shape behaviour (Katz, 1960; Olson & Zanna, 1993). Researchers have found that stable attitudes are resilient to persuasion and greatly affect behaviour (Fazio, Sanbonmatsu, Powell, &

Kardes, 1986; Fazio & Williams, 1986; Fazio, 1989; Roskos-Ewoldson & Fazio, 1992; Wilson, Lindsay, & Schooler, 2000).

According to several social psychology attitude-behaviour models (e.g., Fishbein & Ajzen's [1975] theory of reasoned action, and Ajzen's [1985] theory of planned behaviour), attitudes are related to and can predict behaviour. Over the years, several researchers have empirically examined the attitude-behaviour relationship. For example, Kraus (1995) conducted a meta-analytic review of 88 attitude-behaviour studies and demonstrated that attitudes significantly predicted future behaviour ( $r = .38; p < .001$ ). More specifically, Houben and Weirs (2006a, 2007) found that positive and negative implicit attitudes towards alcohol predicted alcoholic consumption. In another study, researchers examined the attitudes of 50 Christian Arab families, and the results showed that positive attitudes towards physical punishment predicted such behaviour (Guttman, Lazar, & Makhoul, 2009). Furthermore, Briere (1983) found that various rape-supportive attitudes and beliefs such as victim blaming and viewing sexual violence were successful predictors of both likelihood to rape and the use of physical violence. Therefore, these findings provide evidence that attitudes are good predictors of both non-violent and violent behaviour.

Regarding child sex offenders' attitudes, the most prominent theories of child sexual offending suggest that attitudes help to facilitate and maintain deviant sexual behaviour (see Beech & Ward, 2004; Finkelhor, 1984; Hall & Hirschman, 1992; Marshall & Barbaree, 1990). In a meta-analysis of studies examining various risk factors of child sexual abuse, Whitaker et al. (2008) found a medium effect size for attitudes that minimize offender culpability between child sex offenders and non-sex offenders ( $d =$

.63;  $k = 4$ ). Additionally, child sex offenders demonstrated more attitudes tolerant of sex with children ( $d = .49$ ;  $k = 3$ ) and more attitudes that minimize offender culpability than non-offenders ( $d = .54$ ;  $k = 3$ ). That is, child sex offenders revealed significantly more attitudes conducive to sexual offending than non-sex offenders and non-offenders. It should be noted, however, that these effect sizes were calculated from very few studies and many more studies in this area are needed. In another study, Tennfjord (2006) found that child sex offenders ( $n = 36$ ) held more positive attitudes towards sex with children than an adult community sample ( $n = 296$ ) and active Christians ( $n = 125$ ). Interestingly, several sexual offender treatment programs ranging from low to high intensity also target attitudes as risk factors (Maletzky, 1998). This implies that treatment providers recognize attitudes to be an important factor implicated in sexual offending. The available evidence demonstrates that attitudes maintained by child sex offenders differ from non-child sex offenders, which suggests attitudes may contribute to child sexual offending.

#### *Implicit and Explicit Attitudes*

Attitude research has shown two distinct types of attitudes exist: implicit and explicit attitudes. Implicit attitudes are evaluations of objects that arise unconsciously through automatic associations (Bagozzi, 1978; Breckler, 1984; Cacioppo, Petty, & Morris, 1983; Greenwald & Banaji, 1995; Kothandapani, 1971; Ostrom, 1969). They do not require much cognitive processing or deliberate evaluation of stimuli. Implicit attitudes are activated regardless of whether the person considers the evaluation to be true or false. For example, a person has a favourable implicit attitude towards physical violence even though they regard that evaluation as inaccurate. Explicit attitudes are evaluations of objects that can be consciously reported through introspection.

Implicit attitudes are thought to derive from early socialization experiences and are argued to be relatively stable (Gregg, Seibt, & Banaji, 2006). In contrast, explicit attitudes are considered to be more recently acquired and are thought to coexist with the older, more stable implicit attitudes (Gregg, Seibt, & Banaji, 2006; Petty, Tormala, Briñol, & Jarvis, 2006; Rudman, Phelan, & Heppen, 2007; Rydell & McConnell, 2006; Wilson, Lindsey, & Schooler, 2000). Nevertheless, growing empirical evidence reveals mixed results. Drawing on dual process-models (e.g., Fazio & Olson, 2003; Sloman, 1996), several experimental studies have found that by manipulating different factors such as attention (Castelli, Zogmaister, Smith, & Arcuri, 2004; Gilbert & Hixon, 1991), motivation (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2000; Sinclair & Kunda, 1999), and information (Gawronski & Lebel, 2008) both implicit and explicit attitudes are sensitive to change.

While there is mixed evidence with respect to whether both implicit and explicit attitudes can change, most available evidence shows that these attitudes can disagree. At times, a person may have similar implicit and explicit attitudes towards a concept (e.g., child sexual abuse is bad); however, attitudes can also be in conflict with each other. That is, people can simultaneously have both positive and negative attitudes towards an object, person, or event. For example, a man may explicitly evaluate sex with young girls as negative because the behaviour is deemed morally and legally wrong. However, he implicitly evaluates the act as positive because he is sexually attracted to young girls. Moreover, some studies have found changes in explicit attitudes but not implicit attitudes, whereas others have found changes in implicit attitudes but not explicit attitudes (see Gawronski & Boedenhuisen, 2006; Gawronski & Lebel, 2008; Gregg, Seibt, & Banaji,

2006). A recent meta-analytic review found that attitudes predict behaviour more strongly when implicit and explicit attitudes are more highly intercorrelated (Greenwald, Poehlman, Uhlmann, & Banaji, 2009).

Most work in the area of implicit and explicit attitudes has been devoted to more general social psychological research (e.g., race, old age, the self, political policies). One reason for this is a lack of valid forensic assessment measures suitable to measure offenders' implicit attitudes (Dawson, Barnes-Holmes, Gresswell, Hart & Gore, 2009). Explicit cognitions of child sex offenders (e.g., beliefs, justifications, minimizations, attitudes) are commonly evaluated using self-report questionnaires (Bumby, 1996; Cortoni, Gordon, Malcom, & Ellerby, 1991; Mann, Webster, Wakeling, & Marshall, 2007). The use and administration of self-report measures is convenient and these measures demonstrate acceptable reliability and validity. Nevertheless, self-report measures have been criticized given evidence that sex offenders minimize, justify, or deny their behaviour in order to appear socially desirable (see Gendreau, Irvine, & Knight, 1973; Kroner & Weekes, 1996). Furthermore, people are only able to self-report consciously accessible attitudes and accessible attitudes may not be accurately reported (Fazio & Olson, 2003). The finding that attitudes are activated unconsciously (or automatically) has led researchers to develop implicit attitude measures (Wilson, Lindsey, & Schooler, 2000), which appear to have the ability to assess attitudes towards socially sensitive topics such as rape and child sexual abuse. A growing body of empirical evidence suggests that the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) may capture unconscious attitudes that are not accessible by self-report measures (Banse, Seise, & Zerbes, 2001; Snowden, MacCulloch, Smith, Morris, & Gray, 2004).

*The Implicit Association Test (IAT)*

Over a century ago, F. C Donders made the first fundamental discovery that it is possible to quantify thought processes by computing response latencies between stimulus presentation and response construction (Lane, Banaji, Nosek, & Greenwald, 2007). Today, several methods that evaluate implicit attitudes exist, including the Stroop task, episodic or repetition priming, semantic priming, evaluation priming, and the IAT. In the 1990s, Greenwald and colleagues developed the IAT, an efficient measure used when conducting research on individual differences of implicit social cognition (Greenwald & Banaji, 1995; Greenwald et al., 1998; Lane, Banaji, Nosek, & Greenwald, 2007). The IAT is used in a number of areas within psychology such as social and cognitive psychology (Fazio & Olson, 2003; Greenwald, Nosek, & Banaji, 2003), clinical psychology (Teachman & Clerkin, 2007; Teachman, Wilson, & Komarovskaya, 2006), developmental psychology (Baron & Banaji, 2006), health psychology (Teachman, Gapinski, Brownell, Rawlins, & Jeyaram, 2003) and forensic psychology (Abel, Huffman, Warberg, & Holland, 1998; Gray, Brown, MacCulloch, Smith, & Snowden, 2005; Nunes et al., 2007). The IAT has been adapted to measure a diversity of implicit cognitions including gender differences (Baumeister, 2000), self-esteem (Greenwald & Banaji, 1995), phobias (Teachman & Woody, 2003), sexual orientation attitudes (Banse, Seise, & Zerbes, 2001), attitudes towards violence (Snowden, MacCulloch, Smith, Morris, & Gray, 2004), and associations between children and sex (Gray et al., 2005).

The IAT measures the strength of association between two pairs of concepts - categories (e.g., homosexual orientation and heterosexual orientation) and evaluations (e.g., good and bad) - using a stimulus/response paradigm. Participants rapidly classify

individual stimuli that represent concepts and evaluations (as words, symbols, or pictures) into one of four categories with two response options. Responses are faster and more accurate when a category and evaluation share the same association than when they do not.

The utility of the IAT can be seen clearly in an example from Jellison, McConnell, and Gabriel's (2004) study. In this study, the authors investigated homosexual and heterosexual participants' implicit and explicit attitudes towards sexual orientation. In stage 1 the participant rapidly classified words into the categories *gay* by pressing the 'd' key and *straight* by pressing the 'k' key. In stage 2 the same procedure was used but with the evaluations *good* and *bad*. In stage 3 the category *gay* and evaluation *good* were paired and the participant pressed the 'd' key when stimuli representative of that pairing was shown and the 'k' key when stimuli appeared representing the category *straight* and evaluation *bad*. In stage 4 the same procedure was repeated as in stage 1 but with more trials. In stage 5 and 6 the same procedure as in stage 3 and 4 was used; however, the paired categories and evaluations were reversed (e.g., *gay* and *bad* vs. *straight* and *good*). It was expected that homosexual participants would respond faster to the *gay* and *good* pairings (stage 3 and 4) suggesting more positive attitudes towards homosexuality, compared to the pairings in which *straight* and *good* share pairings and *gay* and *bad* share pairings (stage 6 and 7). Therefore, if participants in the *gay* group responded faster to the pairings *gay/good* than to the pairings *gay/negative*, the IAT would reveal greater positive implicit attitudes towards homosexual orientation. As hypothesized, Jellison et al. found that homosexual and heterosexual individuals had more positive implicit and explicit attitudes towards their own in-group. Furthermore, strong correlations were

found among the implicit and explicit sexual orientation measures. Specifically, heterosexual participants but not homosexual participants revealed a negative relationship between attitudes towards heterosexuality and homosexuality. Thus, as evidenced by this example, the IAT appears to be an effective tool for assessing implicit attitudes.

### *Psychometric Properties of the IAT*

As noted above, the IAT has been adapted and used in many different domains. Each time the IAT is adapted for a different study, the individual items also change. Therefore, it is important to consider the psychometric properties given that it is these statistics that could drastically change if items are not carefully developed for the particular purpose of the study. Despite the possibility of changing psychometrics, the IAT has displayed acceptable psychometric properties. For example, with respect to reliability, a number of authors have reported that the IAT has exhibited impressive internal consistency ( $\alpha$  ranged from .70 to .90) and split-half correlations (Bosson, Swann, & Pennebaker, 2000; Dasgupta & Greenwald, 2002; Greenwald & Farham, 2000; Greenwald & Nosek, 2001; Schmukle & Egloff, 2004). When compared to other implicit measures, the IAT has displayed superior reliability. For example, Teige, Schnabel, Banse, and Asendorpf (2004) directly compared the IAT with the Extrinsic Affective Simon Task (EAST). As predicted, the IAT outperformed the EAST, which suffered from poor internal consistency (EAST,  $\alpha = .19, .24, .19$ ; IAT,  $\alpha > .75$ ). Importantly, the IAT has also been found to be robust against procedural variations such as number of trials, number of stimuli per category, and stimulus familiarity (see Dasgupta, Greenwald, & Banaji, 2003; Dasgupta, McGhee, Greenwald, & Banaji, 2000; Greenwald et al., 1998; Greenwald & Nosek, 2001; Nosek, Greenwald, & Banaji, 2005; Ottaway, Hayden, & Oakes, 2001).

Across nine available studies with data on multiple domains (e.g., anxiety, racial attitudes, extroversion), the IAT has established good test-retest reliability (median  $r = .56$ ; Nosek et al. 2007; Schmukle & Egloff, 2004). When the same criterion was evaluated, Greenwald and colleagues found that IATs and self-report measures highly correlated ( $r = .80$ ). In a meta-analytic review of predictive validity, Greenwald et al. found that the mean predictive validity, according to 122 reports comprised of 184 independent samples was moderate,  $r = .27$ . The IAT sustained greater predictive validity than self-report measures. However, when IATs and self-report measure are used jointly, each type tended to provide a gain in predictive validity. Furthermore, when IATs and self-report measures strongly correlate the predictive validity of the IAT tends to be larger. When compared to self-report measures, the IAT also appears resistant to deliberate faking and deliberate alteration in practice (Asemendorpf, Banse, & Mucke, 2002; Steffens, 2004). For instance, participants were able to fake positive attitudes towards gay men on a self-report measure but not on a homosexual/heterosexual-IAT (Banse, Seise, & Zerbes, 2001). Thus, the IAT appears to be a viable supplement to self-report measures (Steffens, 2004) and may be an effective tool for researchers investigating child sex offenders' attitudes towards child sexual abuse.

#### *Empirical Evidence of the IATs Validity in Sex Offender Samples*

In recent years, researchers have adapted the IAT to evaluate sex offenders' cognitions. Mihailides, Devilly, and Ward (2004) created three IATs to measure some of Ward's (2000) implicit cognitive distortions including *children as sexual beings*, *uncontrollability of sexuality*, and *sexual entitlement*. The IATs were administered to 25 child sex offenders, 25 offenders without sexual or violent offences, 25 male university

students, and 25 female university students. As hypothesized, child sex offenders classified the associations (e.g., “children” and “sexual”) significantly faster than the associations (e.g., “not children” and “sexual”). Furthermore, child sex offenders’ IAT *D* scores significantly differed from comparison groups. They found moderate to large effect sizes among child sex offenders and offenders without sexual or violent offences, and large effect sizes between child sex offenders and both male and female university students. Results suggest that child sex offenders’ implicit cognitions can be distinguished from non-sexual offenders.

In another study, Nunes et al. (2007) tested the cognitions of 27 child sex offenders and 29 non-sex offenders using an IAT to measure *sexual attractiveness* (sexy vs. not sexy) in children relative to adults (child vs. adult). As hypothesized, child sex offenders’ response latencies significantly differed from non-sex offenders, suggesting child sex offenders implicitly view children as more sexually attractive than non-child sex offenders. In addition, Nunes et al. found the association stronger for child sex offenders evaluated as high risk to sexually recidivate.

In 2005, Gray et al. conducted a study and reported similar findings as Mihailides et al. (2004) and Nunes et al. (2007). Gray et al. designed an IAT and measured implicit cognitive associations between sex and children of 18 child sex offenders and 60 offenders with violent and sexual offences against adults. Child sex offenders classified the associations (e.g., “child” and “sex”) significantly faster than the associations (e.g., “child” and “not sex”), whereas non-child sex offenders showed a reverse outcome. In addition, a large effect size was found between child sex offenders and non-child sex offenders ( $d = .84$ ), with child sex offenders showing a significantly stronger association

between children and sex than non-child sex offenders. To determine how well the IAT can classify individuals as child sex offenders or non-child sex offenders, the researchers conducted an AUC analysis. The IAT *D* score produced an AUC of 0.73, suggesting the IAT has predictive validity and may be a useful measure to assess child sex offenders' implicit cognitions.

Given that Gray et al., (2005) found a child and sex association in a mixed group of child sex offenders, Brown, Gray, and Snowden (2009) designed an IAT to determine whether child sex offender subtypes hold different implicit associations between children and sex. The IAT was tested on 54 pedophile offenders (victims aged less than 12 years old), 23 hebephile offenders (victims aged 12 to 15), and 49 non-sex offenders. As hypothesized, pedophile offenders showed a strong association between children and sex, whereas the hebephile offenders and non-sex offenders did not. In addition, while previous studies have never compared IAT *D* scores among offenders who admit their offences and those who deny their offences, the findings of Brown et al. revealed significant associations between children and sex in both admitters and deniers. Thus, the measure appears resistant to deliberate dissimulation, which is consistent with other research on the IAT (see Banse, Seise, & Zerbes, 2001; Egloff & Schmuckle, 2002; Fiedler & Bluemke, 2005; Stevens, 2004). Lastly, the IAT demonstrated acceptable test-retest reliability ( $r = .63$ ) and internal consistency ( $\alpha = .80$ ) in Brown et al.'s sample of 29 pedophile offenders, 14 hebephile offenders, and 33 control offenders. Therefore, the IAT appears to be effective at discriminating child sex offender subtypes, appears resistant to dissimulation, and may have clinical utility (Banse & Clarbour, 2007; van Leeuwen, van Baaren, Chakhssi, Loonen, Lippmen, & Dijksterhuis, 2009). That is, child

sex offenders report strong implicit associations between children and sex as measured by different versions of the IAT. The evidence appears consistent, suggesting the IAT may be a useful indirect measure of implicit cognitions associated with child sexual abuse.

### *Sexual Arousal*

Decisions to commit sexual offences are often made under the influence of emotional states such as fear, anger, excitement, or sexual arousal (Ariely & Loewenstein, 2006; Loewenstein, Nagin, & Paternoster, 1997). Of these emotional states, relatively little work in the field of forensic psychology has empirically examined the role of sexual arousal in the sexual offence process. Sexual arousal is controlled and driven by various regions of the brain (Arnold et al. 2002), while simultaneously strongly influenced and modified by learned experiences and the social and cultural environment; making it an amalgam of physiological and psychological mechanisms (Bancroft, 1989; Rosen & Beck, 1988). The literature suggests that sexual arousal is a strong motivational force in human behaviour and it has the ability to change attitudes and self-reported behaviours.

Rational Choice Theory (Becker, 1968) is a popular theory used to explain criminal offending. The theory assumes that humans weigh costs against benefits to determine behaviour. Recently, however, this theory has been criticized because its overemphasis on rational thinking and its failure to consider the effect of strong emotional states on attitudes and, in turn, behaviour. Some researchers have argued that sexual arousal has the capacity to disrupt males' ability for rational decision-making. For example, Gerrard, Gibbons, and Bushman (1996) stated that "the unique nature of the sex drive contributes to the fact that decisions about sex are oftentimes made in the heat of the moment—when the person is emotionally and physically aroused—rather than after careful, or even

rational, deliberation” (p. 400). By inducing a state of sexual arousal in males, Ariely and Loewenstein (2006) state that, with respect to sexual activity, “we are, in effect, parasitizing men’s evolved psychological mechanisms, providing internal and external cues that would ordinarily be associated with increased odds of gaining access to what Buss and Schmitt (1993) refer to as ‘short-term opportunistic copulation’” (p. 88). More importantly, for the purposes of the present thesis, Canin, Dolcini, and Adler (1999) point out that sexual arousal and desire for sexual gratification creates a sense of pressure that distorts attitudes, which leads to risk-taking behaviours.

Loewenstein (1996) has suggested that strong emotional states influence decision-making and behaviour in three specific ways. First, attention becomes more focused on factors related to the situation and less on peripheral factors. Second, resolving the situation quickly reduces the time to make a rational decision. Third, focusing on factors related to the situation ignores the potential impact of the decision on others. Therefore, when coupled with maladaptive sexual preferences, sexual arousal may impair important rational decision-making mechanisms. When sexually aroused, the pleasure derived from the sexual experience may be amplified while negative implications of the behaviour are underestimated. It appears that an important cognitive component is involved in the decision-making process. Additionally, emotional states seem to have a direct effect on these underlying cognitions.

#### *Ward and Hudson’s (1998) Self-regulation Relapse Model*

Developed from theoretical and empirical research on self-regulation and research on sexual offenders’ offence process, Ward and Hudson (1998) proposed the self-regulation relapse model of sexual offending. This comprehensive model is comprised of cognitive,

emotional, situational, and behavioural factors, which are thought to facilitate and maintain sexual offending. In this model, the sexual offence process includes the offender's goal types, planning strategies, and four relapse pathways. Ward and Hudson (1998) assert that sexual arousal and attitudes supportive of sex with children play a critical role in the offence process. For instance, some sex offenders do not want to offend but at the same time, they do not actively attempt to prevent their offending. These offenders become sexually aroused, lack the coping skills that would help suppress their urges, which results in sexual offending. Other offender types think they are using effective coping skills to suppress their sexual arousal (e.g., pornography) but their defective method increases their sexual urges and probability of committing child sexual abuse. Some offenders hold positive attitudes towards child sexual abuse and do not attempt to avoid deviant sexual behaviour; rather they work towards the commission of sex with children. However, offences are typically situational rather than planned. For example, a child is left alone under the offenders supervision, he becomes aroused by the child and thinks sex with children is a positive experience; the offender takes advantage of his situation. Lastly, this type of offender consciously plans their sexual offence and maintains entrenched attitudes supportive of sex with children throughout the offence process. The offender also uses sexual arousal throughout the offence to help maintain sexual gratification.

Although theoretically understood to play an important role in the offence process, the role of sexual arousal in the area of child sexual offending has received very little empirical attention. Moreover, our knowledge of the effect sexual arousal has on offender's attitudes towards sex with children appears virtually non-existent.

Nevertheless, the following research lends support to the notion that sexual arousal may also cause changes in the attitudes of child sex offenders.

*Empirical Evidence for Sexual Arousal Effects on Attitudes and Behaviour*

Most recently, Ariely and Loewenstein (2006) investigated the effect of sexual arousal on self-reported hypothetical decisions in a sample of 35 male undergraduate students. Participants were assigned to either a sexual arousal or a control condition. They were asked to indicate how attractive a range of sexual stimuli and activities were (e.g., “Can you imagine being attracted to a 12-year-old girl?” “Are women’s shoes erotic?” “Would you find it exciting to have anal sex?”); to report their willingness to engage in sexual risk-taking behaviours (e.g., “Would you encourage a date to drink?” “Would you slip her a drug?” “Would you have non-consenting sex?”); and to indicate their likelihood to have unprotected sex. Results suggested that sexual arousal had a strong impact on these areas of decision-making. Specifically, the authors found that stimuli perceived as relatively unattractive in a non-aroused state (e.g., being attracted to a 12 year-old girl) was significantly more attractive when sexually aroused. Participants in the sexual arousal condition also reported a greater willingness to engage in date rape behaviour and unprotected sex than participants in the control condition.

In a survey on adolescent condom use, Boldero, Moore, and Rosenthal (1992) found sexual arousal and negative attitudes towards the use of condoms was associated with a greater likelihood of engaging in unsafe sex. Blanton and Gerrard (1997) found similar results. In a sample of 40 male undergraduate students, sexual arousal was induced by the use of photographs and an imagery task. Results indicated that the sexual arousal manipulations lowered participants’ risk perceptions for sexually transmitted diseases. In

a study using a sample of homosexual males, Bancroft et al. (2003) examined the relationship between sexual arousability and high-risk sexual behaviours. The authors found that, when challenged by a sexual situation, men with less control over their sexual arousal were more likely to have unprotected anal and oral sex than those with greater control over their sexual arousal. In a parallel study, Bancroft et al. (2004) reported that heterosexual males who scored low on ability to control sexual arousal were also less likely to use condoms with their sexual partners.

Finally, in two similar studies, Bouffard (2002) and Loewenstein, Nagin, and Paternoster (1997) examined the effect of sexual arousal on self-reported propensity of male university students to engage in sexually aggressive behaviours. The results were mixed. Loewenstein et al. found that compared to participants in the control condition, those exposed to the sexual arousal condition reported a significantly greater likelihood to rape women. In contrast, Bouffard (2002) did not find support for this hypothesis; however, results showed that self-reported sexual arousal was related to likelihood to engage in sexual coercion. For the most part, these findings are consistent with a meta-analytic review of 30 experimental studies that investigated the effect of sexual stimuli on attitudes. Results of this review demonstrated that exposure to adult sexual stimuli had a significant medium-size effect on self-reported negative attitudes towards women and increased likelihood of physical and sexual aggression (see Allen, D'alezio, & Brezgel, 1995).

In sum, the literature on sexual arousal suggests that this strong emotional state is able to affect a variety of different attitudes and behaviors. In sexual situations, sexual arousal appears to create a kind of tunnel vision, where the individual is more likely to

perceive only the benefits of sex while underestimating or ignoring the ethical and health implications of their actions. In other words, when in the “heat of the moment,” sex is the only thing that matters, and the well-being of the other person is, in certain situations, neglected. Together, the results of the studies reviewed above support the idea that when males are in a state of sexual arousal and when faced with sexual situations, they are more likely to take risks. This reinforces the role of sexual arousal, as a possible important factor in the offence process. However, despite these important findings, a major limitation of these studies is the use of community samples. Not a single study reviewed above has investigated the effect of sexual arousal on attitudes of child sex offenders. This is surprising given the evidence from Ariely and Loewenstein (2006) suggesting that even healthy sexually functioning males are more likely to engage in risky and questionable sexual behavior when sexually aroused. How much more detrimental, then, could effects of sexual arousal be on attitudes of child sexual predators?

### *The Present Study*

The present study was designed to examine the effect of sexual arousal on attitudes towards child sexual abuse in a sample of incarcerated adult offenders. The goal was to determine if sexual arousal has an effect on both implicit and explicit attitudes. In the current study, the following hypotheses were examined:

*Hypothesis 1:* Child sex offenders in the sexual arousal condition will have significantly more positive implicit and explicit attitudes towards sex with children after the sexual arousal manipulation.

*Hypothesis 2:* Implicit and explicit attitudes of child sex offenders in the

control condition will not significantly differ after the non-arousal (control) manipulation.

*Exploratory Analysis 3:* What will happen to non-sex offenders' implicit and explicit attitudes towards child sexual abuse after they receive the sexual arousal manipulation?

*Exploratory Analysis 4:* What will happen to non-sex offenders' implicit and explicit attitudes towards child sexual abuse after they receive the control manipulation?

*Exploratory Analysis 5:* Will child sex offenders' and non-sex offenders' implicit and explicit attitudes positively intercorrelate?

## Method

### *Participants*

Thirty-six participants included in the present study, comprised of 18 men convicted of sexually offending at least one victim of less than 12 years-old and 18 men convicted of non-sexual offences. Participants were all adult male inmates in four different federal institutions and patients in a maximum-security forensic facility in Ontario. Participants were classified as child sex offenders if their files indicated that they had at least one index conviction (i.e. current offence), prior conviction, or convictions for a sexually motivated crime (e.g., convicted of murder but file indicates child sexual abuse) against a child less than 12 years-old. Participants were classified as non-sex offenders if their files indicated that they had no index charges, no prior charges, or convictions for a sexual offence or sexually motivated crime, and if they self-reported never having committed a sexual offence. The study received Certification of Ethical approval from Carleton University's Ethics Committee for Psychological Research, Correctional Service of Canada's Research Branch, and Oak Ridge's Research Division, Mental Health Centre, Penetanguishene.

Data were originally collected for the two offending groups ( $N = 50$ ); however, several participants were excluded from the study because after reviewing their files and data they did not meet the inclusion criteria. Three participants were excluded from the child sex offender group because they were considered hebephiles (victims aged 12 to 15). Another seven participants were removed given they exclusively sexually victimized adult women. Data was excluded from two non-sex offenders who self-reported sexually offending against children. The remaining two participants were removed because they

responded faster than 300 milliseconds on more than 10% of trials of both the Girls/Women-IAT and Boys/Men-IAT.

Demographic and offence information was collected from participants' files using Correctional Service of Canada's automated database, the Offender Management Systems (OMS) and via a self-report background questionnaire. Participants' age ranged from 22 to 65 ( $M = 38.30$ ,  $SD = 9.99$ ). More specifically, the child sex offenders were older ( $M = 41.57$ ,  $SD = 8.82$ ) on average than non-sex offenders ( $M = 34.27$ ,  $SD = 10.81$ ),  $t(31) = 2.25$ ,  $p < .05$  (please note: dates of birth were unavailable for three non-sex offenders). The majority of the sample described themselves as Non-Aboriginal (90.4 percent), with 9.6 percent describing themselves as Aboriginal.

For both the child sex offenders and non-sex offenders, approximately 50 percent indicated they were married at the time of their index offence, while approximately 50 percent indicated they were single. Sixty-three percent of the sample completed less than grade 12, while 13.9 percent had finished grade 12, and 3.7 percent graduated from University. Seventy-two percent of the sample reported making less than \$40,000 per year prior to their incarceration; whereas 27.9 percent reported they grossed over \$40,000 per year. Additional demographic characteristic regarding offenders' offences and victim information is shown in Table 1 (*please note*: various demographic information was not available for some offenders).

Table 1

*Offence and Victim Characteristics of Child Sex Offenders and Non-sex Offenders*

	Child Sex Offenders ( <i>N</i> = 18)	Non-sex Offenders ( <i>N</i> = 18)
	<i>M</i> ( <i>SD</i> ) / %	<i>M</i> ( <i>SD</i> ) / %
Sentence Length	4.09 (2.66)	2.00 (0.00)
No. Index Convictions		
Sexual	6.89 (9.16)	0
Violent	0.50 (.71)	0.67 (0.52)
General	0.75 (1.95)	2.67 (3.33)
No. Prior Convictions		
Sexual	2.23 (2.98)	0
Violent	0.33 (0.82)	4.20 (4.92)
General	3.50 (2.59)	13.17 (11.50)
Victim Characteristics		
No. Index		
Female Sexual Victims	1.60 (1.72)	
Male Sexual Victims	1.20 (2.11)	
Victim Age (Youngest)	9.31 (3.44)	
Victim Age (Oldest)	13.56 (3.29)	
No. Prior		
Female Sexual Victims	2.87 (1.51)	
Male Sexual Victims	2.43 (6.50)	

Table 1 Continued.

	Child Sex Offenders ( <i>N</i> = 18)	Non-sex Offenders ( <i>N</i> = 18)
	<i>M</i> (SD) / %	<i>M</i> (SD) / %
Victim Age (Youngest)	8.67 (3.5)	
Victim Age (Oldest)	13.22 (5.83)	
Index Victim Relationship		
Related	50.1	
Casual Acquaintance	22.3	
Stranger	16.7	
Other	5.6	
Treatment		
None	38.9	
Some	61.1	

*Note.* Sentence length = length of aggregate sentence for index offence(s) in years. No = number. General = non-sexual or non-violent offences. Related = biological family member or extended family member. Casual Acquaintance = e.g. neighbour. Stranger = offender did not know victim and/or victim did not know offender at least 24-hours prior to offence. For a more detailed description of relationship see coding manual (Appendix K). Treatment = sex offender treatment participation during sentence for index offence.

### *Recruitment*

Institutional staff provided a list of offenders/patients who generally met the inclusion criteria of the study (i.e. child sex offender or non-sex offender). This list of potential participants was used to contact all child sex offenders and non-sex offenders in each of the five facilities. The details of the participant were not known beforehand. Child sex offender and non-sex offender control groups of approximately equal size were recruited. Potential participants were invited to a private meeting with the researcher and subsequently informed that the study investigated attitudes regarding sex with children. Participants were also informed that they would read either a sexually explicit story or a control story. Participation was voluntary and informed consent was given. Participants provided written informed consent to participate in the experimental study and for researchers to have access to their institutional or patient files. Participants were also informed that there were no negative consequences for not participating in the study or withdrawing consent. No incentives were provided to the federal offenders; however, the patients received \$5 for their participation.

### *Measures*

#### *Implicit Association Tests*

The IATs used in the present study measured attitudes towards sex with girls relative to adult women and attitudes towards sex with boys relative to adult men. In the Girls/Women-IAT, the concept categories were labelled *sex with girls* and *sex with women* and in the Boys/Men-IAT, the concept categories were labeled *sex with boys* and *sex with men*. For example, a picture of a girl represented *sex with girls*, whereas a picture of an adult woman represented *sex with women*. Similarly, a picture of boy

represented *sex with boys*, while a picture of an adult man represented *sex with men*. For both IATs, the evaluation categories were labeled *positive* and *negative*. For example, the words *happy* and *paradise* represented positive and the words *poison* and *poor* represented negative. For each IAT, 5 positive and 5 negative words were used and 5 girl or boy pictures and 5 women or men pictures were used (see Tables 2 and 3 for a list of the words and pictures used in Girls/Women-IAT and Boys/Men-IAT).

All stimuli pictures were selected from the Not Reap People (NRP) Visual Stimuli Set. Pictures are digitally created composites that are produced and sold by Pacific Psychological Corporation (<http://www.pacific-psych.com/products/nrp.html>), a legitimate and recognized provider of forensic psychological services and products. The sale of the stimuli is restricted to licensed clinicians and academics conducting research in the area. Evaluation stimuli words were adapted from a previous IAT used in a student's M.A. thesis (Kessous, Babchishin, & Nunes, 2009), which examined attitudes towards sex with children. Stimuli were selected after the researchers ran a pretest to ensure that child sex offenders and non-sex offenders unanimously classified stimuli to the appropriate categories.

The IAT procedure used followed the standard stages and categorization trials established by Greenwald et al. 1998. Each IAT was comprised of five stages (see Figures 1-2 or Appendices A-B for an illustration of the Girls/Women-IAT and Boys/Men-IAT procedure). Instructions and examples preceded each of the stages. After each correct trial the next stimulus word or picture was displayed. Participants who responded correctly moved on to the next trial whereas participants who responded incorrectly were shown a red "X" below the stimulus. Participants could not move on to

the next trial or stage until they pressed the correct response.

In stage 1 (20 practice trials), the concept pictures were presented and participants were asked to sort them as belonging to either the *sex with women* or *sex with girls* category as quickly as possible by pressing the “d” key for *sex with women* and the “k” key for *sex with girls*. In stage 2 (20 practice trials), the evaluation words were presented and participants were asked to sort them as belonging to either the *positive* or *negative* category as quickly as possible by pressing the “d” key for *positive* and the “k” key for *negative*. In stage 3 (20 practice trials followed by 40 test trials), stimulus pictures and words representing both the concepts and the evaluations were presented. Participants were asked to sort the stimuli as belonging to the combined *sex with women + positive* categories by pressing the “d” key or the *sex with girls + negative categories* by pressing the “k” key. People who do not have a positive attitude towards sex with girls but rather a positive attitude towards sex with women would have a faster response time to these associations. In stage 4 (40 practice trials) the concept pictures were presented again but the concept categories were reversed. In stage 5 (20 practice trials followed by 40 test trials), stimulus pictures and words representing both the concepts and evaluations were presented again but the concept categories were reversed (for an illustration of the test trials see Figures 3a-b). People who have a positive attitude towards sex with girls but not sex with women would have a faster response time to these associations. The same procedure was used for the Boys/Men-IAT. *D* scores above zero indicate greater associations between *sex with girls* and *positive* and *sex with boys* and *positive*, whereas *D* scores below zero indicate greater associations between *sex with women* and *positive* and *sex with men* and *positive* (see Appendix C for how the IAT *D* score is computed).

Table 2

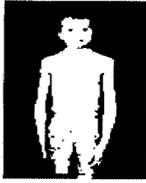
*Words and Picture Stimuli by Concepts and Evaluations in the Girls/Women-IAT*

Item #	Concept Categories		Evaluation Categories	
	Sex with Girls	Sex with Women	Positive	Negative
1			smile	poison
2			sunshine	sickness
3			paradise	cancer
4			peace	pollution
5			happy	poor

*Note.* Stimuli pictures were shown in colour.

Table 3

*Words and Picture Stimuli by Concepts and Evaluations in the Boys/Men-IAT*

Item #	Concept Categories		Evaluation Categories	
	Sex with Boys	Sex with Men	Positive	Negative
1			smile	poison
2			sunshine	sickness
3			paradise	cancer
4			peace	pollution
5			happy	poor

*Note.* Stimuli pictures were shown in colour.

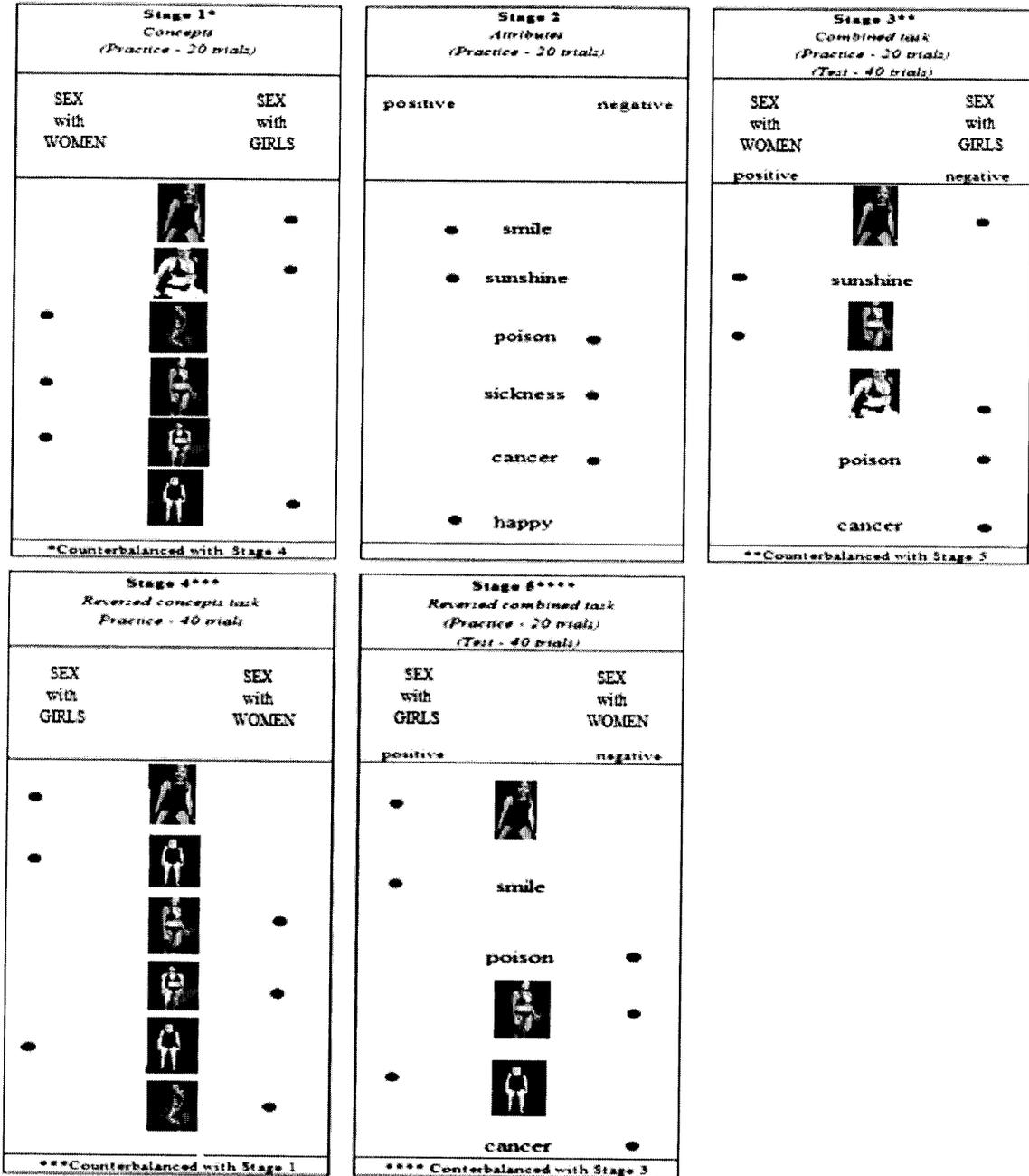


Figure 1. Illustration of the categorization tasks for the five stages of the Girls/Women - IAT. Black dots represent the correct response. The IAT effect is the difference in response times between Stages 3 and 5. Due to the possible effects of having the *sex with woman* versus *sex with girl* combination first, Stages 1 and 4 and Stages 3 and 5 are counterbalanced.

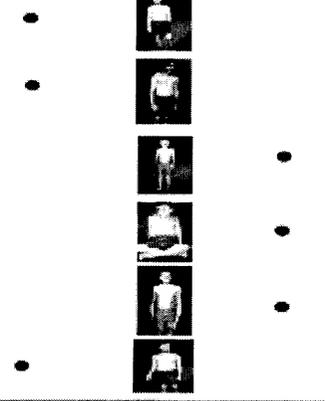
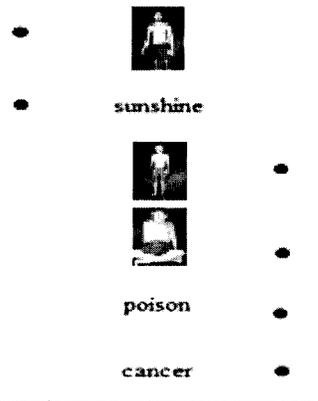
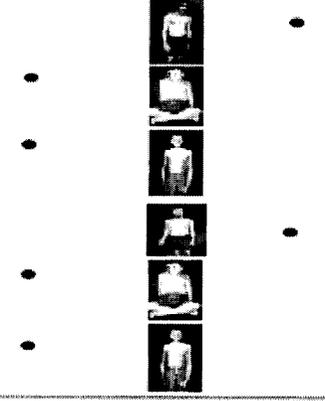
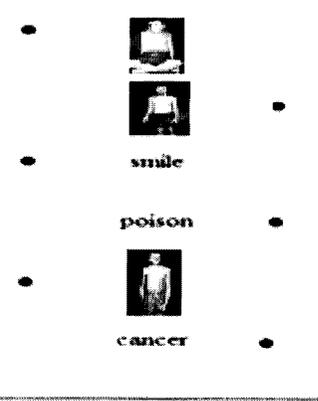
<b>Stage 1*</b> <i>Concepts</i> <i>(Practice - 20 trials)</i>	<b>Stage 2</b> <i>Attributes</i> <i>(Practice - 20 trials)</i>	<b>Stage 3**</b> <i>Combined task</i> <i>(Practice - 20 trials)</i> <i>(Test - 40 trials)</i>
SEX with MEN                      SEX with BOYS	positive                      negative	SEX with MEN                      SEX with BOYS positive                      negative
	<ul style="list-style-type: none"> <li>• smile</li> <li>• sunshine</li> <li>• poison</li> <li>• sickness</li> <li>• cancer</li> <li>• happy</li> </ul>	
*Counterbalanced with Stage 4		**Counterbalanced with Stage 5
<b>Stage 4***</b> <i>Reversed concepts task</i> <i>Practice - 40 trials</i>	<b>Stage 6****</b> <i>Reversed combined task</i> <i>(Practice - 20 trials)</i> <i>(Test - 40 trials)</i>	
SEX with BOYS                      SEX with MEN	SEX with BOYS                      SEX with MEN positive                      negative	
		
***Counterbalanced with Stage 1	**** Counterbalanced with Stage 3	

Figure 2. Illustration of the categorization tasks for the five stages of the Boys/Men - IAT. Black dots represent the correct response. The IAT effect is the difference in response times between Stages 3 and 5. Due to the possible effects of having the *sex with man* versus *sex with boy* combination first, Stages 1 and 4 and Stages 3 and 5 are counterbalanced.

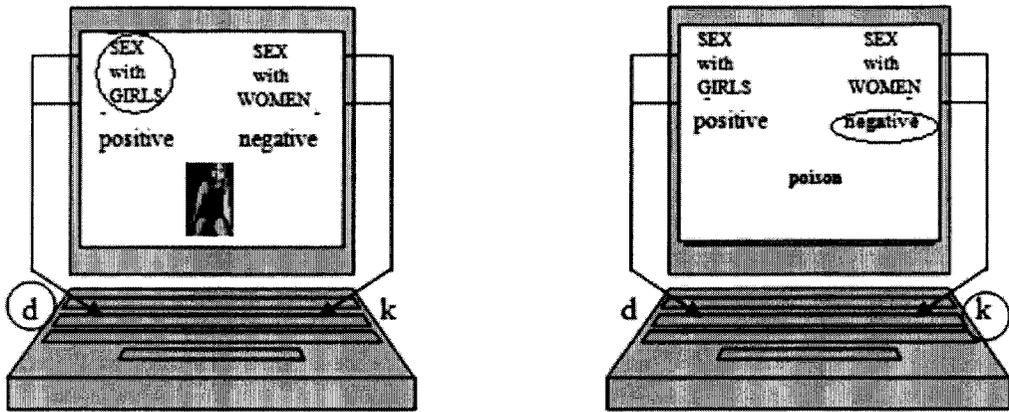


Figure 3a. Demonstration of the Girls/Women - IAT test trial. In this stage, *SEX WITH GIRL* and *positive* share the same response key “d” and *SEX WITH WOMEN* and *negative* share the same response key “k.”

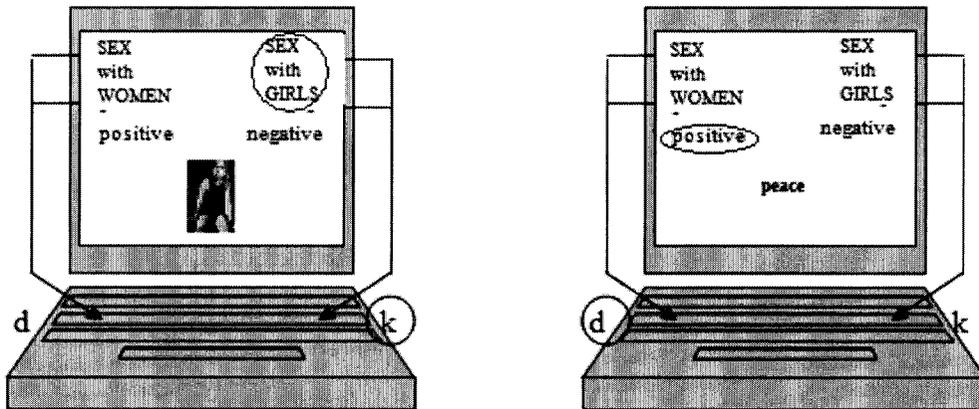


Figure 3b. Demonstration of the Girls/Women – IAT test trial. In this task, *SEX WITH GIRL* and *negative* share the same response key “k” and *SEX WITH WOMEN* and *positive* share the same response key “d.”

*The Sex with Children Scale*

The Sex with Children Scale (SWCH; Mann et al., 2007; Appendix D) is an 18-item questionnaire that measures attitudes and beliefs that support and justify child sexual abuse. The SWCH has a two-factor structure. The first factor includes items that are designed to assess beliefs that child sexual abuse is harmless (e.g., “Sex between adults and children is quite natural and healthy and it is only because of the repressive rules of our society that men are punished for doing this?”). The second factor includes items that are designed to assess beliefs that children are sexual in nature and they provoke child-adult sexual relationships (e.g., “Children who are unloved by their parents are actually helped by men who have sex with them?”). Responses are scored on a five point Likert scale, ranging from strongly disagree (1) to strongly agree (5). Total scores range from 18 to 90, where higher scores indicate more positive attitudes and beliefs towards child sexual abuse.

The SWCH has demonstrated acceptable reliability and validity. Mann et al. (2007) found that the SWCH total score revealed excellent internal consistency,  $\alpha = .94$  and test-retest reliability,  $r = .93$ . Similarly, the two sub-scales: Harmless Sex with Children and Provocative Sexual Children showed excellent internal consistency,  $r = .93$  and  $r = .87$ , respectively. The SWCH scores were significantly negatively correlated with the Balanced Inventory of Desirable Responding-Self-Deceptive Enhancement SDE,  $r = -.22$ ,  $p < .001$ . In addition, the SWCH scores indicated adequate concurrent validity with the Beckett Children and Sex Scale (Beckett, Beech, Fisher, & Fordham, 1994), the Multiphasic Sex Inventory (MSI; Nichols & Molinder, 1984), and the Sex Offence Attitudes Questionnaire (Offending Behaviour Programmes Unit, unpublished). The

SWCH demonstrated strong criterion validity; child sex offenders' scores were higher on the SWCH than rapists and non-offenders. More specifically, extrafamilial child sex offenders with male victims endorsed significantly higher supportive beliefs than extrafamilial child sex offenders with female victims and intrafamilial child sex offenders. Lastly, predictive and discriminative validity was supported. Compared to low-risk child sex offenders, high-risk child sex offenders reported significantly more positive beliefs and attitudes towards sex with children.

#### *Child Sexual Abuse Semantic Differential Scale*

Child Sexual Abuse Semantic Differential Scale (Appendix E) is a measure that assesses child sex offenders' self-reported attitudes towards child sexual abuse. The ratings were completed on the concept categories, which parallel the IAT measures, i.e., (1) "sex with women is," (2) "sex with girls is," (3) "sex with men is," and (4) "sex with boys is." The items were used alone and then combined, i.e., mean ratings were subtracted; e.g., *sex with women* from mean rating of *sex with girls*. The same evaluation was completed for the evaluation of boys and men. Concepts were rated with bipolar scales including the following adjectives: "bad/good," "wrong/right," "negative/positive," "not enjoyable/enjoyable." The scales ranged from 1 to 7, with 4 being neutral. Negative values indicate more positive evaluation of sexual contact with women than with girls, whereas positive values indicate more positive evaluation of sexual contact with girls than with women.

#### *Background Questionnaire*

Background Questionnaire (BQ, Appendix F) is a series of questions developed for the current study and was administered to the participants in order to collect data on

English language ability, education, and sexual orientation. This questionnaire was designed to help describe the research sample and determine if there are any potential confounding variables that may compromise the internal validity of the study.

#### *Sexual Arousal Manipulation Check*

Sexual Arousal Manipulation Check (Appendix G) evaluates participants' level of subjective sexual arousal (e.g., "Was the story sexually arousing?"). Participants were assessed on a 5-point Likert scale.

#### *Manipulations*

##### *Sexual Arousal Condition*

Two sexual arousal stories (Appendices H-I) were designed to induce a state of sexual arousal. The first sexual arousal story described heterosexual sex, while the second sexual arousal story describe homosexual sex. Participants were given the opportunity to choose which story they read based on their own sexual preference. Participants read the story (approximately two minutes in length). The sexual arousal story described an erotic encounter between two individuals (i.e., depicting petting, intercourse, and orgasm). The story did not include video content or photographs. Participants were clearly informed about the content of the story before they agreed to participate. The primary researcher created the stories to be used in the current study.

##### *Control Condition*

To demonstrate the effect of the sexual arousal condition on attitudes towards child sexual abuse, a control story was developed as a standard against which the sexual arousal condition was compared. Participants read the story (approximately two minutes in length). The control story (see Appendix J) described a person spending the day at the

beach. The story was not sexually arousing. The primary researcher created the story to be used in the current study.

### *Coding manual*

Upon completion of the experimental manipulation and corresponding measures, the researcher reviewed and coded participants' files. Information collected included the participants' index sex offenses, prior sex offences, treatment history, and other important factors. The coding manual was adapted in part from a Correctional Service Canada File Review Manual (see STATIC-99 coding manual; Appendix K).

### *Materials and Apparatus*

The implicit and explicit attitude measures, experimental manipulation, and demographic questions were administered on a DELL laptop computer using E-Prime 2.0 (Psychology Software Tools, 2008). The computer recorded all reaction times and responses. Offender Management System (OMS) was used to code participants' files. Data analyses were conducted using Version 18.0 of SPSS for Windows.

### *Procedure*

The researcher explained the purpose and details of the study to the participant (see Figure 4). Participants provided written informed consent and authorized the researcher to have access to their files (see Appendices L-M). Participants were informed that the study would be completed in the room with the researcher. They were then instructed to let the researcher know when they had completed the study. Participants completed the Background Questionnaire (see Appendix F), the Girls/Women-IAT (see Appendix B), Boys/Men-IAT (see Appendix C), the SWCH scale (see Appendix D), the Girls/Women-Semantic Differential Scale, and the Boys/Men-Semantic Differential Scale (see

Appendix E). Participants were randomly assigned to either the sexual arousal or control condition (see Appendices H-J). Following the manipulation, participants completed the measures a second time and a manipulation check (see Appendix G).

Participants received a debriefing form after they completed the entire study (see Appendix N). The researcher then thanked the participants for completing the study and participants were asked if they had any questions regarding the study. The participants' files were then reviewed and coded for specific variables.

Greenwald et al. (1998) found that a procedural effect existed concerning the order of the combined tasks in the IAT. The authors recommended that this effect be controlled by counterbalancing. Thus, in the current study three procedural variables were counterbalanced across participants in order to control for potential confounds among variables: (1) Order of Girls/Women-IAT and Boys/Men-IAT; (2) Order of implicit and explicit attitude measures; and (3) Order of concept/evaluation combinations (stage 3: *sex with girls + positive* and stage 5: *sex with women + positive*).

All responses were kept confidential. Participants' names did not appear on the collected data; rather a number was attached to all the measures the participant completed. All data collected was stored in a locked cabinet and on a password-protected computer accessible only to the researchers for the duration of 10 years. A master participant list was used to keep the participants' name and number assigned in order. The master list was used for the file review procedure because the researcher required the participants' name to retrieve and code their files. The master participant list was kept separate from the participants' data and therefore the participants cannot be identified but only their scores can be identified for research purposes.

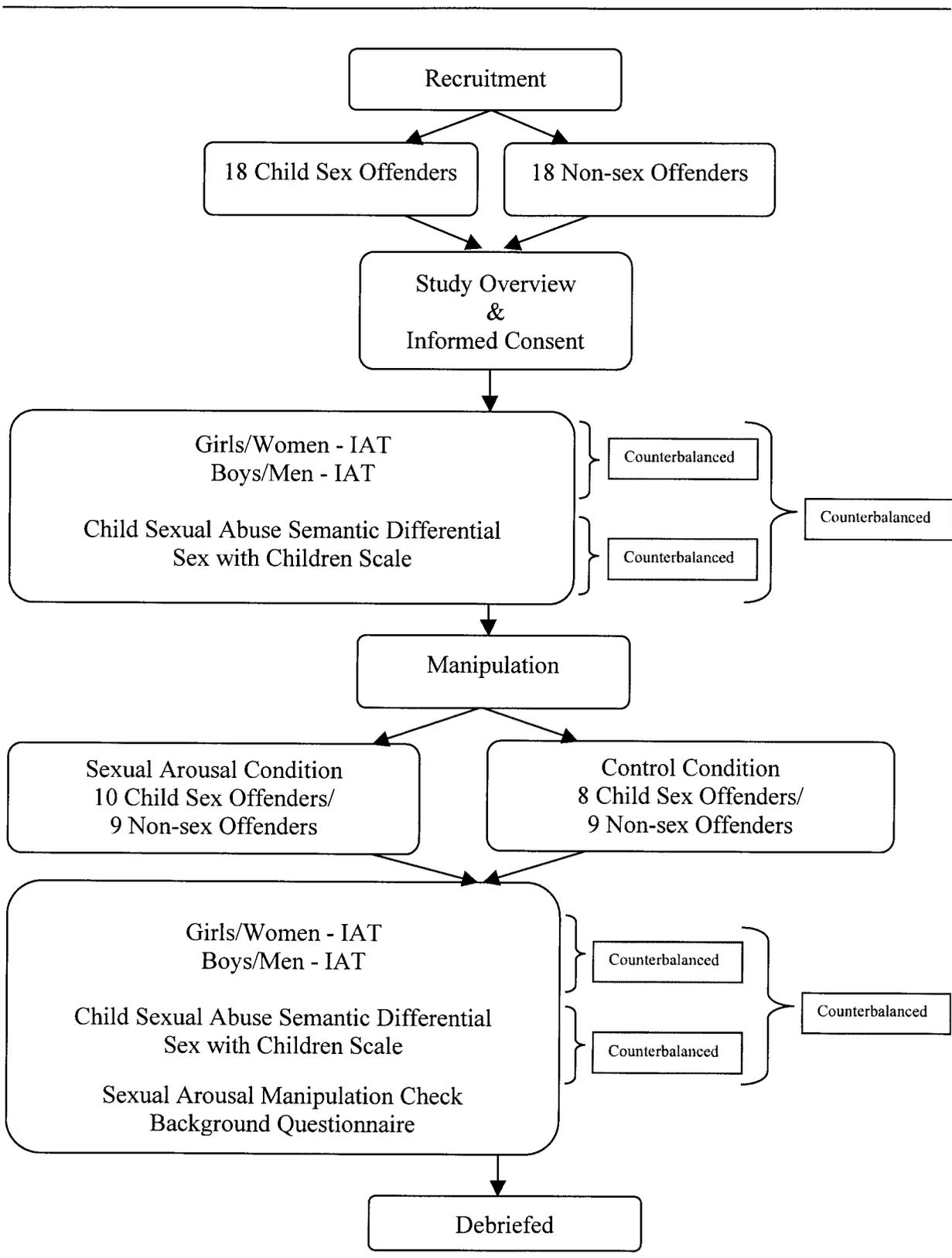


Figure 4. Illustration of the study procedure.

*Data Screening*

Data screening analyses were conducted using version 18.0 of the Statistical Package for the Social Sciences (SPSS) for Windows. Alpha for all a priori analyses was .05, two-tailed.

*Missing Data*

In the current study, no data were missing on the main measures for the participants who met the inclusion criteria.

*Univariate Outliers*

Univariate outliers were examined for each group of offenders by each manipulation on all five measures. Potential mild and extreme univariate outliers were detected by visually inspecting Box Plots. Standardized scores were computed on these values to identify values that were outside 3.29 standard deviations from the mean. Outliers are commonly replaced with next highest or lowest value within  $\pm 3.29$  standard deviations (see Tabachnick & Fidell, 2001). In the current study, none of the potential outliers exceeded  $\pm 3.29$  standard deviations and therefore were not reduced.

*Multivariate Outliers*

Multivariate outliers were examined for each group of offender by each manipulation on all five measures. The standard method for identifying multivariate outliers is to generate Mahalanobis distance and compare it to the critical value of the  $\chi^2$  distribution. Mahalanobis distance is the distance of a case from the centroid of the remaining cases, where the centroid is the point created by the intersection of the means of all the variables (Tabachnick & Fidell, 2001). Outliers are significant at the .001 level (Tabachnick & Fidell, 2001). Analyses revealed no multivariate outliers.

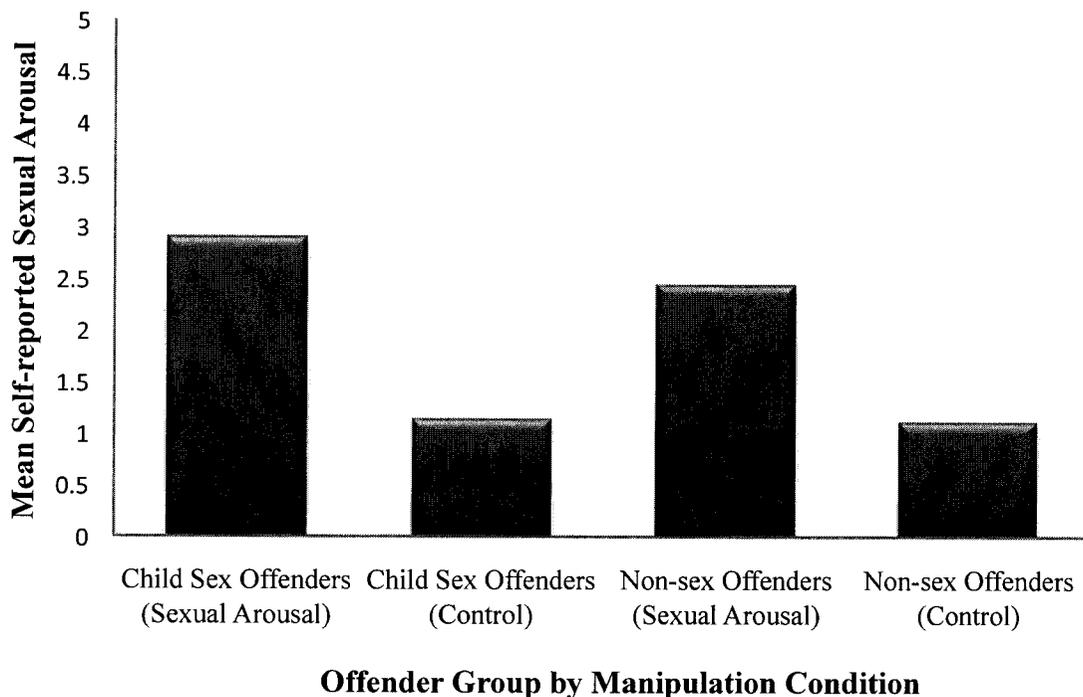
*Normality*

Normality was visually assessed for each group by examining the box-plots, stem and leaf plots, the Q-Q Plots, histogram graphs, skewness, and kurtosis of each measure. Normality concerns were found for the Girls/Women-IAT, Boys/Women-IAT, the, Girls/Women-SD, Boys/Men-SD, and SWCH Scale. A series of transformations were performed on the skewed and platykurtic measures ( $z = \pm 3.29$ ). Despite efforts to transform measures into a normal distribution, the measures remained skewed and platykurtic. Given the nature of these measures, this was considered acceptable and expected. Analyses were performed on both the transformed and untransformed data. The pattern of results remained the same. As such, results were reported from the untransformed findings.

## Results

*Sexual Arousal Manipulation Check*

The impact of the sexual arousal manipulation on participants' self-reported levels of sexual arousal was examined by comparing the mean ratings of the item (i.e. "Was the story sexually arousing?"). Results from *t*-tests revealed that self-reported sexual arousal was significantly greater for child sex offenders and non-sex offenders exposed to the sexually arousing stories than those offenders exposed to the control story. In addition, no significant differences were found between child sex offenders and non-sex offenders in the control or arousal condition (see Figure 5 and Table 4).



*Figure 5.* Manipulation check: mean self-reported level of sexual arousal of child sex offenders and non-sex offenders by manipulation condition (sexual arousal or control).

Table 4

*Results of Manipulation Check of Child Sex Offenders and Non-sex Offenders by Condition*

Group: Condition	<i>n</i>	<i>M</i>	<i>SD</i>	Group: Condition	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> (df)	<i>d</i>	95% CI	
										LL	UL
CSO: Sexual Arousal	10	2.90	1.10	CSO: Control	8	1.13	0.35	-4.36(16)**	2.07	0.92	3.21
NSO: Sexual Arousal	9	2.44	1.24	NSO: Control	9	1.11	0.33	-3.13(16)**	1.47	0.43	2.51
CSO: Sexual Arousal	10	2.90	1.10	NSO: Sexual Arousal	9	2.44	1.24	0.85(17)	0.39	-0.52	1.30
CSO: Control	8	1.13	0.35	NSO: Control	9	1.11	0.33	0.08(15)	0.06	-0.89	1.01

*Note.* \*\*  $p < .01$ .

*Reliability and Validity of the Implicit and Explicit Attitude Measures*

The two IATs and the Semantic Differentials (SD) were designed specifically for this study and had not been used previously; therefore, it was important to examine the validity of these measures. Internal consistencies (Cronbach's alpha) were calculated for the Girls/Women-IAT, the Boys/Men-IAT, the Girls/Women-SD, the Boys/Men-SD, and the SWCH for both pre-and post-manipulation scores. These measures were found to have acceptable reliability (IATs;  $\alpha = .88$  to  $.94$ ; SDs;  $\alpha = .79$  to  $.98$ ; and the SWCH;  $\alpha = .80$  to  $.95$ ).

In order to evaluate the validity of the implicit and explicit attitude measures, a series of Pearson's  $r$  correlations were conducted on pre-manipulation scores for the Girls/Women-IAT, the Boys/Men-IAT, the Girls/Women-SD, the Boys/Men-SD, and the SWCH Scale. Although the analysis was exploratory, it was anticipated that the implicit and explicit attitude measures would be interrelated though not highly given they represent conceptually distinct concepts; implicit and explicit attitudes.

First, to examine whether the implicit and explicit attitude measures relate to each other, pre-manipulation intercorrelations were conducted for all participants combined across offender groups and condition. Small to moderate correlations were found between some of the implicit and explicit attitude measures, however, these correlations were not significant. Results are shown in Table 5. Second, intercorrelations were conducted on the implicit and explicit attitudes measures for both child sex offender and non-sex offender groups separately across condition at pre-manipulation. Similarly, small to moderate correlations were found between some of the implicit and explicit attitude measures but were non-significant. Results are shown in Table 6.

Table 5

*Intercorrelations between Implicit and Explicit Attitude Measures of Child Sex Offenders and Non-Sex Offenders Combined*

Pre-manipulation	Girls/Women-IAT	Boys/Men-IAT	Girls/Women-SD	Boys/Men-SD	SWCH Scale
Girls/Women-IAT	1	.60**	.23	.15	.08
Boys/Men-IAT		1	.04	.04	.25
Girls/Women-SD			1	-.23	.27
Boys/Men-SD				1	.28
SWCH Scale					1

*Note.* \*\*  $p < .01$

Table 6

*Intercorrelations between Implicit and Explicit Measures for Child Sex Offenders and Non-sex Offenders (Pre-manipulation)*

	Girls/Women-IAT	Boys/Men-IAT	Girls/Women-SD	Boys/Men-SD	SWCH Scale
Child Sex Offenders ( <i>n</i> = 18)					
Girls/Women-IAT	1	.86**	.32	.33	.35
Boys/Men-IAT		1	.52*	.10	.29
Girls/Women-SD			1	-.14	.18
Boys/Men-SD				1	.38
SWCH Scale					1
Non-sex Offenders ( <i>n</i> = 18)					
Girls/Women-IAT	1	.24	.30	-.04	-.17
Boys/Men-IAT		1	-.10	.04	.19
Girls/Women-SD			1	-.44	.36
Boys/Men-SD				1	.19
SWCH Scale					1

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ .

*Experimental Analyses*

Means and standard deviations for each measure are shown in Table 7 and are reported separately for each offender group (child sex offenders and non-sex offenders) by condition (sexual arousal and control).

For each hypothesis (1-4), five within-subjects t-tests were performed. Within-subjects t-tests were conducted on pre-and post manipulation scores for the implicit attitude measures: Girls/Women-IAT, the Boys/Men-IAT, and the explicit attitude measures: the Girls/Women-SD, the Boys/Men-SD, and the SWCH Scale. Results are reported for each group by condition separately below for each hypothesis.

*Child Sex Offenders in the Sexual Arousal Condition (Hypothesis 1)*

To compare whether sexual arousal had an effect on child sexual offenders' implicit attitudes towards sex with girls under age 12 relative to adult women, a within-subjects t-test was conducted between Girls/Women-IAT scores prior to the sexual arousal manipulation and Girls/Women-IAT scores post sexual arousal manipulation. As hypothesized, the t-test was significant, indicating that child sex offenders' Girls/Women-IAT scores prior to the sexual manipulation were significantly lower than post sexual arousal Girls/Women-IAT scores,  $t(9) = -2.57, p = .030$ .

Contrary to what was expected, the results revealed that attitude scores did not significantly differ post-manipulation for the remaining measures. As shown in Table 7, t-tests demonstrated non-significant differences from pre-to post sexual arousal manipulation on the Boys/Men-IAT scores, Girls/Women-SD difference scores, Boys/Men-SD difference scores, and the SWCH Scale scores (all  $p > .05$ ).

Although statistically non-significant effects were found for both the Boys/Men-IAT and Girls/Women-SD difference scores from pre-to post manipulation, small Cohen's  $d$  effects were found,  $d = 0.19$  and  $0.18$ , respectively.

*Child Sex Offenders in the Control Condition (Hypothesis 2)*

As hypothesized, separate within-subjects t-tests revealed no significant differences between child sex offenders' attitude scores pre-and post control manipulation (Girls/Women-IAT scores, Boys/Men-IAT scores, Girls/Women-SD difference scores, Boys/Men-SD difference scores, and the SWCH Scale scores; all  $p > .05$ ). Results are shown in Table 7.

*Non-sex Offenders in the Sexual Arousal Condition (Exploratory Analysis 3)*

As shown in Table 7, results of the following within-subjects t-tests found no significant differences between the non-sex offenders' Girls/Women-IAT scores, Boys/Men-IAT scores, Girls/Women-SD difference scores, Boys/Men-SD difference scores, and the SWCH Scale scores before and after the sexual arousal manipulation (all  $p > .05$ ). However, moderate Cohen's  $d$  effects were found from pre-to post manipulation on the Girls/Women-IAT ( $d = 0.41$ ), Boys/Men-IAT ( $d = 0.49$ ), and the SWCH ( $d = -0.42$ ).

*Non-sex offenders in the Control Condition (Exploratory Analysis 4)*

Similarly, no significant differences were found on non-sex offenders' pre-to post manipulation attitudes scores (Girls/Women-IAT scores, Boys/Men-IAT scores, Girls/Women-SD difference scores, Boys/Men-SD difference scores, and the SWCH Scale scores; all  $p > .05$ ). Results are shown in Table 7.

It is important to note that the child sexual offenders in the arousal condition appear to differ on pre-manipulations scores from the child sexual offenders in the control condition even though participants were randomly assigned to the conditions. Specifically, child sexual offenders in the control condition seem to report more positive implicit and explicit attitudes towards sex with girls and boys than child sexual offenders in sexual arousal condition (see Table 7). Statistically testing for such differences using between-subjects analyses would not be very informative given the small sample sizes. In addition, despite no significant outliers, some of the standard deviations (see Table 7 for results of child sex offenders in the control condition) seem to differ quite a bit, which suggests the presence of extreme scores. Therefore, it is recommended that results are cautioned given a larger sample size and more homogenous group of child sexual offenders is required.

Table 7

*Results of Implicit and Explicit Measures of Child Sex Offenders and Non-sex Offenders by Manipulation Condition*

Group: Condition	<i>n</i>	Pre-manipulation			Post-manipulation			95% CI		
		Mean	SD		Mean	SD		LL	UL	
CSO: Sexual Arousal	10									
Girls/Women-IAT	10	-0.41	0.28		-0.17	0.32	-2.57(9)*	0.80	0.11	1.48
Boys/Men-IAT	10	-0.13	0.36		-0.06	0.36	-0.66(9)	0.19	-0.44	0.83
Girls/Women-SD	10	-5.64	0.91		-5.41	1.57	-1.07(9)	0.18	0.09	0.27
Boys/Men-SD	10	-2.14	2.02		-2.17	2.47	0.07(9)	-0.01	-0.33	0.30
SWCH Scale	10	21.20	6.53		21.50	10.72	-0.20(9)	0.03	-0.13	0.20
CSO: Control	8									
Girls/Women-IAT	8	-0.03	0.59		0.11	0.53	-0.91(7)	0.25	-0.32	0.82
Boys/Men-IAT	8	0.20	0.57		0.11	0.39	0.76(7)	-0.18	-0.59	0.22
Girls/Women-SD	8	-5.13	0.88		-5.16	0.96	0.55(7)	-0.03	-0.16	0.09
Boys/Men-SD	8	0.20	2.71		-0.80	2.08	0.86(7)	-0.41	-1.38	0.55
SWCH	8	27.38	11.06		26.50	12.98	0.63(7)	-0.07	-0.27	0.13

Table 7 Continued.

Group: Condition	<i>n</i>	Pre-manipulation		Post-manipulation			95% CI		
		Mean	SD	Mean	SD	<i>t</i> ( <i>df</i> )	<i>d</i>	LL	UL
NSO: Sexual Arousal									
	9								
Girls/Women-IAT	9	-0.44	0.52	-0.24	0.45	-1.39(8)	0.41	-0.17	0.99
Boys/Men-IAT	9	-0.25	0.44	-0.05	0.37	-1.20(8)	0.49	-0.36	1.34
Girls/Women-SD	9	-5.29	1.42	-5.24	1.99	-0.09(8)	0.03	-0.57	0.63
Boys/Men-SD	9	-0.35	0.59	-0.33	0.60	-0.19(8)	0.03	-0.24	0.31
SWCH	9	23.33	9.73	20.22	3.93	0.87(8)	-0.42	-1.39	0.55
NSO: Control									
	9								
Girls/Women-IAT	9	-0.47	0.51	-0.29	0.40	-2.02(8)	0.39	-0.01	0.79
Boys/Men-IAT	9	-0.31	0.34	-0.08	0.32	-1.55(8)	0.70	-0.25	1.65
Girls/Women-SD	9	-4.25	2.08	-4.79	1.55	1.63(8)	-0.29	-0.63	0.04
Boys/Men-SD	9	-1.10	2.09	-1.19	2.10	1.00(8)	-0.04	-0.13	0.05
SWCH Scale	9	22.33	10.63	21.67	9.90	0.89(8)	-0.06	-0.20	0.07

Note. \*  $p < .05$ .

## Discussion

The goal of the present study was to determine if sexual arousal has an effect on child sex offenders' explicit and implicit attitudes towards child sex abuse. Although the findings are preliminary, the research provides a unique contribution to scientific understanding of child sexual offenders' attitudes. It was hypothesized that sexual arousal would cause child sexual offenders' implicit and explicit attitudes to become more positive towards sex with children compared to when not aroused. Several researchers have examined the role sexual arousal plays in influencing risky decision-making. Researchers of these studies assert that sexual arousal likely underlies sex-related crimes. Like other emotional states, sexual arousal is believed to be capable of modifying attitudes in the direction that supports actual behaviour (see Abel, Barlow, Blanchard, & Guild, 1977; Ariely & Loewenstein, 2006; Bouffard, 2002; Loewenstein et al., 1997). The results of the study are mixed, however, some findings of this experimental analysis are consistent with child sexual offending theory (e.g., Ward & Hudson, 2007), interview studies (e.g., Marshall, 1988) and results from a number of empirical studies (e.g., Ariely & Loewenstein, 2006; Bouffard, 2002; Loewenstein, Nagin, & Paternoster, 1997).

As hypothesized, the findings revealed that when child sexual offenders were sexually aroused their implicit attitudes became more positive towards sex with girls. More specifically, exposing child sex offenders to a sexually erotic story caused their implicit attitudes to become significantly more positive towards sex with girls, whereas no significant attitude changes were found for the group of child sex offenders exposed to the control story or non-sex offenders in either condition. Thus, these results provide the first experimental evidence that demonstrates that sexual arousal may have the ability to

modify and encourage implicit attitudes towards sexual contact with young girls in a sample of convicted child sexual offenders.

If sexual arousal causes a change in implicit attitudes, then why would this change not occur for both child sex offenders and non-sex offenders? Perhaps it is possible that child sex offenders' implicit attitudes are formed from earlier socialization experiences. At pre-manipulation child sex offenders' implicit attitudes are relatively negative against sex with children but then the sexual arousal manipulation triggers these earlier formed implicit attitudes, which causes a shift in their implicit attitudes towards young girls (more positive). Whereas non-sex offenders never had positive implicit attitudes and therefore sexual arousal does not cause a change in their attitudes towards sex with children. Thus, sexual arousal appears not to make sexual offending more positive for most men, but that it only has an effect for men who have committed sex offences or who are at least somewhat accepting of child sexual abuse.

Contrary to what was expected, child sex offenders' explicit attitudes did not become significantly more positive towards sex with girls or boys when sexually aroused. Two broad explanations can be made regarding this finding. First, asking institutionalized offenders questions about their attitudes regarding sex with children requires access to highly sensitive information. This information may be embarrassing, socially undesirable, and/or may have legal ramifications (Kalmus & Beech, 2005). Despite ensuring complete anonymity, some offenders may have been unwilling to respond honestly. Several of the participants in the current study were incarcerated at a maximum-security assessment institution, most of the participants had received some sexual offender treatment, and offenders had denied some of their sexual offences. It is possible that these offenders did

not want to provide explicit statements about their attitudes towards sex with young girls or boys. Consequently, their responses to the explicit measures may be inaccurate.

Similar examples of inaccurate responding can be found in other areas of research. For instance, several researchers have investigated attitudes regarding obesity. Findings reveal that participants demonstrate greater negative implicit attitudes towards obese people, whereas their explicit attitudes do not support an obesity bias (e.g., Roddy & Steward, 2009; Schwartz, Vartanian, Nosek, & Brownell, 2006; Teachman et al., 2003). Similarly, a number of studies have investigated implicit and explicit attitudes concerning race. Findings from these studies suggest that implicit attitudes contribute to documented racial and health disparities even when prejudice attitudes of Black Americans was explicitly denied (e.g., Green et al., 2007; Sabin, Nosek, Greenwald, & Rivera, 2009; Sabin, Rivera, & Greenwald, 2008). With respect to research into the cognitions of convicted child sex offenders, similar instances of inconsistent findings have been found. Brown, Gray, Bell, and Snowden (2006); as cited in Snowden, Wichter, and Gray (2008) found that explicit self-reports of child sex offenders did not coincide with their implicit responses. The child sex offenders' explicit self-report responses revealed very little interest in sex with children, however, the IAT revealed a strong association between children and sex. Consistent with this body of research, the current findings suggest that implicit measures of attitudes appear to be a better indicator of previous child sexual offending than explicit self-report measures. Thus, in socially sensitive domains of interest, implicit measures of attitudes may prove useful in supplementing explicit measures and may even predict biases and behaviours more accurately than explicit self-report measures (Greenwald, Poehlman, Uhlman, & Banaji, 2009).

A second possible explanation for the current findings is that child sex offenders do not hold positive explicit attitudes towards sex with young children and sexual arousal does not change this outcome. Many men who commit child sexual offences might explicitly regard sex with children as wrong. This finding, however, does not explain why in the current study child sex offenders' implicit attitudes became increasingly more positive towards sex with young girls. Steffens, Yundina, and Panning (2008) state "...a person may know that sexual child abuse is wrong, but views of children might still activate a set of associations involving sexual arousal and positive stimulation. In the absence of the capacity to counteract these impulses, child abuse would then be more likely than for other persons who do not possess these associations" (p. 2). It is possible that sexual arousal is such a strong emotion that reinforces positive experiences, which in turn causes a direct change in implicit attitudes. That is, sexual arousal appears to have the ability to cause changes in implicit attitudes wherein the person has no control over their automatic responses. If this is the case, then the current finding lends greater support for assumption that implicit and explicit attitudes are distinct constructs (see Nosek, 2005; Nosek & Smyth, 2007).

It is important to note that although child sex offenders' implicit attitudes became more positive towards sex with girls after the sexual arousal manipulation; their implicit and explicit attitudes remained relatively supportive of sex with adults. A number of studies have found that child sex offenders endorse a greater sexual interest in adults (e.g., Worley, 2006); therefore, this may be similar regarding child sex offenders' attitudes towards sex with children. For example, Seto and Lalumiere (2001) found that among child sex offenders who scored in the lower range on the Screening Scale for

Pedophilic Interests (SSPI; Seto & Lalumière, 2001), they were approximately 80% more likely to show a sexual interest in adults compared to children. This finding was also consistent for 28% of the sample scoring highest on the SSPI. In addition, child sex offenders rarely strongly agree with offence supportive beliefs on questionnaires. Groth and Birbaun (1978) assert that regressed sex offenders typically have a primary sexual orientation to adults but tend to be aroused by children, whereas fixated sex offenders sexually desire and prefer children. The sample of child sex offenders in the current study appeared to fit a regressed offender typology (i.e. approximately 50 percent married and the majority of offenders self-reported heterosexual orientation), which could explain why this sample of child sex offenders did not explicitly endorse sex with children. It might be the case where certain types of child sex offenders truly do not hold explicit attitudes supportive of sex with children. What remains to be explained is why sexual arousal causes changes in child sex offenders' implicit attitudes but not their explicit attitudes. The current study is very preliminary; a more comprehensive theory is needed to explain why situational sexual arousal affects implicit attitudes but not the explicit attitudes of child sex offenders.

Furthermore, the results of the present study indicated that sexual arousal only caused changes in child sex offenders' implicit attitudes towards sex with girls younger than age 12. That is, child sex offenders' attitudes towards sex with boys less than 12 years-old did not significantly change. Two distinct IATs were developed for this study because child sexual offenders have different sexual orientations. However, child sex offenders' characteristics (i.e., victim and age preferences) may have played an influential role on the results of the Boys/Men-IAT and the Boys/Men-SD. Specifically, all child sex

offenders in the sexual arousal condition self-reported a sexual preference for adult women or young girls, and on average had more current and prior sex offences against girls. Child sex offenders who are sexually interested in women and young girls and who hold attitudes supportive of sex with young girls would presumably report very little variability regarding their attitudes towards sex with adult men or young boys. If child sex offenders in the current study had attitudes supportive of sex with young boys relative to adult men, then the results may have shown more positive attitudes towards sex with young boys relative to adult men on both the implicit (Boys/Men-IAT) and explicit (Boys/Men-SD) attitude measures. Therefore, given the nature of these measures and the characteristics of the current sample, it is not surprising that child sex offenders did not show more positive implicit and explicit attitudes towards sex with young boys. Nevertheless, it is important to understand the extent sexual arousal would affect the attitudes of homosexual child sex offenders. For future studies, it is recommended researchers examine the effect of sexual arousal on implicit and explicit attitudes of both community and institutionalized homosexual child sexual offenders.

Another goal of the study was to gain insight into the relationship between child sex offenders' implicit and explicit attitudes towards child sexual abuse. It was thought that if child sex offenders support sex with children then they would have both positive implicit and explicit attitudes towards sex with children. Although correlations were non-significant, the results showed that some of the child sex offenders' implicit and explicit attitude measures were related. Again, a follow-up study is warranted given the small sample sized obtained in the current study.

*Strengths and Limitations*

Overwhelmingly, research has relied on studying university students' attitudes and decisions regarding physical and sexual aggression. The current study extends previous research by examining the attitudes of a forensic sample of child sex offenders and non-sex offenders. Furthermore, the design of this study employed rigorous control in order to reduce systematic bias and eliminate erroneous findings. For instance, participants were randomly assigned to either a manipulation or control condition, detailed inclusion and exclusion criteria was maintained, single-blind procedures were used, and a comparison group was obtained.

Another major strength of this study was that the experimental sexual arousal condition successfully induced self-reported levels of arousal in both child sex offenders and non-sex offenders. In addition, the arousal condition appeared to have a strong effect in changing child sex offenders' attitudes towards sex with young girls. Although the manipulation caused a change in child sex offenders' implicit attitudes, the magnitude of change may have been greater if a different type of arousal stimulus was used. In the current study, participants were asked to read a sexually erotic story; however, stimuli given to offenders in other studies has varied widely (e.g., visual slides/images, audiotapes, or movies/video clips) and opinions greatly differ regarding the choice of modality on arousal (Maletsky, 1995; Renaud et al., 2005). While videotape stimuli have been found to be the most arousing, given the highly sensitive nature of this study and the heterogeneous sample of offenders, videotape stimuli was not used.

Another possible concern regarding the effectiveness of the arousal manipulation was the setting of the study. More specifically, participants completed the study and read the

arousal story in an interview room while the researcher remained present. Hall, Proctor, and Neslson (1988) suggest that 80% of sexual offenders do not respond to sexually arousing stimuli under laboratory settings. Therefore, it is unlikely that participants reached their maximum level of arousal compared to if they were in the privacy of their own home or in a real life situation. Furthermore, the design of the study relied on participants' self-reported sexual arousal while physiological measures such as phallometric testing were not utilized. Both self-reported and physiological (e.g., plethysmograph) measures of sexual arousal have shown to reliably measure sexual interest (Letourneau, 2002), however, self-reported sexual arousal has also been shown to be fallible (Janssen, 2002). Future studies using both types of measures could provide a more accurate index of individuals' level of sexual arousal. Nonetheless, sexual arousal was experimentally manipulated in the current study, and thus the validity of the results does not depend on participants' self-reported arousal.

A major limitation of this study was the relatively small sample size obtained for the child sex offenders and non-sex offenders in each manipulation group. Due to the low power of the analyses, it is suggested that the findings generated from this study should be taken with caution. For instance, the means of the Boys/Men-IAT *D* scores for both child sex offenders and non-sex offenders became more positive after the sexual arousal manipulation (small to moderate Cohen's *d* effects were found). The differences, however, from pre-to post manipulation remained non-significant ( $p < .05$ ), which may be the outcome of low power due to the small sample sizes. In addition, a comparison of the child sex offender and non-sex offender groups was not possible given the small groups sizes. As well, these findings cannot be generalized to the larger community given

the sample of offenders were obtained from federal institutions and a forensic mental health institution. Furthermore, as already discussed, this study lacks a balance proportion of homosexual child sex offenders' in both the arousal and control condition. Therefore, it is unknown whether the Boys/Men-IAT is a valid measure of attitudes regarding sex with boys relative to adult males. It is suggested that this initial study be used to design a larger study in order to provide greater validation of the findings and provide additional information of the psychometric properties of the IAT.

#### *Conclusions and Future Directions*

To conclude, child sex offenders exposed to sexually arousing stimuli have greater implicit attitudes supportive of sex with girls than those exposed to a control stimuli. This study was designed specifically to investigate the impact sexual arousal has on child sex offenders' attitudes; however, several other situational or emotional mechanisms could contribute to the offence process; i.e., alcohol, stress, and boredom. Moreover, the results of this study suggest that the IAT appears to have promising utility in the assessment and treatment of child sex offenders. Given the limitations of the present study, future research is encouraged to continue examining implicit attitudes with the IAT with larger and more diverse samples, exploring the use of other arousal modalities, and examine potential moderating and mediating factors.

Furthermore, it is important that researchers investigate how sexual arousal may affect the implicit and explicit attitudes of different offender typologies (e.g., incest offenders, extra-familial child sex offenders with male victims, extra-familial child sex offenders with female victims, mixed child sex offenders) and other offender types. Several studies have found that beliefs supportive of child sexual abuse (e.g., sex is good

for children, sex is not harmful for children, and sex is enjoyed by children) have differentiated child sex offender groups from other offender groups and from non-offenders. In addition, Hayashino, Wurtele, and Klebe (1995) have shown that intrafamilial child sex offenders are in some ways distinct from extrafamilial child sex offenders.

Interactions between implicit and explicit attitudes (e.g., various combinations of high and low implicit and explicit attitudes) may exist. That is, sexual arousal may cause extrafamilial child sex offenders' implicit attitudes to become more positive towards sex with children, whereas intrafamilial child sex offenders implicit attitudes may not show that pattern but may overlap considerably with non-sex offenders' attitudes. Studies to date have only examined differences that exist between child sex offenders and non-child sex offenders, neglecting the potential interactions between implicit and explicit attitude of different offender typologies. If future empirical evidence shows that situational conditions and offender types significantly moderate child sexual offenders' implicit and explicit attitudes, this may have implications for the assessment and treatment of child sex offenders.

The findings of the present study have contributed to further our understanding of how sexual arousal affects the explicit and implicit attitudes of child sexual offenders and non-sex offenders. It is important that researchers continue to explore this experimental research area to gain a greater understanding of the offence process, and to develop effective assessment and treatment practices for child sexual offenders.

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Appendix A

Girls/Women – Implicit Association Test (Model of Computer Task)

INSTRUCTIONS: Your left index finger should be placed on the “d” key and your right index finger should be placed on the “k” key. One key is connected to one concept and one attribute and the other key is connected to the other concept and attribute. By pressing the “d” or “k” key, you will have assigned a stimulus word or picture to a corresponding concept or attribute category.

<b>Stage 1*</b> <i>Concepts</i> <i>(Practice - 20 trials)</i>	<b>Stage 2</b> <i>Attributes</i> <i>(Practice - 20 trials)</i>	<b>Stage 3**</b> <i>Combined task</i> <i>(Practice - 20 trials)</i> <i>(Test - 40 trials)</i>																																								
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<b>Stage 4***</b> <i>Reversed concepts task</i> <i>Practice - 40 trials</i>	<b>Stage 5****</b> <i>Reversed combined task</i> <i>(Practice - 20 trials)</i> <i>(Test - 40 trials)</i>																																									
<table border="1"> <tr> <td>SEX with GIRLS</td> <td>SEX with WOMEN</td> </tr> <tr> <td>•</td> <td></td> </tr> <tr> <td>•</td> <td></td> </tr> <tr> <td></td> <td>•</td> </tr> <tr> <td></td> <td>•</td> </tr> <tr> <td>•</td> <td>•</td> </tr> <tr> <td></td> <td>•</td> </tr> </table> <p>***Counterbalanced with Stage 1</p>	SEX with GIRLS	SEX with WOMEN	•		•			•		•	•	•		•	<table border="1"> <tr> <td>SEX with GIRLS</td> <td>SEX with WOMEN</td> </tr> <tr> <td>positive</td> <td>negative</td> </tr> <tr> <td>•</td> <td>•</td> </tr> <tr> <td>•</td> <td>•</td> </tr> <tr> <td></td> <td>•</td> </tr> <tr> <td></td> <td>•</td> </tr> <tr> <td>•</td> <td>•</td> </tr> <tr> <td></td> <td>•</td> </tr> </table> <p>**** Counterbalanced with Stage 3</p>	SEX with GIRLS	SEX with WOMEN	positive	negative	•	•	•	•		•		•	•	•		•											
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Appendix B

Boys/Men – Implicit Association Test (Model of Computer Task)

INSTRUCTIONS: Your left index finger should be placed on the “d” key and your right index finger should be placed on the “k” key. One key is connected to one concept and one attribute and the other key is connected to the other concept and attribute. By pressing the “d” or “k” key, you will have assigned a stimulus word or picture to a corresponding concept or attribute category.

<p><b>Stage 1*</b> <i>Concepts</i> (Practice - 20 trials)</p>	<p><b>Stage 2</b> <i>Attributes</i> (Practice - 20 trials)</p>	<p><b>Stage 3**</b> <i>Combined task</i> (Practice - 20 trials) (Test - 40 trials)</p>
<p>SEX with MEN                      SEX with BOYS</p>	<p>positive                      negative</p>	<p>SEX with MEN                      SEX with BOYS positive                      negative</p>
<ul style="list-style-type: none"> <li>• </li> <li>• </li> <li>• </li> <li>• </li> <li>• </li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• smile</li> <li>• sunshine</li> <li>• poison</li> <li>• sickness</li> <li>• cancer</li> <li>• happy</li> </ul>	<ul style="list-style-type: none"> <li>• </li> <li>• sunshine</li> <li>• </li> <li>• </li> <li>• poison</li> <li>• cancer</li> </ul>
<p>*Counterbalanced with Stage 4</p>		<p>**Counterbalanced with Stage 5</p>
<p><b>Stage 4***</b> <i>Reversed concepts task</i> (Practice - 40 trials)</p>	<p><b>Stage 5****</b> <i>Reversed combined task</i> (Practice - 20 trials) (Test - 40 trials)</p>	
<p>SEX with BOYS                      SEX with MEN</p>	<p>SEX with BOYS                      SEX with MEN positive                      negative</p>	
<ul style="list-style-type: none"> <li>• </li> <li>• </li> <li>• </li> <li>• </li> <li>• </li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• </li> <li>• </li> <li>• smile</li> <li>• poison</li> <li>• </li> <li>• cancer</li> </ul>	
<p>***Counterbalanced with Stage 1</p>	<p>**** Counterbalanced with Stage 3</p>	

## Appendix C

The *D* Algorithm*Scoring Procedure for the IAT (Greenwald, Nosek, & Banaji, 2003)*

Step	Stages Used	Procedure
1	S3, S4, S6, & S7	Data are only used from these four combination stages.
2	S3, S4, S6, & S7	Trials with response latencies greater than 10,000 milliseconds are removed.
3	S3, S4, S6, & S7	Participants who have greater than 10% of their response latencies below 300 milliseconds are removed.
4	S3, S4, S6, & S7	If there are no errors made in the block, then the mean of all of the response latencies is calculated for that stage.  If there is an error made, the stage mean is calculated without the error latency and the error latency is replaced with the stage mean plus 600 milliseconds
5	S3 & S6 S4 & S7	Compute one pooled standard deviation for all of the trials in S3 & S6 Compute one pooled standard deviation for all of the trials in S4 & S7
6	S3 & S6 S4 & S7	Compute a difference score for each stage pair (e.g., S6 - S3 & S7 - S4)
7	(S3 & S6) (S4 & S7)	Divide each difference score by its respective pooled standard deviation
8	(S3/S6) & (S4/S7)	Average the two resulting scores, this is the <i>D</i> score also known as the IAT effect

## Appendix D

## Sex with Child Scale (SWCH)

INSTRUCTIONS: Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 ----- 2 ----- 3 ----- 4 ----- 5  
 Strongly Disagree Strongly Agree

- \_\_\_ 1. Children actually enjoy sex with a man if the man is nice to them.
- \_\_\_ 2. Most children actually enjoy sex with an adult so long as the man does not hurt them.
- \_\_\_ 3. Many children are sexually seductive towards adults.
- \_\_\_ 4. Children enjoy sexual attention from adults.
- \_\_\_ 5. Men who have sex with children are usually led into it by the child.
- \_\_\_ 6. Children who do not wear underwear and who sit in a way that is revealing are suggesting sex.
- \_\_\_ 7. Children who are unloved by their parents are actually helped by men who have sex with them.
- \_\_\_ 8. Sex between adults and children is quite natural and healthy and it is only because of the repressive rules of our society that men are punished for doing this.
- \_\_\_ 9. It is far better for young people to have their first sexual experience during childhood with an adult than to risk what is sure to be an unpleasant experience with someone their own age when they are a teenager.
- \_\_\_ 10. A man can't help having sex with a child if the child acts in a provocative manner.
- \_\_\_ 11. Having sex with a child is not really all that bad because it doesn't really harm the child.
- \_\_\_ 12. If an adult has sex with a child who enjoys it and seems to want it, it shouldn't be considered a crime.
- \_\_\_ 13. Children are old enough to decide whether or not they want to have sex with someone.

- \_\_\_ 14. Having sex with a child is a way of expressing your love and affection for that child.
- \_\_\_ 15. Having sex with a child is a good way to teach them about sexuality.
- \_\_\_ 16. Many children benefit from having sex with an adult.
- \_\_\_ 17. It is OK to have sex with a child as long as you don't force the child into it.
- \_\_\_ 18. Nowadays it is not so bad to have a sexual relationship with someone who is under-age because kids know so much more about sex than they used to.

Appendix E  
Child Sexual Abuse Semantic Differential

Instructions: Circle a number below each statement to indicate how much you agree with it.

---

**Having sex with girls less than 12 is:**

Negative						Positive	
1	2	3	4	5	6	7	
Not fun						Neutral	Fun
1	2	3	4	5	6	7	
Unpleasant						Neutral	Pleasant
1	2	3	4	5	6	7	
Wrong						Neutral	Right
1	2	3	4	5	6	7	
Bad						Neutral	Good
1	2	3	4	5	6	7	
Not Enjoyable						Neutral	Enjoyable
1	2	3	4	5	6	7	
Immoral						Neutral	Moral
1	2	3	4	5	6	7	

**Having sex with women is:**

Negative				Neutral			Positive
1	2	3	4	5	6	7	
Not fun			Neutral			Fun	
1	2	3	4	5	6	7	
Unpleasant			Neutral			Pleasant	
1	2	3	4	5	6	7	
Wrong			Neutral			Right	
1	2	3	4	5	6	7	
Bad			Neutral			Good	
1	2	3	4	5	6	7	
Not Enjoyable			Neutral			Enjoyable	
1	2	3	4	5	6	7	
Immoral			Neutral			Moral	
1	2	3	4	5	6	7	

**Having sex with boys less than 12 is:**

Negative				Neutral			Positive
1	2	3	4	5	6	7	
Not fun			Neutral			Fun	
1	2	3	4	5	6	7	
Unpleasant			Neutral			Pleasant	
1	2	3	4	5	6	7	
Wrong			Neutral			Right	
1	2	3	4	5	6	7	
Bad			Neutral			Good	
1	2	3	4	5	6	7	
Not Enjoyable			Neutral			Enjoyable	
1	2	3	4	5	6	7	
Immoral			Neutral			Moral	
1	2	3	4	5	6	7	

**Having sex with men is:**

Negative		Neutral			Positive	
1	2	3	4	5	6	7
Not fun		Neutral			Fun	
1	2	3	4	5	6	7
Unpleasant		Neutral			Pleasant	
1	2	3	4	5	6	7
Wrong		Neutral			Right	
1	2	3	4	5	6	7
Bad		Neutral			Good	
1	2	3	4	5	6	7
Not Enjoyable		Neutral			Enjoyable	
1	2	3	4	5	6	7
Immoral		Neutral			Moral	
1	2	3	4	5	6	7

Appendix F

Background Questionnaire (BQ)

Instructions: Please read the following questions and indicate your answer.

How old are you? (16-17, 18-19, 20-24, 25-29, 30-34, 35-39, 40-49, 50-59, 60 or older)

Do you speak English fluently? (yes/no)

Do you understand written English? (yes/no)

Do you understand spoken English? (yes/no)

Is English your first language? (yes/no)

Did you attend an English grade school (grades 1 to 8)? (yes/no)

Did you attend an English high school? (yes/no)

Are you right-handed or left-handed? (right-handed, left-handed, both)

EDUCATION

What is the highest grade you completed in school? (6 or less, 7, 8, 9, 10, 11, 12, 13, none)

Did you take any college or university courses? (yes/no)

Did you complete a college or university degree? (yes/no)

SEXUAL ORIENTATION

Who are you most sexually attracted to? (women, men, girls, boys, all of the above, women and men, girls and boys, women and girls, men and boys)

Appendix G  
Sexual Arousal Manipulation Check

Please answer the following questions by either circling your response or filling in your answer.

1. On a typical day, how sexually aroused are you?

Not at all		Somewhat		Very much so
0	1	2	3	4

2. This morning, how sexually aroused were you?

Not at all		Somewhat		Very much so
0	1	2	3	4

3. Before you started the study, how sexually aroused were you?

Not at all		Somewhat		Very much so
0	1	2	3	4

4. Was the story you listened to sexually arousing?

Not at all		Somewhat		Very much so
0	1	2	3	4

5. If you were sexually aroused while listening to the story, were you still sexually aroused while completing the categorization tasks and the questionnaires?

Not at all		Somewhat		Very much so
0	1	2	3	4

6. Are you sexually aroused now?

Not at all		Somewhat		Very much so
0	1	2	3	4

7. Did you get an erection while listening to the story?

Not at all		Somewhat		Full erection
0	1	2	3	4

8. What was the story you listened to about? Please check which story you listened to.

man having sex with a woman

grocery shopping

a man having sex with a man

a hockey game

a man having sex with a little girl

a man having sex with a little boy

7. Did the story make you feel distressed?

Not at all

Somewhat

Very much so

0

1

2

3

4

8. How often do you watch pornographic movies?

Never

Once a year

Once a month

Once a week

Every day

0

1

2

3

4

9. Did you understand the instructions?

10. Did you find any of the tasks difficult to respond to?

11. Did you find any of the questions difficult to understand?

## Appendix H

## Sexual Arousal Story (Sewell, 2009)

[Heterosexual]

## INSTRUCTIONS:

Please close your eyes and imagine yourself with someone you would enjoy having a sexual experience with. While reading the story imagine yourself being with this person.

The beach is deserted as the sun begins to set. Only the steady beat of the crashing waves disturbs the peaceful silence. In a skimpy bikini, she emerges soaking wet from the water. You watch her long hair softly blow in the cool breeze. Her skin glistens from a long, hot day in the sun. She is content; she looks over at you and smiles.

She walks over and lies down next to you on your blanket. You admire her beauty and notice her full sensual lips. You begin gently stroking her smooth skin and kissing her wet lips. Your tongue caresses her neck and she encourages you to remove her bikini. You take her bikini top off and begin fondling her breasts as her nipples swell with arousal. Her breathing intensifies, and you both let out a loud groan. You suck on her tender breasts, "Uhhhh," she moans.

You grasp onto her warm hand and place it on your growing erection. She tugs at your bathing suit. Your legs start to rub against one another. You untie her bikini strings and slide her bottoms off.

Reaching down, you slide your finger into her moist pussy. As the muscles in her legs tighten, you pull out and massage her small tight ass. Her body becomes relaxed and she

slowly spreads her legs apart, exposing her hungry wet pussy. You softly caress her breast and lift her pelvis up; she watched as you slide your tongue all over the inner side of her thigh. You massage her pussy, now sucking and tasting her sweet warm skin. Now inside, it feels so hot and wet. Her body starts to twitch and you feel her tingle all over. She moans, "Ohhhh." You look her in her eyes and you tell her, "I want you so fucking bad."

You move her silky hair and slowly guide her head down to your dick. She wraps her lips around the top of your dick and gradually makes her way up and down your hard shaft. She gets it wetter and twists her hand around it as her mouth goes up and then back down, over and over.

You want her so bad now. You grab her body and lay her on her back. She feels the head of your hard cock enter. You ease your dick into her tight cunt. Slowly you slide your pulsing dick in and out, in and out. Her legs close tightly around you and her nails dig into your back. You gently flip her over and start fucking her from behind. You whisper in her ear, "It feels so good, baby." You both let out a deep, loud moan. She squirms beneath you and you hold her tighter. She arches her back and you grind together, faster and faster. Feeling the pleasure build up, you're both ready to explode. You can't hold back anymore, your orgasm erupts deep into her body and she cums all over you.

Appendix I  
Sexual Arousal Story (Sewell, 2009)

[Homosexual]

INSTRUCTIONS:

Please close your eyes and imagine yourself with someone you would enjoy having a sexual experience with. While reading the story imagine yourself being with this person.

The beach is deserted as the sun begins to set. Only the steady beat of the crashing waves disturbs the peaceful silence. In a pair of black shorts he emerges soaking wet from the water. His skin glistens from a long, hot day in the sun. He is content; he looks over at you and smiles.

He walks over and lies down next to you on your blanket. You admire his beauty and notice his full sensual lips. You begin gently stroking his smooth skin and kissing his wet lips. Your tongue caresses his neck and he encourages you to remove his bottoms. You begin holding his chest and watch his nipples swell with arousal. His breathing intensifies, and you both let out a loud groan. You suck on his chest, "Uhhhh," he moans.

You grasp onto his warm hand and place it on your growing erection. He tugs at your bathing suit. Your legs start to rub against one another. You loosen the string on his shorts and slide his bottoms off.

Reaching down, his half-hard dick turns into a full-fledged hard-on in seconds. As the muscles in his legs tighten up, you loosen your grip and massage his tight round ass. His body becomes relaxed and his dick is so hard. You softly caress his chest and lift his pelvis up; your tongue is being watched as you slide it all over the inner side of his

thighs. You massage his shaft, now sucking and tasting his sweet warm skin. You immediately begin sucking his head. Now inside your mouth, it feels so hot and wet. His body starts to twitch and you feel him tingle all over. He moans, “ohhhh”. You look him in his eyes and you tell him, “I want you so fucking bad.”

You move his silky hair and slowly guide his head down to your dick. He wraps his lips around the top of your dick and gradually makes his way up and down your hard shaft. He gets it wetter and twists his hand around it as his mouth goes up and then back down, over and over. You want him so bad now. You grab his body and lay him on his side. He feels the head of your hard cock enter. You ease your dick into his tight ass. Slowly you slide your pulsing dick in and out, in and out. His legs close tightly and his nails dig into your thighs. You gently flip him over and start fucking him from behind. You whisper in his ear, “It feels so good, baby.” You both let out a deep, loud moan. He squirms beneath you and you hold him tighter. He arches his back and you grind together, faster and faster. Feeling the pleasure build up, you’re both ready to explode. You can’t hold back anymore, your orgasm erupts deep into his body.

## Appendix J

## Control Condition Story (Sewell, 2009)

## [Day at the Beach]

INSTRUCTIONS: Please read the story.

You decide to head down to the beach. The sizzling heat of the early morning calls for a cool swim in the lake. You think that roasting up some hamburgers and hot dogs will add a little fun to the day.

You arrive at the beach around 11 am and the lot is full of parked cars. Taking your supplies from the car, you search for the perfect location to set up for the day. After searching for a few minutes, you finally find a great location! The sand is smooth and free from rocks and debris. You are close to the water and waves but, if needed, you have the shade from a large tree. You carefully lay your blankets down on the sand. The wind starts to pick up and so you place your cooler on top of the blankets and tightly anchor your bags and other belongings. The wind tosses everything about but then it comes to a quick rest.

It seems like everywhere you look people are smiling and laughing. Everyone is enjoying the hot summer sun and cool sparkling water. People splash about in the water and are having a grand time. People in the water are playing Marco/Polo and snorkeling. Others make beautiful sandcastles and read novels in their comfortable lounge chairs. You are starting to get hungry. So, you decide to get everything up and going for a tasty lunch. You put the top on the grill to let the fire burn a bit while you sit back down and enjoy a cool can of your favourite beer.

You go back to the grill and place hot dogs and hamburgers on the grill; all seasoned up. And, you toss together a yummy mixed salad. After the food is done cooking, you sit and eat it all. Each bite you take is delightful. After eating lunch, you clean up and decide to relax.

You first take out a magazine that you have been meaning to read for some time. It is a cool magazine but the pages start getting a bit soggy from the sweat generated by your hands. Instead, you decide to go for a long swim in the lake and you start to play football in the water with a few other people. After a little while, you notice you're getting a bit sleepy and think a nap in the sun would be great. When you awake from a deep sleep, the beach is nearly deserted. Your shoulders are a bit burned too; you put a little bit of lotion on your arms and shoulders. You decide it is time to pack up your belongings and make your way to your car. You had a great and relaxing day. The worst thing about the day is that it had to end.

Appendix K  
Coding Manual

**GENERAL GUIDELINES**

- Record all dates as YYYY-MM-DD.
- For all variables, code "--" if the information is **not applicable**, unless instructed otherwise.
- For all variables, code "?" if the information is **unknown or cannot be determined**, unless instructed otherwise.
- Refer to Canadian Criminal Code when in doubt about the nature of a certain offence name.
- The "index offence" includes the one or more sexual offences, committed by the subject, which resulted in his most recent incarceration (can include "pseudorecidivism").
- The line between "index" and "prior" offences is determined by whether some action (e.g., arrest, charge, conviction) was taken by the criminal justice system between the commission of one offence and another. Criminal justice actions may include the following: alternative resolutions (Restorative Justice), arrests, charges, community-based Justice Committee Agreements, criminal convictions, institutional rule violations for sexual offence (but do not count consenting sexual activity in prison), parole and probation violations, alternative resolution agreements, community supervision, conditional discharges, fines ,or imprisonment (Static-99 and Static-2002 coding rules; Harris et al., 2003; Phenix et al., 2009). Consider the following example: An offender commits a sex offence in 1975 and is convicted of this offence. He then commits another sex offence in 1980 but it is not reported at that time. He commits yet another sex offence in 1985 and this time it is reported and he is arrested, charged, and convicted. In 1990, the victim of the 1980 offence reports him to the police and he is convicted of that offence. For this offender, the 1975 sex offence would be a prior offence and both the 1980 (1990 conviction) and 1985 offences would be the index offence cluster.
- For ages, be sure to indicate the unit of time; e.g., years, months, or days. In all cases where exact information is not available, provide a range, an "at least" value, an "at most" value, or other approximation – be sure to indicate when your coding is based on such estimates. For example, if the exact victim age were not available, but some less precise information could be gathered, code in one of the following ways:
  - range: 8-10 years

- for victim age in particular, if more specific ranges cannot be identified, at minimum indicate one of the following age ranges: 0-11 years; 12-13 years; 14-17 years; 18 years and older
  - at least:  $\geq 8$  years (most appropriate for youngest age estimates)
  - at most:  $\leq 10$  years (most appropriate for oldest age estimates)
  - approximation:  $\approx 8$  years
- Be sure to be consistent in your use of victim numbers; for example, victim 1 should be the same person in all tables pertaining to the index sex offences.

<b>Participant number (from Participant List)</b>	
<b>Participant's date of birth</b>	
<b>Institution at which participant was tested</b>	
<b>Coder's name</b>	

\_\_\_\_\_ **Offender's Race** (code from Physical Characteristics in Offender Admission Form in Sentence Management file)

- 1=White
- 2=Asian
- 3=Inuit
- 4=North American Indian
- 5=Metis
- 6=Black
- 7=Other; specify

**Height** \_\_\_\_\_ cm **Handedness (code from hand used to sign consent form):** Right \_\_\_\_\_ Left

**Length of aggregate sentence for index offence(s)** (write in years, months, and/or days).

\_\_\_\_\_ or \_\_\_\_\_ life/indeterminate sentence (e.g., Dangerous Offender)

**Warrant Expiry Date** \_\_\_\_\_

**INDEX CONVICTIONS**

Sex offences include all offences for which there is an official conviction that is sexual (e.g., sexual assault) and other offences with sexual motivation, even if official conviction is not for a sex offence (e.g., convicted of homicide, but also sexually assaulted the victim).

Only code for offences linked to an official conviction (e.g., indicated in CPIC). For example, if an offender admitted to offences for which he was never caught, you would not code them; just ignore them. Similarly, ignore sex offence charges that did not result in conviction.

You will need at minimum the CPIC, Psychological Specialized report (from MAU), and the Criminal Profile report. Police reports (e.g., Crown Briefs) and court transcripts (e.g., agreed upon facts) are also useful (but not always present).

Locate the participant's **most recent CPIC** (in the Sentence Management file) and code the information below for index offence convictions (and "pseudorecidivism", if present). If exact dates are not available, record as much information as is available; for example, range of dates (e.g., "1990-08-01 and 1990-12-04") or more general info (e.g., "1990"). Use the information in other documents to determine the nature of the offence in addition to the official name from the criminal code; for example, the offence may be *Assault* but the Criminal Profile indicates that the offence was sexual in nature or included a sexual component.

Only count offences listed in the CPIC or on official criminal records from some other jurisdiction/country; for example, a conviction in the USA listed on an official record from the USA but not be included on the CPIC.

**Do not count convictions that were overturned on appeal.**

CPIC available?		Date on CPIC	
-----------------	--	--------------	--

**CPIC available** = Is a CPIC available to score the items below for this offender? (yes/no).

**Date on CPIC** = Date on CPIC can be found at top right of page, preceding the page numbers; e.g., if this number were "52-9-F-060731-0815", the date of the CPIC is "06-07-31" and should be coded as "2006-07-31".

**Only consider index offences that resulted in conviction in your coding below (categories are mutually exclusive).**

<b>Index offence convictions</b>	<b>Number</b>	<b>Date of 1<sup>st</sup> offence</b>	<b>Date of 1<sup>st</sup> charge/arrest</b>	<b>Date of 1<sup>st</sup> conviction</b>
<b>Sex offence convictions (in name or deed)</b>				
<b>Non-sexual violent convictions</b>				
<b>Non-sexual and non-violent convictions</b>				

**Number** = number of convictions.

**Date of 1<sup>st</sup> offence** = date first offence was first committed.

**Date of 1<sup>st</sup> charge/arrest** = date offender was first charged or arrested.

**Date of 1<sup>st</sup> conviction** = date offender was first convicted.

### **Coding Non-Sexual Violent Offences**

**The following guidelines and definitions for coding non-sexual violent offences have been taken from the Static-2002 coding rules.** Some sections below have been copied directly and some have been modified to suit the specific needs of our studies. Not all of this information is directly relevant for our studies, but most of it will indicate what sources of information to consider and how to determine what should be considered a non-sexual violent offence:

The following offences are considered non-sexual violence provided there is no underlying sexual motivation:

- Aggravated assault
- Arson
- Assault
- Assault causing bodily harm
- Assault peace/police officer
- Attempted abduction
- Attempted child stealing
- Attempted robbery
- Compelling the commission of an offence
- Criminal Harassment
- Cruelty to animals
- False imprisonment
- Felonious assault
- Forcible confinement

- Give noxious substance (alcohol, narcotics, or other stupeficient in order to impair a victim)
- Grand theft person (“Grand theft person” is a variation on robbery and may be counted as non-sexual violence)
- Juvenile non-sexual violence sentencing occasions count on this item
- Kidnapping
- Manslaughter
- Murder
- Robbery
- Threatening
- Using/pointing a weapon/firearm in the commission of an offence
- Violation of a domestic violence order (restraining order; a conviction for)
- Wounding

For this item, the final conviction must be for a violent offence (as opposed to behaviour that may have been motivated by violence). In cases where there is uncertainty, an offence is considered violent if the Criminal Code (or other relevant statute) definition of the offence includes a mandatory component involving some sort of force, touching, threats, and/or the behaviour directly leads to concern for one’s safety (except in the cases of dangerous driving or negligence).

Do not count driving accidents or convictions for Negligence causing Death or Injury.

### **Special Coding Issues**

#### **Convictions Coded Only as Sexual Offences**

- Sexual assault, sexual assault with a weapon, aggravated sexual assault, and sexual assault causing bodily harm are **not** coded separately as Non-sexual Violence – these convictions are simply coded as sexual offences.
- Assault with intent to commit rape (U.S. Charge) – A conviction under this charge is scored only as a sexual offence – Do not code as Non-sexual Violence.
- Convictions for sexual battery (U.S. Charge) – A conviction under this charge is scored only as a sexual offence – Do not code as Non-sexual Violence.

In Static-2002, a conviction is either a Sexual offence or a Non-sexual Violence offence (not both). Alternately, a conviction could be neither sexual nor violent (e.g., theft). Any offence that indicates non-sexual violence by name but the behaviours or intent indicate a sexual offence should be coded as a “Sexual Offence” and not “non-sexual violence”.

#### Homicide – With a Sexual Component

A sexual homicide offender who solely gets convicted of murder does not receive a risk point for “Non-Sexual Violence.” This murder only counts as a sexual sentencing occasion.

### Military

If an “undesirable discharge” is given to a member of the military as the direct result of a violent offence (i.e., striking an officer) this counts as a “Non-Sexual Violence” sentencing occasion and as an “Prior Sentencing Occasion for Anything.” However, if the member left the military when he normally would have and the “undesirable discharge” is equivalent to a bad job reference, this offence does not count as “Non-sexual Violence” or as a “Prior Sentencing Occasion for Anything.”

### Resisting Arrest

Resisting Arrest does not count as non-sexual violence. In Canadian and United States law this charge can apply to individuals who run from an officer or who hold onto a lamppost to delay arrest. If an offender fights back he will generally be charged with “assault to a peace/police officer” which counts as non-sexual violence. Alternately, "assault with intent to resist arrest" would also count as non-sexual violence.

### Revocation of Conditional Release for “Lifers,” Dangerous Offenders, and Others with Indeterminate Sentences

If a “lifer,” Dangerous Offender, or other offender with an already imposed indeterminate sentence has been revoked (returned to prison from conditional release in the community without trial) for a non-sexual violent offence that happened prior to the index sexual offence (or at least one of the offences within an index cluster) this revocation stands as a conviction for non-sexual violence if that non-sexually violent act were sufficient that it would generally attract a separate criminal conviction for a violent offence. **Note:** The evaluator should be confident that were this offender not already under sanction that it is highly likely that a violent offence charge would be laid by police and a conviction would be highly likely.

### Weapons Offences

Weapons offences do not count unless the weapon was used in the commission of an offence. For example, an offender might be charged with an offence and then in a search of the offender’s home the police discover a loaded firearm. As a result, the offender is convicted, in addition to the original offence, of unsafe weapons storage. This does not count as a sentencing occasion for non-sexual violence as the weapons were not used in the commission of an offence.

A sentencing occasion for Possession of a firearm or Possession of a firearm without a license generally does not count as a non-sexual violent offence. A conviction for Pointing a firearm generally does count as non-sexual violence as long as the weapon was used to threaten or gain victim compliance. Intent to harm or menace the victim with the weapon must be present in order to score a point on this item.

**INDEX SEX OFFENCE CONVICTION DETAILS**

V #	Offence	Arrest/Charge	Conviction		Victim				Offender	
	Date	Date	Offence	Date	First name	Age Y O	Gender	Relationship	Age Y O	

**V#** = Assign a number to each victim and use that number to refer to the same victim in subsequent coding tables. If multiple convictions were incurred for the same victim, list each one separately for this victim and code the remaining information for each charge/conviction. For example, if an offender was convicted of Sexual Interference as well as Invitation to Sexual Touching for offences against the same victim (e.g., Victim 1), then you would fill in one row for the details pertaining to the Sexual Interference conviction and a separate row for the details pertaining to the Invitation to Sexual Touching conviction. However, if it is not possible to distinguish the details of the offences from one conviction to another for the same victim, then you should still list all convictions that apply, but just code the remaining information in one row combining the information from all charges/convictions related to this victim; be sure to indicate that the information pertains to all convictions combined by drawing arrows from the conviction to the row containing the information on victim, offender, and offence.

**Offence date** = date offence actually was committed. If offence committed on multiple dates, use earliest date. If exact date is not available, provide a range or approximation.

**Arrest/charge date** = date offender was arrested or charged for this offence (from CPIC and/or official reports). If arrested or charged on multiple dates, use earliest date.

**Conviction offence** = the criminal code name of the offence (from CPIC and/or official reports) of which the offender was convicted.

**Conviction date** = date offender was convicted for this offence (from CPIC and/or official reports).

**Victim information:** provide the **victim’s first name**, **age** at time the abuse began (under “Y” for youngest age) and last occurred (under “O” for oldest age), and **gender** (F or M).

**Offender age** = offender’s age at the time he first sexually offended against this victim (under “Y” for youngest age) and when he last sexually offended against this victim (under “O” for oldest).

**Relationship** = in this case refers to the **offender’s perspective**. For example, if the offender abused his daughter, then the relationship would be coded as “daughter” (enter a number from the list at the end of the coding manual, p.25).



**SUMMARY OF INDEX SEX OFFENCE CONVICTION INFORMATION**

<b>Number of female victims</b>	
<b>Number of male victims</b>	
<b>Age of youngest victim</b>	
<b>Age of oldest victim</b>	
<b>Relationship with victims</b>	

**Relationship** = in this case refers to the **offender's perspective**. For example, if the offender abused his daughter, then the relationship would be coded as "daughter" (enter a number from the list at the end of the coding manual, p. 25). List relationship codes for all sex offence victims.

**PRIOR CONVICTIONS**

Count both adult and juvenile offences.

**Only consider prior offences that resulted in conviction in your coding below.**

<b>Prior offence convictions</b>	<b>Number</b>	<b>Date of 1<sup>st</sup> conviction</b>
<b>Sex offence convictions (in name or deed)</b>		
<b>Non-sexual violent convictions</b>		
<b>Non-sexual and non-violent convictions</b>		

**Number** = number of convictions.

**Date of 1<sup>st</sup> conviction** = date offender was first convicted.

**PRIOR SEX OFFENCE CONVICTION DETAILS**

<b>Number of female victims</b>	
<b>Number of male victims</b>	
<b>Age of youngest victim</b>	
<b>Age of oldest victim</b>	
<b>Relationship with victims</b>	

**Relationship** = in this case refers to the **offender's perspective**. For example, if the offender abused his daughter, then the relationship would be coded as "daughter" (enter a number from the list at the end of the coding manual, p. 25). List relationship codes for all sex offence victims.

**Any sex offences at all (self-reported, charges, convictions, prior, or current)?**

**YES**

**NO**

**EDUCATION**

Write in the highest grade completed and then circle “yes” or “no” for the remaining questions. Code based on official information as much as possible. When no official information is available, code from offender’s self-report if that is available. If both offender’s self-report and official information are available but conflict with each other, generally give priority to the official information.

<b>Highest grade completed (high school or elementary school)</b>		
<b>Took college courses?</b>	Yes	No
<b>Completed college degree?</b>	Yes	No
<b>Took undergraduate university courses?</b>	Yes	No
<b>Completed undergraduate university degree?</b>	Yes	No
<b>Took graduate (MA, PhD) courses?</b>	Yes	No
<b>Completed graduate degree?</b>	Yes	No

**Number of older brothers** from the same mother \_\_\_\_\_

*Note.* Biology is important here. If the offender is adopted, you cannot code this item, unless you have information on the biological mother. In the same vein, if the older brother(s) is adopted, you do not include them in the count.

\_\_\_\_\_ **Marital status on date of index offence**

- *Indicate the category that best describes the subject's marital status on the date he committed the index offence.*
- *If the index offence includes more than one offence, indicate his marital status on the date of the first of these.*
  - 1=single (i.e., never lived with a romantic partner for at least 1 year)
  - 2=common-law relationship (living together at least 1 year)
  - 3=married
  - 4=separated/divorced from wife
  - 5=separated from common-law wife
  - 6=widower
  - 7=homosexual relationship (living together/married at least 1 year)
  - 8=other; specify

**Number of biological children** \_\_\_\_\_

**Number of biological children he has raised or helped to raise**

\_\_\_\_\_

**Number of step or adopted children he has raised or helped to raise**

\_\_\_\_\_

**CSC SEX OFFENDER TREATMENT PARTICIPATION DURING SENTENCE FOR INDEX OFFENCE(S)**

From program-related files (e.g., Program reports, Correctional Plan Progress report, etc.), record the information below about all sex offender treatment the offender has participated in since beginning his sentence for the index offence(s) in CSC institutions.

TREATMENT NAME & TYPE	INTENSITY	START DATE	END DATE	LOCATION	ASSIGNMENT STATUS

**Treatment name or type** = if possible, record the official CSC name of the program (e.g., National Sex Offender Program) and enter a number from the list at the end of the coding manual, p. 26.

**Intensity** = community, low, moderate, or high.

**Start date** = date program started (found in program reports).

**End date** = date program ended (if program is not yet over and offender is still participating, then enter "ongoing").

**Location** = institution (e.g., Millhaven Assessment Unit [MAU], Warkworth, etc.) or other location (e.g., hospital, Ottawa parole office, etc.) at which treatment was received.

**Assignment status** = refers to whether the offender's performance in the program; it is indicated on program reports (e.g., successful completion, attended all sessions, suspended, etc.).

**ANY NON-CSC SEX OFFENDER TREATMENT RECEIVED SINCE THE COMMISSION (I.E., DATE OF THE ACTUAL OFFENCE) OF THE MOST RECENT INDEX OFFENCE**

This includes any treatment related to his sexual offending other than the CSC treatments recorded above. For example, after committing his offence he may have had some sessions with a psychiatrist or psychologist; he may have started taking medication to reduce his sex drive. Or after his most recent arrest, he may have started some sort of treatment in the community or provincial jail to address his sex offending. Note that the focus here is on treatment received after the offender committed his index offence (or if there is more than one index offence, the most recent index offence). Basically, we are trying to identify whether he had treatment since his last offence that might have changed the way he thinks and feels about himself, children, or sex offending.

TREATMENT NAME & TYPE	START DATE	END DATE	# SESSIONS ATTENDED	LOCATION

**Treatment name or type** = if possible, record the official name of the program and enter a number from the list at the end of the coding manual, p. 26.

**Start date** = date program started (found in program reports).

**End date** = date program ended (if program is not yet over and offender is still participating, then enter "ongoing").

**Location** = institution (e.g., Millhaven Assessment Unit [MAU], Warkworth, etc.) or other location (e.g., hospital, Ottawa parole office, etc.) at which treatment was received.

**# Sessions attended** = Indicate the number of treatment sessions attended.

**CHILDHOOD SEXUAL ABUSE**

Sexual abuse is defined as sexual acts which were committed against the offender before the age of 16 where the abuser was at least 5 years older than the offender.

	Victim		Abuser			
Abuser#	Age		Gender	Age		Relationship to victim
	Y			Y		
	O			O		

**Abuser#** = Assign a number to each abuser.

**Victim age** = participant's age when he was abused; age at time the abuse began (under "Y" for youngest age) and last occurred (under "O" for oldest age).

**Abuser gender** = F for female and M for male.

**Abuser age** = age of the abuser when he or she first abused the participant (under "Y" for youngest age) and when he or she last abused the participant (under "O" for oldest).

**Relationship to victim** = refers to the victim's perspective; for example, if the participant was abused by his uncle, then the relationship to victim would be "uncle" (enter a number from the list at the end of the coding manual, p. 25). In cases where exact information is not available, provide a approximation –e.g., family member, stranger, acquaintance.

**CODES****RELATIONSHIP**

- 1=Son/daughter (biological)
- 2=Son/daughter (stepchild; offender and victim lived together for more than 2 years before abuse began)
- 3=Son/daughter (stepchild; lived together for less than 2 years before abuse began)
- 4=Son/daughter (adopted child; lived together for more than 2 years before abuse began)
- 5=Son/daughter (adopted child; lived together for less than 2 years before abuse began)
- 6=Son/daughter (foster child; lived together for more than 2 years before abuse began)
- 7=Son/daughter (foster child; lived together for less than 2 years before abuse began)
- 8=Father/mother (biological)
- 9=Father/mother (step)
- 10=Father/mother (adopted)
- 11=Father/mother (foster)
- 12=Brother/sister (biological)
- 13=Brother/sister (step)
- 14=Brother/sister (adopted)
- 15=Brother/sister (foster)
- 16=Uncle/Aunt (biological)
- 17=Uncle/Aunt (through marriage)
- 18=Grandfather/grandmother (biological)
- 19=Grandfather/grandmother (through marriage)
- 20=Cousin (biological)
- 21=Cousin (through marriage)
- 22=Nephew/niece (biological)
- 23=Nephew/niece (through marriage)
- 24=In-law; specify
- 25=Spouse (legally married)
- 26=Ex-spouse (were legally married but now separated or divorced)
- 27=Girlfriend/boyfriend (common-law; i.e., lived with offender as a lover for 2 years or more)
- 28=Girlfriend/boyfriend (lived with offender as a lover for less than 2 years)
- 29=Girlfriend/boyfriend (never lived together)
- 30=Girlfriend/boyfriend (were common-law but now separated)
- 31=Close friend (platonic)
- 32=Supervisor (e.g., teacher, coach, boy scout-leader, babysitter, clergy)
- 33=Supervisee (e.g., student, team member being coached, babysittee)
- 34=Casual acquaintance (e.g., neighbour)

- 35=Stranger (offender did not know victim and/or victim did not know offender at least 24-hours prior to offence)
- 36=Animal
- 37=Other; specify

## **SEX OFFENDER TREATMENT**

TYPE OF SEX OFFENDER TREATMENT (i.e., treatments assigned or sought out in an attempt to address his sexual offending)

- 1=National Sex Offender Program
- 2=cognitive behavioural treatment
- 3=behavioural therapy for deviant arousal (e.g., phallometric laboratory, covert sensitization, biofeedback).
- 4=sex education
- 5=social skills
- 6=relapse prevention
- 7=group therapy
- 8=individual psychotherapy
- 9=sexual addiction/offenders treatment program
- 10=drug treatment; specify
- 11=other; specify

## Appendix L

## Informed Consent (Mental Health Centre Penetanguishene)

*An informed consent form outlines the procedure, identifies any potential negative consequences, and provides contact information should you have any questions or concerns about the research that cannot be answered by the researcher. The main purpose of a consent form is to **INFORM** you of what you will be asked to do so that you have enough information to decide if you want to participate.*



The purpose of this study is to try to get a better idea of what leads to child sexual abuse (CSA). In this study, you will be asked to complete computer-based tasks as well as some questionnaires, which are meant to measure attitudes towards CSA. You will also be asked to listen to a story that may or may not include sexual content. Participation is one session and testing will take about 1 hour. You will receive \$5 compensation for your participation in this research.

Some of the tasks you may be asked to complete deal with sensitive material, which may be embarrassing or offensive. It is important that you understand that you are free to withdraw from the study, refuse to participate, and/or refuse to answer any questions should they make you uncomfortable. Refusal to participate will **NOT** affect your treatment at Mental Health Centre Penetanguishene. Participation in this study will **NOT** affect any administrative decisions concerning your case.

We also want you to let us review information about your criminal history, psychological assessments, and programs in your files. The researchers will use this information to see if there is a relationship between file information and the measures completed in this study. Your file information and your answers to the questions will be used only for research purposes. Your confidentiality will be respected and protected, meaning your answers and file information will not be shared with anyone outside of the research project.

Your responses on the computer will **NOT** be shared with staff and will **NOT** be put on any of your files. You will not be identified as a participant in the publication or presentation of the results. To protect your confidentiality, your name and other personal information will **NOT** be written on the information you provide.

The information you provide will be used for the current study and for follow-up studies (up to a maximum of 10 years from now). The information collected from you will be kept at Carleton University for a period of 10 years in a locked filing cabinet and password-protected computer. The information will be available only to the researchers working on this research. Ethics approval from the Mental Health Centre Penetanguishene will be obtained before conducting any follow-up studies.

This study has been approved by the Mental Health Centre Penetanguishene Research Ethics Board and the Carleton University Ethics Committee for Psychological Research. This research is being done as part of my Master's Thesis, under the supervision of Dr. Kevin Nunes, Carleton University. For questions about this study, please contact Kevin Nunes (Assistant Professor, Department of Psychology, Carleton University, 613-520-2600, Ext 1545; kevin\_nunes@carleton.ca). Should you have any other concerns about this study, please contact Dr. Marnie E. Rice, Chair of Mental Health Centre Penetanguishene Research and Ethics Committee (705-549-3181 Ext. 2614, Fax : 705-549-3652, mrice@mhcp.on.ca), Dr. Grant Harris (gharris@mhcp.on.ca), Dr. Monique Senechal, Chair of the Carleton University Ethics Committee for Psychological Research (613-520-2600, Ext. 1155; Monique\_senechal@carleton.ca), or Dr. Janet Mantler, Chair of the Psychology Department (613-520-2600, Ext. 4173; psychchair@carleton.ca). If you experience any distress as a result of this study or have questions later, please seek help from your program staff or clinical staff.

***I have read and understood the information above. Any questions I had were answered to my satisfaction.***

***My signature indicates that I agree to participate in this study and provide researchers access to my files. There are two copies of the consent form, one of which I may keep.***

Participant Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher/Witness Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix M

## Informed Consent Form (Correctional Service of Canada)

*An informed consent form outlines the procedure, identifies any potential negative consequences, and provides contact information should you have any questions or concerns about the research that cannot be answered by the researcher. The main purpose of a consent form is to **INFORM** you of what you will be asked to do so that you have enough information to decide if you want to participate.*



The purpose of this study is to try to get a better idea of what leads to child sexual abuse. In this study, you will be asked to complete computer tasks as well as some questionnaires, which are meant to measure attitudes towards child sexual abuse. You will also be asked to listen to a story that may or may not include sexual content. Participation is one session and testing will take about 1 hour.

Some of the tasks you may be asked to complete deal with sensitive material, which may be embarrassing or offensive. It is important that you understand that you are free to withdraw from the study, refuse to participate, and/or refuse to answer any questions should they make you uncomfortable.

Your responses on the computer will **NOT** be shared with staff and will **NOT** be put on any of your files. To protect your confidentiality, your name and other personal information will **NOT** be written on the information you provide. We also want you to let us review information about your criminal history, psychological assessments, and programs in your files. The researchers will use this information to see if there is a relationship between file information and the measures completed in this study. Your file information and your answers to the questions will be used only for research purposes. You will not be identified as a participant in the publication or presentation of the results. Your confidentiality will be respected and protected, meaning your answers and file information will not be shared with anyone outside of the research project.

The information you provide will be used for the current study and for follow-up studies (up to a maximum of 10 years from now). The information collected from you will be kept at Carleton University for a period of 10 years in a locked filing cabinet and password protected computer. The information will be available only to the researchers working on this research.

This study has been approved by Carleton University Ethics Committee for Psychological Research and Correctional Service of Canada Ethics Review Board. This research is being done as part of my Master's Thesis, under the supervision of Dr. Kevin Nunes, Carleton University (Assistant Professor, Department of Psychology, Carleton University, 613-520-2600, Ext 1545; [kevin\\_nunes@carleton.ca](mailto:kevin_nunes@carleton.ca)). Should you have any other concerns about this study, please contact Dr. Monique Senechal, Chair of the Carleton University Ethics Committee for Psychological Research (613-520-2600, Ext.

1155; Monique\_senechal@carleton.ca), or Dr. Janet Mantler, Chair of the Psychology Department (613-520-2600, Ext. 4173; [psychchair@carleton.ca](mailto:psychchair@carleton.ca)). If you experience any problems as a result of this study or have questions later, please seek help from your program staff or clinical staff.

***I have read and understood the information above. Any questions I had were answered to my satisfaction.***

***My signature indicates that I agree to participate in this study and provide researchers access to my files. There are two copies of the consent form, one of which I may keep.***

Participant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix N

## Debriefing Form (Mental Health Centre Penetanguishene and CSC)

*Thank you very much for participating in my study. Without your participation, this research would not have been possible. I hope the following information addresses any questions and/or concerns you may have.*

**What is child sexual abuse?**

Child sexual abuse (CSA) is defined as a sexual act involving an adult and a child, in which the child is used for sexual purposes (Briere, 1992). Due to the trauma associated with CSA victims suffer from severe psychological, social, behavioural and physical problems (Whitaker et al. 2008). Therefore, CSA is a common social concern and may have a negative impact on both the victim and offender.

**What Are We Trying to Learn in this Research?**

The grouping task (the Implicit Association Test) and some of the questionnaires you completed were designed to measure how positively or negatively one views CSA. We are trying to find out if men who have sexually offended against a child view CSA more positively than men who have not sexually offended against a child. We also want to know if men view CSA more positively when they are sexually aroused than when they are not. In this study, participants complete grouping-tasks and questions. Participants then listen to one of two stories before completing the grouping-tasks and questions for a second time. One story is designed to be sexually arousing and the other story is designed to be neutral; that is, to have no effect on arousal. To answer our questions, we will compare the average responses of participants in each of the four groups (e.g., men who have committed CSA and listen to the arousing story; men who have not committed CSA and listen to the arousing story; men who have committed CSA and listen to the neutral story; and men who have not committed CSA and listen to the neutral story).

**Why Is This Important to Researcher or the General Public?**

CSA is a serious offence that has many negative consequences for victims. It has been suggested that what people think influences their behaviour. As such, finding out more about how men think about CSA can help us to better understand why some men commit CSA and, ultimately, how to reduce this harmful behaviour.

**What are our Hypotheses and Predictions?**

We expect that men who have committed CSA will view CSA more positively than men who have not committed sexual abuse. In addition, it is expected that CSA will be viewed more positively when sexually aroused than when not aroused, particularly among men convicted of CSA.

**What if I Found this Experiment Emotionally Draining or if I Have Questions Later**

If you experience any distress as a result of this study or have questions later, please seek help from your program staff or clinical staff.