Correlates of denial: Exploring the function of denial among men
who commit sexual offences against children

by

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Abstract

Men who commit sexual offenses against children may engage in denial and minimization that relates to an increased risk to reoffend or as an adaptive response in an adversarial environment. To better understand how and when denial may be related to risk, its function must first be understood. The current study examined the association between denial and factors indicating denial as a risk factor or as an adaptive response among 29 adult men who had committed a sexual offense against a child. Contrary to hypotheses, denial was negatively related to callous-interpersonal traits of psychopathy, and largely unrelated to self-esteem. In line with hypotheses, denial was negatively related to self-identification as a sexual offender and negatively related with attitudes towards sexual offenders. The current study's findings may be consistent with an adaptive use of denial, which has implications for treatment and management decisions.

Keywords: denial, minimization, psychopathy, deviant sexual interests, identity, self-esteem, attitudes

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Table of Contents

Abstract	ii
Acknowledgements	iii
Correlates of denial: Exploring the function of denial among men who commit sexual offenses against children	1
The Conceptualization of Denial	3
The Function of Denial	4
Denial as a Risk Factor	6
Psychopathy.	8
Deviant sexual interests.	11
An Adaptive Function of Denial	16
Identity.	18
Self-Esteem.	21
Balanced-Identity Theory: Linking identity, self-esteem, and attitudes.	24
Implicit and Explicit Cognitions	27
Current Study	28
Research Questions.	28
Methods	29
Participants	29
Measures	30
Demographic questionnaire	30
Denial and minimization	30
Psychopathy	32
Deviant sexual interests	33
Explicit identification as a sexual offender	34
Explicit self-esteem	35
Explicit attitudes towards men who commit sexual offenses	36
Implicit measures	36
Statistical Analyses	39
Results	40
Demographics.	40
Data screening	41
Denial and Psychopathy	43
Denial and Pedophilic Interest	46
Denial and Self-Identification as a Sexual Offender	48
Denial and Self-Esteem	51
Denial and Attitudes towards Sexual Offenders	54
Discussion	56
Implications	64

Limitations	69
Future Research	70
References	74

List of Tables

Table 1. Participant Characteristics	41
Table 2. Means and Standard Deviations of CID-SO Clusters.....	43
Table 3. Spearman's Correlations Between the SRP-III and the CID-SO	45
Table 4. Spearman's Correlations Between the SSPI and the CID-SO	47
Table 5. Spearman's Correlations Between Explicit and Implicit Measures of Identification as a Sexual Offender and the CID-SO.....	50
Table 6. Spearman's Correlations Between Explicit and Implicit Measures of Self- Esteem and the CID-SO	53
Table 7. Spearman's Correlations Between Explicit and Implicit Measures of Attitudes towards Sexual Offenders and the CID-SO	55

List of Figures

Figure 1. Balanced Identity Theory's network of associations between self, attribute, and group.	26
Figure 2. Example of trials in the self-esteem Implicit Association Test.	38
Figure 3. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and the Self-Report Psychopathy Scale (SRP-III).	46
Figure 4. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and the Screening Scale for Pedophilic Interest – 2 (SSPI-2).	48
Figure 5. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Identification as a Sexual Offender.	51
Figure 6. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Self-Esteem.	54
Figure 7. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Attitudes towards Sexual offenders.	56

List of Appendices

Appendix A. Consent Form and Information Sheet	89
Appendix B. Research Protocol.....	94
Appendix C. Verbal Debriefing.....	95
Appendix D. Research Protocol: Notification of Approval.....	97
Appendix E. Demographics Questionnaire.....	98
Appendix F. Comprehensive Inventory of Denial – Sex Offender Version.....	101
Appendix G. Self-Report Psychopathy Scale III	102
Appendix H. Screening Scale for Pedophilic Interests II	106
Appendix I. Semantic Differential Items for Attitudes towards Sex Offenders	107
Appendix J. Semantic Differential Items for Identification with Sex Offenders	108
Appendix K. Semantic Differential Items for Explicit Self-Esteem.....	109
Appendix L. Rosenberg Self-Esteem Scale	110
Appendix M. Short Self-Esteem Scale	112
Appendix N. Description of the Implicit Association Test.....	113
Appendix O. Pearson's r Correlation Tables	116

Correlates of denial: Exploring the function of denial among men who commit sexual offenses against children

Perhaps no other crime elicits as much shock, anger, and confusion among the public as sexual offenses against children. In Canada alone, 8,046 sexual offenses against a child were reported in 2017, the majority being non-contact offenses such as child pornography charges and voyeurism (Department of Justice, 2019). However, the prevalence of contact sexual offenses against children is expected to be much greater than what is reported to police – for example, Finkelhor and Ormrod (2001) estimated that as of the late 1990's, only 30% of rape or sexual assaults against juveniles were reported to police by comparing differences in reporting between the National Crime Victimization Survey and official police reports in the United States. For children and youth who are victims of sexual abuse, there are several far-reaching negative consequences that may carry on into adulthood. For example, the onset of sexual abuse in childhood and adolescence is predictive of depression, anxiety, and post-traumatic stress disorder (Adams, Mrug, & Knight, 2018), as well as suicidal behavior (Rabinovitch, Kerr, Leve, & Chamberlain, 2015) and sexual avoidance and compulsivity (Vaillancourt-Morel, Godbout, Labadie, Runts, Lussier, & Subourin, 2015).

One of the primary goals of the research, treatment, and management of sexual offending behavior is to prevent further offenses from occurring. One way in which prevention is addressed is by providing treatment to men who commit sexual offenses to reduce their risk to reoffend so they may be eventually released into the community. In many treatment programs across the United States and Canada, denial is commonly defined as a treatment target, either as a responsivity factor and less commonly as a risk

factor (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010). Many men who have committed a sexual offense minimize or deny aspects of their offense (Baldwin & Roys, 1998; Blagden, Winder, Gregson, & Thorne, 2014). Though denial is often targeted in treatment, empirical findings have not consistently demonstrated that denial is related to risk (Thornton & Knight, 2007) or recidivism (Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005), calling into question what role or function denial serves for men who have committed a sexual offense and what relevance it has in treatment and management decisions (Maruna & Copes, 2004; Maruna & Mann, 2006; Yates, 2009; Ware, Marshall, & Marshall, 2015).

Though it is arguably important to understand the function of denial before it can be used to make treatment and management decisions, there is a paucity of research that explicitly examines the function of denial among men who commit sexual offenses. According to Thornton and Knight (2007), in order to understand how and when denial relates to recidivism, we must understand the role of denial. Identifying the function of denial has potential treatment and management implications. According to the Risk Needs and Responsivity (RNR; Andrews & Bonta, 2010) principles, for treatment to be effective it must address the level of risk of the individual, their criminogenic needs, and it must be delivered in a way that appropriately addresses the abilities and learning styles of the individual. Thus, if denial is a risk factor for some men while other men engage in denial to protect their identity and self-esteem, then it should be expected that denial would be targeted and treated differently between these men.

The purpose of the current study was to explore the relationship between denial and variables relevant to the function of denial to guide future research on how denial may be used among men who have committed a sexual offense against a child. In the following sections, prior theories and findings on the function of denial are reviewed, as well as factors related to denial as an indicator of high risk (e.g., psychopathy, deviant sexual interests) and factors related to an adaptive function of denial (e.g., self-esteem, identity, and attitudes).

The Conceptualization of Denial

Throughout the literature, denial's conceptualization and measurement vary considerably (Hogue & Brand, 2013; Lund, 2000; Nunes, 2016; Schneider & Wright, 2004). Denial is the "unwillingness or inability to admit that they have committed a crime" (Jung & Daniels, 2012, p. 2). Minimization refers to characterizations/feelings of the offense which reduces responsibility of the offender or severity of the offense, such as underscoring harm to the victim or not feeling any guilt or embarrassment for the crime (Jung & Daniels, 2012). Many studies consider denial to be dichotomous - completely present in the case of full denial or absent in the case of partial or full admission. Denial can also be measured as a continuous construct - completely present, partially present, or completely absent. Additionally, denial may refer to different aspects of the offense. In Hogue and Brand's (2003) and Nunes' (2016) respective reviews, classifications of denial among identified measurements of denial range in definitions, including denial of treatment and management, denial of guilt, denial of responsibility, etc. Last, denial can be viewed as an intentional or unintentional strategy.

Consider for instance three men who have been charged with a sexual offense against a child in varying degrees of admitting/denial of the offense. The first man states, “Yeah, I did it, I touched the girl.” The second man claims, “Yeah, I did it – but I was drunk, I wouldn’t have done it if I was sober.” The third man balks, “I swear I didn’t do it! I didn’t lay a finger on her – I’m not that kind of a person.” Based on how denial is defined, these three men may be classified differently across studies as deniers, minimizers, or admitters. If the study only includes complete deniers and complete admitters, the second man may be excluded because he only partially admitted to the offense. Another study may place the second man who denied responsibility and the third man who denied the offense altogether into the same group because they both exhibited some degree of denial. The purpose of this example is to illustrate the significance of clearly operationalizing denial across studies and using an appropriate measure of denial to fit the purpose of the study. As the purpose of the current study was broad and exploratory to examine the correlates of denial with variables related to potential functions of denial, a continuous and multi-faceted measure of denial known as the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO; Jung, 2004) was used in order to gain a larger picture of how denial may be used among men who commit sexual offenses against children.

The Function of Denial

There are many reasons why men who have committed a sexual offense against a child may engage in denial, and this is reflected by the wide-ranging scope and breadth of the literature on denial. However, a few models and reviews have attempted to synthesize the potential functions of denial. Rogers and Dickey (1991) proposed three models of

denial and minimization. The three models of denial include the pathogenic model, the criminogenic model, and the adaptational model. The pathogenic model suggests that denial is an unconscious process that functions to protect the ego from the id. This perspective fell out of favor due to its association with psychoanalytic theory. The criminogenic model postulates that individuals with antisocial tendencies have certain characteristics, such as pathological lying, which may increase the likelihood of using denial. Last, the adaptational model posits that individuals may perceive that they have more to gain by denying and more to lose by admitting to the offense. For example, denial may allow individuals to maintain their freedom and protect themselves from negative social reactions. In a more recent review, Ware and colleagues (2012, 2015) proposed four potential functions of denial based on prior research: continuing to offend, maintaining deviant sexual fantasies and behavior, managing self-esteem and shame, or to retain freedom, status, and social support.

Additionally, qualitative studies identified similar functions of denial. Lord and Willmot (2004) analyzed responses from a focus group which aimed to address why men may deny that they had committed an offense. The focus group consisted of 24 adult and adolescent males who had committed a sexual offense and were formerly in partial or complete denial. A content analysis of the responses identified three reasons why the participants had engaged in denial, including low motivation/unwilling to stop offending, threats to negative self-esteem and image, and fear of external, negative consequences. Similarly, Blagden and colleagues (2011, 2014) conducted semi-structured interviews with small samples (10 and 11 participants, respectively) of adult men who were formally in complete denial of a sexual offense against an adult or child to explore why the men

had engaged in denial. Content analyses revealed similar findings across studies. Some men held negative evaluations of sexual offenders and engaged in denial to distance themselves from being labelled a sexual offender, maintain a non-offending identity, and protect their self-esteem.

Collectively, these theories and findings appear to converge on a few potential functions of denial and minimization. Among some of the functions of denial, denial may be utilized by those motivated to maintain their offending behavior or it may be a product of risk-related characteristics. On the other hand, denial may also be an adaptive response to being charged with a crime that carries extensive negative consequences, such as protecting self-esteem and maintaining a congruent sense of identity. Based on the prevalence of denial in current treatment and management decision-making and mixed findings on the relationship between denial, risk, and recidivism it is important to distinguish the function of denial among men who commit sexual offenses. As men who commit sexual offenses against children are different from men with adult victims and may use denial differently, the current study attempted to examine correlates of denial only among with child victims. Thus, the following review will focus on denial among men who commit sexual offenses with an emphasis on men with child victims.

Denial as a Risk Factor

Early sociological theories postulated that certain cognitive techniques were responsible for the onset and maintenance of criminal behavior. Perhaps one of the most notable and influential of such sociological theories is neutralization theory.

Neutralization theory was developed by Sykes and Matza (1957) in response to the view that criminal behavior was the result of adopting the norms and values of delinquent sub-

cultures. Sykes and Matza argued that delinquent youth were not immune to social conformity, and rather than adopting delinquent values the youth were engaging in defenses and justifications of crime, known as techniques of neutralization. Five techniques of neutralization were outlined, including denial of responsibility, denial of injury, denial of victim, condemnation of condemners, and appeal to higher loyalties and they allowed youth to maintain conformity to social morals as well as to continue their criminal behavior. Neutralization theory's influence on correctional policy is still evident today as challenging excuses and denial is still commonly seen as a treatment target (Maruna & Copes, 2005). Based on theories like neutralization theory, it was assumed that denial was a risk factor (Salter, 1998), such as an intentional strategy to continue the desired behavior (Ware & Mann, 2012). As a result, challenging and overcoming denial was traditionally viewed as a first step or even as a prerequisite for treatment among men who commit sexual offenses. Currently throughout the United States and to a lesser extent Canada, denial is often still identified as a dynamic risk factor or a treatment responsivity inhibitor (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010).

However, denial has not been consistently found to be related to increased risk to reoffend or increased rates of recidivism. For example, in a series of meta-analyses conducted by Hanson and colleagues (1998, 2005), denial did not significantly predict sexual recidivism and was identified as a potentially misleading risk factor. Lund (2000) suggested that methodological issues in the denial literature (e.g., conceptualization of denial) and the exclusion of moderating variables (e.g., type of index offense, level of risk) may have obscured potential significant relationships between denial and sexual recidivism. Additionally, results may be obscured if there are some men who engage in

denial in a way that increases their risk to reoffend and other men who do not. For example, individuals with psychopathic tendencies may utilize denial to manipulate others in order to retain freedom and continue offending, may deny harm to the victim as a result of empathy deficits (Marshall, Marshall, Serran, & O'Brien, 2009), or deny as a consequence of lying/deceitfulness tendencies without any extrinsic motive (Langton et al., 2008). Likewise, individuals with deviant sexual interests, such as pedophilia, may be more motivated to continue offending compared to men without deviant sexual interests and may use denial to maintain their desired behavior. Thus, denial may be a risk relevant factor for certain individuals. The following review will address the function of denial in relation to psychopathy and deviant sexual interests.

Psychopathy.

In line with Rogers and Dickey's (1991) criminogenic model of denial, individuals with psychopathic traits may engage in denial and be at an increased risk to reoffend as a result of certain characteristics that are core constructs of psychopathy. Psychopathy is a personality construct characterized by callous-interpersonal factors and antisocial-lifestyle factors that are related to negative outcomes (Cleckley, 1955; Hare, 2016), including increased risk of sexual reoffending (Beggs & Grace, 2008; Hanson & Bussiere, 2005). Callous-interpersonal factors include traits such as glibness, grandiose sense of self, pathological lying, conning/manipulativeness, lack of guilt, shallow affect, lack of empathy, and failure to accept responsibility. Antisocial-lifestyle factors include traits such as impulsivity, irresponsibility, poor behavior controls, and criminal versatility (Hare, 2016). Certain traits that characterize callous-interpersonal and antisocial-lifestyle factors have been of clinical interest within forensic populations because of their

association with lying, deception, and manipulation in order to retain freedom, avoid detection, and maintain offending behavior (Gillard & Rogers, 2015; Hakkanen-Nyholm & Hare, 2009). With regard to men who commit sexual offenses, those with psychopathic tendencies may lie, deceive, or manipulate by denying responsibility of the crime or that the crime occurred at all in such a way that maintains offending behavior – whether intentionally or unintentionally.

There is preliminary evidence that suggests men who commit sexual offenses and are in denial have elevated levels of psychopathy compared to men who admit to the offense. In a mixed sample of men, the majority of whom had committed a contact sexual offense against a child, Nunes and colleagues (2007) found a small and statistically non-significant difference in psychopathy scores as measured by the Psychopathy Checklist – Revised (PCL-R; Hare, 1991) between deniers (e.g., men who denied all of their index sexual offenses) and admitters (e.g., men who admitted to any of their index sexual offenses), $d = 0.20$, 95% $CI [-0.06, 0.45]$, such that deniers had slightly higher levels of psychopathy ($M = 19.55$) compared to admitters ($M = 17.99$). Similarly, Peacock (2000) examined the validity of the Sex Offender Acceptance of Responsibility Scale (SOARS; Peacock, 2000) among a mixed sample of men who had committed a sexual offense against children (41%), adults (37%), both children and adults (8%) and sex killers (14%). Total PCL-R scores were negatively and significantly correlated with the acceptance of sexual interests subscale of the SOARS, $r = -.27$, $p < .05$. In other words, greater total psychopathy scores were associated with less acceptance of sexual interests. The remaining SOARS scales were not significantly associated with PCL-R scores, though some of the relationships did display small effect sizes such as acceptance of

offense planning ($r = -.19, p > .05$), motivation for change ($r = -.10, p > .05$), and justifications ($r = .17, p > .05$). These findings are consistent with a positive association between psychopathy and denial.

Additionally, there is preliminary evidence that among men who commit sexual offenses, psychopathy is predictive of denial of the offense. Boyd (2003) found that greater psychopathy scores predicted denial (e.g., complete denial or any minimization) among a sample of men convicted of a sexual offense, though information on the index offenses of the sample was not available. The results of a logistic regression found that PCL-R total scores were a significant predictor of denial ($\beta = -.03$, Wald's $X^2 = 9.56, p = .002$) and the model demonstrated a good fit ($X^2 = 9.73$, Nagelkerke $R^2 = .017$). Interestingly, additional analyses suggested denial is more strongly associated with increased callous-interpersonal traits compared to antisocial-lifestyle traits. Additional analyses found that callous-interpersonal traits significantly predicted denial ($\beta = -.09$, Wald's $X^2 = 24.79, p < .001$) and the model demonstrated a good fit ($X^2 = 25.92, p < .001$, Nagelkerke $R^2 = .004$), but antisocial-lifestyle traits did not predict denial ($\beta = -.01$, Wald's $X^2 = .20, p = .66$) and the model did not demonstrate a good fit ($X^2 = .20, p = .66$, Nagelkerke $R^2 = .00$). Similarly, Langton and colleagues (2008) found that callous-interpersonal scores were positively and significantly correlated with complete denial of the offense ($r = .21, p < .001$), whereas antisocial-lifestyle traits were not significantly associated with complete denial of the offense ($r = .04, p > .05$). However, callous-interpersonal traits were not significantly associated with a continuous measure of denial, $r = .19, p > .05$.

Overall, findings suggest that denial may be associated with psychopathic characteristics among men who have committed a sexual offense. It is important to determine whether denial is associated with psychopathy among some men to guide future research on how denial may function among psychopathic men. For example, denial may be more likely to be utilized in a way to maintain offending behavior. The association between callous-interpersonal traits of psychopathy and denial is consistent with an intentional use of denial by men who commit sexual offenses with psychopathy.

Interestingly, Thornton and Knight (2007) found that denial of responsibility predicted twice as much psychopathy among men with adult victims compared to men with child victims. In further analyses, the authors found that denial of responsibility predicted increased rates of sexual recidivism for men who committed sexual offenses against adults, but after total PCL-R scores were statistically controlled the relationship disappeared. In comparison, among men with child victims, denial predicted decreased rates of sexual recidivism, though this effect was non-significant. Thornton and Knight's (2007) findings further illustrates Lund's (2000) suggestion that certain moderating variables, like type of index offense, may be obscuring significant findings between denial and recidivism. Based on prior findings, it is important to examine whether denial may be associated with psychopathy among men who commit sexual offenses against children in order to better understand how denial may be a risk factor for some men.

Deviant sexual interests.

Similar to men with psychopathic characteristics, denial may be a risk factor among men with deviant sexual interests. More relevant to men who commit sexual offenses against children, denial may be a risk factor among men with pedophilia (Burn

& Brown, 2006; Ware & Mann, 2012). Deviant sexual interests is one of the strongest known predictors of sexual recidivism (Hanson & Bussiere, 2005). It has been suggested that men who sexually offend will say anything, including deny or minimize aspects of the offense, to maintain sexual offending arousal and behavior (Salter, 1988). However, there are few theories or findings on the relationship between denial and pedophilic interest, and whether denial may be a risk factor among pedophilic men. Rather, research has focused on whether men with pedophilic interest engage in other cognitive techniques in order to continue offending (Gannon & Polaschek, 2006). Though Hanson and colleagues' (1998, 2005) previously mentioned meta-analyses did not find a relationship between offense-supportive attitudes and recidivism, Helmus and colleagues (2013) conducted a more recent meta-analysis that included a different definition of offense-supportive attitudes (e.g., minimization of harm, victim-blaming, child molester attitudes, rape attitudes, generic sexual offending attitudes) as well as more recent studies. Findings of the meta-analysis found that sexual offense-supportive attitudes significantly predicted sexual recidivism, with effect sizes that were small to moderate for random- and fixed-effects (Cohen's $d = .173 - .374$).

Theories on cognitive distortions have also suggested that pedophilic men may engage in cognitive techniques, such as cognitive distortions, that facilitate reoffending. Cognitive distortions are beliefs that support sexual offending including justifications and excuses (Nunes & Jung, 2012) that can occur unconsciously or consciously (Friestad, 2012; Wright & Schneider, 1999). Often, definitions of cognitive distortions include denial and minimization, however they appear to be distinct concepts. Cognitive distortions usually refer to beliefs about sexual offending in general, whereas denial and

minimization refer to beliefs about the offender's own sexual offense (Nunes & Jung, 2012). Though cognitive distortions are distinct from each other, findings suggest that they are related. For instance, Jung (2004) examined the relationship between denial and cognitive distortions among a sample of men who committed sexual offenses. Denial was measured using the Comprehensive Inventory of Denial – Sexual Offender version (CID-SO; Jung, 2004) and deviant attitudes was measured by the MOLEST scale (Bumby, 1996). The CID-SO is a continuous measure of denial and minimization that assesses different types of denial, including denial of sexually deviant behaviors and arousal, denial of the need for treatment or management of sexual offending, denial of responsibility, and minimizing harm. Among a subsample of men who committed a sexual offense against children, deviant attitudes were significantly, positively correlated with minimization of harm to the victim, $r(34) = 0.36, p < .05$. In other words, men who minimized the degree to which they harmed their victim were more likely to have beliefs that condone sexual activity with children.

There are many different processes that may produce cognitive distortions, and one such process suggests that individuals who are sexually motivated to offend (e.g., pedophilic men) may be more inclined to engage in cognitive distortions (including denial as conceptualized in prior literature) in order to continue offending (Abel et al., 1989; Bartels & Gannon, 2011; Wright & Schneider, 1999). Indeed, Wright and Schneider (1999) stated that cognitive distortions may be automatically activated when an individual is motivated by pedophilic interest. For example, an individual who is sexually interested in a child may engage in confirmation bias and interpret smiles, glances, and gestures as signs of sexual interest from the child and facilitate offending

behavior. Like cognitive distortions, denial may similarly be magnified by pedophilic interest to facilitate offending behavior.

There is evidence that pedophilic men who have committed a sexual offense against a child engage in denial. Drapeau and colleagues (2008) examined the prevalence of denial among 20 men diagnosed with pedophilia and were sentenced with a sexual offense against a child compared to 20 men from an outpatient clinic that had low diagnostic severity and no prior sexual offenses against a child. Pedophilic men and non-pedophilic men differed significantly overall between individual defense mechanisms (as measured by the Defense Mechanism Rating scale; Perry, 1990) used, $F(1, 38) = 4.03, p = .004$. More specifically, 7% of men diagnosed with pedophilia indicated that they use denial as a defense mechanism compared to 3% of non-pedophilic men, and the difference between the two groups was significant, $F(1, 38) = 5.40, p < .05$). However, it is difficult to interpret these findings in a way that addresses whether pedophilic men who commit sexual offenses may engage in denial more frequently compared to non-pedophilic men who commit sexual offenses since Drapeau and colleagues' non-pedophilic group were men who did not have a sexual offense history.

However, other findings on the relationship between denial and indicators of pedophilic interest, such as implicit measures of pedophilia and phallometric assessment, contradict the theory that men who deny or minimize an aspect of their sexual offense may be more pedophilic compared to men who admit to their sexual offense. For example, Brown and colleagues (2009) examined whether denial moderated the implicit measurement of sexual interest in children among men who had committed a sexual offense against a child 11 years of age or younger. However, the authors defined denial

as participants who did not admit to their offense, which is ambiguous and difficult to interpret. Sexual interest in children was assessed using the child/sex-Implicit Association Test (IAT), which measures the strength of association between non-pornographic images of children 11 years of age or younger (e.g., sex, kiss) by how quickly participants group child/sex and adult/non-sex items relative to child/non-sex and adult/sex items. If participants group child/sex and adult/non-sex items more quickly than child/non-sex and adult/sex items, then it is inferred that the participant associates children with sex more strongly. Men who denied their offense did not significantly differ from men who admitted to their offense in implicit measurement of sexual interest in children ($d = 0.27, p > .10$).

In addition, Becker and colleagues (1992) examined the sexual interests of adolescents who had committed a sexual offense that were either in denial of all sexual offenses or admitted fully or partially to at least one offense. Compared to admitters, deniers were more likely to be nonresponsive to audio cues of sexual interactions with children, peers, and adults in general. When non-responders were excluded from analyses, deniers exhibited greater arousal to child cues compared to admitters, $U = 522; n = 19,60; p = .05$. In a similar study conducted by Baldwin and Roys (1998), sexual arousal to child stimuli among deniers (complete denial of the offense) and admitters (partial or complete admission) was examined. Deniers and admitters did not differ in penile plethysmograph responses to pedophilic stimuli, $\chi^2(1) = .10, p = .75$. Like in Becker and colleagues' (1992) study, deniers were more likely to exhibit a pattern of nonresponding to stimuli.

Overall, there is evidence to suggest that denial is associated with indicators of pedophilic interest, such as implicit measures of sexual interest in children, offense-supportive attitudes and cognitive distortions, as well as phallometric assessments of sexual interest in children. However, theories on the relationship between denial and pedophilic interest are not clear and empirical findings are not consistent. Thus, it is important to clarify the relationship between denial and pedophilic interest.

An Adaptive Function of Denial

Though great emphasis is placed on men who have committed an offense to take responsibility for and admit to their actions (Ware & Mann, 2012), experts argue that there is something perhaps more concerning about men who openly admit to their offenses compared to men who try to deny behavior that is so publicly sanctioned as taboo and harmful (Winn, 1996). Rather than an indicator to continue offending, other experts argue that denial is a normal response in an adversarial setting and may even serve an adaptational function (Lord & Willmot, 2004; Yates, 2009). Research on certain cognitive techniques, like excuse-making and externalizing negative behaviors, among non-forensic populations frame such processes as normal and rewarding (Maruna & Mann, 2006).

Though denial among non-forensic populations is seen as adaptive, denial among men who commit sexual offenses is seen as pathological and something that must be treated. Several researchers have noted the negative consequences faced by men who commit sexual offenses. For example, men who commit sexual offenses experience economic and social consequences, such as loss of a job, housing, and family and friends (Levenson, Brannon, Fortney, & Baker, 2007; Mercado, Alvarez, & Levenson, 2008;

Robbers, 2009; Tewksbury, 2004). Additionally, men who commit sexual offenses, particularly those with child victims compared to those with adult victims, face substantial social stigma (Imhoff, 2015; Lord & Willmot, 2004; Rogers & Dickey, 1991). Subsequently, men who commit sexual offenses against children are at increased risk of emotional, social, cognitive, and health problems such as emotional distress, social isolation, and resistance to seeking treatment (Jahnke, 2018; Tewksbury, 2004).

Though the field of social desirability response is broad and complex, some of the findings may be relevant in understanding denial as an adaptive response among men who commit sexual offenses against children. Social desirability response typically distinguishes between responding to make a positive impression on others (i.e., impression management) or view the self favorably (i.e., self-deception). Individuals may engage in different tactics in order to make more positive impressions, such as enhancing positive attributes or denying negative attributes (Tan & Grace, 2008). One way in which men may respond desirably is by denying any association with negative attributes. For example, in Paulhus and Reid's (1991) study examining the distinctiveness of denying negative attributes and enhancing positive attributes among a sample of undergraduate students, they found that the Self-Deception Scale – Denial subscale, was significantly ($ps < .01$) and positively correlated with denial of hostility ($r = .42$), denial of sexuality ($r = .22$), and denial of undesirable acts ($r = .54$).

Paulhus and Reid conducted additional analyses that examined the distinctiveness of the Self-Deceptive scale and the Impression Management scale, as well as the denial and enhancement subscales of each scale. A factor analysis revealed that the denial and enhancement subscales of the Impression Management scale, as well as the denial subscale

of the Self-Deceptive scale, formed one factor and the enhancement subscale of the Self-Deceptive scale formed a second factor. The authors interpreted their findings to suggest that participants may not be engaging in denial in a self-deceptive manner, but rather participants were “faking good” in their responses. In addition, Tan and Grace’s (2008) review of the literature on social desirability response and men who commit sexual offenses against adults and children suggests that men with child victims tend to respond more desirably to a greater extent compared to men with adult victims. Findings suggest that denial of negative attributes may be used to “fake-good” and make a more positive impression on others. Thus, men who commit sexual offenses against children may be engaging in denial in order to appear more positively to others in light of the negative consequences associated with being labeled as a sexual offender.

In consideration of the negative consequences of being labeled and charged as a sexual offender against children and findings on social desirability response, there is reason to believe that men may use denial in order to avoid negative consequences of being labelled a sex offender or a pedophile, such as losing their pro-social identity and self-esteem. If denial is used in an adaptive way, it would be expected that greater denial would be associated with less identification as a sexual offender, greater self-esteem, and more negative attitudes towards sexual offenders. In this instance and throughout the following sections, the term “sexual offender” refers only to the label “sexual offender” and not men who commit sexual offenses.

Identity.

Men who have committed a sexual offense against a child are often labeled as a “pedophile” or “child molester” and perceive the label to be a negative lifelong and life-

changing identity (Blagden et al., 2011). Although the sexual offender label is stigmatizing for men with adult and child victims, the labels associated with men with child victims are especially stigmatizing. The labels *pedophile/pedophilia* and *sexual offender against children/child molester* elicit more negative responses compared to other sexual offense typologies among the general population (Imhoff, 2015; Kernsmith, Craun, & Foster, 2009). Reports of sexual offending against children elicit fear, disgust, and anger among most people – men that sexually offend against children are viewed as incurable, mentally-ill, and dangerous (Ferguson & Ireland, 2006; Levenson, Brannon, Fortney, & Baker, 2007). Men who commit sexual offenses are often given a stigmatized offender label that persists after serving time and/or receiving treatment as a result of community protection policies such as sexual offender registries. Adopting a stigmatized label is often incongruent with how an individual may view themselves, including men who commit sexual offenses against children (Tewksbury, 2012). Indeed, reviews by Forsyth (1996) and Maruna and Copes (2004) examined ways in which people, including men who committed sexual offenses, attributed negative actions to internal (e.g., mental illness, drug use) or external (e.g., she came on to me) forces to deny responsibility in a self-enhancing way that maintains a pro-social identity.

In the context of men who commit sexual offenses, Salter (1988) suggested that as long as an individual does not admit to the offense, he does not become a sexual offender and can maintain his pre-offense identity. Indeed, results from two qualitative studies are consistent with the function of denial to protect self-identity. Blagden and colleagues (2011, 2014) examined the explanations of the use of denial among small samples of men who had been charged and convicted with a sexual offense. Results of both studies

identified the function of denying the offense or aspects of it to protect self-identity.

More specifically, participants explained that admitting to the offense would result in them becoming what society hates (2011) and their identity being permanently changed (2014).

Additionally, McCaghy (1968) examined the relationship between denial of responsibility and identity. McCaghy postulated that men who were charged and convicted with a sexual offense could either accept his new deviant identity and not offer any justifications for his actions, or he could maintain his pro-social identity by denying that he committed the offense or by minimizing his responsibility for his actions. He hypothesized that men who were able to maintain their identity by denying the offense or absolve themselves of responsibility by attributing their offense to alcohol would view other sexual offenders' motives to be more derogatory compared to men that fully admitted to the offense.

McCaghy assessed differences in the perception of derogatory motives attributed to other sexual offenders among a sample of 158 adult men who committed a sexual offense against a child that either admitted to the offense, minimized the offense by claiming his actions were the result of alcohol consumption, or denied committing the offense. Interestingly, men who minimized their responsibility for their offense were more likely to attribute derogatory motives to other sexual offenders than men who admitted to their offense ($\chi^2 = 3.18, df = 1, p < .05$). Similarly, men who denied their offense were more likely to attribute derogatory motives to other sexual offenders than men who admitted to their offense ($\chi^2 = 8.37, df = 1, p < .005$). In addition, men who denied responsibility for their offense were less likely to attribute derogatory motives to

other sexual offenders than men who denied the offense, though the difference was not statistically significant ($\chi^2 = 1.51, df = 1, p < .15$). Based on these results, McCaghy concluded that minimizing the offense by denying responsibility allowed men to admit to the offense but maintain their pro-social identity. Indeed, men in Blagden and colleagues' (2011, 2014) studies generally agreed that by denying the offense or an aspect of it (e.g., responsibility of the offense) they were able to maintain their identity and did not become sexual offenders like the other men.

Overall, theory and qualitative findings suggest that men who commit sexual offenses may engage in denial and minimization in order to maintain a pro-social and congruent sense of identity. In light of the particularly stigmatizing nature of sexual offenses against children, denial as a way to protect a pro-social identity may be especially important among men with child victims. However, few quantitative studies have explicitly examined the relationship between denial and identity. Thus, it is important to examine the relationship between denial and identity to better understand denial as an adaptive response among men who commit sexual offenses against children.

Self-Esteem.

In addition to maintaining a congruent, pro-social identity, men may also deny or minimize aspects of an offense in order to protect their self-esteem. Self-esteem is the positive or negative evaluation of the self (Greenwald et al., 2002) and it is generally believed that individuals behave in ways to protect or increase self-esteem (Baumeister, Tice, & Hutton, 1989; Leary & Downs, 1995). The function of self-esteem is often considered in terms of maintaining congruity of the self via self-protective strategies or to expand the self via self-enhancing strategies (Baumeister, Tice, & Hutton, 1989; Mruk,

2013). One way in which individuals protect or enhance their self-esteem is by engaging in different coping strategies, including denial. For example, Gudjonsson and Sigurdsson (2003) examined the use of different coping strategies that may be utilized to protect or enhance self-esteem among a community sample of men and women. Results were consistent with greater self-esteem being associated with coping strategies such as acting, pretending, or refusing to believe that a certain negative event occurred, $r = 0.29, p < .01$. These quantitative findings are in line with the qualitative findings in Blagden and colleagues' (2011, 2014) and Lord and Willmot's (2004) previously mentioned studies, such that men who committed a sexual offense stated that denial allowed them to protect their self-esteem.

Some experts have developed models on the use of denial to protect self-esteem among men who commit sexual offenses. In Marshall, Anderson, and Champagne's (1997) review of self-esteem and its relationship to sexual offending, the authors asserted that men who commit sexual offenses with low self-esteem were more likely to engage in self-serving biases – including denial and minimization of aspects of the offense in their definition – as a protective strategy. Marshall and colleagues (2003, 2009) further elaborated on the relationship between self-esteem and a specific form of denial: denial of victim harm. The authors suggested that men who commit sexual offenses with low self-esteem may engage in victim-specific empathy deficits as a protective strategy, resulting in denying or minimizing harm to victims. This theory was expanded upon in a four-pathway model that described the empathic process among men who commit sexual offenses. Two pathways that originate in low self-esteem result in an unempathetic response to victim harm and subsequently denial of victim harm, either by blocking

recognition of harm or focusing on reducing distress after recognizing harm. Similarly, Mihailides, Devilly, and Ward (2004) developed a model of denial to protect self-esteem among men who commit sexual offenses against children. According to Mihailides and colleagues' model, cognitive products such as denial and minimization result from an implicit motivation to protect self-esteem, as well as to maintain cognitive congruency and avoid social disapproval.

Empirical studies support the notion that denial may be a self-protective strategy to maintain self-esteem (Maruna & Copes, 2004). Xuereb, Ireland, Archer, and Davies (2015) examined the association between acknowledgement of responsibility and self-esteem among a sample of men who committed sexual offenses ($n = 150$), violent offenses ($n = 149$), and non-sexual, non-violent offenses ($n = 78$). Among men who committed sexual offenses, self-esteem was significantly, negatively correlated with acknowledging responsibility, $r = -.15$, $p < .01$. In other words, participants who admitted responsibility had significantly lower self-esteem. Self-esteem was also negatively and significantly ($ps < .001$) related to other subsections of the Distress and Responsibility Scale, such as chronic distress and low self-worth ($r = -.70$), chronic self-blame ($r = -.52$), distress and rejection ($r = -.62$), but was not significantly associated with minimization of harm ($r = .09$).

Additionally, Sefarbi (1990) examined differences between the clinical profiles of 10 adolescent sexual offenders who admitted to the offense or were in denial in some aspect of their offense. Adolescent sexual offenders who were in denial were found to have significantly greater levels of self-esteem than those who admitted to the offense ($p = .035$), such that participants who were in denial had average levels of self-esteem and

participants who admitted to the offense had below average levels of self-esteem. Effect sizes were not available to interpret the magnitude of the difference. However, the relationship between self-esteem and denial is not consistent across studies. Jung (2004) examined the relationship between denial, as measured by the CID-SO, and self-esteem among a sample of 52 men who had been charged, convicted, and sentenced with a sexual offense. Self-esteem was not correlated with denial overall ($r = .12$) or with any of the subscales (r 's = .10 - .14).

It is generally held that individuals engage in behaviors that maintain or enhance self-esteem. Theories on the relationship between denial and self-esteem, as well as findings from qualitative research, suggest that men may engage in denial in order to protect their self-esteem. However, mixed empirical findings are not consistent with prior theory and qualitative research. Thus, it is important to examine the relationship between denial and self-esteem to better understand denial as an adaptive response.

Balanced-Identity Theory: Linking identity, self-esteem, and attitudes.

Using denial to protect a pro-social identity and maintain self-esteem may be especially important for men who hold negative attitudes towards men who commit sexual offenses. According to the principles and concepts of Balanced Identity Theory (BIT), attitudes towards a group of people are related to an individual's identity and self-esteem (Greenwald et al., 2002). The balanced identity design is composed of three concepts (self, group, attribute) and the associations between the concepts define an individual's self-concept (self and group), self-esteem (self and attribute), and attitudes/stereotypes (group and attribute). This network of associations is illustrated in Figure 1. There are three principles of BIT that are based on several cognitive-affective

consistency theories, including congruity theory, cognitive dissonance theory, and balance theory (Cvencek, Greenwald, & Meltzoff, 2012). The three principles are: 1) when two concepts are un- or weakly related, the association will strengthen if they share the same association with another concept, 2) a concept cannot share an association with two opposing concepts, unless 3) a concept splits into subconcepts that separately share an association with the opposing concepts. The cognitive-affective consistency principles of BIT provide a foundation to make predictions about the associations between attitudes, identity, and self-esteem.

Although the current study will not be predicting the association between these concepts, the foundation of cognitive congruency provide a rationale for examining attitude, identity, and self-esteem among men who commit sexual offenses in the context of the function of denial and to predict the pattern of relationships between denial and these concepts. In the context of men who commit sexual offenses, the principles of BIT would predict that men who have negative attitudes of sexual offenders would be less likely to identify as a sexual offender. However, among men who have negative attitudes towards children, being labelled a sexual offender may negatively affect their self-esteem. Denial may be one way in which men can interrupt the cycle of having to identify with a negatively evaluated social group and protect their self-esteem.

Figure 1. Balanced Identity Theory's network of associations between self, attribute, and group. These associations define self-concept/self-esteem, stereotypes/attitudes, and identity. From "A Unified Theory of Implicit Attitudes, Stereotypes, Self-Esteem, and Self-Concept," by A.G. Greenwald, M. R. Banaji, L. A. Rudman, S. D. Farnham, B. A. Nosek, and D. S. Mellott, 2002, *Psychological Review*, 109, p. 9. Copyright 2002 by the American Psychological Association.

The prediction of associations between concepts and denial among men who commit sexual offenses against children has some empirical support. For example, McCaghy (1968) found that compared to men who admitted to the offense, men who minimized the offense ($\chi^2 = 3.18$, $df = 1$, $p < .05$) or denied the offense ($\chi^2 = 8.37$, $df = 1$, $p < .005$) had significantly more negative stereotypes towards sexual offenders. Similarly, Blagden and colleagues' (2011) qualitative analyses identified descriptions from participants who held particularly negative evaluations of men who commit sexual offenses while they were in denial. However, when participants left denial and accepted their behavior, they more positively evaluated sexual offenders. Thus, men who deny or minimize aspects of their offense can maintain negative evaluations of sexual offenders because they do not identify with sexual offenders. However, men who admit to their

offense and view themselves positively cannot also associate themselves with a negative social group – to maintain cognitive consistency, they must either change their self-attribute association or group-attribute association.

Implicit and Explicit Cognitions

There are several theories of cognition that suggest there are two underlying processes of cognition, known as dual-processing models (Nosek, Hawkins, & Frazier, 2011). According to dual-processing models, there is one process that occurs implicitly and one that occurs explicitly. Using both implicit and explicit measures can allow for a deeper understanding of the cognitive processes that may be occurring. Hermann and Nunes' (2018) presented the following definitions of implicit and explicit cognition based on their review of the relevant literature: implicit cognitions are immediately activated whereas explicit cognitions are deliberative and require cognitive resources.

Implicit cognitions are often measured via latency measures such as the Implicit Association Test (IAT). The IAT measures the associative strength between a “bipolar target (e.g., me vs. others) and a bipolar attribute (e.g., shy vs. sociable) concept through a series of sorting tasks that require quick responses” (Schnabel, Asendorpf, & Greenwald, 2008, p. 210). The strength of the association between targets and attributes is inferred by how quickly one pairing of targets and attributes are sorted relative to an opposite pairing of targets and attributes, with the assumption that more strongly associated concepts will be sorted more quickly. For example, if men strongly associate children with sex, then it would be expected that they would respond more quickly when child/sex and adult/non-sex were paired relative to when child/non-sex and adult/sex are

paired. Explicit measures are often measured by self-report tools that require the use of cognitive resources and deliberate responses (Nosek, Hawkins, & Frazier, 2011).

Current Study

The purpose of the current study is to examine the correlations between denial and variables related to potential functions of denial, including psychopathy, pedophilia, identity, self-esteem, and attitudes. Explicit and implicit measures will be included to provide a more complete picture of the potential processes occurring. Additionally, the current study will focus exclusively on men who have committed a sexual offense against a child. Examining denial among a sample of men with mixed sexual offenses (e.g., sexual offenses against children, sexual offenses against adults) may make interpreting the function of denial difficult since men with different index offenses may utilize denial differently (Lund, 2000). Thus, examining the function of denial among a sample of men with the same index offense will aid in the interpretation of results.

Research Questions. The research questions for the current study are outlined below.

1. Is denial related to factors that are indicative of a risk to reoffend?
 - a. Bivariate correlations were conducted to examine the relationship between denial and psychopathy, as well as denial and pedophilic interest.
 - b. Scatterplot matrices were created to illustrate the relationship between denial and psychopathy, as well as denial and pedophilic interest.
 - c. It was hypothesized that denial would be positively associated with psychopathy. More specifically, denial would be more strongly, positively associated with the subscales of the SRP-III that are consistent with

callous-interpersonal traits (i.e., Callous Affect and Interpersonal Manipulation subscales).

- d. There were no hypotheses on the relationship between denial and pedophilic interest.

2. Is denial related to factors that are indicative of an adaptive function?

- a. Bivariate correlations were conducted to examine the relationship between denial and self-identification as a “child molester/sex offender”, self-esteem, and attitudes towards “child molesters/sex offenders”.
- b. Scatterplot matrices were created to illustrate the relationship between denial and self-identification as a “child molester/sex offender”, self-esteem, and attitudes towards “child molesters/sex offenders”.
- c. It was hypothesized that denial would be 1) negatively associated with attitudes towards men who commit sexual offenses, 2) negatively associated with identification as a sexual offender, and 3) positively associated with self-esteem.

Methods

Participants

A secondary analysis of 29 adult male participants who were convicted of a sexual offense against a child was conducted. The current study’s data is a subset from a larger dataset that was collected in the original study by Kostiuk (2012) and has been used in a dissertation, manuscripts, and publications (Blank, Nunes, Maimone, Hermann, & McPhail, 2018; Kostiuk, 2012; Pettersen, Nunes, Kostiuk, Jung, & Atlas, 2018). The consent form, information sheet, research protocol, verbal debriefing, and ethic clearance

from the original study by Kostiuk (2012) can be found in Appendices A – D. In the original study, 29 participants with a conviction of a sexual offense against a child were recruited from “the Alberta Solicitor General’s probation offices, Fort Saskatchewan Correctional Centre, Bowden Institution, Pe Sakastew Healing Facility, Grierson Centre, the Phoenix Program at Alberta Hospital Edmonton, and Forensic Assessment and Community Services” (Kostiuk, 2012, p. 28). The following measures were all used in the original study by Kostiuk (2012).

Measures

Demographic questionnaire. Participants were asked to provide information regarding their age, language, education, intelligence, socioeconomic status, sexual and marital relationships, violent, non-violent/non-sexual, and non-violent/sexual offenses, and treatment. Other information was collected when it was available, including ethnicity, age at index offense, and number of sentences and previous convictions (see Appendix E).

Denial and minimization. The Comprehensive Inventory of Denial – Sex Offender Version (CID-SO; Jung, 2004) was used to assess denial. The CID-SO is an 18-item measure that was designed to assess denial and minimization among sexual offenders (see Appendix F). Item responses were on a 3-point scale, allowing for scores to range from 0 to 36. Items were scored by information collected from a semi-structured interview and through additional information via police reports and criminal records. The CID-SO is made up of four clusters, including denial of sexually deviant behavior and arousal (Cluster A), denial of the need for treatment/management of sexual offending (Cluster B), denial of responsibility (Cluster C), and minimization of harm (Cluster D).

The psychometric properties of the CID-SO were examined in a sample of 166 male sex offenders that were referred to an outpatient forensic psychiatric clinic (Jung & Daniels, 2012). For the purposes of the current study, the interrater reliability as well as the divergent and convergent validity of the CID-SO are important to consider. The use of a semi-structured interview to collect information introduces additional potential measurement error as a result of human judgement, making interrater reliability important to consider. In Jung's (2004) examination of the reliability of the CID-SO between raters, two clinicians independently completed the measure for 11 participants. The average total CID-SO score for the 11 participants were not significantly different ($p > .05$) between the raters, the raters were in complete agreement for every item for at least 7 participants, and kappa statistics for item values that had adequate score variability were all significant. Thus, the interrater reliability was excellent for the clusters and total CID-SO scores. Jung (2004) found that the correlations between two raters on the CID-SO clusters (scores range from 0 to 8 or 10) and the CID-SO total score were significant and had good effect sizes, $r = .91-.95$, $ps < .05$.

The CID-SO also demonstrated adequate divergent and convergent validity. The CID-SO and its subscales were associated with other measures of denial and minimization, including the Sex Offender Acceptance of Responsibility Scales (SOARS; Peacock, 2000) and the Multiphasic Sex Inventory, editions I (MSI-I; Nichols & Molinder, 1984) and II (MSI-II; Nichols and Molinder, 2000). More specifically, total CID-SO scores were significantly and negatively associated with SOARS subscales acceptance of sexual offense ($r = -.61$, $p < .001$), acceptance of victim harm ($r = -.63$, $p < .001$), motivation to change, $r = -.48$, $p < .01$), acceptance of offense planning ($r = -.42$, p

< .01). SOARS subscales justification for sexual offending ($r = -.34$) and acceptance of sexual interests ($r = -.32$) were not significant. Total CID-SO scores were significantly associated with the MSI and MSI-II's lie scale ($r = .46, p < .001$) and treatment attitude index ($r = -.54, p < .001$).

Psychopathy. The Self-Report Psychopathy Scale (SRP-III; Williams, Nathanson, & Paulhus, 2003) was used to assess psychopathy. The SRP-III is a 64-item measure that assesses the four-factor structure of psychopathy (see Appendix G). Participants indicated on a 5-point Likert scale (1 = *disagree strongly*; 5 = *agree strongly*) the degree to which they agree to each item on the SRP-III. The SRP-III improves upon two previous versions of the SRP by capturing the updated four-factor structure versus the previous two-factor structure of psychopathy and improved internal consistency reliabilities (Neal & Sellbom, 2012).

Williams, Nathanson, and Paulhus (2003) examined the factor structure of the SRP-III, as well as the convergent and discriminant validity among a sample of 273 male undergraduate university students. For the purposes of the current study, confirming the factor structure of the measure's items, as well as the convergent and divergent validity are important to consider. Confirmatory factor analyses were consistent with a four-factor structure of psychopathy. Additionally, the SRP-III positively and significantly correlated with other measures of psychopathy, including the Levenson Self-Report Psychopathy Scale (Levenson, Kiehl, & Fitzpatrick, 1995; $r = .62, p < .01$), Psychopathic Personality Inventory (Lilienfeld & Andrews, 1996; $r = .34, p < .01$), and the Eysenck Personality Questionnaire Psychoticism scale (Eysenck & Eysenck, 1985; $r = .62, p < .01$). Lastly, the SRP-III was negatively and significantly correlated with personality constructs that

should not be present among individuals with greater levels of psychopathy, such as Agreeableness ($r = -.46, p < .01$) and Conscientiousness ($r = -.23, p < .01$) as measured by the Big Five Inventory (John & Srivastava, 1999). Sandvik and colleagues (2012) examined the convergent validity of the SRP-III among a forensic sample of 80 male inmates from a Norwegian prison; participants were convicted for various crimes, 42% with a violent-related offense and 14% with a sexual offense. The SRP-III was positively and significantly correlated with the Psychopathy Checklist – Revised (Hare, 1991; $r = .44, p < .001$).

Deviant sexual interests. The Screening Scale for Pedophilic Interests – 2 (SSPI-2; Seto, Stephens, Lalumiere, & Cantor, 2017) was used to assess pedophilic interest. The SSPI-2 is a historical measure meant to assess pedophilic sexual interest among men with at least one child victim (see Appendix H). The SSPI-2 has 5 items that are based on offense history/victim characteristics related to sexual interest in children and risk of sexual offending. These items include any male victims, more than one victim, victim aged 11 or younger, any unrelated victims, and any self-report or charges of child pornography production, consumption, or distribution. Each item is scored as either present (1) or absent (0), and total scores may range from 0-5, with higher scores indicating greater pedophilic interest.

For the purposes of the study, the predictive validity of the SSPI-2 is important to consider. Seto, Stephens, Lalumiere, and Cantor (2017) validated the measure with a sample of 2,646 adult male participants, 1900 of which were men who had committed a sexual offense against a child, and the remaining participants were nonoffenders ($n = 166$), men who had committed sexual offenses against adults ($n = 249$), and men who had

committed sexual offenses against teenagers ($n = 149$). Pedophilic interest was also assessed by a score known as the Pedophilic Index, which is calculated by taking the largest average sexual response score to pedophilic stimuli and subtracting the largest average sexual response score to adult stimuli as measured by penile plethysmography. Two cut-off scores were used, including a 0.0 cut-off score which indicates an equal sexual attraction to prepubescent children and adults, as well as a 0.25 cut-off score which indicates a greater sexual attraction to prepubescent children compared to adults.

All items of the SSPI-2 were positively, significantly correlated with the pedophilic index, $r_s = .10-.25$, $p < .01$. Additionally, ROC analyses were conducted to analyze the ability of the SSPI-2 to distinguish between pedophilic and non-pedophilic men as measured by the Pedophilic Index and self-admitted sexual interest in child. All ROC analyses indicated that the SSPI-2 was able to distinguish between pedophilic men from non-pedophilic men using a less conservative cut-off score of the Pedophilic Index, $AUC = .63$, $p < .001$; a more conservative cut-off score of the Pedophilic Index, $AUC = .61$, $p < .001$; and self-admitted pedophilic interest, $AUC = .73$, $p < .001$.

Explicit identification as a sexual offender. A two-item semantic differential scale was used to assess identification as a sexual offender (see Appendix J). The scale was developed for the original study by Kostiuk (2012). Participants indicated the degree to which they identified as a sexual offender on a 7-point Likert bipolar scale (not a child molester - child molester; not a sex offender – a sex offender). Item scores were averaged for a total score. Items were reversed scored so that higher scores indicated greater identification as a sexual offender (Kostiuk, 2012).

Explicit self-esteem. Three measures were used to assess explicit self-esteem.

The explicit self-esteem measures were the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), the Short Self-Esteem Scale (SSES; as described by Thornton, Beech, & Marshall, 2004), and a Semantic Differential scale developed by the primary researcher of the original study (Kostiuk, 2012). Implicit self-esteem was measured using an Implicit Association Test, which is described more fully in the final Methods section. The RSES is a 10-item measure that assesses global self-esteem on a 9-item response scale (1 = *strongly disagree*; 10 = *strongly agree*; see Appendix L). Scores can range from 10 to 40, with greater scores indicating higher self-esteem. Sinclair and colleagues (2010) examined the divergent validity of the RSES in a sample of 503 adults across America. The RSES was negatively and significantly ($ps < .001$) with depression, anxiety, and stress as measured by the Depression, Anxiety, and Stress scales (DASS-2) and SF-8 Physical (PCS) and Mental Component Summary (MCS) measures (as cited in Sinclair et al., 2010).

The SSES was developed by David Thornton and was used among samples of men who committed sexual offenses (as cited in Webster, Mann, Thornton, & Wakeling, 2007). The SSES is an 8-item measure that is completed by participants on a dichotomous yes (scored 1) and no (scored 0) scale (see Appendix M). Scores can range from 0 to 8, with greater scores indicating higher self-esteem. Webster and colleagues examined the discriminant validity of the SSES and its ability to differentiate samples of men with different index offenses. Results were consistent with the SSES being able to discriminate between sexual offenders and a non-offending comparison group ($F(6,$

1377) = 20.36, $p < .001$), with the sexual offenders having significantly lower self-esteem scores.

Last, a five-item semantic differential scale was used to assess self-esteem (see Appendix K). The scale was developed for the original study by Kostiuk (2012). Participants indicated the degree to which their self-esteem was negative or positive on a 7-point Likert bipolar scale (negative - positive; bad – good; unpleasant - pleasant; unlikeable - likeable; unlovable - loveable). Item scores were averaged for a total score. Higher scores indicated greater self-esteem.

Explicit attitudes towards men who commit sexual offenses. A five-item semantic differential scale was used to assess attitudes towards sexual offenders (see Appendix I). The scale was developed for the original study by Kostiuk (2012). Participants indicated the degree to which they negatively or positively evaluated sexual offenders on a 7-point Likert bipolar scale (negative - positive; bad – good; unpleasant - pleasant; unlikeable - likeable; unlovable - loveable). Item scores were averaged for a total score. Higher scores indicated more positive attitudes towards sexual offenders.

Implicit measures. The Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) was used to assess implicit, identification as a sexual offender, self-esteem, and attitudes towards sexual offenders. The IAT infers the strength of the association between a concept category and an attribute category by measuring how quickly participants sort one pairing of a concept and attribute category relative to the opposite pairing (Greenwald et al., 1998; Schnabel, Asendorpf, & Greenwald, 2008). The IAT is based on the assumption that concepts and attributes that are more strongly

associated will be paired more quickly compared to other pairings of concepts and attributes.

Participants completed the IAT in seven blocks of trials by categorizing concepts and attributes with the “d” key and “k” key on the computer keyboard. An example of how target concepts and attributes are displayed on the computer can be seen in Figure 2. The first two blocks were to familiarize participants with categorizing the concepts and attributes. For example, participants completing the self-esteem IAT may be asked to categorize SELF with the “d” key and OTHER with the “k” key in Block 1 and categorize positive attributes with the “d” key and negative attributes with the “k” key. Block 3 was a practice trial to categorize SELF/positive with the “d” key and OTHER/negative with the “k” key. Block 4 was the target trial for the pairings SELF/positive and OTHER/negative. Block 5 had participants switch the categorization of SELF and OTHER, such that participants had to categorize OTHER with the “d” key and SELF with the “k” key. Block 6 was a practice trial to categorize OTHER/positive with the “d” key and SELF/negative with the “k” key. Block 7 was the target trial for the pairings OTHER/positive and SELF/negative.

Following Greenwald and colleagues’ (2003) recommendations for best practice calculating IAT scores, *D* scores were calculated that reflected the difference in responding between one pairing of concept and attribute categories (e.g., SELF/positive and OTHER/negative) with the opposite pairing of concept and attribute categories (e.g., OTHER/positive and SELF/negative). Higher *D* scores indicated more positive attitudes towards sexual offenders, higher self-esteem, and greater identification as a sexual offender.

The Implicit Association Test has demonstrated adequate convergent validity in Greenwald and Farnham's (2000) study that compared the self-esteem IAT with three explicit measures of self-esteem among a sample of 51 male and 93 female university students. The self-evaluation (i.e., self-esteem) IAT was significantly, positively correlated with the Self-Attributes Questionnaire (SAQ; Pelham & Swann, 1989; $r = .197, p = .05$) and a semantic differential scale of self-esteem ($r = .201, p = .05$), but not with the Rosenberg Self-Esteem Scale (Rosenberg, 1965) or a self-esteem thermometer scale. Additionally, the authors explored convergent validity of the IAT using gender concepts. The relationship gender self-concept IAT was significantly, positively correlated with explicit measures of gender self-concept among a sample of 28 male and 30 female university students. More specifically, two gender self-concept IAT's were positively correlated with the Personal Attributes Questionnaire ($r = .454, p = .0005$), and gender self-concept semantic differential items ($r = .353, p = .05$), and the Bem Sex Role Inventory ($r = .398, p = .005$).

Figure 2. Example of trials in the self-esteem Implicit Association Test. *SELF*: ME, MY, MINE, MYSELF. *Positive*: Vacation, good, smile, sunshine, paradise, freedom. *OTHER*: IT, THEY, THEM, THEIR. *Negative*: Bad, poison, sickness, vomit, cancer, evil.

Implicit identification as a sexual offender. For the Identity IAT, the concept categories were *self* (e.g., ME, MY, MINE, SELF, I) and *other* (e.g., THEY, THEM, OTHER, HIM, ME), and the attribute categories were *sex offender* (e.g., rapist, rape, child molester, molest, sex offender) and *not sex offender* (e.g., thief, theft, robber, drug dealer, murderer). Positive IAT scores indicated greater identification as a sexual offender.

Implicit self-esteem. For the Self-Esteem IAT, the concept categories were *self* (e.g., ME, MY, MINE, SELF, I) and *other* (e.g., THEY, THEM, OTHER, HIM, ME), and the attribute categories were *positive* (e.g., peace, good, smile, happy, paradise) and *negative* (e.g., rotten, poor, sickness, poison, bad). Positive IAT scores indicated higher self-esteem.

Implicit attitudes towards sexual offenders. For the Attitudes towards Sex Offenders IAT, the concept categories were *sex offender* (e.g., RAPIST, RAPE, CHILD MOLESTER, MOLEST, SEX OFFENDER) and *not sex offender* (e.g., THIEF, THEFT, ROBBER, DRUG DEALER, MURDERER), and the attribute categories were *positive* (e.g., peace, good, smile, happy, paradise) and *negative* (e.g., rotten, poor, sickness, poison, bad). Positive IAT scores indicated more positive attitudes towards sexual offenders.

Statistical Analyses

A cross-sectional design was used to examine the relationship between denial and variables related to potential functions of denial. Bivariate correlations were conducted, and data visualization techniques were utilized to graphically display the relationships.

Results

Demographics. All but one participant stated that they understood spoken English. However, all participants indicated that they fluently spoke English. As a result, the participant that indicated he did not understand spoken English was included in further analyses. Participants were completing either provincial or federal sentences or probationary/parole: Six participants were on Federal parole, 16 serving a Federal sentence, one participant was serving a Provincial sentence, and six participants were on provincial probation. 28 of the 29 participants were in or had completed treatment. The average age of participants at the time of assessment was 41.82 years of age, excluding one participant because information regarding his age was not available. However, the participant's age at the time of his current offense was 26, so it was assumed he was at least 18 years of age at the time of his assessment and was included in further analyses. The majority of participants were White, single, and had at least a Grade 12 education. 20 participants had an extrafamilial victim, with the remaining nine participants having a related victim. Participant characteristics can be seen in Table 1.

Table 1
Participant Characteristics.

	% (n)
Level of Institutionalization	
Provincial Probation	20.7% (6)
Provincial	3.4% (1)
Federal Parole	20.7% (6)
Federal Medium	55.2% (16)
In or Completed Treatment	
Yes	96.6% (28)
No	3.4% (1)
Ethnicity	
White	79.3% (23)
Indigenous	20.7% (6)
Marital Status	
Single	58.6% (17)
Married/Common-Law	27.6% (8)
Separated/Divorced	13.8% (4)
Education Level	
Less than Grade 12	44.8% (13)
Grade 12	20.7% (6)
GED	20.7% (6)
University/College	6.9% (2)
Trade	6.9% (2)

Data screening. Preliminary analyses were conducted to assess whether assumptions were met for Pearson's r correlations. There were no missing data and all data were in the expected range. For the IAT measures, trials that were extremely slow (greater than 10,000 msec) and participants that had many extremely fast trials (10% were 300 msec or less) were screened to be excluded from further analyses. There were no extremely slow trials or extremely fast participants. Some measures demonstrated restricted range in scores, such as the Semantic Differential scale for self-identification as a sexual offender and the SRP-III. Restricted ranges make generalizing to other populations difficult. To identify any univariate outliers, box plots were visually

examined, and z -scores were calculated. Any z -scores that were greater than ± 3.29 were considered to be extreme outliers. No univariate outliers were identified. To identify any multivariate outliers, scatterplots were visually examined and Mahalanobis distances were calculated. The Mahalanobis distance calculates the distance of one datum point from the average of the remaining data points. Any Mahalanobis distance scores greater than 13.816 were considered to be extreme outliers. No multivariate outliers were identified.

To examine normality, box plots, stem and leaf plots, and $q-q$ plots were visually examined. Additionally, the ratio of skewness and kurtosis was calculated and two tests of normality, the Kolmogorov-Smirnov and Shapiro-Wilk, were calculated. Any skewness and kurtosis ratios greater than ± 3.29 and any significant tests of normality were considered to violate the assumption of normality. The CID-SO total and Clusters were particularly negatively skewed. Both tests of normality were significant for the total CID-SO, Cluster A, Cluster B, Cluster D scores, as well as the SSPI and Semantic Differential scale for self-identification as a sexual offender. The Shapiro-Wilk test was significant for the SSES ($p = .45$) and the Semantic Differential scale for self-esteem ($p = .02$). However, data transformations are generally not recommended and did not fix skewness in any of the variables with the exception of the CID-SO total score.

To examine homoscedasticity and linearity, scatterplots were visually examined. Assumptions of linearity and homoscedasticity were not violated. As the assumption of normality was violated, non-parametric Spearman's ρ correlations were conducted since it is more robust to non-normal data and does not inflate Type I error compared to Pearson's r . To compare the results of the Spearman's ρ correlations, Pearson's r

correlation tables can be seen in Appendix O. Means and standard deviations for the CID-SO total and cluster scores can be seen in Table 2.

Table 2

Means and Standard Deviations of CID-SO Clusters

CID-SO Clusters	<i>M (SD)</i>
Cluster A: Denying Sexually Deviant Behaviors and Arousal (5 items)	2.86 (2.72)
Cluster B: Denying Need for Treatment or Management of Sexual Offending (4 items)	2.03 (2.31)
Cluster C: Denying Responsibility (5 items)	3.69 (2.67)
Cluster D: Minimizing Harm (4 items)	3.03 (2.96)
CID-SO Total	11.62 (9.36)

Denial and Psychopathy. It was hypothesized that denial would be positively related with psychopathy. More specifically, it was predicted that denial would be positively related to callous-interpersonal traits of psychopathy. To examine the association between denial and psychopathy, the relationship between the CID-SO total score and the SRP-III total score was calculated. To examine the relationship between denial and callous-interpersonal traits of psychopathy, the relationship between the CID-SO total score and the SRP-III subscales, Callous Affect (CA) and Interpersonal Manipulation (IPM), were calculated. To explore additional relationships, the four

clusters of the CID-SO and the SRP-III subscales, Criminal Tendencies (CT) and Erratic Lifestyle (ELS), were also included.

As seen in Table 3, correlational analyses revealed that denial of sexually deviant behaviors and arousal (CID-SO Cluster A) was moderately, negatively related to the IPM subscale ($r = -.42, p < .05, 95\% CI [-.68, -.06]$) as well as the total SRP-III score ($r = -.37, p < .05, 95\% CI [-.65, -.01]$). In addition, the CT subscale demonstrated a small, negative effect ($r > -.20$) with denial of sexually deviant behaviors and arousal (CID-SO Cluster A), as did the ELS subscale with denying the need for treatment and management (CID-SO Cluster B), minimizing harm (CID-SO Cluster D), and total psychopathy, though these effects were non-significant.

The relationship between the CID-SO and the SRP-III is further illustrated by the scatterplot matrix (see Figure 3). Interestingly, the pattern of relationships that emerged was not between the CID-SO and specific subscales of the SRP-III, but rather a pattern of relationships between the SRP-III with clusters of the CID-SO. More specifically, the subscales of psychopathy, with the exception of the Callous Affect subscale, demonstrated small, negative effect sizes with denial of sexually deviant behavior and arousal (CID-SO Cluster A).

Table 3

Spearman's Correlations and Confidence Intervals (95%) Between the SRP-III and the CID-SO

CID-SO Clusters	SRP-III				
	Callous Affect	Interpersonal Manipulation	Criminal Tendencies	Erratic Lifestyle	Total SRP-III
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.11 [-.46, .26]	-.42* [-.68, -.06]	-.25 [-.56, .13]	-.33 [-.62, .04]	-.37* [-.65, -.01]
Cluster B: Denying Need for Treatment or Management of sexual Offending	.09 [-.29, .44]	-.10 [-.45, .27]	-.11 [-.46, .27]	-.20 [-.53, .18]	-.16 [-.50, .22]
Cluster C: Denying Responsibility	.05 [-.32, .41]	-.10 [-.45, .28]	.06 [-.31, .42]	-.11 [-.46, .27]	-.10 [-.45, .28]
Cluster D: Minimizing Harm	.10 [-.28, .45]	-.05 [-.41, .32]	-.13 [-.47, .25]	-.28 [-.59, .10]	-.16 [-.49, .22]
CID-SO Total	.04 [-.33, .40]	-.17 [-.51, .21]	-.13 [-.47, .25]	-.25 [-.56, .13]	-.22 [-.54, .16]
<i>M</i> (<i>SD</i>)	36.17 (7.76)	35.38 (7.41)	39.48 (10.63)	45.52 (7.48)	156.55 (25.38)

Note: 95% Confidence Intervals in parentheses. SRP-III = Self-Report Psychopathy Scale III; CID-SO = Comprehensive Inventory of Denial – Sex Offender Version. Values in boldface indicate $r > +/- .20$.

* $p < .05$.

Figure 3. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and the Self-Report Psychopathy Scale (SRP-III).

Denial and Pedophilic Interest. In light of the lack of prior research on the relationship between denial and pedophilic interest, no hypotheses were made. To examine the association between denial and pedophilic interest, the relationship between the CID-SO total score and the SSPI-2 was calculated. To explore additional relationships with the SSPI-2, the four clusters of the CID-SO were also included. Correlational analyses revealed no statistically significant relationships between the SSPI-2 and the CID-SO clusters (see Table 4). However, the SSPI-2 did demonstrate a small, negative effect with denial of responsibility (CID-SO Cluster C), though this effect

was non-significant, $r = -.22$, $p > .05$. Overall, denial was largely unrelated to pedophilic interest, as illustrated in the scatterplot matrix in Figure 4.

Table 4

Spearman's Correlations and Confidence Intervals (95%) Between the SSPI-2 and the CID-SO

CID-SO Clusters	SSPI-2
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.18 [-.51, .20]
Cluster B: Denying Need for Treatment or Management of sexual Offending	-.01 [-.38, .36]
Cluster C: Denying Responsibility	-.22 [-.54, .16]
Cluster D: Minimizing Harm	.07 [-.30, .43]
CID-SO Total	-.04 [-.40, .33]
<i>M (SD)</i>	3.03 (1.30)

Note: 95% Confidence Intervals in parentheses. SSPI-2 = Sexual Screening Scale for Pedophilia – Version 2. Values in boldface indicate $r > +/- .20$. All values non-significant at $p > .05$.

Figure 4. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and the Screening Scale for Pedophilic Interest – 2 (SSPI-2).

Denial and Self-Identification as a Sexual Offender. It was hypothesized that denial would be negatively related to self-identification as a sexual offender. In line with dual-processing theories of cognition, an explicit measure (Semantic Differential scale) and an implicit measure (IAT) of identity were included. To examine the association

between denial and self-identification as a sexual offender, the relationships between the CID-SO total score and the Semantic Differential scale and the IAT of self-identification as a sexual offender were assessed. To explore additional relationships, the four clusters of the CID-SO were also included.

Correlational analyses revealed that consistent with hypotheses, the Semantic Differential scale was moderately, negatively associated with greater denial of sexually deviant behaviors and arousal (Cluster A; $r = -.54, p < .01, 95\% CI [-.76, -.22]$) as well as greater denial for the need of treatment and management of sexual offending (Cluster B; $r = -.36, p < .05, 95\% CI [-.64, .01]$). Additionally, the relationship between the Semantic Differential scale demonstrated small, negative effect sizes with the total CID-SO score ($r = -.35$) and minimization of harm (Cluster D; $r = -.29$), though these effects were non-significant ($ps > .05$). Denial of responsibility (Cluster C) was unrelated to denial, $r = -.05$. In comparison, the IAT was largely unrelated to denial. As seen in Figure 5, scatterplot matrices demonstrated that the Semantic Differential scale and the IAT displayed similar patterns of relationships with the CID-SO. However, the magnitude of the relationship between the CID-SO and the IAT were much smaller in comparison to the relationship between the CID-SO and the Semantic Differential scale.

Table 5

Spearman's Correlations and Confidence Intervals (95%) Between Explicit and Implicit Measures of Identification as a Sexual Offender and the CID-SO

CID-SO Clusters	Identification as Sexual Offender	
	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.54** [-.76, -.22]	-.24 [-.55, .14]
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.36* [-.64, -.01]	.11 [-.27, .46]
Cluster C: Denying Responsibility	-.02 [-.38, .35]	.15 [-.23, .49]
Cluster D: Minimizing Harm	-.29 [-.60, .08]	.02 [-.35, .38]
CID-SO Total	-.35 [-.64, .02]	.05 [-.32, .41]
<i>M (SD)</i>	5.71 (1.2)	.61 (.55)

Note: 95% Confidence Intervals in parentheses. Values in boldface indicate $r > +/- .20$.

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

Figure 5. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Identification as a Sexual Offender.

Denial and Self-Esteem. It was hypothesized that denial would be positively associated with self-esteem. In line with dual-processing theories of cognition, explicit measures (RSES, SSES, and Semantic Differential scale) and an implicit measure (IAT) of self-esteem were included. To examine the association between denial and self-esteem,

the relationships between the CID-SO total score and the RSES, SSES, Semantic Differential scale, and the IAT were calculated. To explore additional relationships, the four clusters of the CID-SO were also included.

Correlational analyses revealed no statistically significant relationships between explicit and implicit measures of self-esteem and the CID-SO (see Table 6). Overall, denial was unrelated to explicit and implicit self-esteem. Contrary to hypotheses, the CID-SO demonstrated largely negative associations with explicit self-esteem measures, though all of these associations were non-significant. The Rosenberg Self-Esteem Scale demonstrated a small, negative associations with minimization of harm (Cluster D; $r = -.25$). Similarly, the Semantic Differential scale demonstrated a small, negative association with denial of the need for treatment or management of sexual offending ($r = -.29$), as well as minimization of harm ($r = -.29$). As seen in Figure 6, the scatterplot matrix illustrates that the IAT demonstrated a similar pattern with the CID-SO as the explicit measures did, though none of these effects were statistically significant and effect sizes were small.

Table 6

Spearman's Correlations and Confidence Intervals (95%) Between Explicit and Implicit Measures of Self-Esteem and the CID-SO

CID-SO Clusters	Explicit Self-Esteem			Implicit Self-Esteem
	RSES	SSES	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.09 [-.44, .28]	.15 [-.23, .49]	-.10 [-.45, .28]	-.15 [-.49, .23]
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.17 [-.50, .21]	-.08 [-.43, .30]	-.29 [-.60, .08]	.02 [-.35, .38]
Cluster C: Denying Responsibility	.01 [-.36, .38]	.07 [-.30, .43]	.03 [-.33, .39]	.003 [-.37, .37]
Cluster D: Minimizing Harm	-.25 [-.57, .12]	-.11 [-.46, .27]	-.29 [-.60, .08]	-.08 [-.43, .30]
CID-SO Total	-.13 [-.47, .25]	.01 [-.36, .37]	-.18 [-.51, .20]	-.04 [-.40, .33]
<i>M (SD)</i>	59.69 (14.9)	4.76 (2.28)	5.61 (1.19)	.72 (.45)

Note: 95% Confidence Intervals in parentheses. RSES = Rosenberg Self-Esteem Scale; SSES = Short Self-Esteem Scale. Values in boldface indicate $r > +/- .20$. All values non-significant at $p > .05$.

Figure 6. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Self-Esteem.

Denial and Attitudes towards Sexual Offenders. It was hypothesized that denial would be negatively associated with attitudes towards sexual offenders. As seen in Table 7, correlational analyses revealed that denial of sexually deviant behaviors and arousal (CID-SO Cluster A) was moderately, negatively associated with implicit attitudes towards sexual offenders ($r = .42, p < .05, 95\% CI [-.68, -.06]$). As seen in Figure 7, the scatterplot matrix further illustrates the relationship between the CID-SO and the explicit and implicit measures of attitudes towards sexual offenders.

Table 7

Spearman's Correlations and Confidence Intervals (95%) Between Explicit and Implicit Measures of Attitudes towards Sexual Offenders and the CID-SO

CID-SO Clusters	Attitudes towards Sexual Offenders	
	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.14 [-.48, .24]	-.42* [-.68, -.07]
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.10 [-.45, .28]	-.10 [-.45, .28]
Cluster C: Denying Responsibility	-.08 [-.43, .29]	.08 [-.30, .43]
Cluster D: Minimizing Harm	-.06 [-.42, .31]	-.06 [-.42, .31]
CID-SO Total	-.11 [-.46, .27]	-.12 [-.46, .26]
<i>M (SD)</i>	3.14 (1.25)	.54 (.42)

Note: 95% Confidence Intervals in parentheses. Values in boldface indicate $r > +/- .20$.

* $p < .05$.

Figure 7. Scatterplot matrix illustrating the association between the Comprehensive Inventory of Denial – Sex Offender Version (CID-SO) and Explicit and Implicit Attitudes towards Sexual offenders.

Discussion

In order to understand how and when denial may be related to an increased risk to reoffend, it is important to understand the function of denial first. Men who commit sexual offenses against children may deny aspects of their offense for a variety of reasons. Denial and minimization may occur as a result of psychopathic traits or

pedophilic interest and may consequently be related to risk to reoffend. Another possibility is that denial and minimization may occur as an adaptive response to an adversarial environment to protect identity and self-esteem. The current study sought to explore the relationship between denial and minimization and variables that may indicate denial as a risk factor or denial as an adaptive response. To explore the potential functions of denial among men who commit sexual offenses against children correlations between a continuous, multifaceted construct of denial and minimization with variables that may indicate particular functions of denial – either as a risk factor or as an adaptive tool in an adversarial environment – were examined. Overall, correlational analyses revealed that denial was negatively associated with variables that were related to risk to reoffend (i.e., psychopathy, pedophilic interest) and variables related to an adaptive function (i.e., identity, self-esteem, and attitudes towards men who commit sexual offenses).

Overall, denial was negatively related to psychopathy, as indicated by small to moderate effect sizes (r 's = -.20 - -.42). First, psychopathy overall was negatively associated with denial of sexually deviant behaviors and arousal (CID-SO Cluster A). In other words, men with elevated psychopathy were less likely to deny that the offense occurred or to be sexually aroused by the offense. Second, the Erratic Lifestyle subscale of psychopathy was negatively associated with denial overall. That is, men with elevated Erratic Lifestyle traits were less likely to deny the offense, deny the need for treatment, or to minimize harm to the victim.

The current study's findings are inconsistent with prior findings on the relationship between denial and psychopathy among men who commit sexual offenses.

Prior empirical findings were consistent with callous-interpersonal traits to be more likely to positively associated with denial. It is possible that these findings differed from prior findings because past studies used mixed samples of men who committed sexual offenses, whereas only men who had committed a sexual offense against a child were included in the current study. Thornton and Knight (2007) suggested that denial came from a different psychological place among men who commit sexual offenses against children compared to men who commit sexual offenses against adults. Indeed, in Thornton and Knight's analysis, denial did not predict increased sexual recidivism among men who committed a sexual offense against children, and interestingly predicted a decreased sexual recidivism after psychopathy was controlled for. In comparison, among men with adult victims, denial predicted increased sexual recidivism. However, when psychopathy was controlled for, the relationship between denial and sexual recidivism disappeared. Thus, the current study's findings may reflect a different relationship between denial and psychopathy among men who commit sexual offenses against children compared to men who commit sexual offenses against adults.

Interestingly, Interpersonal Manipulation was moderately, negatively related with denial of deviant sexual behavior and arousal (CID-SO Cluster A), which was contrary to what was expected. It is possible that treatment status may have played a role in the relationship between Interpersonal Manipulation and denial of deviant sexual behavior and arousal (CID-SO Cluster A). For instance, Rice (1997) and Lund (2000) suggested that men with psychopathy who receive treatment may learn how to appear empathetic and not actually become more empathetic. Similarly, it is possible that men in the current study's sample learned that to successfully complete treatment, men were expected to

admit responsibility. As almost all men in the current sample was in or had been in treatment at the time of assessment, Interpersonal Manipulation may have been negatively related to denial of deviant sexual behavior and arousal (CID-SO Cluster A) as a result of a learned strategy to successfully navigate the criminal justice system.

Alternatively, it is possible that callous-interpersonal traits would not be related to denial. Similar to denial, it was theorized that Interpersonal Manipulation, a factor of Social Desirability Response (SDR) that describes deceiving others to appear more favorably, would be associated with callous-interpersonal traits of psychopathy. However, findings suggest that Interpersonal Manipulation is more strongly associated with antisocial-lifestyle traits compared to callous-interpersonal traits. For example, Gray and Mills (2011) conducted a synthesis of the literature and calculated mean weighted effect sizes across 17 studies that examined the relationship between psychopathic traits and the SDR factors, Interpersonal Manipulation and Self-Deception, among diverse offender samples. The authors found that, similar to other meta-analytic findings, SDR was significantly, negatively associated with antisocial-lifestyle traits and not callous-interpersonal traits.

In addition, pedophilic interest was negatively related to denial of responsibility (CID-SO Cluster C). In other words, men with greater pedophilic interest were less likely to deny responsibility for the sexual offense. This is contrary to prior research findings that suggested that pedophilic men were more likely to engage in denial as a defense mechanism (Drapeau et al., 2008). One potential explanation may be that men with a history of sexual offenses – such as pedophilic men – may be less likely to engage in denial. For example, in Beech's (1998) typology of men with varying levels of denial

and sexual deviance, men with high sexual deviance and low denial had more victims compared to men with high sexual deviance and high denial. Beech suggested that the two groups of high deviance men differed in levels of denial was because the high deviance/low denial group had greater prior convictions – and less likely to convince others of their denial - compared to the high deviance/high denial group. In the current study, 34.5% of participants ($n = 10$) had a previous sexual offense and may have been less likely to engage in denial. Overall, results were consistent with denial being negatively related to factors that may indicate that denial is a risk factor among men who commit sexual offenses against children.

Similarly, denial was largely negatively related to variables that may indicate an adaptive function, as demonstrated by small to moderate effect sizes (r 's = $-.22$ - $-.54$). More specifically, denial was negatively related with explicit identification as a sexual offender, self-esteem, and implicit attitudes towards sexual offenders. Interestingly, the pattern of these findings were contrary to BIT. According to the cognitive consistency principles of BIT, denial should be negatively related to identification as a sexual offender and attitudes towards sexual offenders, and positively related to self-esteem. Contrary to hypotheses, a few comparisons between self-esteem and denial demonstrated small, negative effect sizes. Most noteworthy is the negative effect sizes between self-esteem and minimization of harm (CID-SO Cluster C). In other words, men who had greater self-esteem were less likely to minimize the harm of their offense to their victim/s. Though this relationship was contrary to the current study's hypothesis, other authors have suggested that denial would be negatively related with self-esteem. According to Marshall and colleagues' theory about the empathic process among men

who commit sexual offenses, if a man commits a sexual offense and feels shame about the offense, he may cope with the negative emotions by minimizing the harm to the victim. However, despite a few small, negative effect sizes, denial was largely unrelated to self-esteem. Other studies have found similar findings. For example, Jung (2004) found that the CID-SO clusters were not significantly correlated with the Rosenberg Self-Esteem Scale (r 's = .10 - .14). Thus, these findings may be indicative that denial is not related to self-esteem.

It is noteworthy that denial was negatively associated with self-identification and attitudes towards sexual offenders but, largely, not self-esteem. It is possible that men may be engaging in denial to avoid external, negative consequences or because they are living in an adversarial environment, not necessarily to protect their self-esteem. In qualitative studies that examined the explanations of men who commit sexual offenses for engaging in denial, it is often reported that denial allowed them to maintain positive relationships with family and friends, as well as protected them from losing their jobs and financial security (Blagden et al., 2014; Lord & Willmott, 2004). In these same studies, men also identified engaging in denial to hide their index offense from other men in prison so that they would not be physically and emotionally targeted. Many men in the current study were living in a federal or provincial prison at the time of assessment. Factors such as these were not accounted for in the current study. Thus, distancing the self from the label and holding negative evaluations of men who commit sexual offenses may be a reflection of experiencing negative, external consequences and living in an adversarial environment, and not necessarily as a tool to protect self-esteem.

It should be noted that, based on the literature review, it was suggested that denial may be used to protect self-esteem. Thus, it would be expected that denial would lead to increased self-esteem. Other experts have argued that low self-esteem results in denial as a self-protective strategy by not recognizing the harm to victims (Marshall, Marshall, Serran, & O'Brien, 2009). It may also be plausible that low self-esteem may lead to denial, and denial would consequently result in greater self-esteem. However, the current study was unable to assess the causal relationship between denial and self-esteem as a result of the design limitations and the use of correlations. Thus, future research should seek to better understand the direction of the relationship, if one exists, between self-esteem and denial by using more rigorous research designs and methodology.

Finally, it is important to note the discrepancy between denial's relationship with explicit measures of cognitions compared to implicit measures. Other authors have noted that implicit and explicit measures of cognition are often weakly related (Hofman, Gawronski, Gschwendner, Le, & Schmitt, 2005). There are a few theories as to why implicit and explicit measures diverge. According to dual-processing theories of cognition, implicit and explicit cognitions may be distinct concepts that access information differently and are affected by bias differently (Fazio & Olson, 2003; Hofman et al., 2005). For instance, implicit measures may have access to information that is not "accessible" by explicit measures. Additionally, explicit measures may be more susceptible to bias compared to implicit measures. Alternatively, implicit and explicit measures may diverge as a result of structural fit (Payne, Burkley, & Stokes, 2008). Payne and colleagues (2008) argue that differences in the structure of implicit and explicit measures are unrelated to their differences in conceptualization, making it more

likely that the measures diverge as a result of their structure and not because they are distinct concepts. Indeed, in Hofmann and colleagues' (2005) meta-analysis, method-related characteristics of the IAT accounted for variations in correlations between the IAT and explicit measures. For instance, types of target stimuli (e.g., pictures vs. pronouns), attribute stimuli (e.g., evaluative adjectives vs. evaluative nouns), and procedural effects (e.g., counterbalancing) moderated the relationship between the IAT and explicit measures.

The current study found that denial was: 1) negatively related to explicit identification as a sexual offender but largely unrelated to implicit identification as a sexual offender, 2) demonstrated small, negative correlation coefficients with explicit self-esteem but not implicit self-esteem, and 3) negatively related to implicit attitudes towards sexual offenders, but was unrelated to explicit attitudes towards sexual offenders. These differences may be the result of explicit and implicit measures assessing different constructs that relate to denial differently. For instance, men may use denial intentionally and deliberately to distance themselves from the sexual offender label, which may not be related to their implicit identity. However, the structural differences in the implicit and explicit measures may also account for the differences in the relationships. For example, in the identity IAT, participants were tasked to categorize the target concepts SELF and OTHER with the attribute concepts *sex-offender* and *non sex-offender*. However, the non sex-offender attributes included nouns and actions such as burglar, robber, theft, fraud, and murder. Thus, denial may not have been related to the identity IAT because participants did not identify as sexual offender or as non sex-offenders as defined by the attribute concept items.

The current study's findings may be consistent with an adaptive use of denial among men who have committed a sexual offense against a child, which contrasts with other findings that denial may also be related to risk to reoffend via psychopathy among other samples of men who commit sexual offenses. The current study's findings should be viewed as a preliminary exploration on the correlates of denial as a way to inform future research on its function among men who commit sexual offenses against children. Further research should confirm the relationship between denial and variables indicative of an adaptive function. However, the current study's findings serve as a first step to better understanding the function of denial among men who commit sexual offenses against children, as well as understanding how and when denial may relate to risk and recidivism, as well as how denial may be addressed in treatment.

Implications

The function of denial is important for understanding how and when denial may be related to risk to reoffend and recidivism. For example, Lund (2000) suggested that denial may be a risk factor among men with lower levels of risk since other risk factors are absent. Indeed, empirical findings have found that denial may be a risk factor among low-risk men. For instance, Nunes and colleagues (2007) found that denial was associated with increased sexual recidivism among low-risk men but was associated with decreased recidivism among high-risk men. Contrary to Nunes and colleagues' findings, Langton and colleagues (2008) found that the interaction between minimization and risk significantly predicted risk to reoffend ($\beta = 0.501, p = .03$) among a mixed sample of men who commit sexual offenses, with an almost even proportion of men with adult and child victims. Additional analyses found that hazards ratios were only significant for men with

a minimization score of 5 (95% *CI* [1.02 – 10.05]) and 6 (95% *CI* [1.53 – 18.19]), but not for men with a minimization score of 1 (95% *CI* [0.05 – 3.56]) or 2 (95% *CI* [0.12 – 4.10]). Thus, greater minimization was associated with increased recidivism among higher-risk men. However, findings are not always consistent. For example, Harkins and colleagues (2015) found that independent of risk, denial was associated with decreased sexual recidivism ($\beta = -0.97, p < .05$). Understanding the function of denial may clarify the relationship between denial and risk to reoffend and rates of recidivism.

Additionally, denial may be addressed in treatment more effectively if its function is better understood. Traditionally, denial has often been considered a treatment target because it was believed to be a risk factor. Although some treatment programs for sexual offenders still identify denial as a risk factor, programs increasingly define denial as an inhibitor to responsivity to treatment. Thus, denial is often still included as a treatment target in treatment programs throughout the United States and Canada. For instance, the California Coalition on Sexual Offending's standards for assessing treatment completion as of 2016 still included acceptance of responsibility as foundational to assessing treatment completion as well as a dynamic risk factor (California Coalition on Sexual Offending, 2016). According to a review of sexual offender treatment programs across the United States and Canada by McGrath and colleagues (2010), around 33% of community treatment programs in the United States ($n = 329$) require full disclosure (i.e., an account of the sexual offense that matches the official criminal record), whereas none of the community treatment programs in Canada ($n = 19$) required full disclosure.

Men who deny or minimize aspects of their offense may be viewed as uncooperative and lacking self-awareness, motivation, and engagement for treatment

(Jung, 2004). Understandably, denial and minimization may create a more challenging environment for treatment providers, especially for those in treatment programs that require full disclosure or acceptance of responsibility of the offense. For example, a qualitative study examining the perspectives of treatment providers on the ability to treat men in denial demonstrated that treatment providers find treating men in denial frustrating and that men in denial have different needs (Blagden, Winder, Gregson, & Thorne, 2011). For example, one participant stated that they understood that denial was not empirically shown to be a risk factor, but they still believed that releasing men in denial was risky.

Perspectives such as these may result in negative reactions from treatment providers (Ware & Mann, 2012) in an understandably challenging therapeutic environment, which may consequently impact treatment progress. Levenson and Macgowan (2004) examined the relationship between engagement, denial, and treatment progress among a mixed sample of men who had committed a sexual offense, the majority of whom had committed a sexual offense against a child (82%). Findings suggested that treatment progress was largely predicted by greater treatment engagement and less denial. However, the relationship between engagement and denial was not examined. It is possible these findings may reflect conflict in the therapeutic environment as a result of expectations for clients to admit to the offense or viewing denial as an obstruction to treatment. Thus, denial itself may not be a barrier to treatment, but rather the way that it is addressed in treatment.

If a client is determined to be uncooperative or negatively affecting group sessions, he may be excluded or terminated from treatment. However, excluding or

terminating treatment on the basis of denial is viewed as ethically challenging, as findings suggest that men in denial can still benefit from treatment. For example, Marshall (1994) examined the effect of a treatment program on the rate of denial and minimization among a sample of men who committed a sexual offense against a child ($n = 66$) as well as those with adult victims ($n = 15$). The treatment program was founded on the idea that to admit to the offense, men participating in the program must be supportive of other group members. Thus, group sessions focused on making supportive and firm challenges to denial and minimization statements. A Pearson chi-square analysis demonstrated that rates of denial, minimization, and full admission significantly changed following treatment, $\chi^2(2, N = 81) = 43.85, p < .001$. Indeed, denial and minimization was greatly reduced, and full admission greatly increased following treatment. More recently, Ware and Marshall (2008) defined a similar approach to engaging men who were in denial in treatment. The authors provided a foundation for developing components of treatment such as motivational intervention and approaching disclosure of the offense in a way that facilitates discussing the behaviors that led to being accused of the offense rather than forcing acceptance of responsibility.

Other treatment programs in the United States, United Kingdom, and New Zealand have proposed ways in which men in denial can still receive treatment for other dynamic risk factors that do not involve admitting to the offense. For example, other dynamic risk factors such as employment, housing, substance abuse, cognitive distortions, and emotional coping may all be addressed in treatment without having men admit to the offense or accept full responsibility (Ministry of Justice, 2010). According to the United Kingdom's National Offender Management Service 2010 position statement,

men in denial or minimization are still eligible for treatment and there are programs available for them (Ministry of Justice, 2010). In 2015, the Airway Heights Corrections Center in Washington state began a new model of treatment for men in complete denial of the offense, called Moving Forward (Borg, 2018). The Moving Forward model was founded on RNR principles, as well as acceptance and commitment to clients and viewing adversity from childhood as a stimulus for negative behavior. Specific offense details and denial were not challenged – rather, other dynamic risk factors were focused on. Behavioral markers of change among men, such as recognizing dynamic risk factors and increased ability to handle difficult emotional states and problematic cognitive content, were used to assess treatment progress. As of July 2017, New Zealand is testing a similar program that focuses on addressing the dynamic risk factors of low to medium risk men in denial (Fourie, 2017). Though outcomes of these treatment programs in Washington state and New Zealand were not available, they illustrate that men who deny or minimize aspect of their offense may still engage in treatment that focuses dynamic risk factors rather than admitting to the offense.

However, a better understanding of the function of denial among men may improve how treatment programs address denial, and consequently improve treatment progress and completion. For instance, men who may engage in denial in an adaptive way may be more amenable to treatment and require different treatment needs compared to men who may engage in denial as a risk factor. In addition, understanding the function of denial may facilitate change more quickly across treatment programs collectively to better address denial in treatment. As previously mentioned, many programs still view denial as a risk factor or treatment inhibitor, and treatment providers still view men in

denial as having different needs to men who admit to their offense. Being able to identify the function of denial may dispel some of the lingering views on denial that may prevent men in denial from receiving treatment. Before any changes are made, however, future research needs to better isolate and assess different functions of denial.

Limitations

Although noteworthy findings emerged on the relationship between denial and factors that may indicate particular functions of denial which may have implications for understanding how denial may be related to risk and treatment, the current study's findings should be interpreted with caution. There were a number of limitations that resulted from the nature of the sample size. First, the probability of correctly rejecting the null hypothesis was reduced by the small sample size ($n = 29$) that was available for a secondary analysis and the multiple comparisons that were conducted.

Second, the multiple comparisons that were made increased the chance that any *Type I* error would occur within the analyses, which is known as the familywise error rate. Multiple test corrections are typically used to reduce the familywise error rate, but these procedures often reduce power – or the probability of finding a significant effect when one exists. Even with a procedure that retains greater power, such as the Benjamini-Hochberg False Discovery Rate procedure, the p -value that would need to be obtained to find a statistically significant statistic was too low to consider for the current study since 70 comparisons were made. A conservative multiple test correction procedure like the Bonferroni procedure would have reduced the needed p -value to be $.05/70 = .0007$.

Third, Spearman's r correlations were conducted as a result of the small sample size, which limits the interpretations that may be drawn in the current study to

associations; predictive or causal relationships between denial and other measures could not be determined. The direction of the relationships between denial and variables of interest could not be determined. This was illustrated by the current study's findings between self-esteem and denial. Although prior theory suggested different patterns of relationships between self-esteem and denial, the current could not address specifically how denial or self-esteem influenced one another. As such, important information may have been missed that could have further elucidated the function of denial. Thus, the current study's findings should be viewed as preliminary and to guide future research rather than to make any definitive conclusions on the function of denial.

Future Research

Future research should seek to better understand the function of denial among men who commit sexual offenses. It is important to better understand how certain functions of denial may relate to risk to reoffend or rates of recidivism, as well as treatment engagement and progress, in order to properly address the risks and needs of men who commit sexual offenses. More rigorous research designs may be able to better isolate the function of denial more clearly by examining the direction of relationships before and after a sexual offense occurs. For example, a longitudinal study that assesses certain adaptive traits, like employment, family support, self-identity, self-esteem, and attitudes towards sexual offenders, as well as certain risk-relevant traits, like psychopathy and deviant sexual interests, overtime. More specifically, it would be interesting to assess these traits among a sample of at-risk youth over time before and after a sexual offense is committed (if one is ever committed) and examine denial throughout the criminal justice process in relation to adaptive and risk-relevant traits.

In addition to more rigorous research designs, future research should continue to address potential moderating variables. For example, Lund (2000) noted that types of index offenses may moderate the relationship between denial and risk. In line with Lund's suggestion, findings have demonstrated that compared to men with adult victims, men with child victims appear to deny aspects of their sexual offense from a different psychological place. For example, the interaction of denial and psychopathy among men with child victims predicted less sexual recidivism, whereas the interaction of denial and psychopathy among men with adult victims predicted increased sexual recidivism. Additionally, men with child victims are more likely to engage in impression management compared to men with adult victims. By addressing potential moderating variables like type of index offense, future studies may better understand how denial may function differently among men who commit sexual offenses.

Future research should also attempt to distinguish between "legitimate" and "illegitimate" denial and minimization. That is, there are some instances, such as intoxication prior to or during a sexual offense, that may be viewed from a psychological perspective as a legitimate precursor and facilitator of an offense that may mitigate the final sentencing for the offense. It is important to distinguish between men who may "legitimately" or "illegitimately" deny or minimize aspects of the offense. For example, some men may deny memory of the offense or responsibility for their actions because they were intoxicated whereas others may make similar claims because they are deceiving others or themselves. In the current study, the CID-SO was used to measure denial and minimization. The CID-SO is made up of 18 items that are scored on a 3-point scale, either fully present, partially present, or absent. The CID-SO is assessed using

case-file information as well as an interview. One of the strengths of the CID-SO is that it allows raters to use both case-file information, such as police reports and other relevant information, to assess whether an item applies to an individual. Thus, the CID-SO should be able to distinguish between men who may deny aspects of the offense either because it does not apply to him or because he is deceiving others or himself. For studies that do not use a measure like the CID-SO it may be important to acknowledge that some men may deny certain aspects of the offense for legitimate reasons compared to other men, and that these types of men may be qualitatively different from each other.

Future studies may also benefit in better understanding the function of denial by including a measure of social desirability. Sometimes denial is conceptualized as an intentional deliberate tool to deceive others, either to manipulate others to continue offending or to be viewed more favorably to maintain social relationships. Other times, denial is conceptualized as an unconscious tool to deceive the self in order to protect their identity and self-esteem. Measures of SDR, such as the Balanced Inventory of Desirable Responses (BIDR) and its successor the Paulhus Deception Scales (PDS), may be used to better isolate underlying motivations for particular functions of denial. For example, the PDS has two scales, Impression Management and Self-Deceptive Enhancement.

Including the PDS may indicate whether denial is used to deceive others or to deceive the self, which would aid in the interpretation of potential functions of denial. However, the same warning as in the paragraph above is warranted for the use of social desirability response measures. According to Gray and Mills (2011), measures of Interpersonal Manipulation may overlook truthful responding. Thus, measures of social desirability

may aid in the interpretation of the function of denial, but they should be used thoughtfully.

Conclusion

Many men who commit sexual offenses deny or minimize aspects of their offense. Traditionally, denial has been viewed as a risk factor. However, research has not consistently found that denial is related to increased risk to reoffend or recidivism. Indeed, other authors have suggested that denial may be an adaptive response for some men. In addition, in many treatment programs across the United States, Canada, and abroad, denial is defined as a responsivity issue that inhibits the treatment process, and less commonly as a dynamic risk factor. Thus, many men may not be eligible for treatment or may not complete treatment as a result of denying aspects of their offense.

To better understand the relevance of denial as a risk factor and the role of denial in treatment development, engagement, and treatment, the function of denial must be established. For example, if a man who has committed a sexual offense is in denial and is using it as an adaptive reaction, he may be lower risk and more amenable to treatment by targeting other dynamic risk factors. In comparison, if a man who has committed a sexual offense is in denial and it is reflective of high-risk factors, he may be more likely to reoffend and have different treatment needs compared to men who engage in denial adaptively. Future research should continue to elucidate the function of denial to more fully address denial as a risk and responsivity factor.

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Appendix A
Consent Form (and Information Sheet)

INFORMATION SHEET:

**Exploratory Study of Self-Esteem and Possible Correlates
of Offending Behaviour in a Forensic Population**

Nicole Kostiuk, M.Ed., Primary Researcher – (780) 492-3748
Doctoral Candidate, University of Alberta
Faculty of Graduate Studies and Research, Counselling Psychology

Sandy Jung, Ph.D., Co-Investigator - (780) 497-4597
Faculty Member, City Centre Campus 6-362
Department of Psychology, Grant MacEwan University

Kevin Nunes, Ph.D., Co-Investigator, (613) 520-2600 ext. 1545
Assistant Professor C-574 Loeb Building
Department of Psychology, Carleton University, Ottawa

You have been invited to take part in a study being done by a team of researchers at the University of Alberta (Faculty of Graduate Studies and Research), Grant MacEwan University (Department of Psychology), and Carleton University (Department of Psychology). Your participation will aid the primary researcher, Nicole Kostiuk, in earning her doctorate degree, and will also improve our understanding of offending behaviour, particularly as it relates to self-esteem, attitudes, identity, denial, risk of reoffending, and personality.

Purpose of the Study

There has not been a lot of research looking at the self-esteem, attitudes, and identity of offenders and how these factors may relate to denial, risk of reoffending, and personality. It is important to look at differences and similarities among those with different criminal offenses as it may help us make better treatment decisions.

Description of the Study

The study will involve answering questions about yourself, completing a word sorting task, and participating in an interview. Some of the questions you may find upsetting to answer. If any of the questions or tasks that you are asked to complete cause you to feel upset or uncomfortable, you may stop at any time. It will take approximately three hours to complete all of the tasks.

The primary researcher, Nicole Kostiuk, will also access your case management file, psychology file, and security file to gather additional information. This information will not be shared with anyone outside of this research study.

Your Participation is Completely Voluntary

Your decision to participate or not participate in this study is completely voluntary; that is you are completely free to decide if you want to participate or not. If you agree to take part in this study but find a question you prefer not to answer, you may skip that question and move to the next one. You are also free to stop altogether by simply not answering any more items. In this case, you can let the researcher know, and your data will be destroyed. Your decision to not participate

or withdraw from the study will in no way affect your programming, treatment, or any parole/probation decisions.

Protection of Privacy

All your responses are completely confidential and anonymous; that is no one will know what your answers are and your name will not be associated with your answers. In fact, no one will even be told if you have agreed to participate or not. All of your responses, including those on the computer, will be coded with a 3-digit number rather than your name. Seven years after the project has ended, all of your responses will also be destroyed.

The data from this research will NOT be included in any personal files and no one outside of the research project will have access to your responses. However, if you share any information that indicates that you are going to harm yourself or another, share any other information that violates the safety and security of the institution, or indicate that a child or other dependent person is in danger, this information will be reported to the appropriate authorities, in accordance with Corrections Services Canada (CSC) policy.

By signing the consent form you give permission to the study staff to access any personally identifiable information which is deemed necessary to carry out the research.

Risks and benefits of participation

Benefits: There is no direct benefit to you. However, this research may help us understand offending behaviours better.

Risks: There are minimal risks for taking part in this study. It may be possible for some people to be uncomfortable answering some questions. Because these things can happen, please let the researcher(s) know. If you feel upset at any point, you can stop participating without penalty.

Contact Names and Telephone Numbers:

If you have concerns about your rights as a study participant, do not hesitate to ask the researchers before proceeding or at any time during your participation.

You may contact the primary researchers at the phone number and /or email address below:

Nicole Kostiuk
Doctoral Candidate, University of Alberta
(780) 492-3748

Dr. Sandy Jung
Faculty Member, Grant MacEwan University
(780) 497-4597 / jungs0@macewan.ca

Also, you may contact the primary researcher's supervisor:

Dr. Derek Truscott
Associate Professor, Department of Educational Psychology
University of Alberta
(780) 492-1161 / derek.truscott@ualberta.ca

This study has been reviewed and approved by the Research Ethics Board of the Faculties of Education and Extension at the University of Alberta. For questions regarding participant rights and ethical conduct of research, I can contact the Chair of the Research Ethics Board at (780) 492-3751. Also you may contact any, or all, of the following related ethics committees who have approved the conduct of this research:

1. Dr. Ingrid Johnson
Education, Extension, Augustana, Campus Saint Jean Research Ethics Board at the University of Alberta
(780) 492-2261 / Ingrid.johnston@ualberta.ca
2. Dr. Rodney Schmaltz
Research Ethics Committee at Grant MacEwan University
(780) 633-3674 / SchmaltzR@macewan.ca

Part 1 (to be completed by the Principal Investigator):Title of Project: **Exploratory Study of Self-Esteem and Offending**Principal Investigator: **Nicole Kostiuk**Phone Number: **(780) 492-3748**Co-Investigators: **Sandy Jung, Kevin Nunes**

This study has been reviewed and approved by the Research Ethics Board of the Faculties of Education and Extension at the University of Alberta. For questions regarding participant rights and ethical conduct of research, I can contact the Chair of the Research Ethics Board at (780) 492-3751.

Part 2 (to be completed by the research subject):

	<u>Yes</u>	<u>No</u>
I understand that I have been asked to be in a research study.	☐	☐
I have read and received a copy of the attached Information Sheet.	☐	☐
I understand the benefits and risks involved in taking part in this research.	☐	☐
I have had an opportunity to ask questions and discuss this study.	☐	☐
I understand that I am free to withdraw from the study at any time, without having to give a reason and without affecting my future medical/psychiatric care.	☐	☐
The issue of confidentiality been explained to me.	☐	☐
I understand who will have access to your records, including personally identifiable health information.	☐	☐

Who explained this study to you? _____

I agree to take part in this study: YES ☐ NO ☐

Signature of Research Subject: _____

Printed Name: _____

Date: _____

Signature of Witness: _____

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

Signature of Investigator or Designee: _____

Date: _____

Appendix B. Research Protocol

REVIEW PARTICIPANT'S CLINIC FILE

INTRODUCTIONS

STATEMENT OF INFORMED CONSENT

INTERVIEW PROTOCOL (semi-structured interview)

1. CHARGES

Descriptions of sexual offense charges
What was heard about the victim's perspective

2. OFFENDER'S PERSPECTIVE ON THE OFFENSE

In their own words, describe what happened?

3. COURT PROCESS

Process of being charged
Process of trial
Process of sentencing

4. HISTORICAL OFFENSES

When more than one offense has occurred, treat each as a separate incident and give an accurate account of each.
- Ever done anything like this on other occasions / in the past?
Sexual Charges
Non-sexual charges

5. CURRENT STATUS

Victim current status (What is the victim's present status? How has this affected her/him/them?)
Family, Probation, Victim(s) and victim's family, Social Support
- What was it like after you were sentenced / served your time in jail?

6. OTHER REASONS

Why do you think you did this? (Looking for external, internal attributions)
- e.g., Alcohol / Marital difficulties / Past abuse
How do you feel about what's happened?
- What you did?
- Did you feel cheated or manipulated?
What is the likelihood of this ever happening again? And why?

QUESTIONNAIRES

1. Computerized Implicit Association Test (IAT) and Explicit Semantic Differentials for Self-Esteem, Attitudes, and Identity (created by Kevin Nunes)
2. Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1979)
3. Short Self-Esteem Scale (Thornton et al., 2008)
4. Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979; Hook, 2007)
5. Self-Report Psychopathy Scale (SRP-III; Paulhus, Neumann, & Hare, in press)

BEHAVIOURAL OBSERVATIONS (Document while participants are completing questionnaires)

How did the offender behave?/ Did he show any physical signs of anxiety? What were they? / Did he take on a victim's stance?/ Was he defensive?/ Were his responses relevant? / How focused was he?

POST-MEETING TASKS

Score the CID-SO, VRAG, SORAG, SSPI

Appendix C. Verbal Debriefing

At this point I would like to give you further information in addition to what I've told you at the start of the study. I would like you to keep in mind that we are not looking at individual responses, but rather average responses on each of the questionnaires that you have filled out and on the questions I have asked you during the initial interview. So, in other words, I won't be looking at your responses by itself, but as a whole with all the participants' data. Is that clear?

What we are looking at here are 4 things.

First, we are looking at any differences that might exist in your self-esteem, as measured by the paper and pencil questionnaire and the word categorization task on the lap-top. We predicted that self-esteem may be different in different groups of offenders (e.g. violent or non-violent).

Second, we also wanted to see if the difference between two ways of measuring self-esteem, using a paper and pencil test, called explicit self-esteem, and using a computer version of measuring self-esteem, called implicit self-esteem, would be related to certain personality traits, specifically narcissism and psychopathy.

Third, a measure of denial was also included. Using the difference between these two measures, we also want to examine the relationship between denial and this difference. For example, do people who deny committing their offense have different results on the self-esteem measures, and which one?

Fourth, the research has said that self-esteem is not related to offending behaviour. However, self-esteem measures has not always been measured in ways other than self-report. More recently, a researcher found one measure of self-esteem to be associated with reoffending and more research is needed. Therefore, we included different measures of self-esteem.

These are the key things we are looking at. But on a more exploratory note, we also wanted to see if a

particularly the word categorization task which measured self-esteem, identity, and attitudes.

I would like to remind you at this point that your parole/probation officer/case worker and other people at this clinic will not have access to your data. Only my co-investigators, Dr. Jung and Dr. Nunes, will have access to this information and this will not have any affect on your parole/probation, treatment, or programming. However, you have been already told that any information you share that violates the safety and security of the institution, indicates that you are a threat to yourself or someone else, or know of a child or dependent person at risk, and that this information can be subpoenaed by the courts, so it is not completely confidential.

Do you have any questions about your participation or about the study at this point?

If you are interested in the results of the overall study, please feel free to contact me or Dr. Jung at the numbers provided on the Information Sheet. Once we have completed the

research, overall results (and not individual ones) will be available for those who have participated in the research.

Thank-you for your participation in this study.

Appendix D. Research Protocol

UNIVERSITY OF
ALBERTA

FACULTIES OF EDUCATION, EXTENSION, AUGUSTANA,
CAMPUS SAINT-JEAN RESEARCH ETHICS BOARD

8-45 Education South
Phone: 780.492.2261

Notification of Approval - Delegated Review

Study ID:	Pro00009563	
Study Title:	Examination of Balanced Identity Theory in a Forensic Population	
Study Investigator:	Nicole Kostuk	
Date of Informed Consent:	Approval Date 30/10/2009	Approved Document Final Version of consent form
Funding/Sponsor (free text):	There are no items to display	
Funding/Sponsor (validated):	There are no items to display	

Thank you for submitting the above ethics application to the Education, Extension, Augustana and Campus Saint-Jean Research Ethics Board (EEASJ REB). Mr. Georgios Georgiou has reviewed your application and, on behalf of the EEASJ REB, approved it as of October 30, 2009. The approval will expire on October 29, 2010.

A renewal report must be submitted prior to the expiry of this approval if your study still requires ethics approval at that time. If you do not renew before the renewal expiry date, you will have to re-submit an ethics application.

Sincerely,

Dr. Ingrid Johnston, Chair
Education, Extension, Augustana and Campus Saint-Jean Board (EEASJ REB)

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix E. Demographics Questionnaire

Score the following items using scoring criteria as noted.

1. How old are you?
2. Are you right-handed or left-handed?
3. Do you speak English fluently?
4. Do you understand written English?
5. Do you understand spoken English?
6. Is English your first language?
7. Did you attend an English grade school (grades 1 to 8)?
8. Did you attend an English high school?
9. What is the highest grade you completed in school?
10. Did you take any college or university courses?
11. Did you complete a college or university degree?
12. Were you ever suspended or expelled from school between Grades 1 to 8?
13. Were you ever diagnosed with a learning disability?
14. Before your 13th birthday, were you ever knocked unconscious (for example, falling from a tree or hitting your head in a hockey game)?
15. After your 13th birthday, were you ever knocked unconscious (for example, in a car accident or in a sports injury)?
16. Before you came to prison, how much money did you usually make in a year?
17. Did you live with your biological parents until you were at least 16 years old?
18. How many boys did your mother give birth to before she gave birth to you?
19. Have you ever been married?
20. What is the longest time you have lived with a sexual partner (for example, a wife, girlfriend, or boyfriend)?
21. At the time of your most recent offense were you married or living in a sexual relationship?
22. Do you have a child (or children) that you raised or helped to raise?
23. Not counting the offenses that you're in prison for now, how many violent offenses (for example, assault, robbery, making threats) have you been convicted of?
24. Not counting the offenses that you're in prison for now, how many non-violent non-sex offenses (for example, theft, break and enter, drug possession) have you been convicted of?
25. How many times have you been sent back to prison because you violated the conditions of your bail, probation, parole, or statutory release?
26. Who are you most sexually attracted to?
27. How many women have you had consenting sexual contact with?
28. How many men have you had consenting sexual contact with?
29. How old were you when you first had consenting sexual contact with a female?
30. How old were you when you first had consenting sexual contact with a male?
31. Do you get sexually turned on by hurting or humiliating other people?
- 32. Have you ever committed a sex offense?**
 - a. If "yes" response to question above, then the following set of questions is presented:**

- i. How many of your sex offense victims were not related to you (not family)?
- ii. How many of your sex offense victims had you NEVER met and talked with at least 24 hours before the offense?
- iii. How many women aged 16 or older have you forced to have sexual contact with you when they didn't want to by using physical force or threats?
- iv. How many men aged 16 or older have you forced to have sexual contact with you when they didn't want to by using physical force or threats?

33. Have you ever had sexual contact with someone under the age of 16 when you were at least 5 years older than that person?

a. If “yes” response to question above, then the following set of questions is presented:

- i. How many girls under the age of 16 have you had sexual contact with when you were at least 5 years older than them?
- ii. How many girls under the age of 14 have you had sexual contact with when you were at least 5 years older than them?
- iii. How many girls under the age of 12 have you had sexual contact with when you were at least 5 years older than them?
- iv. How many boys under the age of 16 have you had sexual contact with when you were at least 5 years older than them?
- v. How many boys under the age of 14 have you had sexual contact with when you were at least 5 years older than them?
- vi. How many boys under the age of 12 have you had sexual contact with when you were at least 5 years older than them?
- vii. Have you ever looked at child pornography?
- viii. Have you ever done a sex offense that didn't involve contact, like flashing someone or child pornography?

34. Have you ever been charged or convicted for a sex offense?

a. If “yes” response to question above, then the following set of questions is presented:

- i. Not counting the offenses that you're in prison for now, how many sex offenses have you been convicted of?
- ii. Have you ever been charged with a sex offense against someone aged 16 or older?
- iii. Have you ever been charged with a sex offense against someone between the ages of 12 and 15?
- iv. Have you ever been charged with a sex offense against someone under the age of 12?
- v. Have you ever been charged with downloading, producing, or trafficking child pornography?

35. If you are currently in prison for sex offenses, are you guilty of these sex offenses? In other words, did you actually do it?

36. Have you taken any treatment programs for sex offending since your most recent offense?

37. What is the likelihood that you would rape someone if you could be assured of not being caught and punished?
38. What is the likelihood that you would have sexual contact with a child under 12 years old if you could be assured of not being caught and punished?

Appendix F.
Comprehensive Inventory of Denial—Sex Offender version (CID-SO)

Each item is scored on a 3-point scale ranging from 0 through to 2. The measure is accompanied by a manual that has a description for each item, with which the rater will consult.

1. Denies Current Specific Offense
2. Denies Sex Offending History
3. Lacks Feelings of Guilt and Embarrassment
4. Focuses on Acceptable or Nonsexual Behaviours
5. Minimizes of the Seriousness of the Offense
6. Minimizes of Harm to Victim
7. Blames the Victim
8. Qualifies/Justifies with Internal Attribution
9. Qualifies/Justifies with External Attribution
10. Denies Possibility of Future Behaviour
11. Denies Any Intent, Planning, or Premeditation
12. Denies Deviant Arousal and Fantasies
13. Denies Sexual Arousal During Current Offense
14. Shows Defensiveness or Excessive Hostility
15. Possibility of Change Through Treatment
16. Expresses No Desire or Need for Help
17. Denies Memory of Offense
18. Denies Deserving

KEY TO CID-SO SUBSCALES

Denying Sexually Deviant Behaviors and Arousal (Cluster A)

1, 2, 4, 12, 13

Denying Need for Treatment/Management of Sexual Offending (Cluster B)

10, 14, 15, 16

Denying Responsibility (Cluster C)

7, 8, 9, 11, 17

Minimizing Harm (Cluster D)

3, 5, 6, 18

**Appendix G
Self-Report Psychopathy Scale (SRP III)**

Please rate the degree to which you agree with the following statements about you. You can be honest because your name will be detached from the answers as soon as they are submitted.

1	2	3	4	5
Disagree
Strongly	Disagree	Neutral	Agree	Agree
Strongly
-
1. I'm a rebellious person.
 2. I'm more tough-minded than other people.
 3. I think I could "beat" a lie detector.
 4. I have taken illegal drugs (e.g., marijuana, ecstasy).
 5. I have never been involved in delinquent gang activity.
 6. I have never stolen a truck, car or motorcycle.
 7. Most people are wimps.
 8. I purposely flatter people to get them on my side.
 9. I've often done something dangerous just for the thrill of it.
 10. I have tricked someone into giving me money.
 11. It tortures me to see an injured animal.
 12. I have assaulted a law enforcement official or social worker.
 13. I have pretended to be someone else in order to get something.
 14. I always plan out my weekly activities.
 15. I like to see fist-fights.
 16. I'm not tricky or sly.
 17. I'd be good at a dangerous job because I make fast decisions.
 18. I have never tried to force someone to have sex.
 19. My friends would say that I am a warm person.
 20. I would get a kick out of 'scamming' someone.
 21. I have never attacked someone with the idea of injuring them.
 22. I never miss appointments.
 23. I avoid horror movies.
 24. I trust other people to be honest.
 25. I hate high speed driving.
 26. I feel so sorry when I see a homeless person.
 27. It's fun to see how far you can push people before they get upset.
 28. I enjoy doing wild things.
 29. I have broken into a building or vehicle in order to steal something or vandalize.
 30. I don't bother to keep in touch with my family any more.
 31. I find it difficult to manipulate people.
 32. I rarely follow the rules.
 33. I never cry at movies.
 34. I have never been arrested.
 35. You should take advantage of other people before they do it to you.

36. I don't enjoy gambling for real money.
37. People sometimes say that I'm cold-hearted.
38. People can usually tell if I am lying.
39. I like to have sex with people I barely know.
40. I love violent sports and movies.
41. Sometimes you have to pretend you like people to get something out of them.
42. I am an impulsive person.
43. I have taken hard drugs (e.g., heroin, cocaine).
44. I'm a soft-hearted person.
45. I can talk people into anything.
46. I never shoplifted from a store.
47. I don't enjoy taking risks.
48. People are too sensitive when I tell them the truth about themselves.
49. I was convicted of a serious crime.
50. Most people tell lies everyday.
51. I keep getting in trouble for the same things over and over.
52. Every now and then I carry a weapon (knife or gun) for protection.
53. People cry way too much at funerals.
54. You can get what you want by telling people what they want to hear.
55. I easily get bored.
56. I never feel guilty over hurting others.
57. I have threatened people into giving me money, clothes, or makeup.
58. A lot of people are "suckers" and can easily be fooled.
59. I admit that I often "mouth off" without thinking.
60. I sometimes dump friends that I don't need any more.
61. I would never step on others to get what I want.
62. I have close friends who served time in prison.
63. I purposely tried to hit someone with the vehicle I was driving.
64. I have violated my parole from prison.

KEY TO SRP-III.12 SUBSCALES

Interpersonal Manipulation (IPM)

3, 8, 13, 16R, 20, 24R, 27, 31R, 35, 38R, 41, 45, 50, 54, 58, 61R

Callous Affect (CA)

2, 7, 11R, 15, 19R, 23R, 26R, 30, 33, 37, 40, 44R, 48, 53, 56, 60

Erratic Life Style (ELS)

1, 4, 9, 14R, 17, 22R, 25R, 28, 32, 36R, 39, 42, 47R, 51, 55, 59

Criminal Tendencies (CT)

5R, 6R, 10, 12, 18R, 21R, 29, 34R, 43, 46R, 49, 52, 57, 62, 63, 64

SCORING

Reverse the scoring on the items marked 'R' above (1=5)(2=4)(3=3)(4=2)(5=1).

Sum the 16 items in each subscale to get the four scores.

The total SRP-III score is simply the sum of the four subscales.

CITATION

The instrument should be cited as follows: Paulhus, D.L., Neumann, C.F., & Hare, R.D. (in press). Manual for the *Self-Report Psychopathy scale*. Toronto: Multi-Health Systems.

NORMS for SRP

	<i>Males</i>		<i>Females</i>	
	Mean	S.D.	Mean	S.D.
Interpersonal Manipulation (IPM)	47.2	9.5	41.0	8.9
Callous Affect (CA)	44.5	7.2	34.3	8.0
Erratic Life Style (ELS)	46.5	9.0	41.4	8.2
Criminal Tendencies (CT)	26.9	8.9	22.8	8.3
Overall score	165.2	27.4	139.6	25.4
Item mean	2.58	.43	2.10	.40

Note. The range of possible values for the subscales is 16 to 80 and, for the total score, 64 to 320. The norm values are based on a sample of 194 undergraduates at the University of British Columbia.

Alpha reliabilities from this sample were:

IPM (.81) CA (.79) ELS(.74) CT (.82)

Overall SRP (.81).

Appendix H.
Screening Scale for Pedophilic Interests Version II (SSPI-II)

Screening Scale for Pedophilic Interests (SSPI; Seto & Lalumière, 2001) (for sex offender sample only)

If an available SSPI form is already available in the file, use the existing ratings. If it is not available in the offender file, score the following items using scoring criteria as noted.

1. Any Male victims
0 = No
1 = Yes
2. Multiple victims
0 = No
1 = Yes
3. Any young victims (< age 12)
0 = No
1 = Yes
4. Any extrafamilial victims
0 = No
1 = Yes
5. Any admitted or criminal charge of a child pornography offense (possession, distribution, or production of child pornography).
0 = No
1 = Yes

Appendix I.
Semantic Differential Items for Attitudes towards Sex Offenders

COMPUTING ATTITUDES TOWARDS SEX OFFENDERS SCORE:
 (average of ratings of sex offenders)

Sex offenders are:

Negative			Neutral			Positive
-3	-2	-1	0	1	2	3
Bad			Neutral			Good
-3	-2	-1	0	1	2	3
Unpleasant			Neutral			Pleasant
-3	-2	-1	0	1	2	3
Unlikeable			Neutral			Likeable
-3	-2	-1	0	1	2	3
Unloveable			Neutral			Loveable
-3	-2	-1	0	1	2	3

Appendix J.
Semantic Differential Items for Identification with Sex Offenders

COMPUTING IDENTIFICATION WITH SEX OFFENDERS SCORE:
 (average of ratings of self)

I am a:

Sex offender			Neutral			Not a sex offender	
-3	-2	-1	0	1	2	3	
Rapist			Neutral			Not a rapist	
-3	-2	-1	0	1	2	3	
Child molester			Neutral			Not a child molester	
-3	-2	-1	0	1	2	3	

Appendix K.
Semantic Differential Items for Explicit Self-Esteem

COMPUTING SELF-ESTEEM SCORE:
 (average of ratings of self)

I am:

Negative			Neutral			Positive
-3	-2	-1	0	1	2	3
Bad			Neutral			Good
-3	-2	-1	0	1	2	3
Unpleasant			Neutral			Pleasant
-3	-2	-1	0	1	2	3
Unlikeable			Neutral			Likeable
-3	-2	-1	0	1	2	3
Unloveable			Neutral			Loveable
-3	-2	-1	0	1	2	3

Appendix L

Rosenberg Self-Esteem Scale (RSES)

Appendix L. Rosenberg Self-Esteem Scale (RSES)

Please respond to each of the following statements by circling a rating on each scale.

1. I feel that I'm a person of worth, at least on an equal basis with others.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

2. I feel that I have a number of good qualities.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

3. All in all, I am inclined to feel that I am a failure.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

4. I am able to do things as well as most people.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

5. I feel I do not have much to be proud of.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

6. I take a positive attitude towards myself.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

7. On the whole, I am satisfied with myself.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

8. I wish I could have more respect for myself.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

9. I certainly feel useless at times.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

10. At times I think I am no good at all.

1	2	3	4	5	6	7	8	9
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neutral	slightly agree	moderately agree	strongly agree	very strongly agree

Appendix M.**Short Self-Esteem Scale (SSES)**

Read each question below and circle the response that best describes yourself.

1. Do you often wish you were someone else?*	yes	no
2. Do you like the sort of person you are?	yes	no
3. Do you often feel ashamed of yourself?*	yes	no
4. Do you understand yourself?	yes	no
5. Do you think you can make a success of your life?	yes	no
6. Are things all mixed up in your life?*	yes	no
7. Are you pretty happy with the way you are?	yes	no
8. Do you have a low opinion of yourself?*	yes	no

Measure: Thornton's Short Self-Esteem Scale (SSES)

SSES Key: Items are scored yes = 1 and no = 0. Asterisked items are reverse scored.

Source: Webster, S. D., Mann, R. E., Thornton, D., & Wakeling, H. C. (2007). Further validation of the short self-esteem scale with sexual offenders. *Legal and Criminological Psychology*, 12, 207-216.

Appendix N. Description of the Implicit Association Test (IAT)

Implicit cognition refers to automatic associations that are not accessible through introspection (i.e., outside of conscious awareness; Greenwald & Banaji, 1995; but see Fazio & Olson, 2003, for a slightly different perspective). Explicit cognition, in contrast, is accessible through introspection and can be self-reported. Implicit cognition is typically assessed with response latency (or reaction time) measures, whereas explicit cognition is usually assessed with self-report measures (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). “The term *implicit* has come to be applied to measurement methods that avoid requiring introspective access, decrease the mental control available to produce the response, reduce the role of conscious intention, and reduce the role of self-reflective, deliberative processes” (Nosek, Greenwald, & Banaji, 2007, p. 267). Implicit and explicit cognition are correlated but distinct constructs (Cunningham, Preacher, & Banaji, 2001; Nosek & Smyth, 2007).

Self-esteem IAT. To assess implicit evaluation of self, a self-esteem IAT measure will be administered. The categories and stimulus words for this IAT are presented in Appendix A. This and the other IAT measures will involve the categorization of stimulus words into various categories. In the IAT, the strength of automatic associations in memory between a concept (e.g., self) and an attribute (e.g., positive) are inferred from the speed with which one sorts stimulus words into categories. Respondents must sort each word into one of four categories by pressing one of two keys on a computer keyboard. Thus, two categories are indicated by one key while the remaining two categories are indicated by the other key. Response speed is expected to depend on the extent to which the categories that share one key are associated in one’s memory. In the self-esteem IAT (shown in Figure 1), the task is to sort words into one of the following categories: *self*, *other*, *positive*, and *negative*. To make the categorization tasks more distinct, the self-other categories and stimulus words are presented in upper-case letters and the positive-negative categories and stimulus words are presented in lower-case letters. For someone who views self negatively, response speed should be quicker when *SELF* and *negative* share the same response key (as in the first screen in Figure 1) than when *SELF* and *positive* share the same response key (as in the second screen in Figure 1). Conversely, for someone who views self positively, the reverse would be expected.

Figure 1. Example of trials in the self-esteem Implicit Association Test. *SELF*: ME, MY, MINE, MYSELF. *Positive*: Vacation, good, smile, sunshine, paradise, freedom. *OTHER*: IT, THEY, THEM, THEIR. *Negative*: Bad, poison, sickness, vomit, cancer, evil.

Sex offender identity IAT. The sex offender identity IAT measure assesses the extent to which one implicitly views oneself as a sex offender. It is similar to the self-esteem IAT measure, except that the *positive* versus *negative* categories are replaced with *sex offender* versus *non-sex offender*. Sample trials from this IAT are shown in Figure 2. Faster responses on trials in which *SELF* and *sex offender* share the same response key than when *SELF* and *non-sex offender* share the same response key would reflect identifying more strongly with sex offenders than non-sex offenders.

Figure 2. Example of trials in the sex offender identity *Implicit Association Test*. *SELF*: ME, MY, MINE, MYSELF. *Sex offender*: rapist, rape, child molester, molest, sex offender. *OTHER*: IT, THEY, THEM, THEIR. *Non-sex offender*: burglar, robber, theft, fraud, murder

Attitude towards sex offenders IAT. The attitude towards sex offender IAT measure is similar to the self-esteem IAT measure, except that the *self* versus *other* categories are replaced with *sex offender* versus *non-sex offender*. Sample trials from this IAT are shown in Figure 3. Faster responses on trials in which *SEX OFFENDER* and *positive* share the same response key than when *SEX OFFENDER* and *negative* share the same response key would reflect a more positive evaluation of sex offenders than non-sex offenders.

Figure 3. Example of trials in the attitude towards sex offenders *Implicit Association Test*. *SEX OFFENDER*: RAPIST, RAPE, CHILD MOLESTER, MOLEST, SEX OFFENDER. *NON-SEX OFFENDER*: BURGLAR, ROBBER, THEFT, FRAUD, MURDER. *Positive*: Vacation, good, smile, sunshine, paradise, freedom. *Negative*: Bad, poison, sickness, vomit, cancer, evil.

Appendix O.
Pearson's r Correlation Tables

Pearson's Correlations Between the SRP-III and the CID-SO

CID-SO Clusters	SRP-III				
	Callous Affect	Interpersonal Manipulation	Criminal Tendencies	Erratic Lifestyle	Total SRP-III
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.08	-.26	-.23	-.24	-.27
Cluster B: Denying Need for Treatment or Management of sexual Offending	.14	.04	-.06	-.08	.004
Cluster C: Denying Responsibility	.06	-.06	-.01	-.07	-.02
Cluster D: Minimizing Harm	.08	.02	-.18	-.21	-.11
CID-SO Total	.056	-.076	-.143	-.178	-.117
<i>M</i>	36.17	35.38	39.48	45.52	156.55
<i>(SD)</i>	(7.76)	(7.41)	(10.63)	(7.48)	(25.38)

Note: All values non-significant at $p > .05$. SRP-III = Self-Report Psychopathy Scale III; CID-SO = Comprehensive Inventory of Denial – Sex Offender Version.

Pearson's Correlations Between the SSPI-2 and the CID-SO

CID-SO Clusters	SSPI-2
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.12
Cluster B: Denying Need for Treatment or Management of sexual Offending	-.06
Cluster C: Denying Responsibility	-.23
Cluster D: Minimizing Harm	.06
CID-SO Total	-.1
<i>M (SD)</i>	3.03 (1.30)

Note: All values non-significant at $p > .05$.

Pearson's Correlations Between Explicit and Implicit Measures of Identification as a Sexual Offender and the CID-SO

CID-SO Clusters	Identification as Sexual Offender	
	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.43*	-.19
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.38*	.03
Cluster C: Denying Responsibility	.004	.08
Cluster D: Minimizing Harm	-.31	-.04
CID-SO Total	-.32	-.04
<i>M (SD)</i>	5.71 (1.2)	.61 (.55)

* $p < .05$.

Pearson's Correlations Between Explicit and Implicit Measures of Self-Esteem and the CID-SO

CID-SO Clusters	Explicit Self-Esteem			Implicit Self-Esteem
	RSES	SSES	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.13	.13	-.07	-.01
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.14	.01	-.21	.16
Cluster C: Denying Responsibility	-.03	.09	-.01	.15
Cluster D: Minimizing Harm	-.18	.09	-.20	.05
CID-SO Total	-.14	.03	-.14	.10
<i>M (SD)</i>	59.69 (14.9)	4.76 (2.28)	5.61 (1.19)	.72 (.45)

Note: All values non-significant at $p > .05$. RSES = Rosenberg Self-Esteem Scale; SSES = Short Self-Esteem Scale.

Pearson's Correlations Between Explicit and Implicit Measures of Attitudes towards Sexual Offenders and the CID-SO

CID-SO Clusters	Attitudes towards Sexual Offenders	
	Semantic Differential	Implicit Association Test
Cluster A: Denying Sexually Deviant Behaviors and Arousal	-.08	-.09
Cluster B: Denying Need for Treatment or Management of Sexual Offending	-.06	-.01
Cluster C: Denying Responsibility	-.06	.19
Cluster D: Minimizing Harm	-.12	.10
CID-SO Total	-.09	.06
<i>M (SD)</i>	3.14 (1.25)	.54 (.42)

Note: All values non-significant at $p > .05$.