Differences in Offending Patterns Between Adolescent Sex Offenders High or Low in Callous–Unemotional Traits

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In the present study, the authors investigated whether callous and unemotional (CU) traits designated a distinct and important group of adolescent sex offender. A sample of 150 detained adolescents (mean age = 15.89, *SD* = 1.53) with a current sexual offense disposition was assessed with a self-report measure of CU traits and through extensive assessments of the characteristics of their sexual offending behaviors using self-report interviews and file review. Results indicated that after controlling for the severity of their history of impulsive/antisocial behaviors, offenders high on CU traits had a greater number of sexual offense victims, used more violence with their victims, and engaged in more sexual offense planning than those low on these traits. The 2 groups did not differ greatly on the age of, gender of, or relationship with their victims.

Keywords: callous–unemotional traits, adolescents, sex offenders, violence, victim type

The hallmark features of psychopathy include deficits in affective (e.g., lack for guilt and empathy; poverty of emotions), interpersonal (e.g., narcissism; use of others for gain), and behavioral (e.g., impulsivity, irresponsibility) functioning (Cleckley, 1976; Cooke, Michie, & Hart, 2006; Hare, 1996, 2003). The importance of assessing these features in adult offenders has been well established in that they designate offenders who show a particularly severe and violent pattern of offending, who are more likely to show misconduct in institutions, and who are more likely to reoffend when released from prison, especially violently (Douglas, Vincent, & Edens, 2006; Edens, Poythress, Lilienfeld, & Patrick, 2008; Leistico, Salekin, DeCoster, & Rogers, 2008). Furthermore, research suggests that not only are adult offenders high on psychopathic traits more likely to be violent, but when they are violent, they are more likely to show serious harm to their victims and to show more instrumental and premeditated aggression (Hemphill, 2007; Porter & Woodworth, 2006). Similar findings have been found in samples of juvenile offenders (Edens, Campbell, & Weir, 2007; Leistico et al., 2008), especially for the affective component of psychopathy that consists of callous–unemotional (CU) traits (Frick & Dickens, 2006; Frick & White, 2008).

An important extension of this research in both adult and adolescent offenders has been to examine the relevance of psychopathic traits in the assessment of sex offenders specifically. In adults, there has been extensive support for the use of psychopathic traits to designate an important subgroup of sex offender. Specifically, psychopathic traits are a frequent component in many typologies of sex offenders (Knight & Sims-Knight, 2003). Adult sex offenders high on psychopathic traits often have more varied offending histories (both sexual and nonsexual; Prentky Harris, Frizzell & Righthand, 2000), have more victims (Porter et al., 2000; Vess, Murphy, & Arkowitz, 2004), engage in more severe and sadistic acts of sexual coercion (Greenall & West, 2007), are more likely to show instrumental aggression (i.e., committing crimes for personal gain), and to be more predatory (i.e., have more planning involved) in their offending (Porter et al., 2000; Vess et al., 2004). The type of victim has also been important for understanding the differences between sex offenders with and without significant levels of psychopathic traits. For example, Porter and colleagues (2000) found that 38.9% of adult sexual offenders high on psychopathy sexually assaulted adult victims and 16.8% sexually assaulted 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 extrafamilial molestation, 14.1% committed only intrafamilial, and 6.4% committed both extrafamilial and intrafamilial molestation).

Thus, the presence of psychopathic traits appears to designate a clinically important subgroup of adult sex offenders. Much less research has focused on the potential importance of these traits in adolescent sex offenders. In one recent study, Caldwell, Zimke, and Vitacco (2008) reported that psychopathic traits predicted both general and sexual recidivism in a sample of adolescent sex offenders. Langstrom, Grann, and Lindblad (2000) investigated the characteristics of several distinct subgroups of adolescent sex offenders and found that the group highest on psychopathic traits had the most serious history of antisocial behavior and used the most instrumental aggression during sexual attacks. Furthermore,

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Gretton, McBride, Hare, O'Shaughnessy, and Kumka (2001) studied adolescent sex offenders in an outpatient treatment program and reported that those with high levels of psychopathic traits had more severe antisocial histories, had more escapes and breaches of probation, and had higher rates of general and violent recidivism. Similar findings were reported by Langstrom and Grann (2000), who reported that adolescent sex offenders who were high on psychopathic traits had more extensive antisocial histories, were more likely to use weapons or threats during the sexual offense, and were more likely to recidivate when released from prison.

On the basis of this research, it is not surprising that many typologies of sexual offending consider psychopathic traits as being important for designating an important and distinct subgroup of adolescent sex offender (Knight & Sims-Knight, 2003). However, there are several limitations in the available research that have important implications for the clinical assessment and treatment of adolescent sex offenders. First, and most broadly, there is a much more modest literature on the use of psychopathic traits for designating an important subgroup of adolescent sex offender compared with the research with adults, and very few of these studies have focused on the sexual offending patterns that have shown to be important in adult sex offenders (e.g., greater number of victims, more severe and violent attacks, more premeditated violence). Thus, additional replications are needed that focus on these important dimensions of the sexual offense in adolescent samples.

Second, the studies to date have shown that adolescent sex offenders with psychopathic traits typically show more severe antisocial histories (Gretton et al., 2001; Langstrom et al., 2000). As a result, it is not clear whether psychopathic traits provide any useful information in predicting offending patterns after controlling for the severity of the adolescent's general antisocial history. For such analyses, it is important to focus specifically on the CU dimension of psychopathy, given that this dimension tends to show the greatest independence from antisocial behavior in general and is most useful in adolescent samples for designating a distinct subgroup within antisocial youths (Frick & White, 2008).

Third, an important component of many typologies to distinguish among both adult and adolescent sex offenders is the characteristics of the victim. For example, many typologies classify offenders into subtypes on the basis of victim age (i.e., prepubescent children or postpubescent adolescents or adults), whether the victim is a family member or an acquaintance/stranger, and the sex of the victim (Barbaree & Marshall, 2006; Hunter, Figueredo, Malamuth, & Becker, 2003; Knight & Sims-Knight, 2003). Such characteristics can be related to differences in sexual interests or arousal patterns as well as to differences in the interpersonal relationships between the offender and victims. These characteristics are considered important for understanding distinct causal processes underlying the pattern of sexually offending behavior (Barbaree & Marshall, 2006; Bogaerts, Vanheule, & Declercq, 2005; Hunter, Hazelwood, & Slesinger, 2000; Olver & Wong, 2006). However, present research is limited in testing whether adolescent sex offenders with high levels of psychopathic traits differ on victim characteristics.

Thus, the purpose of the present study was to extend research testing whether one aspect of psychopathy, CU traits, may be useful in assessing adolescent sex offenders by defining a distinct and clinically important subgroup. Consistent with past research

findings based largely with adults, we predicted that adolescent sex offenders with high levels of CU traits would exhibit more severe (e.g., longer duration of sexual offense history, greater number of victims), more violent, and more premeditated violence in their sexual offenses. Furthermore, we tested whether those high on CU traits differed on victim characteristics as well (e.g., age and sex of victims, whether the victims were family members). We tested all of these predictions controlling for the severity of the adolescent's history of impulsive and antisocial behavior.

Method

Participants and Procedure

Participants were 150 detained adolescent boys with a current sexual offense. The participants were recruited from a long-term secure custody facility in the southeastern United States. The participants ranged in age from 12 to 20 years ($M = 15.89$, $SD = 1.53$). The ethnic makeup of the sample was 48% African American, 48% Caucasian, and 3.3% of boys who self-reported as "other." The mean intelligence score, as measured by the Wechsler Abbreviated Scale of Intelligence (WASI), was 90.4 ($SD = 11.27$; Wechsler, 1999). Nearly 56% of the sample committed only one sexual offense, and 44% of the sample had committed more than one offense (including both sexual and nonsexual offending). Among offenders, the most common sexual offense charge was sexual battery (32%), followed by aggravated rape (15.3%). Of the sample, 86% had a history of at least one violent sexual or nonsexual offense. The violent sexual offenses included aggravated rape, forcible rape, simple rape, aggravated incest, sexual oral battery, and sexual battery, whereas the violent nonsexual offenses included armed robbery, battery against a school teacher, and aggravated burglary. The nonviolent sexual offenses included indecent behavior, obscenity, and incest, whereas the nonviolent nonsexual offenses included burglary, possession of illegal substances, truancy, criminal mischief, and simple burglary.

The data were collected as part of a comprehensive and standard intake assessment protocol administered to all boys adjudicated for a sexual offense and admitted to the institution between October 1, 2003 and December 31, 2006. All procedures were approved by the appropriate Institutional Review Boards, and, because the data were archived official records and deidentified before use in research, informed consent for the use of the information in research was waived.

Measures

Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II; Prentky & Righthand, 2003). Participant's history of sexual offending was assessed using the J-SOAP-II (Prentky & Righthand, 2003). The J-SOAP-II contains a checklist of 28 factors that aid in the review of both sexual and nonsexual risk factors and is divided into four scales: Sexual Drive/Preoccupation, Impulsive/Antisocial Behavior, Intervention, and Community Stability. For this study, four items from the Sexual Drive/Preoccupation scale were used to assess the severity of offending (i.e., number of known sexual offense victims; duration of sexual offense history; degree of planning in sexual offenses; and sexualized aggression, which focuses on the severity of violence used during sexual

offenses). Also, the severity of the offender's history of antisocial behavior was assessed using six of the eight items from the Impulsive/Antisocial Behavioral scale of the J-SOAP-II (i.e., pervasive anger, school behavior problems, history of conduct disorder, juvenile antisocial behavior, ever charged or arrested before age 16, and multiple types of offenses). Two of the eight items were excluded because they did not relate directly to the adolescent's behavior (i.e., caregiver consistency; history of physical assault from others and/or exposure to family violence). The six remaining items were summed to form a scale with an internal consistency of $\alpha = .85$.

Table 1 describes the scoring of all J-SOAP-II items used in the present study. As shown in this table, each item is scored on a 0–2

scale. 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 on the basis of a combination of information from a clinical interview with the adolescent, collateral interviews with parent/guardians, as well as the adolescent's probation officer when appropriate, and all available collateral records (i.e., juvenile record, arrest and investigation reports, prior evaluations, treatment records).

The J-SOAP-II is a revised version of the J-SOAP (Righthand, Prentky, Hecker, Carpenter, & Nangle, 2000). In a sample of 153 adolescent sex offenders in Maine, with an average age of 16 years, the interrater reliabilities were very strong for the Sexual

Table 1
Table of J-SOAP-II Items Used in Analyses

Score and item		
Items from the Sexual Drive/Preoccupation Scale		
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 or detailed planning. There must be a clear modus operandi. The offenses may appear "scripted," with a particular victim and crime location targeted.
Sexualized aggression		
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, or pushing the victim.	Score of 2 = Moderate to high amount of expressive aggression. As evidenced by punching, kicking, cutting, burning, or stabbing the victim; causing physical injuries that require medical attention.
Items used to form the covariate Impulsive/Antisocial Behavior		
Pervasive anger		
Score of 0 = No evidence.	Score of 1 = Occasional outbursts and inappropriate expressions of anger or a pattern of anger expressed at an apparently narrow range of targets.	Score of 2 = Long-standing pattern of repeated instances of poorly managed anger directed at multiple targets.
School behavior problems		
Score of 0 = No clear evidence of school behavior problems.	Score of 1 = A few apparently isolated instances of school behavior problems (e.g., fighting, truancy).	Score of 2 = Clear evidence of multiple instances of behavior problems that may include behaviors resulting in suspensions or expulsion from school.
History of conduct disorder before age 10		
Score of 0 = No evidence of symptoms before age 10.	Score of 1 = 1 or 2 symptoms present.	Score of 2 = At least 3 criteria present.
Juvenile antisocial behavior (ages 10–17)		
Score of 0 = No more than a single incident. Antisocial behaviors include vandalism, disorderly conduct, fighting, carrying a weapon, or theft.	Score of 1 = 2 or 3 different nonsexual delinquent behaviors present.	Score of 2 = 4 or more nonsexual delinquent behaviors present or multiple incidents involving 2 or 3 types of behavior.
Ever charged or arrested before age 16		
Score of 0 = Never.	Score of 1 = Once.	Score of 2 = More than once.
Multiple types of offenses		
Score of 0 = One type.	Score of 1 = 2 types (e.g., sexual, person, property, drug, or fraudulent offenses).	Score of 2 = More than 3 types.

Note. J-SOAP-II = Juvenile Sex Offender Assessment Protocol-II Edition (Prentky & Righthand, 2003). Boldface represents actual items. Descriptions are not actual copyright-protected items but descriptions provided to summarize item content for interpreting analyses. These descriptions should not be used to score the J-SOAP-II items.

Drive/Preoccupation ($r = .90$) and Impulsive/Antisocial Behavior ($r = .91$) scales of the J-SOAP-II (Righthand et al., 2005). Furthermore, the items from these scales that are used in the present study showed moderate to high item-total correlations with their respective scales. That is, number of prior sex offenses ($r = .33$), degree of planning ($r = .46$), and sexualized aggression ($r = .33$) showed significant correlations with the full Sexual Drive/Preoccupation scale, and the six items for the Impulsive/Antisocial Behavior scale showed item-total correlations ranging from .53 to .79. In an independent study, the J-SOAP-II was administered to a sample of urban minority youth ($n = 60$), and interclass correlations between raters for the J-SOAP-II Sexual Drive/Preoccupation and Impulsive/ Antisocial Behavior scales were .79 and .63, respectively (Martinez, Flores & Rosenfeld, 2007).

File review. Information verifying the victim characteristics for each participant was obtained through self-report and verified through the collateral file review for the current and past sexual offenses. All collateral records were either provided by the supervising probation officer or requested by the clinician conducting the assessment. As noted above, this information included documentation of previous legal charges for sexual offenses, probation history, sexual offense arrest reports, victim impact statements, as well as current and prior predisposition investigation reports for all known sexual offenses. From this information, the age, gender, and relation of the victim for all known sexual offenses was obtained. This information was used in analyses of victim characteristics.

The Inventory of Callous-Unemotional Traits (ICU; Essau, Sasagawa, & Frick, 2006; Kimonis et al., 2008). The ICU is a measure of CU traits that was developed using items from the Callous-Unemotional scale of the Antisocial Process Screening Device (APSD; Frick & Hare, 2001), which is a widely used scale to assess these traits in children and adolescents. However, the self-report CU subscale from the APSD has demonstrated only moderate internal consistency in past studies (e.g., Loney, Frick, Clements, Ellis, & Kerlin, 2003; Pardini, Lochman, & Frick, 2003), which is likely due to the small number of items ($n = 6$) and 3-point rating system. Also, five out of the six items are worded in the same direction, increasing the possibility of response bias.

The ICU was designed to overcome these psychometric limitations. The four items from the APSD CU scale that loaded consistently on this factor in clinic and community samples (Frick, Bodin, & Barry, 2000) were expanded to include three similar positively worded items and three similar negatively worded items. These 24 items were then anchored on a 4-point Likert scale ranging from 0 (*not at all true*) to 3 (*definitely true*). The construct validity of the ICU was supported in a large community sample ($n = 1,443$) of 13- to 18-year-old nonreferred German adolescents (Essau et al., 2006), as well as in an American sample ($n = 248$) of juvenile offenders between the ages of 12 and 20 (Kimonis et al., 2008). In both samples, the total scale showed adequate internal consistency (αs = .77 and .81) and expected associations with aggression, delinquency, personality traits (e.g., sensation seeking, Big Five dimensions), emotional reactivity, and psychosocial impairment.

In the present sample, the internal consistency for the total ICU scale was $\alpha = .64$. The mean ICU score was $28.7 (SD = 7.41)$ with a median score of 29.0. This mean is higher than what was found in a sample of detained adolescent offenders ($M = 23.96$, $SD =$ 9.41; Kimonis et al., 2008) and nonreferred adolescent boys ($M = 21.63$, $SD = 8.86$; Fanti, Frick, & Georgiou, 2009). A median split, which corresponds to approximately one standard deviation above the mean of the nonreferred sample and .5 standard deviations above the mean of the general detained sample were used to create high ($n = 81$) and low ($n = 69$) CU groups.[1]

Results

Preliminary Analyses

Results of independent sample *t* tests and chi-square analyses comparing the high- and low-CU groups on demographic variables (see Table 2) indicated that ethnicity, age, and WASI scores did not differ across the two groups. Having a violent current disposition also did not differ across groups. However, the low-CU trait group had significantly greater histories of impulsive/antisocial behavior, $t(148) = 2.43$, $p < .05$, partial $\eta^2 = .038$.

Primary Analyses

The first analyses were a series of one-way analyses of covariance (ANCOVAs) comparing groups high and low on CU traits on number of victims, duration of sexual offense history, degree of planning, and sexualized aggression items from the J-SOAP-II (see Table 3). The severity of the participants' impulsive/antisocial behavior was used as the covariate in these analyses. The results of these analyses are reported in Table 3. Three of the four comparisons were significant and in the hypothesized direction. That is, controlling for the severity of the participants' impulsive/antisocial behavior, the high-CU group had a greater number of victims, were rated as having a greater degree of planning in their sexual offenses, and used more severe violence in their sexual offending (partial η^2 ranging from .031 to .037) compared with the low-CU group. Although not significant, the difference between the high- and low-CU groups on the duration of sexual offense history was also in the direction of the high-CU group, showing a longer history of offending.

The next set of analyses focused on whether victim characteristics of the sexual offending differed for those high and low on CU traits. The first dependent variable was whether the victims of sexual offending were prepubescent (under 12) only, postpubescent only (12 and older), or a mixture of the two types of victims. 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. We used a multinomial regression to test whether CU group membership predicted victim group after controlling for the severity of antisocial behavior. The results of this analysis are reported in Table 4. There was not a significant effect

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[1] A median split was used to determine elevated scores, given that sex offenders were expected to have a higher base rate of these traits than other offenders (Caputo, Frick, & Brodsky, 1999). However, other cutpoints (e.g., upper quartile) were attempted, and the results were similar to those reported using the median split. Also, we recognize that the chosen cutpoint was somewhat arbitrary and may have reduced power to predict distinct offending patterns. However, this method was chosen because it approximates the process used in clinical evaluations to determine whether a child is elevated on a certain measure.

Table 2
Comparison of High- and Low-Callous–Unemotional Groups on Background and Demographic Characteristics

Variable	Low CU ($n = 69$)	High CU ($n = 81$)	χ^2/t (df)	Full sample ($N = 150$)
	Demographics			
Ethnicity			0.72 (2)[a]	
% 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%	0.84 (1)[a]	85.9%
Mean score on Impulsive/Antisocial Behavior scale (*SD*)	7.33 (3.2)	5.98 (3.6)	2.43 (148)*	6.6 (3.5)

Note. CU = Callous and unemotional; WASI = Wechsler Abbreviated Scale of Intelligence.
[a] Values represent chi-square results.
* $p < .05$.

of CU group membership in predicting these victim age categories, $\chi^2(1, N = 150) = 2.70$, $p = .26$.

We used similar multinomial regression analyses to test CU group membership association with victim gender (i.e., male only, female only, mixed gender) and relationship with victim (i.e., family only, nonfamily only, family and nonfamily). Again, we gathered victim characteristics from the file review on the basis of the adolescent's current sex offense charge and any previous sexual offenses. The results of these analyses controlling for the participants' history of antisocial behavior are also reported in Table 4. There was no significant overall group membership effect for predicting victim gender, $\chi^2(1, N = 150) = 1.18$, $p = .40$, but the effect for predicting victim relationship approached significance, $\chi^2(1, N = 150) = 6.72$, $p = .051$. This latter effect was a result of the finding that, in comparison to the nonfamily-only group, there was a trend for CU group membership to predict a greater likelihood of having victims that were both family and nonfamily members (OR = 4.08).

Follow-Up Analyses

We conducted follow-up analyses by repeating all of the primary analyses without covarying the participants' history of im-

Table 3
Comparison of Low- and High-CU Groups on Measures of Severity of Offending

Variable	Low CU ($n = 69$)	High CU ($n = 81$)	CU group effect (df)	Partial η^2
Number of victims	0.40 (0.65)	0.69 (0.80)	5.65 (147)*	.037
Duration of sexual offense history	0.76 (0.81)	0.96 (0.87)	1.98 (147)	.013
Degree of planning	0.44 (0.58)	0.67 (0.69)	4.67 (147)*	.031
Sexualized aggression	0.22 (0.53)	0.42 (0.60)	4.74 (147)*	.031

Note. Effects are the between group effects from a one-way analysis of covariance, covarying history of antisocial behavior. Means reported are least squares means adjusted for the covariate, and standard deviations appear in parentheses in the first two columns for the low- and high-CU groups. CU = Callous and unemotional.
* $p < .05$.

pulsive/antisocial behavior. The results of these analyses were quite similar to the ones reported above. The only changes in significant findings were that the difference between CU groups no longer reached statistical significance for the sexualized aggression item, $F(1, 148) = 1.69$, $p = .196$, partial $\eta^2 = .011$, whereas the effect of CU traits predicting relationships with the victim now reached significance in multinomial regression analyses, $\chi^2(1, N = 150) = 6.76$, $p < .05$, with the high-CU group having significantly more victims that were in the combined family and nonfamily victim group (OR = 4.94).

We also conducted follow-up analyses in order to determine whether any of the results were modified by the ethnicity of the participant. We conducted these analyses on the basis of findings that measures of psychopathy may not be as strongly related to indices of severity in minority offenders compared with nonminority offenders (Edens et al., 2007; Edens & Cahill, 2007). For these analyses, only participants who were African American ($n = 72$) or Caucasian ($n = 73$) were included. These analyses involved testing interactions between ethnicity and CU group for the continuous dependent variables assessing offending severity using a 2×2 ANCOVA, controlling for a history of impulsive/antisocial behavior. No significant interactions emerged in these analyses (partial η^2 ranging from .000 to .011), with very similar patterns found for African American and Caucasian groups. Similar analyses could not be conducted for the categorical dependent variables assessing victim types, given the small cell sizes (e.g., ethnicity by CU across the three victim groups), which prevented testing interactions in the multinomial regression analyses.

Discussion

In this study, we compared adolescent sexual offenders high and low on CU traits in terms of the severity of their sexual offending and on the characteristics of their victims to further test whether these traits distinguish an important subgroup of offenders, after controlling for the severity of their impulsive/antisocial behavior. In terms of severity of sexual offending, there were clear and important differences between groups, with offenders high on CU traits having a greater number of victims, showing more planning in their sexual offending, and using more severe violence during the sexual offenses.

Table 4
Comparison of Low- and High-CU Groups in Predicting Victim Type

Variable	Low CU ($n = 69$)	High CU ($n = 81$)	Overall CU group effect $\chi^2(2)$	Odds ratio	Nagelkerke pseudo R^2
Victim relationship					
Only family	50%	67%		2.63	
Only nonfamily	45%	29%		4.08	
Both	4%	14%			
			6.72		.10
Victim gender					
Male only	29%	25%		1.94	
Female only	62%	60%		1.74	
Both	9%	15%			
			1.18		.01
Victim age					
Under 12	72%	70%		2.84	
12 and over	23%	20%		2.43	
Both	4%	10%			
			2.70		.10

Note. The "both" group was the reference group for calculation of the odds ratio.

These results are consistent with several recent qualitative (Frick & Dickens, 2006; Frick & White, 2008) and quantitative (Edens et al., 2007; Leistico et al., 2008) reviews showing that CU traits are predictive of a more severe, stable, and aggressive pattern of behavior in antisocial youth. Also, the results are consistent with findings that antisocial and delinquent youth with CU traits not only show more severe aggression and violence, but they are more likely to show both instrumental (e.g., for gain) and premeditated violence that results in greater harm to their victims (Enebrink, Andershed, Langstrom, 2005; Fite, Stoppelbein, & Greening, 2009; Frick, Cornell, Barry, Bodin, & Dane, 2003; Kruh, Frick, & Clements, 2005). Although similar findings have been reported in adult sex offenders high on measures of psychopathic traits (Greenall & West, 2007; Porter et al., 2000; Prentky et al., 2000; Vess et al., 2004), our findings suggest that this pattern is also present for adolescent sex offenders as well. Thus, our findings support that CU traits are important in assessing adolescent sexual offenders because they designate a particularly severe group on the basis of their offense patterns for whom intensive intervention and management is likely to be a critical component of overall rehabilitation planning. Importantly, our follow-up results suggest that these findings were similar for African American and Caucasian offenders.

Although the characteristics of the victim have been important in many sex offender typologies in both adults and adolescents (Barbaree & Marshall, 2006; Hunter et al., 2003; Knight & Sims-Knight, 2003), the presence or absence of CU traits was not as important for designating a particular type of victim. That is, there were no statistically significant effects of CU traits in predicting victim types, when controlling for a history of impulsive/antisocial behavior. One effect that approached significance in these analyses (and was significant when the covariate of impulsive/antisocial behavior was not included in analyses) was that those high on CU traits were somewhat more likely to offend against both family members and nonfamily members (i.e., either strangers or acquaintances), whereas those low on CU traits were more likely to offend with nonfamily members only. Rather than suggesting a preference of a particular victim type, this finding, combined with those

testing differences of offending severity, suggest that sexual offenders high on CU traits are more opportunistic in their offending and offend against multiple types of victims, which is consistent with previous research (Gretton et al., 2001; Porter et al., 2000).

These findings need to be interpreted in light of several limitations. One limitation is that the study was conducted on a sample of detained adolescents with a current sex offense charge, and, as a result, the rate of violent offenses 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 the study was that we used archival records for the assessment of previous offending from which to code victim characteristics. This method is problematic because it relies on the accuracy and completeness of files and may miss offenses for which the offender was not caught. Also, the archival coding of data resulted in the absence of any data on the interrater reliability for the scoring of the J-SOAP-II items. Furthermore, given the correlational nature of the study, the associations reported do not indicate causation. That is, it cannot be stated that CU traits necessarily caused the adolescent offenders to use more severe violence because it is also possible that offenders who use more violence become desensitized to the suffering of their victims and become more callous over time. The cross-sectional nature of this study also did not allow us to make predictions about future offending. Finally, the effect sizes for the differences across CU groups (partial $\eta^2 = .012–.034$) indicated that this variable only accounted for a modest amount of variance in the items reflecting severity of offending, clearly indicating that CU traits should not be the only variable that is considered in risk assessments of adolescent sexual offenders.

Within the context of these limitations, the present results do support the use of CU traits as one important component to the assessment of adolescent sex offenders. Importantly, these traits were assessed using self-report, which is time efficient but susceptible to reporter biases. However, self-report ratings of CU traits had high ecological validity, as the data were obtained in the context of a standard clinical assessment protocol, and, even in this clinical context, self-report ratings proved to be important in designating a particularly severe and violent group of adolescent sexual offenders.

However, clearly more research is needed to understand the processes that may lead to different sexually offending patterns in those high and low on CU traits. For example, past research with detained adolescents suggest that those high on CU traits show a diminished response to cues of distress in others (Kimonis, Frick, Munoz, & Aucoin, 2007). Also, detained adolescents high on CU traits tend to emphasize the positive and rewarding aspects of aggression, place greater value on the importance of being dominant in aggressive interactions, and minimize the potential for punishment for being aggressive (Pardini, Lochman, & Frick, 2003). These emotional and cognitive characteristics could lead the offender high on these traits to ignore the pain and suffering inflicted on their victims.

Importantly, these characteristics could inform the development of interventions that focus on changing cognitions that reinforce aggressive responses or that enhance recognition and appreciation of empathy toward victims. In support of this possibility, Caldwell, Skeem, Salekin, and Van Rybroek (2006) demonstrated that general adolescent offenders high on psychopathic traits improved when treated using an intensive treatment program that utilized reward-oriented approaches, targeted the interests of the adolescent, and taught empathy skills. Specifically, they reported that adolescent offenders high on psychopathic traits who received the intensive treatment were less likely to recidivate in a 2-year follow-up period than offenders high on psychopathic traits in a standard treatment program in the same correctional facility. Although such an intervention has not been attempted specifically with adolescent sex offenders, the results of the present study suggest that such a test is clearly warranted, given the severe and violent offending patterns displayed by those high on CU traits.

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