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Differences in Offending Patterns between Adolescent Sex Offenders High or Low in Callous and Unemotional Traits

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Differences in Offending Patterns between Adolescent Sex Offenders High or Low in
Callous and Unemotional Traits

A Thesis

Submitted to the Graduate Faculty of the
University of New Orleans
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By

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Table of Contents

List of Tables

Abstract

Adolescents commit nearly one-fifth of the sex crimes each year. Among those offenders

exists a group of adolescent sex offenders with callous and unemotional (CU) traits who

seem to show a more severe pattern of sexual offending. The current study attempts to

test the importance of these traits by comparing adolescent sex offenders high or low on

CU traits based on victim and offense characteristics, and offending history. A sample of

150 detained adolescents with a current sexual offense conviction were assessed through

self-report, clinical interview, and file review. Results indicated that after controlling for

a history of antisocial behaviors, the high CU group was more likely to have a greater

number of victims, use more violence with victims, and engage in more offense planning

than the low CU group. The high CU group was also more likely to offend against both

strangers and family.

Introduction

According to the FBI's National Incident-Based Reporting System, adolescents commit nearly one fifth of the sex crimes each year (Puzzanchera, Adams, Snyder, & Kang, 2007). Two critical tasks regarding public safety and adolescent sexual offenders is 1) determining the level of risk to the public posed by any given individual in order to choose the optimal type of placement and 2) to determine when it is appropriate to release individuals back into the community. In order to better inform the juvenile justice system, researchers have conducted numerous studies on the etiology of sexual offending and the typology of adolescent sex offenders (Barbaree & Marshall, 2006 ; Hunter, Figueredo, & Malamuth, 2003; Prentky & Knight, 1991). However, few have focused on the type of crimes committed by the various offender subtypes and how those crimes are perpetrated.

Risk Factors for Sexual Offending

In adult samples, a number of social and biological developmental precursors may increase one's propensity to commit sexual offenses. A salient and well studied risk factor is the experience of sexual abuse as a child (McCormack, Rokous, Hazelwood & Burgess, 1992; Pierce & Pierce, 1987). While most children who are sexually abused do not go on to sexually offend, the number of those who do is significant and large enough to merit attention. Rates of adult sexual offenders who report being abused as a child range from 35% (Awad & Saunders, 1991; Johnson, 1998) to 75% (Robertson, 1990; Worling, 1995). Friedrich and Luecke (1988) theorized that victims of sex abuse recapitulate their own victimization by sexually abusing others (see also Barbaree, Marshall, & Hudson,1993). Numerous other negative childhood experiences have been

1

associated with adult sexual offending such as family instability, poor parental involvement and low income (Briggs & Hawkins, 1996; Gray et al., 1997). Such inadequate socialization experiences may impair an adult's ability to understand and control thoughts, emotions, and behaviors (self regulate) (Knight, Sims-Knight, 2003; Stinson, Becker & Sales, 2008). In support of this possibility, Stinson and colleagues (2008) found that poor self-regulatory skills were strongly related to sexual offending and antisocial behaviors in their study of civilly committed adult sex offenders.

Several brain abnormalities have been related to sexual offending in adults. Abnormalities in the frontal lobe are associated with poor impulse control and elevated levels of aggression, both of which are associated with higher levels of deviant sexual behaviors (Raine & Buchsbaum, 1996). Damage to, or irregularities in, the right temporal lobe may lead to a disturbance in personality, affective behavior, and altered sexual behavior (Gorno-Tempini, Rankin, Woolley, Rosen, Howard, Phengrasamy, & Miller, 2004). Sex offenders with abnormalities in this region display higher rates of sexually sadistic and violent behaviors (Aigner, Eher, Fruewald, Forttier, Gutierrez-Lobos, & Dwyer, 2000; Mendez, Chow, Ringman, Twitchell, & Hinkin, 2000).

Adult Typologies of Sex Offenders

Thus, there is a wide-range of risk factors that can place a person at increased risk for sexual offending behavior. In addition, research has generally suggested that there may be subtypes of sexual offending that differ in the expression of sexually aggressive behavior. Classification of adult sexual offenders plays an important role in the sentencing process and may provide information to guide the sentencing and releasing of offenders into the community (Knight & Prentky, 1993). Because sex offenders are

largely a heterogeneous group, several subtypes have been identified to differentiate within these individuals. The general trend is to first classify offenders into subtypes based on victim age: prepubescent children (child molesters) versus postpubescent adolescents or adults (rapists) (Barbaree, 2006; Knight, Prentky, Sims-Knight, & Straus, 1989).

In general, child molesters show greater deficits in psychosocial functioning, interpersonal relationships, difficulty relating to peers, and higher rates of sexual recidivism than rapists (Bogaerts, Vanheule, & Declercq, 2005; Olver & Wong, 2006). Also, classification within adults who target children includes variables such as degree of pedophilic interest, amount of sexual contact with victims, victim type (Barbaree, 2006) incestuous or extrafamilial offenses (Hunter et. al, 2000), the degree of violence used (Becker & Hunter, 1994), and the motivation and risk for reoffending (Mann & Clive, 2007; Prentky & Knight, 1991).

In contrast, adult offenders who sexually assault their peers (rapists) are differentiated based on number of offenses, the degree of aggression used in the offense, and the existence of antisocial behaviors (for a review Robertiello & Terry, 2007). Based on these characteristics, several typologies of persons who sexually assault peers have been proposed. For example, many typologies distinguish between compensatory and sadistic offenders, both of which have some degree of sexual fantasy about the victim during the crime (Prentky & Knight, 1991). However, compensatory offenders typically score in the normal range on social competence measures, yet have not achieved adequate sexual socialization, lack experience with intimate relationships in adolescence and adulthood, and use minimal force to complete the crime (Knight &Prentky, 1993).

Alternatively, sadistic offenders are highly impulsive, and may become sexually aroused and achieve sexual gratification by hurting or humiliating the victim (Barbaree, Seto, Serin, Amos, & Preston, 1994).

Another distinction often included in many sex-offending typologies is between vindictive and pervasively angry offenders, both of which tend not to have sexual fantasies about their victims during the sexual offense. Vindictive types exclusively target women and desire to have power over and may cause severe injury to their victims (Barbaree et al., 1994). In contrast, pervasively angry offenders tend to be impulsive and violent (Knight & Prentky, 1990). These two groups are easily provoked by anger and generally display reactive aggression, as opposed to instrumental aggression (Joireman, Anderson, & Strathman, 2003). Because the motivation for the offense is strictly violent and not sexual (Dean & Malamuth, 1997), vindictive and pervasively angry types are distinct from the sadistic type, which is motivated by a combination of sex and violence (Greenall & West, 2007).

A final subgroup included in many typologies is the opportunistic offender. This subgroup is highly impulsive and scores highest on measures of callous and unemotional traits (Knight & Sims-Knigh, 2003). This group does not sexually fantasize about the victim and the act is strictly completed out of sexual gratification. The sexual assault is usually committed during another offense (Barbaree et al., 1994). These individuals are often repeat offenders who commit various types of crimes and attack multiple types of victims (Porter, Fairweather, Drugge, Herve´, Birt, & Boer, 2001). Opportunistic offenders are described as instrumentally aggressive (i.e. committing crimes for personal gain), predatory and lacking emotional depth (Porter et al., 2001; Vess, Murphy, &

4

Arkowitz, 2004). This subgroup is of particular interest because they pose a greater level of dangerousness to the public (Vess, Murphy, & Arkowitz, 2004).

In summary, several biological and environmental factors can place an adult at risk for sexual offending. Based on typological research, adult sex offenders can be divided into different groups based on victim age and gender. Among those offenders whose victims are not children, several different subgroups emerge based on the characteristics about the crime, such as degree violence used with victims, whether or not the perpetrator fantasized about the victim, and whether the perpetrator had impulsive tendencies. Thus, adult sex offenders can be classified by a number of ways by researchers.

In recent years, research on sex offending has expanded to include adolescents, partly due to a growing necessity to focus on the developmental pathways and risk factors of sexual offending, and also to improve therapeutic interventions (Zimring, 2004). In their review, Letourneau and Miner (2004) acknowledged that prior to the 1980's, the scientific community regarded juvenile sex offending as an exaggeration of the sexual socialization process (e.g. sexual offending as an experimental phase in adolescence), requiring no intervention. The public attitude has changed in recent years such that adolescent sex offenders are often treated comparably to adult offenders in terms of sentencing (Friedrich, 2000). However, research indicates that adolescent sex offenders are unique from adult sex offenders in a number of ways.

Adolescent Typologies of Sex Offenders

Adolescent sex offenders are distinct from adult sex offenders based on a number of factors. The first, and most important, is that adolescent sex offenders have more in common with other adolescent delinquents than with adult sex offenders (Zimring 2004). Evidence suggests that *both* sex offending and non-sex offending adolescents have similar rates of academic problems (Awad & Saunders, 1989; Jacobs, Kennedy, & Meyer, 1997), have family relationships that are characterized by low warmth and parental uninvolvment (Ford & Linney, 1995), and are more likely to recidivate non-sexually (Caldwell, 2002; Zimring 2004). In a meta-analytic study of 25 different samples, sexually offending youth were 6 times as likely to recidivate non-sexually than sexually (Caldwell, 2002); thus, sex offending is one of the many criminal behaviors adolescent offenders engage in.

Based on rates of sexual recidivism, it appears that adolescents are far less likely to be career sex offenders than adult sex offenders (Caldwell, 2007; Hanson & Bussiere, 1998). In a meta analytic review of adolescent sexual reoffense rates, Caldwell (2007) describes rates of new sex offense charges ranging from 1.8% to 12.2%, and rates of new sex offense reconviction rates ranging from 1.7% to 19.6%; whereas rates of general criminal recidivism ranged from 2.8% to 62.9% for new charges, and 17.1% to 90% for reconvictions. Research also suggests that having deviant sexual arousal (using penile plethysmography) is a good predictor of adult sexual recidivism, in addition to being a motivation for sexual offending against children (Hanson & Bussiere, 1998). In contrast, research has not been able to differentiate adolescent sex offenders from other adolescent non-sexual offenders based on deviant sexual interest (Daleiden, Kaufman, Hilliker &

O'Neil, 1998).   Thus, sex offending in adolescents seems to be just one of many types of antisocial behavior and is not driven by deviant sexual arousal patterns, whereas adult sex offenders may show more signs of deviant sexual arousal patterns which aid in the maintenance of deviant sexual behaviors (see Miranda & Corcoran, 2000 for a review).

Despite these differences with adult sex offenders, there are some similarities between adult and adolescent sex offenders, including the importance of distinguishing between those who predominantly offend against postpubescent peers and those who predominantly offend against prepubescent children based on several cognitive and behavioral variables (Hunter, Figueredo, Malamuth, & Becker, 2003; Vermeiren, DeClippir, & Schwab-Stone, 2002). Hunter and colleagues (2000) found that, in comparison to adolescents who sexually assault children, those who assaulted peers were more likely to use moderate or greater force (27.0% for peer offenders, 8.3% for child offenders), have female victims (93.7% for peer offenders, 53.2% for child offenders), have victims that were strangers (29.7% for peer offenders, 11.3% for child offenders), offend during another crime (23.8% for peer offenders, 4.8% for child offenders), and have more previous non-sexual offenses (23.4% for peer offenders, 14.5% for child offenders. Peer offenders also have greater externalizing problems than child offenders; whereas child offenders display more internalizing problems than peer offenders (Hendriks & Biljleveld, 2004). Adolescents that sexually assault prepubescent children are more likely to have deficits in social skills, experience isolation, have a more severe sexual abuse history (Biljleveld, 2004), and offend against a sibling (Hunter et al., 2000).

Other classification systems have been used for identifying specific groups of adolescent sex offenders. In order to predict future offending, researchers have classified

based on psychiatric diagnosis (Vermeiren, 2003), relationship to the victim (O'Brian, 1991), type of offense (Ford & Linney, 1995), and offending history (sexual only or sexual and non-sexual crimes) (Butler & Seto, 2002; Van Wijk, Loeber, Vermeiren, Doreleijers, & Bullens, 2005). Several personality variables, such as limited social skills, sense of inadequacy, and antisocial tendencies, have been used to classify different types of adolescent sex offenders (Oxnam & Vess, 2006; Richardson, Kelly, Graham, & Bhate, 2004; Smith, Monastersky, & Deisher, 1987; Worling, 2001).

Oxnam and Vess (2006) used cluster analysis to investigate subgroups of adolescent sex offenders in a community-based treatment sample (N= 25) using the Millon Adolescent Clinical Inventory (MACI; Millon, 1993). They identified three distinct typologies based on the expressed concerns and clinical syndromes scales of the MACI, including a self-critical/socially inadequate group (N = 7), a normal-range group (N = 7), and an antisocial/impulsive group (N = 11). The inadequate group was comprised of adolescents who had higher scores on self-devaluation, body disapproval, or bodily insecurities, introversion, and peer insecurity. The normal-range adolescents (N = 7), scored within normal limits on measures of psychopathology, were less likely to have family discord, and were less likely to have delinquent propensities. And the last group, antisocial/impulsive, had higher levels of social insensitivity, more impulsive propensities, and was more forceful and unruly. These results established a three-factor model that delineates three distinct personality subtypes, which are consistent with previous research (Worling, 2001). However the generalizability of the results of this study may be limited by the small sample size.

Adult Psychopathic Traits and Offending

Based on these characteristics, it appears that there are many similarities between the adult opportunist rapists and the adolescent antisocial/impulsive sexual offending group, with subgroups showing significant levels of impulsive and opportunistic behaviors. Importantly, this seems to be a particularly severe subgroup of sexual offenders in both adolescents and adults because they use more violence, have more victims, are often involved in other types of offending, and they show the highest risk for both sexual and non-sexual reoffending (Hunter et al., 2000; Prentky et al., 2000). These findings are consistent with the presence of psychopathic traits in the general population of adult offenders suggesting that these traits designate a particularly severe and aggressive subgroup.

The hallmark features of psychopathy include deficits in affective, interpersonal, and behavioral functioning (Cooke, Michie, & Hart, 2006; Frick , O'Brien, Wootton, & McBurnett, 1994). Cleckley (1976) describes individuals with psychopathy as being glib, callous, manipulative, narcissistic, and lacking remorse or guilt (see also Hare, 1996; Hare, 2003). They display a constellation of affective patterns that enable them to manipulate, deceive, and act cold-heartedly towards others (Cleckley, 1976). Cleckley (1976) also described individuals with psychopathy as being shallow, having labile emotions, and lacking deep and trusting relationships with others (see also Hare, 2003). Behaviorally, individuals with psychopathic traits are impulsive, irresponsible, and thrill seeking (Cooke & Michie, 2001; Harpur, Hare, & Hakstian, 1989).

A considerable amount of research has been conducted on adult offenders with psychopathic traits, and there is evidence to suggest that this group has different

offending patterns than other non-psychopathic offenders. Individuals who score high on measures of psychopathy have a more extensive criminal offense history (Forth & Kroner, 1995), offend against multiple types of victims, and are more opportunistic than offenders without these traits (Rice & Harris, 1997). These characteristics seem to place individuals high on psychopathy at a much higher risk for recidivism and having poorer outcomes in therapy than their non-psychopathic counterparts (Cornell et al., 1996; Hobson, Shine, & Roberts, 2000; Nicholls, Ogloff, & Grant, 2004; see also Salekin, Rogers, & Sewell, 1996 for a meta-analytic review). Recidivism rates (in a five year period) among prisoners with psychopathic traits were five times higher than for other prisoners (Hemphill, Hare & Wong, 1998).

Adult Psychopathic Traits and Sexual Offending

Taken together, this research suggests that adults with psychopathic traits are more inclined to commit different types of offenses, which include both sexual and non-sexual offenses. In a meta-analytic review of 61 adult sex offender studies, Hanson and Brussiere (1998) found that the sex offense recidivism rate was 13.4% (n = 23,393), and the recidivism rate of non-sexual violence was 12.2% (n = 7,155). Researchers have suggested that sexual violence is a prominent offending feature of psychopathy (Harris, Rice, Hilton, Lalumiere, Vernon, & Quincey, 2007; Karpman, 1951). In comparison to non-psychopathic rapists, rapists who show psychopathic traits engage in more severe, violent, and sadistic acts of sexual coercion (Greenall & West, 2007). In their study of civilly committed rapists, Vess and colleagues (2004) found that rapists with higher levels of psychopathy engaged in more predatory acts of violence with victims, offended more often, and used intimidation and harassment to prey upon victims.

The type of victim is also important for understanding the unique profile of sex offenders with psychopathic traits. For example, Porter and colleagues (2000) found that 38.9% of (in a sample of 95) sexual offenders high on psychopathy raped adult victims and 16.8% raped both adults and children, with the remaining offenders having only child victims (14.2% committed only intrafamilial molestation and 3.8% committed extrafamilial molestation). Conversely, sexual offenders with low psychopathic traits had a higher rate of offenses against only children (19.2 % committed extra familial molestation, 14.1% committed only intrafamilial, and 6.4% committed both extrafamilial and intrafamilial molestation). This finding supports previous research that individuals high on psychopathic traits attack a variety of victims, which may happen to include children. This research also supports previous findings that opportunistic type offenders, especially those with psychopathic traits, are more likely to engage in myriad criminal behaviors, including sexual offending. They are also more likely use more a predatory style of attack against sexual victims and do so with a callous disregard for victims, which can be both adults and children.

Callous-Unemotional Traits and Juvenile Antisocial Behavior

While there is a large body of research that has focused on the offending patterns of adults with psychopathic traits, there is a smaller but growing body of research to suggest that psychopathic traits appear much earlier in life. More importantly, there is evidence that antisocial youth who display callous-unemotional (CU) traits show similar characteristics to adults with psychopathic traits. CU traits are characterized by a lack of guilt, lack of empathy, a callous-use of others, and a lack of emotionality (Frick, Boden, & Barry, 2000; Kimonis et al., 2008). Examples of these traits are provided in Table 1.

Research has demonstrated that CU traits are relatively stable across development (Frick, Kimonis, Dandreaux, & Farell, 2003; Munoz & Frick, 2007). Research on community samples of children with CU traits reveals high stability in childhood (Frick et, al., 2003; Obradovic, Pardini, Long, & Loeber, 2007) and from adolescence to adulthood (Blonigen, Hicks, Kruger, Patrick, & Iacono, 2006). Importantly, in antisocial and delinquent youth, CU traits seems to designate a particularly severe, aggressive, and stable pattern of antisocial behavior.

Specifically, antisocial youth with CU traits are more violent, aggressive, and engage in more criminal behaviors than those without these traits (Loeber, Burke, & Lahey, 2002; Forth & Mailloux, 2000; Ridenour, Marchant, & Dean, 2001). The presence of CU traits also increases the risk for delinquency, violent offenses, and the rate of reoffending (Forth, Hart, & Hare, 1990; Kruh, Frick, & Clements, 2005). Furthermore, children with CU traits display more conduct problems and more severe conduct problems in comparison to other youth (Christian, Frick, Hill, Tyler, & Frazer, 1996; Enebrink, Andershed, & Langstrom, 2005).

Focusing only on offending patterns, adolescents with CU traits are similar to their adult psychopathic counterparts in a number of ways. Specifically, adolescents with CU traits typically commit premeditated violence for instrumental gain (Flight & Forth, 2007; Kruh et al., 2005; Loper, Hoffschmidt, & Ash, 2001). Such unprovoked instrumental violence closely mirrors the types of violence used by adults with psychopathic traits (see Woodworth & Porter, 2002 for a review). Also, adolescent offenders with CU traits display more severe forms of violence that result in more severe injury to their victims (Kosson, Cyterski, Steuerwald, Neumann, & Walker-Matthews,

2002; Kruh, Frick, & Clements, 2005; Murrie, Cornell, Kaplan, McConville, & Levy-Elkon, 2004).

Table 1
Dimensions of callous-unemotional traits

Uncaring

    I work hard on everything I do. (I)

    I always try my best. (I)

    I care about how well I do at school or work. (I)

    I do things to make others feel good. (I)

    I apologize ('say I am sorry') to persons I hurt. (I)

    I feel bad or guilty when I do something wrong. (I)

    I easily admit to being wrong. (I)

    I try not to hurt others' feelings. (I)

Callousness

    I do not care about doing things well.

    I do not like to put the time into doing things well.

    I do not feel remorseful when I do something wrong.

    I do not care about being on time.

    I do not care if I get into trouble.

    I seem very cold and uncaring to others.

    The feelings of others are unimportant to me.

    I do not care who I hurt to get what I want.

    I am concerned about the feelings of others. (I)

    I do not like to put the time into doing things well.

    What I think is right and wrong is different from what

    other people think.

Unemotional

    I do not show my emotions to others.

    I express my feelings openly. (I)

    I hide my feelings from others.

    It is easy for others to tell how I am feeling. (I)

    I am very expressive and emotional. (I)

(I) Designates items that are inversely coded.

Thus, the presence of CU traits appears to be important for designating a particularly severe group of adolescent offenders. In a recent study, Caldwell, Zeimke, and Vitacco (2008) examined the predictive utility of several risk assessment measures for adolescent sex offenders. They found that none of the risk assessment measures significantly predicted general or sexual recidivism, except for the Psychopathy Checklist: Youth Version (PCL:YV; Forth, Kosson, & Hare, 2003). This measure of psychopathy predicted felony sexual re-offenses, violent re-offenses and general re-offenses. Additionally, Caldwell and colleagues found that offenders with conduct disorder before the age of 10, those who had multiple types of offenses, and those with juvenile antisocial behavior were significantly more likely to have new violent offenses (sexual and non-sexual).

Langstrom, Grann, and Lindblad (2000) found five distinct clusters in their analysis of Swedish sex offenders (n = 56) who were court ordered to undergo forensic psychiatric investigation. Clusters one and four consisted of offenders who molested children using low levels of violence, and cluster two consisted of non-contact offending (exhibitionism). Cluster three consisted of contact offenses against an unknown female adolescent or adult with moderate to high levels of violence. The fifth cluster was identical to the third cluster with the exception that the victims were known to the offenders. The fifth cluster also had the highest percentage rates of psychopathy, as measured by the PCL-R, and was most likely to have an antisocial history, and use instrumental aggression during attacks. While this study shows preliminary evidence for differences in type and victim of sexual offense between adolescents with higher levels of

psychopathic traits and those lower levels of psychopathic traits, the number of participants in each cluster was low (numbers ranged from 3-17). As a result, these findings require replication.

Gretton and colleagues (2001) studied adolescent sex offenders in an outpatient treatment program and found different rates of previous offenses and recidivism between youth high and low in psychopathic traits, using the PCL:YV. Participants with high psychopathic traits had higher percentages of previous violent, non-violent, and sexual offenses than offenders with medium or low scores on psychopathic traits. The high psychopathic group also had higher percentages of escapes and breaches of probation and the highest percentages of general, sexual, and violent offenses in the follow-up period. Similar findings were reported by Langstrom and Grann (2000), who studied a sample of Swedish, adolescent sex offenders ordered for a forensic psychiatric evaluation. They found that the presence of psychopathic traits predicted previous offense convictions, early conduct problems, the use of weapons or threats during the sexual offense, and general recidivism. Thus, based on these few studies, it appears that psychopathic traits could designate a potentially important and severe subtype of sex offending adolescent.

Statement of Problem

In summary, adult and adolescent sex offenders are a heterogeneous population. Researchers have been successful in classifying sex offenders based on numerous variables, particularly victim preference. One particularly important subgroup of adult sex offenders are those with psychopathic traits, who seem to show elevated levels of violence and general recidivism. Although considerable research addresses offense types and related factors in adult populations, very little research is available on adolescent sex

offenders who exhibit psychopathic traits. The few studies of adolescent sex offenders do suggest that those with psychopathic traits are likely to be an important and distinct group with extensive histories of both sexual and non-sexual offending, with histories of violent and instrumental aggression, and with higher risk to recidivate violently and at faster rates. Unfortunately, these findings are based on only a few studies, and as a result, some replication of these findings is warranted. Lastly, studies have not examined whether the differences in the victims, amount of victims, and violence used with victims is related to the presence of psychopathic traits or whether this is due to the severity of offending history.

The current study will test whether there are differences in the type of offending (i.e., duration of sexual offense history, history of non-sexual offending, number of victims, age and sex of victims, whether the victims were known to the perpetrator, the presence of gratuitous or expressive aggression during offense, and degree of planning) between adolescent sex offenders with and without CU traits. CU traits are a core dimension of psychopathy and one that has shown to be most important designating a distinct group of antisocial individuals in child and adolescent samples (see Frick & White, 2008). These offense characteristics were chosen based on past research and because they are important to researchers as they add to the understanding of this type of sexual offender and their modus operandi. Recognizing core-offending features will increase knowledge of types of offenders, thus informing therapy and prevention. Lastly, studying the characteristics of the offense allows therapists to better understand the level of impairment exhibited by these offenders.

Hypotheses

Based on these considerations, the following hypotheses were made for this study:

1. Controlling for history of antisocial behavior, adolescent sex offenders high on CU traits were predicted to have had a greater duration of sexual offending (i.e., multiple sex offenses over a period of 6 months or longer) and to have a greater number of victims than offenders who score low on CU traits.

2. Controlling for their history of antisocial behavior, adolescent sex offenders high on CU traits were predicted to have a greater mix of victims that are both prepubescent (under 12-years old) and adolescent (12-years old and older) than other adolescent sex offenders. Adolescent sex offenders high on CU traits also were predicted to have more victims that are predominantly female, and more victims that are strangers or acquaintances (not family) than other adolescent offenders.

3. Controlling for their history of antisocial behavior, adolescent sex offenders high on CU traits were predicted to use more gratuitous violence/expressive aggression and to exhibit a higher degree of planning than other adolescent sex offenders. Gratuitous violence was defined based on the level of violence and amount suffering and injury caused to the victim. Degree of planning was based on whether or not the offense appeared to have been impulsive, opportunistic, sudden, and without any apparent forethought prior to the encounter.

Method

Participants

Participants were 150 detained adolescent boys with a current sexual offense. The participants were recruited from a long-term secure custody facility in southeastern

Louisiana. The sample demographics are described in Table 2. The participants ranged in age from 12 to 20 years (*M* = 15.89, *SD* = 1.53). The ethnic make-up of the sample was 49.1% African American, 46.6% Caucasian, and 4.3% of boys as "other". The mean intelligence score, as measured by Wechsler Abbreviated Scale of Intelligence, was 90.4 (*SD* = 11.27; WASI; Wechsler, 1999). Nearly 56% of the sample committed only one offense, and 44% of the sample had committed more than one offense (including both sexual and general offending). Among offenders, the most common sexual offense charge was sexual battery (32%), followed by aggravated rape (15.3%; see Table 3 for frequencies and percentages). The sample was recruited from October 1, 2003 through December 31, 2006.

Table 2

Sample Demographics, T-tests, and chi-squares of demographics and self-report of callous and unemotional traits

Variable	Low CU (n= 69)	High CU (n= 81)	χ^2/T (df)	Full Sample (n=150)
Demographics				
Ethnicity			.72(2)	
% African American	44%	50%		48%
% Caucasian	52%	46%		49%
% Other	3%	4%		3%
Mean Age (SD)	15.46(1.45)	15.09(1.52)	1.55(148)	15.26(1.50)
Mean WASI (SD)	91.78(11.35)	89.23(11.14)	1.27(127)	90.42(11.27)
Delinquency/Antisocial Behavior				
Violent Current Disposition	85%	86%	.84 (1)	85.9%
Mean History of Antisocial Behavior (SD)	1.25(.72)	.96(.77)	2.34(146)*	1.09

Note. * p < .05; CU = Callous and unemotional.

Table 3

Frequencies and percentages for current sexual offense charge

Disposition	Frequency	Percent
Aggravated Rape	23	15.3%
Sexual Battery	49	32.7%
Forcible Rape	18	12.0%
Simple Rape	16	10.7%
Aggravated Incest	12	8.0%
Sexual Oral Battery	10	6.7%
Indecent Behavior	13	8.7%
Obscenity	4	2.7%
Incest	1	0.7%

Procedures

The data were collected from the LSU Health Science Center Juvenile Justice

Program (LSUHSC-JJP). The LSUHSC-JJP administered a comprehensive intake

assessment protocol to all boys adjudicated for a sexual offense as part of their standard

intake. Trained professionals administered a systematic protocol at the Juvenile

Reception Diagnostic and Classification Center (JRDC) located at the Jetson Center for

Youth (JYC), where adjudicated adolescent boys are housed. The LSUHSC-JJP is

contracted to provide mental health assessment to all adjudicated youth in the state of

Louisiana. The JJP- Sex Offender Assessment (JJP-SOA) database was developed in

order to score tests administered during the juvenile sex offender comprehensive

assessment protocol. De-identified electronic records from the JJP-SOA were used for

the current study. Researchers obtained IRB approval from the LSUHSC-JJP to use

records in research.   Because of the use of archived, de-indentified official records,

informed consent for the use of the information in research was waived. Additionally,

IRB approval was obtained from the UNO IRB to utilize this de-identified data-base.

Based on the definition of minimal risk for prisoner research, the current study involved

no more than minimal risk to participants, and participation in this study had no effect on

their legal status.

Measures

Juvenile Sex Offender Assessment Protocol. Participant's history of sexual

offending was assessed using the J-SOAP-II (J-SOAP-II; Prentky & Righthand, 2003).

The J-SOAP-II contains a checklist of 28 factors that aid in the review both sexual and

non-sexual risk factors for adolescent sex offenders, and is divided into four scales:

Sexual Drive/Preoccupation, Impulsive Antisocial Behavior, Intervention, and

Community Stability. For this study, 4 items from scale one, Sexual

Drive/Preoccupation, and one item (item 13) from scale two, Impulsive/Antisocial

Behavior, was used. Scale one contains eight items: prior legally charged sex offenses,

number of sexual abuse victims, male child victims, duration of sex offense history,

degree of planning in sexual offense(s), sexualized aggression, sexual drive and

preoccupation, and sexual victimization history. Each item is scored 0-2. Zero denotes

the absence of a risk factor, a score of 1 denotes the risk factor is present at a moderate

level, and a score of 2 denotes the risk factor is clearly present. The scoring is done by a

clinician based on a combination of information from a clinical interview of the

adolescent, as well as a review of the adolescent's official criminal record

The J-SOAP-II is a revised version of the J-SOAP, which was developed in 1998

(Righthand, Prentky, Hecker, Carpenter, & Nangle, 2000). The original sample of sex

offenders on which the J-SOAP was developed consisted of 153 sex offenders in Maine, with an average age of 16-years old. The J-SOAP-II revised several items on Scale 1, including the addition of Number of Sexual Abuse Victims, Male Child Victim, Sexualized Aggression, and Sexual Abuse History, and the removal of High Degree of Sexualizing the Victim. In a more recent study, Scale 1 demonstrated significant prediction of sexual recidivism (based on a 10-12 year follow-up) among adolescent offenders (n = 54) (Hecker, Scoular, Righthand, & Nangle, 2002). The J-SOAP-II also demonstrated high concurrent validity with the Youth Level of Service/Case Management Inventory (LSI/CMI) (Righthand et al., 2000), a similar inventory measuring sexual and criminal offending. Table 3 describes the scoring of the J-SOAP-II items used in the current study.

Table 4

Table of J-SOAP-II items used in study

Number of sexual abuse victims		
Score of 0 = Only 1 known victim	Score of 1 = 2 known victims	Score of 2 = 3 or more known victims
Duration of sex offense history		
Score of 0= Only 1 known sexual offense and no other history of sexual aggression	Score of 1 = There are multiple sex offenses within a brief time period (6 months or less).	Score of 2 = There are multiple sex offenses that extend over a period greater than 6 months and involve 1 or more victims.
Degree of planning in sexual offenses		
Score of 0 = No planning. All known sexual offenses appear to have been impulsive, opportunistic, sudden, and without any apparent forethought prior to the encounter.	Score of 1 = Mild degree of planning. Some clear evidence that the individual thought about or fantasized about the sexual offense before the encounter.	Score of 2 = Moderate-Detailed planning. There must be a clear modus operandi. The offenses may appear "scripted," with a particular victim and crime location targeted.
Gratuitous violence		
Score of 0 = No gratuitous or expressive aggression. No evidence that the individual intentionally physically hurt the victim or demeaned or humiliated the victim.	Score of 1 = Mild amount of expressive aggression. As evidenced by swearing or cursing at the victim, threatening the victim, squeezing, slapping, pushing, or pinching the victim.	Score of 2 = Moderate-High amount of expressive aggression. As evidenced by punching, kicking, cutting, burning, or stabbing the victim; causing physical injuries that require medical attention.
History of antisocial behavior		
Score of 0 = None/Minimal (no more than a single incident). Antisocial behaviors include: (1) vandalism and destruction to property; (2) malicious mischief, disorderly conduct, vagrancy, habitual truancy; (3) fighting and physical violence; (4) owning or carrying a weapon (other than for sport and hunting); (5) theft, robbery, burglary; and (6) motor vehicle-related (reckless driving, operating to endanger, operating under the influence).	Score of 1 = Moderate (2 or 3 different non-sexual delinquent behaviors present. Moderate also may be scored if there is a single very serious episode or multiple incidents involving one type of behavior).	Score of 2 = Strong (4 or more non-sexual delinquent behaviors present or multiple incidents involving 2 or 3 types of behavior).

File Review. A collateral file review was conducted as part of the standard intake

process at the LSU-JJP, and was used as part of the current study. This information,

which was provided from the probation office where each youth was adjudicated,

includes previous legal charges, probation history, sexual offense report, and in some

cases a predisposition investigation report for the current sexual offense. The probation

office also provided information regarding the age, gender and relation of the victim for current sexual offense charges and for previous sexual and non-sexual offense charges. This information was used in the current study for evaluating victim relationship, age, and gender. The file review was also used by clinicians to score certain J-SOAP-II items, (see item 13, History of Antisocial Behavior, in Table 4). Using the current disposition information in from the file review, violent and non-violent disposition groups were formed. The violent disposition group included aggravated rape, forcible rape, simple rape, aggravated incest, and sexual oral battery. The non-violent disposition group included indecent behavior, obscenity, and incest. As seen in Table 2, 86% of the sample had at least one violent disposition.

Inventory of Callous-Unemotional Traits. Callous and unemotional traits were assessed using the Inventory of Callous and Unemotional Traits (ICU; Frick, 2003) as part of the offenders' standard screening. The ICU is a 24-item scale that was originally developed from items used on the CU self-report scale of the Antisocial Process Screening Device (APSD; Frick & Hare 2001). The APSD is a widely used scale to assess antisocial traits in youth. However the CU subscale of the APSD has displayed only moderate internal consistency in previous studies (e.g., Loney et al. 2003). The ICU uses 4 items from the APSD CU scale that loaded most highly on a CU factor from clinical and community samples (Frick, Bodin, & Barry, 2000). For each of these 4 core items, three similar positively and three similar negatively worded items were developed (i.e., 24 items). The ICU consists of three factors: callousness, uncaring, and unemotional, which are self-reported and answered on a 4-point Likert scale ranging from 0 (Not al all true) to 3 (Definitely true).

The ICU has demonstrated construct validity in two samples, a German sample (n = 1443) that consisted of 13-18 year old non-referred adolescents (Essau, Sasagawa, & Frick, 2006), and an American sample (n = 248) of juvenile offenders between the ages of 12 and 20 (Kimonis et al., 2007). The American sample demonstrated high internal consistency (α = .81) for the Total Scale. The construct validity of the total score for the ICU, from the American sample, demonstrated statistically significant correlations with various delinquent types, ranging from r = .16 to r = .44 (p < .05). In this sample, the total ICU score was negatively correlated with a self-report measure of empathy (r = -.51, p < .001).

In the German sample, the internal consistency for the entire scale was acceptable (α = .77), with the individual scales Callousness (α = .77) and Uncaring (α = .73) demonstrating good internal consistency, and moderate internal consistency for the Unemotional scale (α = .64). The callousness and uncaring scales of the ICU demonstrated good concurrent validity with a measure of externalizing behavior problems (r = .37, p < .001 and r = .29, p < .001) and with expected correlations with the Big Five personality traits, showing negative associations with Big Five dimensions such as agreeableness (r = −.57, p < .001) and conscientiousness (r = −.49, p < .001).

Results

Preliminary Analyses

A median split was used in order to create high (n = 81) and low (n = 69) CU groups. Results indicate that ethnicity, age and WASI score did not differ across the high and low CU groups. Having a violent current disposition also did not differ across

groups.   However, the low CU traits group had significantly greater histories of antisocial behavior, $t(146) = 2.34$, $p < .05$. These results are reported in Table 2.

Correlations among the various aspects of sexual offending variables are provided in Table 4. This table indicates that the dependent variables were moderately intercorrelated. That is, the age of the victim was significantly related to relation to the victim ($r = .408$, $p < .01$), the gender of victim ($r = .161$, $p < .05$), and number of victims ($r = .277$, $p < .01$).   Number of victims was correlated with the relation to victim ($r = .216$, $p < .01$), gender of victim ($r = .435$, $p < .01$), and sex offense history ($r = .589$, $p < .05$). The degree of planning was significantly related to number of victims ($r = .193$, $p < .05$), sex offense history ($r = .422$, $p < .01$), and use of gratuitous violence ($r = .239$, $p < .01$). And lastly, a history of antisocial behavior (see Table 4 for scoring) was significantly related to gratuitous violence ($r = .255$, $p < .01$).

Table 5

Correlations among covariate and sexual offending variables

	Relation to Victim	Age of Victim	Gender of Victim	# of Victims	Sex Offense History	Degree of Planning	Gratuitous Violence	History of Antisocial Behavior
Relation to Victim								
Age of Victim	.408**							
Gender of Victim	.089	.161*						
# of Victims	.216**	.277**	.435**					
Sex Offense History	.092	.116	.307*	.589**				
Degree of Planning	-.038	.054	.129	.193*	.422**			
Gratuitous Violence	-.004	.100	-.034	.077	.077	.239**		
History of Antisocial Behavior	.012	.091	.043	-.009	-.012	.028	.255**	

Note. ** p < .01, * p < .05

Test of Main Study Hypotheses

Hypothesis 1. Tests of hypothesis 1 are reported in Table 5. Differences across high and low CU traits groups based on number of victims and duration of sexual offense history were tested using a one-way analysis of covariance. Items 2 and 4 from the J-SOAP-II were used to test this hypothesis. Results indicate that, while controlling for history of antisocial behavior, there were significant differences between the high ($M =$ .68, $SD =$ .80) and low ($M =$ .40, $SD =$ .65) CU groups on the mean number of victims, F (1, 147) = 5.19, $p <$ .05. Thus, the high CU traits group had significantly more victims than the low CU traits group. There was no significant difference between CU groups for

duration of sex offense history, $F(1, 147) = 1.74$, $p = 1.89$, although the high CU traits

group did have a non-significantly higher mean number of previous sexual offenses ($M =$

.95, $SD = .87$) than the low CU traits group ($M = .77$, $SD = .81$).

Table 6

Comparison of number of victim, offense history, degree of planning, and sexualized aggression groups to CU groups

Variable	Low CU (n=69)	High CU (n=81)	CU Group Effect (df)	Eta²
Number of Victims	.40(.65)	.68(.80)	5.19(1,147)*	.034
Duration of Sexual Offense History	.77(.81)	.95(.87)	1.74(1,147)	.012
Degree of Planning	.44(.58)	.67(.69)	4.66(1,147)*	.031
Gratuitous Violence	.23(.53)	.41(.60)	3.98(1,147)*	.026

Note. *p <.05; CU = Callous and Unemotional. Effects are the between group effects from a one-way ANOVA, covarying history of antisocial behavior. Means reported are least squares means adjusted for the covariate.

Hypothesis 2. The results from hypothesis 2 are reported in Table 6. The first part

of hypothesis 2 predicted that adolescent sex offenders high on CU traits would have a

greater mix of victims that are both prepubescent (under 12) and adolescent (12 and

older) than adolescent sex offenders with low CU traits after controlling for level of

antisocial behavior. Victim age information was gathered from the file review, which

was based on the adolescent's current sex offense charge and any previous sexual

offenses. A multinomial regression was used to test whether CU group membership

predicted victim groups after controlling for the history of antisocial behavior. Based on

this test, there was not a significant group membership effect, $\chi^2(1, N = 150) = 2.70$, $p =$

2.60. Thus, no significant differences were found between high or low CU groups in odds

being placed in the group with both prepubescent and adolescent victims, in comparison

to the prepubescent (under 12) only group (odds ratio = 2.95) or adolescent (12 and older) only group (odds ratio = 2.94).

The second part of hypothesis 2 predicted that adolescents high on CU traits would have more victims that are predominantly female than the low CU traits group. Victim gender information was gathered from the file review, which was based on the adolescent's current sex offense charge and any previous sexual offenses. Three groups were formed based on whether victims were only female, only male, or both female and male. A multinomial regression was used to test the prediction of CU group membership while controlling for history of antisocial behavior. Not consistent with predictions, results indicated that there were no significant overall group membership effects, χ^2 (1, N = 150)= 2.70, p = .40.

The third part of hypothesis 2 predicted that adolescent sex offenders high on CU traits would have more victims that are strangers or acquaintances (not family) than adolescent offenders low on CU traits controlling for a history of antisocial behavior. Victim relationship information was gathered from the file review, which was based on the adolescent's current sex offense charge and any previous sexual offenses. To test this, a multinomial regression was used, and results indicated that, after controlling for the history of antisocial behavior, there was an overall significant effect for group membership, χ^2 (1, N = 150) = 6.29, p < .05. In comparison to the only stranger group, CU group predicted a greater likelihood of having victims that were both family members and strangers (odds ratio = 4.41).   Although the comparison between the family only and combined stranger- family group was in the same direction (odds ratio = 2.26), this did not reach significance.

Table 7

Comparison of victim age, gender, and relationship groups to CU groups

Variable	Low CU (*n*=69)	High CU (*n*=81)	Overall CU Group Effect χ^2 (df=2)	Odds ratio	Nagelkerke Pseudo R²
Victim Relationship					
Only Family	50%	67%		2.26	
Only Stranger	45%	29%		4.41*	
Both	4%	14%			
			6.29 *		.11
Victim Gender					
Male Only	29%	25%		2.19	
Female Only	62%	60%		1.91	
Both	9%	15%			
			1.18		.02
Victim Age					
Under 12	72%	70%		2.95	
12 and Over	23%	20%		2.94	
Both	4%	10%			
			2.70		.08

Note. * p < .05; the "both" group was the reference group victim relationship, gender, and age.

Hypothesis 3. Results from hypothesis 3 are reported in Table 5. Hypothesis 3 predicted that the high CU traits groups would use more gratuitous violence and have a greater degree of planning than the low CU traits group. Items 5 and 6 were used from the J-SOAP-II for this hypothesis. To test this hypothesis, a one-way analysis of covariance was used. Consistent with this hypothesis, the results indicate that, after controlling for history of antisocial behavior, the high CU group (*M* = .41, *SD* = .60) engaged in significantly more gratuitous violence than the low CU traits group (*M* = .23, *SD* = .53; *F* [1, 147] = 3.98, *p* < .05). The high CU traits group (*M* = .67, *SD* = .69) also showed a significantly higher degree of planning than the low CU traits group (*M* = .44, *SD* = .58; *F* [1, 147] = 4.66, *p* < .05) after controlling for their history of antisocial behavior

Discussion

This study examined the differences in victim and offense characteristics, as well as previous history of sexual and antisocial behaviors, between adolescent male sex offenders high or low in CU traits. Overall, adolescents with high CU traits engaged in more severe violence during sexual offenses and they had significantly more sexual offense victims than the low CU traits group, after controlling for history of antisocial behavior.   These results are consistent with previous research showing that, because of their opportunistic and predatory nature, adolescents high on CU traits are more likely to have more victims than those low on CU traits (Murrie et al., 2004). These results are also consistent with previous research, which suggests that adolescents with higher CU traits tend to use more violence and aggression with victims (Kosson et al., 2002). Lastly, previous research suggests that adolescents with CU traits tend to have a more chronic pattern of violent antisocial behaviors (Frick &Ellis, 1999) and they are more likely to use proactive aggression (Frick et al., 2003). Taken together these findings suggest that individuals with high CU traits are an important group to further study and for whom interventions to reduce their antisocial behavior is critically important.

Importantly, adolescents with CU traits did not have a longer duration of sexual offending than the low CU traits group. However, it bears noting that the high CU traits group had a higher mean (.95 versus .77) score for sexual offense history than the low CU traits group, even though this did not reach statistical significance.   It is also worth noting that the CU groups did not differ based on whether or not the current disposition was violent. In fact, adolescents with high CU traits had a less severe history of antisocial behaviors than those with low CU traits. This finding is not consistent with

30

previous research on adolescent sex offenders with high CU traits, which suggests that high CU groups have a more extensive history of antisocial behaviors (Langstrom, Gran & Linblad, 2000). This finding may be due to the fact that the LSUHSC-JJP assessment protocol was designed primarily to assess sexual offending, as opposed to general offending.

Contrary to hypothesis 2, there were no group differences between age and gender of victim. While previous literature suggests that sex offenders with higher CU traits are more likely to offend against post pubescent females (Langstrom, Gran & Linblad, 2000), the current study found no differences between high and low CU groups in relation to whether the victim was female only, male only or both, and whether victims were under 12 (prepubescent), 12 and over (post pubescent), or both. However, there was a significant difference between CU groups in relation to victims being both stranger and family versus only stranger. The high CU group was more likely to offend against both strangers and family members than the low CU group. This finding would again support previous research that these offenders are more opportunistic in their offending, and offend against multiple types of victims, which is consistent with previous research on both adolescent and adults with high CU traits (Gretton et al, 2001; Porter et al., 2001).

In support of the last hypothesis, there were differences between high and low CU groups in terms of degree of planning and gratuitous violence. Several studies have demonstrated that general offenders and sex offenders with higher CU traits are more likely to use more violence than is necessary to complete the offense (Hunter et al., 2000). The role of violence in CU traits is an important characteristic of this group, and particularly, violence appears to be a core offending feature among individuals with CU

traits (Forth & Mailloux, 2000). As predicted, the high CU group used more planning with victims. This finding is consistent with previous studies that have found that adolescent offenders with CU traits are more likely to use premeditated violence during offenses (Kruh, Clements, & Frick, 2003). Further, these findings are consistent with previous research that differentiates between the proactive and reactive subtypes of aggression. Proactive aggression largely refers to aggression for instrumental gain, which typically requires more planning and forethought (Nouvion et al., 2007). Our findings are consistent with past research which indicates that children and adolescents with high CU traits are more likely to show proactive aggression than those with low CU traits (Caldwell et al., 2008; Fite, Stoppelbein & Greening, 2009; Frick et al., 2003).

Limitations

These findings should be interpreted in light of a few limitations. One limitation is that the study was conducted on a sample of detained adolescents with a current sex offense charge. Consequently, the rates of previous offending, especially violent offending, is likely to be higher than is estimated in community samples of youth (Fabio et al., 2006) and even higher than in other detained samples (Spain et al., 2004). In our sample, the rate of current violent dispositions was quite high (86%). Thus, this limits the generalizability of our findings to other samples that may show lower rates of violence.

Another limitation of this study is that it was limited to the use of self-report measures for assessing CU traits. The self-report method is problematic because it relies on the adolescent to report on potentially stigmatizing behaviors and feelings. This

method also relies on individuals to report honestly, without feeling the need to give socially acceptable answers. Although the self-report of CU traits has shown validity in other detained samples (e.g., Kimonis et al., 2008; Marsee & Frick, 2008), the results would have been strengthened by having other methods of assessing these traits as well.

This study was also limited to the use of archival records for the assessment of previous sexual and general offending. This method is problematic because it relies on the accuracy and completeness of files. The use of archival data also relies on the quality of files, and in this study files were obtained from a number of different sources, which could have affected the reliability of the data. Lastly, archival data doesn't allow researchers to know the source, their qualifications, and what their source of information was.

Another limitation of this study was that it used correlational analyses, which cannot prove causation. That is, it cannot be stated that CU traits necessarily caused the offenders to use more gratuitous violence because it is equally possible that offenders who use more violence become desensitized to the suffering of their victims and more callous over time. Lastly, the cross-sectional nature of this study did not allow us to make predictions about future offending. That is, the measures were predictive only in the statistical sense because they were tested only in relation the participant's offending history.

Directions for Future Research and Practice

The results from this study suggest that CU traits play an important part in sexual offending and differentiating within sexual offender groups. However, more research is

needed to further elucidate the role of these traits in adolescent sexual offending. Follow up data is needed to determine whether CU groups differ based on their rates of violent, general and sexual recidivism.   In previous studies, the presence of both CU traits and associated emotional deficits were related to higher levels of violence and delinquency in a general detained sample (Kimonis et al., 2007).   Further research is needed to expand on the clinical importance of these traits in sex offender samples.

There is research to suggest that adolescent sex offenders are more similar to other non-sex offenders than they are to adult sex offenders. This issue has been addressed in recent studies that discuss the issue of registering adolescents as lifetime sex offenders. These researchers argue for the need to differentiate adolescent sex offenders from adult sex offenders based on several developmental differences (Letourneau & Miner, 2005; Zimring, 2004). In support of this difference, the current study found that the high and low CU groups did not differ based on victim age or gender, which is often a major distinction in the adult literature for differentiating adults who assault children from those adults who assault peers (Porter et al., 2001). Future research is still needed examine developmental differences (i.e. general offending and sexual deviancy patterns) between adolescents and adults in order to better inform both research and policy.

This study sheds light on the importance of offense characteristics for treating adolescent sexual offenders. The goal of most sex offender programs is to reduce cognitive distortions and decrease sexual deviancy (George & Marlatt, 1991).   It has been recognized that most sexual offenses are not impulsive, but rather a sequential set of behaviors and cognitions that lead to sexual offending (Freeman, Longo & Pithers, 1992). Thus, it is important to identify offender characteristics and understand how they

influence the offenders' tendency to commit crimes. In our sample, offenders with high CU traits seemed to be more opportunistic, which may suggest that their sexual offending is an extension of a more predatory, criminal lifestyle, rather than sexual deviancy factors or deviant arousal. These offenders may require interventions aimed at resolving antisocial attitudes (see Gerardin & Thibaut, 2004 for a reivew) and teaching empathy towards victims (Burke, 2001). Our study further supports the need to identify groups of offenders with common characteristics, so as to inform both the taxonomy literature and therapists in order to provide more effective mental health services to a heterogeneous group of offenders.

Additionally, this study provides further support for the need for programs that are aimed specifically at treating offenders with CU traits, that as indicated in this study, appears to be a particularly violent and dangerous group. Previous studies show that the more successful interventions with general offenders with CU traits use intensive treatment programs that utilize reward-oriented approaches, target the interests of the adolescent, and teach empathy skills (Caldwell, Skeem & Van Rybroek, 2006; Spain et al., 2002; Spain et al., 2004). In their study on "potentially psychopathic" general offenders, as assessed by the PCL:YV, Caldwell and colleagues (2006) found that groups that received intensive treatment were less likely to recidivate in a 2-year follow-up period than offenders in the conventional treatment program in the correctional facility. The intensive treatment program was also associated with slower rates of recidivism at 2-year follow-up, suggesting that it is possible to change the trajectory of such high-risk and violent youth.

These studies offer insight into providing mental health services to a group of offenders whose sexually aggressive, and delinquent behaviors present a serious problem to the community. Our study may help therapists recognize that youth with higher CU traits are in particular need of more intensive and specialized treatment to prevent criminal and sexual recidivism. Our research also suggests that based on the amount of violence and planning used during the offense, and the number and type of victim being offended against, those with high CU traits are a distinct subgroup of adolescent sex offenders that operates at particularly high cost to society. Lastly, this research has the potential to inform both therapeutic and correctional settings, in addition to future research on the unique nature and offense characteristics of adolescents with high CU traits.

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