Sexual Sadism and the Psychopathy Facets as Predictors of General Violence and Sexual Crime Behaviors

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ABSTRACT

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Sexual sadism and psychopathy have been linked theoretically, clinically, and empirically to violence. Whereas evidence suggests that sadists derive sexual gratification from the physical and emotional suffering of others, psychopaths are violent for varied reasons: failing to attend to another’s distress cues, overreacting to perceived aggression, or as a means to an external goal. Despite this overlap of predominantly predatory violence displayed by both sadists and psychopaths, few studies have sought to explore the interface of the two constructs, and even fewer have sought to conceptualize the covariation of violence in each. Those studies that have explored the covariation have suffered from limited assessments of violence, poorly operationalized definitions of sadism, and failure to examine all four Psychopathy Checklist-Revised (PCL-R) facets of psychopathy. The current research sought to remedy these problems by a) using detailed analyses of crime behaviors to generate dependent measures of sexual and non-sexual violence, b) using well-defined, validated measures of sadism, and c) considering all four psychopathy facets. Two independent samples of 314 and 599 adult, male sex offenders
were assessed using a multimethod approach with both ratings from archival records and administration of a computerized self-report inventory, the Multidimensional Inventory of Development, Sex, and Aggression (the MIDSA). Exploratory factor analyses of detailed crime scene descriptions yielded three consistent sexual crime behavior factors: Violence Severity, Sexual Control, and Sexual Behavior. Hierarchical multiple regressions were performed with sadism and the PCL-R facets as predictors and with general violence and the sexual crime behavior factors as outcomes. As hypothesized, the PCL-R facets collectively predicted both the Violence Severity factor and general violence, and sadism predicted general violence, the Violence Severity factor, and the Sexual Control factor. Sadism and psychopathy overlapped, but the two constructs were not co-extensive and appeared to capture different aspects of aggression.
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INTRODUCTION

Both sexual sadism and psychopathy have been linked theoretically, clinically, and empirically to sexual offending (Knight, 2010; Knight & Guay, 2006), as well as to non-sexual generic violence (Porter & Woodworth, 2006). Whereas sadists have been shown to derive sexual gratification from the physical and emotional suffering of others (Breslow, 1989; Herron & Herron, 1982; Holt, Meloy, & Strack, 1999; Johnson & Becker, 1997b; Kirsch & Becker, 2007; Knight, 2010; Marshall & Kennedy, 2003; Marshall, Kennedy, & Yates, 2002), psychopaths appear to be violent for a variety of reasons: failing to attend to another’s distress cues (Hare, Cooke, & Hart, 1999; Kirsch & Becker, 2007), overreacting to perceived aggression (Porter & Woodworth, 2006), or as a means to an external goal (Hare et al., 1999; Hare & Neumann, 2009; Porter & Woodworth, 2006; Serin, 1991).

Despite the consistent covariation of these two constructs with violent behavior, their interface has remained largely unexplored. The increased risk of violence associated with high levels of each of these warrants increased research attention to both and to their potential overlap because of the important implications for theory, clinical practice, and social policy (Hare et al., 1999; Seto & Lalumière, 2000). Thus far, those studies that have sought to explore the interface of sadism and psychopathy have suffered from limited assessments of violence, poorly operationalized definitions of sadism, and failure to consider all four facets of the Psychopathy Checklist-Revised (PCL-R; Hare, 2003). The current research sought to remedy these problems by using detailed analyses of
crime behaviors to generate dependent measures of sexual and non-sexual violence, by employing well-defined and validated measures of sadism, and by considering all four psychopathy facets.

The term “sadism” emerged in the early 19th century in connection with the writings of the Marquis de Sade (Hucker, 1997). Later, Krafft-Ebing (1886/1965) examined the construct in his *Psychopathia Sexualis* – a classic source of case material on sexual sadism (Johnson, 1973; Kirsch & Becker, 2007). According to Krafft-Ebing, sadistic violence required both sexual and personality pathology in the perpetrator. He was the first to propose an *association* between cruelty, violence, and lust (Kirsch & Becker, 2007; Krafft-Ebing, 1886/1965). Unfortunately, like Krafft-Ebing’s clinical speculations most theories about sadism have relied on case histories and clinical interviews of small, select samples using mainly exploratory and descriptive methods of analyses (Breslow, 1989; Grubin, 1994a, 1994b; Kirsch & Becker, 2007).

Consistent with the *DSM-IV-TR* (American Psychiatric Association, 2000), sadism is most frequently defined as the range of cognitions and behaviors associated with the derivation of sexual excitement from the infliction of physical and/or emotional pain (e.g. Abel & Osborn, 1992; Breslow, 1989; Kirsch & Becker, 2007; Porter & Woodworth, 2006; Porter, Woodworth, Earle, Drugge, & Boer, 2003). Other researchers, however, contend that other characteristics such as control/domination over another individual are central to the definition (Grubin, 1994a; Johnson & Becker, 1997a; Knight, 2010; MacCulloch, Snowden, Wood, & Mills, 1983). Given this lack of consensus at the conceptual level, attempts to operationalize sexual sadism have been inconsistent (Knight & Prentky, 1990; Marshall & Hucker, 2006a; Marshall & Kennedy, 2003; Marshall et al.,
The current research circumvented these operational difficulties by employing both a reliable, well-validated self-report scale of sadism and carefully anchored classification criteria. Study 1 used the Multidimensional Inventory of Development, Sex, and Aggression’s (the MIDSA, 2011) Sexual Sadism scale. This self-report scale taps both cognitive and behavioral aspects of sadism and has been shown to have reasonable internal consistency and test-retest reliability, as well as concurrent and divergent validity (Knight & Cerce, 1999; Knight, Prentky, & Cerce, 1994; MIDSA, 2011). Study 2 used the sadism classifications from the Massachusetts Treatment Center Sex Offender Typologies for rapists and child molesters created by Knight and colleagues (Knight, 1988, 1989, 1999, 2010; Knight, Carter & Prentky, 1989; Knight & Cerce, 1999; Knight & King, in press; Knight & Prentky, 1990; Knight et al., 1994). Both typologies have evinced concurrent and predictive validity, as well as adequate inter-rater reliability (Barbaree, Seto, Serin, Amos, & Preston, 1994; Knight, 1988, 1989, 1999, 2010; Knight et al., 1989).

Like sadism, conceptualizations of psychopathy vary. Indeed, there is no consensus about whether it comprises a multifaceted construct, involving the co-occurrence of distinctive by synergistic components (Lilienfeld & Fowler, 2006) or a unitary entity with a single underlying etiology (Neumann, Hare, & Newman, 2007). Nonetheless, the descriptive characteristics proposed by Cleckley (1976) have achieved wide acceptance, and the operationalization of these characteristics in the Psychopathy Checklist-Revised (Hare, 1991, 2003) constitutes the most extensively validated and
widely used measure of psychopathy. The PCL-R has consistently yielded two superordinate factors (e.g., Harpur, Hakstian, & Hare, 1988; Harpur, Hare, & Hakstian, 1989) that assess Affective-interpersonal features (Factor 1) and Impulsivity-antisocial behavior (Factor 2). It remains controversial whether three-(Cooke & Michie, 2001) or four-factor (Hare, 2003; Hare & Neumann, 2008) solutions better account for the variance of the PCL-R. The three-factor model subdivides Factor 1 into Interpersonal and Affective facets and focuses the third factor solely on the Impulsivity components of the higher order Factor 2. The latter model similarly divides Factor 1, but subdivides Factor 2 into both Lifestyle Impulsivity and Antisocial facets.

In exploring the relation between violence and psychopathy only the two-factor solution has been examined. Although some support for the covariation of Factor 1 and various measures of violence has emerged (First & Halon, 2008; Porter et al., 2003), Factor 2 has more consistently predicted violent behavior (Hare & McPherson, 1984; Porter & Woodworth, 2006). Indeed, Kennealy, Skeem, Walters, and Camp’s (2010) recent meta-analysis found that in roughly 80% of studies Factor 2 had more unique predictive power than did Factor 1. Recent research using the four-facet solution of the PCL-R has identified links between the specific psychopathy facets and various external correlates (e.g., Hall, Benning, & Patrick, 2004; Hill, Neumann, & Rogers, 2004; Salekin, Neumann, Leistico, & Zalot, 2004; Vitacco, Neumann, & Jackson, 2005), suggesting that this model promises greater process specification. Indeed, some data indicate that the four facets may be related to specific types of violent behavior and support further exploration of these correlates (Walsh & Kosson, 2008; Walsh, Swogger, Walsh, & Kosson, 2007). Consequently, the current study aims to provide a more refined understanding of the
relation between psychopathy and violence by studying the psychopathy construct at its most basic level: the psychopathy facets.

Like the independent measures in the present study, the dependent construct, violence, requires greater specification and delineation. It is important to refine our understanding of what types of violence are related to psychopathy’s constituent parts and to sadism (Walsh et al., 2007). Violence is a heterogeneous construct with multiple etiologies, motivations, and manifestations, and it requires definitional and measurement specification (Lion, 1991). Walsh and Kosson (2008) have suggested that examination of more narrow-band indices of violence might add to our understanding of the relation between violence and psychological constructs. The current study seeks to refine the operationalization of violence and attempts to capture its complexities by using both theoretically and empirically derived definitions. In addition to more traditional measures, detailed analyses of sexual crime behaviors will generate dependent measures of sexual violence. Moreover, a multimethod assessment will be implemented, using both ratings from archival records and self-report inventories.

In the current study both sexual and non-sexual violence were assessed. Measures of non-sexual violence included general, non-sexual aggression and both juvenile and adult fighting and assaultive behavior. Because sadism has been linked to non-sexual aggression (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003; Hazelwood & Warren, 2000; Marshall et al., 2002), to childhood/juvenile behavior problems (DSM-IV-TR; 2000; Hare et al., 1999; Hill, Habermann, Berner, & Briken, 2006), and to adult assaultive behavior (Briken, Habermann, Kafka, Berner, & Hill, 2006; Dietz, Hazelwood, & Warren, 1990; Kirsch & Becker, 2007; Johnson & Becker, 1997b; Warren,
Hazelwood, & Dietz, 1996), it was hypothesized that it would predict all three non-sexual violence or general aggression measures. Similarly, sadism has been found to covary with behaviors analogous to all three of the empirically-derived sexual crime behavior factors: Violence Severity (Beauregard & Proulx, 2007; Dietz et al., 1990; Fedora et al., 1992; Herron & Herron, 1982; Hill et al., 2006; Knight, 2010), Sexual Control (Chan & Heide, 2009; Dietz et al., 1990; Gratzer & Bradford, 1995; Johnson & Becker, 1997b; Hare et al., 1999; Langevin et al., 1988; Marshall & Kennedy, 2003), and Sexual Behavior (Geberth & Turco, 1997; Gratzer & Bradford, 1995; Hazelwood & Warren, 2000; Knight, 1999; Krafft-Ebing 1886/1965). Consequently, sadism was also hypothesized to predict all three of these sexual crime behavior factors.

Psychopathy’s ties to non-sexual and sexual violence have also been well documented. In fact, characteristically elevated levels of aggression are central to most contemporary conceptualizations of the syndrome (Hare et al., 1999; Hare & McPherson, 1984; Porter et al., 2003; Walsh & Kosson, 2008; Walsh et al., 2007). Because psychopathy has been associated with violence both in adolescence (Brown & Forth, 1997; Gretton, Hare, & Catchpole, 2004; Hare et al., 1999; Porter & Woodworth, 2006), and in adulthood (Hare et al., 1999; Hare & McPherson, 1984; Hare, Hart, & Harpur, 1991; Porter & Woodworth, 2006; Serin, 1991), it was hypothesized that it would predict all three non-sexual violence measures. As with general violence, psychopathy has been linked to sexual violence (Hare et al., 1999; Porter et al., 2003) and was hypothesized to predict the Violence Severity factor of sexual crimes in the current study. Although studies have not specifically addressed elements of psychopaths’ use of sexual control over others, their use of intimidation and violence as means of achieving control over
others (Hare & Neumann, 2009; Porter & Woodworth, 2006) informs the hypothesis that psychopathy would be associated with the Sexual Control factor of sexual crimes. Although psychopathy’s relation with coercive sexuality has been well-documented (First & Halon, 2008; Harris, Rice, Hilton, Lalumière, & Quinsey, 2007; Knight & Guay, 2006; Porter et al., 2003; Walters, Marcus, Edens, Knight, & Sanford, 2011), no studies have focused on the presence of sexual behaviors extraneous to coitus (i.e., fondling, cunnilingus) that are assessed in the Sexual Behavior factor. Nonetheless, because of prior data suggesting covariation between scales capturing the interpersonal aspects of psychopathy and sexualization (Knight & Sims-Knight, 2003; 2004), it was hypothesized that the interpersonal facet would be related to the Sexual Behavior factor.

Due to the exploratory nature of the research on the relation between the various forms of violence and the individual PCL-R facets, hypotheses about these individualized relations must remain speculative. Although the facets have not been linked to violence empirically, the psychopathic elements thought to comprise the facets have been theoretically coupled with violence. The interpersonal detachment of psychopaths and their cold, callous manipulation of others (characteristics of Facet 1) have been associated with general violence (Benning, Patrick, Hicks, Bloningen, & Krueger, 2003; First & Halon, 2008; Hare & McPherson, 1984). Psychopaths’ failure to respond to the distress of victims (Facet 2 traits) has been implicated as a possible contributor to their increased violence (Blair, Jones, Clark, & Smith, 1997; Blair et al., 1995). Facet 3’s thrill-seeking and poor behavioral inhibitions have both been deemed catalysts of violence (Benning et al., 2003; Hare & McPherson, 1984; Porter & Woodworth, 2006; Porter et al., 2003). Finally, proactive and reactive aggression, as well as antisocial behaviors (all symbolic of
Facet 4), have been associated with violence (Harris et al., 2007; Serin, 1991; Walsh & Kosson, 2008). Although the psychopathic characteristics akin to Facets 1 and 2 have been theoretically linked with violence, Factor 1 has inconsistent empirical associations with violence (Kennealy et al., 2010). Consequently, it was hypothesized that Facets 1 and 2 would not predict any of the violence measures. In contrast, there is compelling empirical evidence linking Factor 2 with violence (i.e., Kennealy et al., 2010). This, in addition to the strong theoretical relationships between violence and psychopathic components analogous to Facets 3 and 4, influenced the hypothesis that Facets 3 and 4 would predict both generic and sexual violence.
STUDY 1

Methods

Participants

From a sample of 529 sex offenders who were administered the Multidimensional Assessment of Sex and Aggression (the MIDSA, 2011) while incarcerated in prisons and special commitment facilities in Massachusetts and Minnesota, a subsample of 314 was selected because their archival records were sufficiently complete to rate both the PCL-R and crime-scene behavior. The sample comprised predominantly repeat offenders, some of whom had been deemed to have been sexually dangerous persons and civilly committed. The sample was predominantly Caucasian \( (n = 211, 67\%) \), with 60 African-Americans (19%), 15 Native Americans (5%), 15 Hispanics (5%), two Asians (<1%) and 11 undisclosed ethnicities (3%). At the time of assessment, the offender ages ranged from 20 to 68 years of age, with a mean of 39.06 years (\( SD = 9.66 \)). Fifty-six percent of offenders had assaulted a child under the age of 16 \( (n = 175) \), 40 percent had committed crimes against exclusively adult 16 years of age or older \( (n = 124) \), and the victim history of five percent were not included in their files. As juveniles under 17 years of age, these offenders committed 74 \( (M = .25, n = 281) \) serious sexual offenses and committed another 724 \( (M = 2.41, n = 298) \) after turning seventeen.

Measures

Predictor variables. Independent variables included self-report measures of sexual sadism and archival ratings of the PCL-R facets.
Sexual sadism ratings. The MIDSA (MIDSA, 2011) is a contingency-based, computerized inventory (formerly the Multidimensional Assessment of Sex and Aggression (the MASA; Knight et al., 1994) that assesses multiple domains relevant to sexual aggression. The overall strategy for creating and validating the MIDSA has been described in detail elsewhere (Knight & Cerce, 1999; Knight et al., 1994; MIDSA, 2011). The MIDSA’s Sexual Sadism scale, used in the present study, was a composite of two subscales: a seven-item Sadistic Fantasies scale and an eight-item Sadistic Behaviors scale. The internal consistencies for the fantasy scale and the behavior scale are .85 and .84, respectively, for adult male sex offenders. The correlation between the two scales is .79 in the same population, and the test-retest reliability on comparable samples has been reported as .81 (MIDSA, 2011).

Psychopathy ratings. Archival clinical and criminal files were rated using the PCL-R (Hare, 2003) by a research assistant trained by an approved PCL-R expert. The PCL-R consists of 20 items each rated on a 3-point scale based on the degree to which the item described the offender. The rater was blind to the hypotheses of the current study. Total scores reflect the extent to which the offender matches the description of a prototypical psychopath; the scores do not convey diagnoses. Total PCL-R scores and individual facet scores were calculated.

General violence outcome variables. The study included both an archivally-rated scale that measures general, non-sexual aggression, and two self-report scales from the MIDSA that assess juvenile and adult fighting and assaultive behavior.

Unsocialized general aggression (USAG). This archivally-rated scale measures the amount and frequency of general aggression displayed by the offender throughout his
life prior to imprisonment; the USAG excludes sexual offense related aggression. It is a
7-point Gutman scale, ranging from 0 (no evidence of unsocialized aggression) to 6
(evidence of occasional or frequent extreme unsocialized aggression, e.g., extreme
mutilation or brutal murders). The USAG was rated by a single rater who was blind to the
expectations of the current study. An interrater reliability estimate for this scale is
presented in the description of Study 2.

**Juvenile assault.** The MIDSA’s factor-generated Juvenile Fighting and
Assaultive Behavior scale includes five subscales measuring instances of fighting,
bullying, aggressive, and impulsive behavior. This scale excludes sexual aggression. The
aggressive scale spans childhood and adolescence, and the impulsivity scale focuses on
acting out in grammar school, middle school, and high school. Higher scores indicate
high incidence rates of fighting and impulsivity. The Cronbach alpha reported for adults
was .84 (MIDSA, 2011).

**Adult assault.** The MIDSA’s factor-generated, self-report scale, Adult Fighting
and Assaultive Behavior, was used to measure non-sexual adult assaultive behavior. This
scale includes five subscales that measure instances of carrying weapons, weapons
charges and convictions, assaultive crime charges and convictions, robbery charges and
convictions, as well as fighting and assaultive behavior. Higher scores indicated high
incidence rates of fighting, violent crimes, and weapons possession. The Cronbach alpha
for adult sexual offenders was .71 (MIDSA, 2011).

**Sexual crime outcome measures.** Exploratory factor analyses of ratings of
crime-scene behavior during sexual offenses from archival records yielded comparable
factors for both the Study 1 and Study 2 samples. Up to nine sexual offenses were coded
for the Study 1 sample. Three methods of concatenating behavioral information (the
mean level of severity across all crimes, the maximum level of severity for any behavior,
and the severity rating of the index crime behavior) yielded similar results. Only the
mean severity ratings were used in the data analyses because these ratings captured the
greatest amount of data and yielded the highest internal consistencies. A principal
components analysis with iterations yielded three factors with eigenvalues greater that
were rotated to VARIMAX criteria. Three factors consistently emerged: Violence
Severity, Sexual Control, and Sexual Behavior. These factors accounted for 38.48% of
the variance in Study 1 and 34.04% of the variance in Study 2. The sexual crime behavior
factors scale variables and reliabilities by rating type are presented in Table 1.

**Violence severity.** The Violence Severity factor scale accounted for 20.12% of the
variance and measured the mean severity of the items: broken bones; cuts, bruises, and
abrasions; expressive aggression before, during and after; injury requiring a doctor;
instrumental aggression; instrumental aggression; presence of a weapon; sadistic assault
of the genitals and/or breasts; stabbing; and the use of a weapon. The standardized
internal consistency of this factor scale was .80.

**Sexual control.** The Sexual Control factor scale, accounting for 9.63% of the
variance, measured the mean instances of blindfolding and/or gagging the victim and
tying the victim up during sexual crimes. The standardized Cronbach alpha for the Sexual
Control factor scale was .69.

**Sexual behavior.** The Sexual Behavior factor scale accounted for 8.72% of the
variance and measured the mean instances of anal penetration with the penis; performing
cunnilingus on the victim; fondling the victims’ genitals and/or breasts; kissing; vaginal
penetration using fingers/hands; the victim performing fellatio on the offender; and the victim masturbating the offender. The standardized internal consistency of the Sexual Behavior factor scale was .45.

Results

Reverse hierarchical multiple regressions were calculated to determine the unique contributions of sadism and the psychopathy facets to the prediction of all six outcome variables. Table 2 presents the respective $\Delta R^2$'s that occurred when the predictor variable was entered in Block 2 after the alternative was entered in Block 1. Sadism significantly contributed to the prediction of Juvenile and Adult assault, but not to the prediction of USAG. Sadism also contributed to the prediction of violence and control during the course of sexual crimes, but did not contribute to sexual behavior during a crime. The psychopathy facets uniquely contributed to the prediction of all three non-sexual violence measures. Psychopathy was a significant predictor of violence and sexual behavior during a crime, but not of sexual control. The only significant interaction between sadism scores and Total PCL-R Scores was in predicting the Violence Severity factor during the sexual crimes, $F(1, 279) = 5.82, p = .017; R^2 = .094$). Figure 1 illustrates that psychopathy scores increased violence most for those with the highest sadism scores.

Hierarchical multiple regressions with the four psychopathy facets entered in the first block and cross-factor facet interactions (F1 x F3, F1 x F4, F2 x F3, F2 x F4) in the second block were performed to determine the unique contributions of each interaction to the prediction of all six outcome measures. The relative predictive potencies of the PCL-R facets and their cross-factor interactions are shown in Table 3. Facet 1 (Interpersonal) significantly contributed to the prediction of Juvenile and Adult Assault, but negatively
predicted violence during the commission of a sexual crime. Facet 2’s (Affective) only contribution was to predicting violence during a sexual crime. Impulsivity (Facet 3) and Antisociality (Facet 4) predicted all three non-sexual violence measures. Antisociality also contributed to the prediction of Violence Severity during the sexual crimes. Interestingly, Antisociality covaried negatively with the Sexual Behavior during the course of a crime. The inclusion of the cross-factor interactions was largely inconsequential producing no significant $\Delta R^2$s. Facet 1 did, however, interact with Facet 4 to suppress the level of the Sexual Behavior factor during sexual crimes. Figure 2 illustrates that Facet 4 suppressed the Sexual Behavior factor most for those with the lowest Facet 1 scores.

Pearson’s correlation coefficients were calculated to determine the quantitative relationships between sadism, psychopathy, and each of the PCL-R facets. Table 4 presents the coefficients for these relationships. Sadism has low-order positive relationships, at the $p < .001$ significance level, with total PCL-R score, Facet 1, Facet 3, and Facet 4. The relationship between sadism and Facet 2 (Affective) was statistically insignificant, $r (294) = .09, p = .125$. 
STUDY 2

Methods

Participants

From a sample of 902 sex offenders who had been evaluated for commitment at a Massachusetts treatment facility between 1959 and 1991, a subsample of 599 was selected as part of a follow-up study (Knight & Thornton, 2007). The selection process, which required record completeness similar to that described in Study 1, is detailed elsewhere (Knight & Thornton, 2007). The subsample comprised predominantly repeat offenders, some of whom were deemed to have been sexually dangerous persons and civilly committed ($n = 266; 44\%$). The sample was predominantly Caucasian ($n = 545, 91\%$), with 54 non-Caucasian offenders (9\%), and three offenders whose ethnicities were undisclosed (<1\%). At assessment, offenders ranged in age from 17 to 73 years of age, with a mean of 36.26 years ($SD = 11.54$). Forty-six percent of the offenders had assaulted children under the age of 16 ($n = 277$), 37 percent had assaulted adults aged 16 years or more ($n = 222$), and 17 percent of the offenders had both child and adult victims. Prior to the age of 17, offenders in this sample amassed a total 139 ($M = .23, n = 585$) serious sexual offenses; after the age of 17 onward, they had committed 1,479 ($M = 2.50, n = 585$) additional sexual offenses.

Measures

**Predictor variables.** Independent variables included archivally-rated measures of sexual sadism and of the PCL-R facets.
Sexual sadism ratings. Archival clinical and criminal files were rated using the two-axis MTC:CM3 Child Molester Typology (Knight et al., 1989; Knight & King, in press) and the MTC:R3 Rapist Typology (Knight & Prentky, 1990; Knight, 1999, 2010). The overall strategies for creating and validating the CM3 and R3 have been described in detail elsewhere (Knight, 2010; Knight & King, in press). In previous studies of committed sex offenders, the interrater reliability of CM3 Axis I was $\kappa = .75$ and that of CM3 Axis II was $\kappa = .79$ (Knight, 1988). The overall reliability for CM3’s sadism classification was $\kappa = .60$ (Knight et al., 1989). The interrater reliability of R3 Axis I was $\kappa = .68$ (Knight, 1999). Child molesters who met the criteria for inclusion in the CM3 Axis II sadistic categories and rapists who met the criteria for inclusion in the R3 sadistic categories were classified as sexual sadists.

Psychopathy ratings. Similar to Study 1, the archival clinical and criminal files for the offenders in this study were rated using the PCL-R (Hare, 2003). Two trained raters who were blind to the hypotheses of the current study completed the archival ratings. Both raters were trained by the same expert who trained the raters in Study 1, who was also available to monitor the ratings and answer questions during the coding process (cf. Knight & Thornton, 2007). Total PCL-R scores and individual facet scores of dual-rated offenders were the average of the two ratings. Random subsets of offenders in this study were independently dual-coded and the inter-rater reliability was $.79 \ (n = 177)$ for total PCL-R scores; $.72 \ (n = 148)$ for Facet 1; $.59 \ (n = 169)$ for Facet 2; $.57 \ (n = 177)$ for Facet 3; and $.78 \ (n = 179)$ for Facet 4.

General violence outcome variables. Study 2 included only archivally-rated variables.
Unsocialized general aggression (USAG). This same scale used in Study 1 to measure the amount and frequency of general aggression displayed by the offender throughout his life prior to imprisonment – excluding sexual offense related aggression – was used in Study 2. Here, however, two independent raters blind to the expectations of the study coded the clinical and institutional files; the interrater reliability of 493 offenders in this sample was .67. When two raters coded an offender, the consensus rating of the two raters was used.

Juvenile assault. An archivally-rated, rational scale was created, measuring similar variables to those in its self-report companion MIDSA scale used in Study 1. The Juvenile Assault scale assessed instances of verbal and physical aggression toward schoolmates and teachers, instigation and involvement in fights, and truancy and conduct problems in grammar school and junior high school. This scale does not include instances of sexual violence. The standardized Cronbach alpha for this scale was .94 on the sample of 902 offenders from which this subsample was drawn. The interrater reliability of 370 offenders in this sample was .85.

Adult assault. An archivally-rated, rational scale was created as an analogue of the MIDSA scale used in Study 1. The Adult Assault scale measured instances of verbal and physical aggression toward coworkers and supervisors, instigation and involvement in fights, repeated aggressive and destructive behavior, physical aggression, verbal aggression, and assault arrests and charges. This scale excludes instances of sexual aggression. The standardized Cronbach alpha for this scale was .91 on the sample of 902 offenders from which this subsample was drawn. The interrater reliability of 397 offenders in this sample was .78.
Sexual crime outcome measures. The exploratory factor analysis of the Study 2 crime scene measures closely paralleled the factors in Study 1.

Violence severity. The same factor scale used in Study 1 was used in Study 2. On the originating sample of 902 offenders, the scale accounted for 18.09% of the variance, and the standardized Cronbach alpha was .78.

Sexual control. The same factor scale used in Study 1 was used here. The factor accounted for 9.77% of the variance in the originating sample, and the standardized Cronbach alpha for this factor scale was .74.

Sexual behavior. The same factor scale used in Study 1 was used in Study 2, with the addition of mean instances of the offender masturbating the victim. This variable was not coded in a mutually exclusive manner with the variable of performing cunnilingus on the victim as it had been in Study 1. In the sample with 902 offenders, the standardized internal consistency of this factor scale was .64, and it accounted for 6.18% of the variance.

Results

A strategy similar to the one used in Study 1 for analyzing the relative contributions of sadism and psychopathy to aggression was employed in Study 2. Reverse hierarchical multiple regressions were calculated to determine the unique contributions of sadism and the psychopathy facets to the prediction of all six outcome variables. For Study 2 the predictor variables’ respective $\Delta R^2$s when entered in Block 2 after the alternative was entered in Block 1 are also presented in Table 2. The archivally-rated sadism of Study 2 replicated the predictive patterns of self-report sadism in Study 1. The psychopathy facets in Study 2 similarly mimicked the predictive patterns of Study 2,
except that here the facets did significantly contribute to the prediction of the Sexual Control factor during sexual crimes, $F (4, 437) = 2.62, p = .035$. The interaction between sadism ratings and Total PCL-R scores did not contribute significantly to any of the models.

As in Study 1, hierarchical multiple regressions with the four psychopathy facets entered in the first block and cross-factor facet interactions (F1 x F3, F1 x F4, F2 x F3, F2 x F4) in the second block were calculated to determine the unique contributions of each to the prediction of all six outcome measures. The relative predictive potencies of the PCL-R facets and interactions for Study 2 are presented in Table 3. As in Study 1, Facet 1 (Interpersonal) significantly contributed to the prediction of Juvenile and Adult Assault and was ineffective in predicting the Sexual Control and Sexual Behavior sexual crime factors. In contrast, Facet 1 showed no relation to the Violence Severity sexual crime factor. Facet 2 (Affective) played a more versatile role in prediction for Study 2, mimicking the prediction of the Violence Severity sexual crime factor in Study 1, but also contributing to the prediction of all three non-sexual violence measures. Again, Impulsivity did not predict sexual crime behaviors. Unlike Study 1, however, Facet 3 only predicted Juvenile Assault and not the other non-sexual violence measures. Antisociality (Facet 4) predicted all six outcomes and consistent with Study 1 it covaried negatively with sexual behavior during the course of a crime. Cross-factor interactions did not produce significant $\Delta R^2$s in the models. Nevertheless, Facet 1 and Facet 4 did interact to increase the instances of Juvenile Assault. As can be seen in Figure 3, Facet 4 increased the instances of Juvenile Assault most in those with high Facet 1 scores.
Point biserial correlation coefficients were calculated to determine the quantitative relationships between sadism, psychopathy, and each of the PCL-R facets. The coefficients for these relationships are presented in Table 4. Sadism has low-order positive relationships, at the \( p < .01 \) significance level, with total PCL-R score, Facet 1, and Facet 4. The relationship between sadism and Facet 2 was significant at the \( p < .05 \) level; the relationship between sadism and Facet 3 (Impulsivity) was statistically insignificant, \( r (489) = .04, p = .329 \).
GENERAL DISCUSSION

This study addressed several critical issues about sadism and psychopathy—the overall relation between the two, the similarities and differences in the types of aggressive and sexual crime behaviors to which they relate, and the differential correlations of the psychopathy facets with aggressive and sexual crime behaviors. Results were consistent across multimethod assessment—self-report and ratings from archival files—and different methods of scaling—rationally-derived Gutman scales, factor scales, and categorical judgments. Psychopathy and sadism, although related, are not co-extensive and capture different aspects of aggression. Psychopathy predicted USAG, but sadism did not; whereas, both constructs related to the early manifestation of and the more extreme levels of violence (Juvenile and Adult Assault, respectively). Within psychopathy, the individual facets covary with different aspects of aggression. Whereas general aggression relates primarily with antisociality and secondarily with impulsivity, sexual aggression correlates with affective and antisocial components not impulsivity. The predominant correlation between antisociality and the non-sexual aggression variables, the inconsistent covariance of the interpersonal and affective facets with such violence, and the low incidence of interactions between facets in predicting non-sexual violence support Kennealy et al.’s (2010) assertions that Factor 2 is more involved in non-sexual violence than Factor 1, and that interactions between Factors 1 and 2 do not seem critical. Similarly, the interactions between sadism and psychopathy were not instrumental in predicting aggression. The current findings highlight the need to
differentiate between types of violence when determining the role that psychopathy facets and sadism play in prediction.

**Relation of Sadism and Psychopathy**

Despite the theoretical and clinical overlap of sexual sadism and psychopathy, little empirical work has specifically studied the relation between the two constructs (Geberth & Turco, 1997; Holt et al., 1999; Kirsch & Becker, 2007). The current study corroborated that the two are significantly, positively correlated (Holt et al., 1999; Porter & Woodworth, 2006). Sadism correlated with total PCL-R, Facet 1, and Facet 4. The psychopath and the sadist’s shared desire to control and dominate others, often as a means of obtaining a goal (Chan & Heide, 2009; Gratzer & Bradford, 1995; Hare et al., 1999; Hare & Neumann, 2008; Meloy, 1997; Walsh et al., 2007), may account for the relationship between sadism and Facet 1. Both sadism and psychopathy have been found to covary with early behavior problems—namely verbal and physical aggression—that continue well into their adult lives (Briken et al., 2006; Brown & Forth, 1997; Grubin, 1994b; Hare & Neumann, 2008; Harpur et al., 1989; Hill et al., 2006; Johnson & Becker, 1997b), which may be reflected in the relation between sadism and Facet 4. Although the correlations between sadism and the psychopathy dimensions were significant, they represented low effect sizes, indicating substantial divergences in the two constructs. Not surprisingly, they each yielded different patterns of covariation with varying types of violence.

**Correlations of Sadism with Violence**

Given the association between violence and heightened sexual arousal in sadists (Breslow, 1989; Herron & Herron, 1982; Holt et al., 1999; Johnson & Becker, 1997b;
Kirsch & Becker, 2007; Knight, 2010; Marshall & Kennedy, 2003; Marshall et al., 2002; Porter & Woodworth, 2006), it was hypothesized that sadism would predict both increased instances of and elevated severity of aggression. Sadism predicted both Juvenile and Adult Assault, consistent with the hypothesis that sadism covaries with increased levels of non-sexual violence throughout the lifespan. Interestingly, sadism did not correlate with increased levels of non-sexual violence severity, as measured by USAG. The increased number of assaults in the absence of severity elevations suggests a stronger relation to behavioral disinhibition or greater reactive aggression to minor frustrations, possibly a result of the sadist’s exposure to chronically unstable, abusive environments (Chan & Heide, 2009; Dietz et al., 1990; Gratzer & Bradford, 1995; Hare et al., 1999; Hill et al., 2006; MacCulloch, Gray, & Watt, 2000; Warren et al., 1996).

In contrast to its weak prediction of non-sexual violence severity, sadism significantly predicted the Violence Severity factor measured in sexual crimes. This correlation, in conjunction with sadism’s prediction of the Sexual Control factor, corroborates that control of a victim, as well as the victim’s pain and humiliation, synthesize with sexual arousal in sadists (Grubin, 1994a; MacCulloch et al., 1983; Marshall, Kennedy, Yates, et al., 2002; Siomopoulos & Goldsmith, 1976; Weinberg, 1987). On the contrary, sexual behaviors that are extraneous to achieving climax, as measured by the Sexual Behavior factor, were seemingly irrelevant and did not covary with sadism.

Given the disparities between the predominantly theory-driven hypotheses presented here and the empirically-derived associations, future researchers should incorporate more evidence-based operationalizations of sadism into their research. The
empirically-derived, behavioral correlates to sadism identified herein would serve as enhanced criteria for research operationalization as compared to the current practice of using either *DSM-IV-TR* (2000) “based” criteria that require inferences to be made or idiosyncratic definitions based on clinical experience (Knight & Thornton, 2007; Marshall & Hucker 2006a, 2006b; Marshall & Kennedy, 2003; Marshall et al., 2002; Marshall, Kennedy, Yates, et al., 2002; McLawsen et al., 2008; Mollinger, 1982). The use of frameworks empirically proven to be valid and reliable, such as the MIDSA and the MTC:R3/CM3 typologies, will allow future research to be analyzed in a collective manner without fear of obfuscations of sadism’s operationalization or measurement.

**Correlations of Psychopathy with Violence**

As in the case of sadism, there has been debate over the most appropriate means of measuring psychopathy (Cooke & Michie, 2001; Hare, 2003; Walsh & Kosson, 2008). The current research used the four facet approach to gain a more refined understanding of the relationships between the four psychopathic dimensions and violence. Collectively, the four facets predicted all three measures of general violence, the Violence Severity factor, and the Sexual Behavior factor, corroborating that psychopathy is associated with increased instances of violence and violence severity (Gretton et al., 2004; Hare et al., 1991; Hare & McPherson, 1984; Porter & Woodworth, 2006; Porter et al., 2003; Serin, 1991; Walsh & Kosson, 2008), as well as, a propensity to sexually exploit others (Hare & Neumann, 2009; Harris et al., 2007; Porter & Woodworth, 2006). The four facets did not aggregately predict the Sexual Control factor suggesting that the Sexual Violence factor may be the primary means of obtaining both a victim’s cooperation and coitus with the
Sexual Control factor playing a lesser role (Hare & Neumann, 2009; Hare et al., 1999; Porter & Woodworth, 2006; Serin, 1991).

The motivational underpinnings of psychopathic behavior are central to the study of the psychopathic personality. Here, the interpersonal dimension of psychopathy (Facet 1) significantly predicted both Juvenile and Adult Assault, suggesting that psychopaths successfully used verbal and physical aggression to intimidate and dominate as children – behavior that was solidified by adulthood (Hare & Neumann, 2009; Meloy, 2002; Porter & Woodworth, 2006). Impulsivity appears to play a crucial role in the young psychopath’s violent behavior, with Facet 3 predicting Juvenile Assault. It does not appear to play as integral a role as the psychopath ages. The affective component of psychopathy (Facet 2) relates to the Violence Severity factor of sexual assaults. In such situations, the attentional biases and difficulties processing affective cues might render psychopaths less likely to attend to/understand victim distress or to feel guilt/empathy in relation to victim plight (Blair et al., 1995; Hare et al., 1999). Finally, the Antisocial dimension (Facet 4) covaried with all measures of violence and violence severity, illustrating that antisocial/criminal activity begins at a relatively early age for psychopaths and continues unabated throughout their adult lives (Brown & Forth, 1997; Hare et al., 1999; Harris et al., 2007; Porter & Woodworth, 2006).

Limitations of the Current Research

Advances in assessment should facilitate much needed research on the etiology, function, manifestation, and treatment of psychopathy, as well as sadism. The current research attempted to bring us closer to understanding these two constructs, however, the research was not without limitations. Even though Study 1 participants were ensured
anonymity in their responses on the MIDSA, the accuracy of their responses must be
treated with caution given the host of distortions associated with retrospective data such
as memory failures and biased reporting of stressful experiences (Grabell & Knight,
2009). Similarly, we cannot attest to the accuracy of the information contained within the
archival records used in both studies. Although it is recognized that official records are
sometimes unreliable, this limitation should apply equally to both studies and to whatever
extent unreliability was encountered, it should have contributed unsystematically. Finally,
it is preferable to infer personality traits on the basis of both interview and file data rather
than file data alone, but scoring of the PCL-R exclusively from file review is defensible
for research purposes (Gretton et al., 2004; Hare, 2003; Marcus, Sanford, Edens, Knight,
& Walters, 2011). It is possible that the PCL-R scores in the current study are
underestimates, as is often the case when interviews are not performed, due to the
inability to accurately assess the personality traits associated with psychopathy (Factor 1;
Facets 1 and 2), even though some can be inferred from the archival data (Hare, 2003;
Williamson, Hare, & Wong, 1987). Future studies using file and interview information
are needed to address questions about the relative contribution of interpersonal, affective,
impulsive, and antisocial components of psychopathy to the prediction of violence.

**Future Directions**

The current study used data from two different samples and incorporated both
self-report and archival-rating methods of measurement to maximize the generalizability
of the findings; however, the data from the current study might have implications only for
convicted male offenders. The author is not in a position to say anything about the
violence of female psychopaths or sadists—two groups whose existence is not well
understood (Kirsch & Becker, 2007; Seto, Khattar, Lalumière, & Quinsey, 1997; Weinberg, 1987). Similarly, although there are sadists and psychopaths who do not offend (Dietz et al., 1990; Drukteinis, 1992; Krueger, 2010; Marshall & Kennedy, 2003; Meloy, 1997; Serin, 1991; Serin, Malcolm, Khanna, & Barbaree, 1994), only those who committed sexual crimes were the focus of this paper. There is a need to explore whether offenders versus non-offenders are qualitatively or quantitatively different (Hare et al., 1999; Hucker, 1997; Krueger, 2010). Finally, research differentiating among subgroups of offenders (i.e., child molesters versus rapists) might provide insight into whether the groups have distinctive psychopathology, which could have implications for assessment and treatment (Ahlmeyer et al., 2003; Beauregard, Stone, Proulx, & Michaud, 2008).

Clearly, a better understanding of psychopathy and sadism are needed so that earlier and more appropriate intervention and management strategies can be developed. While there are many logistical and financial reasons to have fixed treatment programming, the highly varied nature of the psychopathology found here indicates that the best treatment success will probably be found through relatively narrow treatment protocols focusing on specific dimensions of pathology (Ahlmeyer et al., 2003; Vitacco et al., 2005). The existence of a relationship between psychopathy and sadism has potentially important implications for the treatment and supervision of offenders. For instance, treatment selection criteria, intervention strategies, and treatment goals may vary according to the extent to which psychopathy and sadism are present in a particular offender (Serin et al., 1994). Although the current results provide valuable clues for treatment strategies, more must be done to assess the risks for pathology development so
that someday we may be able to focus our attention on prevention measures for at-risk youths.
APPENDIX A: TABLES

Table 1

Sexual Crime Behavior Factor Scale Variables and Reliabilities by Rating Type

<table>
<thead>
<tr>
<th>Factor Scale Loadings</th>
<th>Violence Severity</th>
<th>Sexual Control</th>
<th>Sexual Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken Bone(^a)</td>
<td>Ani with Finger/Hand(^b)</td>
<td>Anal with Penis(^c)</td>
<td>Cunnilingus on Victim</td>
</tr>
<tr>
<td>Cuts, Bruises and Abrasions</td>
<td>Ani with Object(^b)</td>
<td>Vaginal with Penis(^c)</td>
<td>Fellatio on the Offender</td>
</tr>
<tr>
<td>Expressive Aggression before/During</td>
<td>Vaginal with Penis(^c)</td>
<td>Vomiting Blindfold/Gag</td>
<td>Fondle Breast/Genitals(^b)</td>
</tr>
<tr>
<td>Injury Requiring Doctor</td>
<td>Victim Blindfold/Gag</td>
<td>Victim Tied Up</td>
<td>Kissing(^b)</td>
</tr>
<tr>
<td>Instrumental Aggression</td>
<td>Masturbate the Offender</td>
<td>Masturbate the Victim(^b)</td>
<td>Masturbate the Victim(^b)</td>
</tr>
<tr>
<td>Presence of Weapon(^a)</td>
<td>Vomiting with Finger/Hand/</td>
<td>Vaginal with Finger/Hand/</td>
<td>Voyeurism(^b)</td>
</tr>
<tr>
<td>Sadistic Assault of Genitals/Genitals(^b)</td>
<td>Use of Weapon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standardized Cronbach α</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Rating</td>
<td>.82</td>
<td>.80</td>
<td>.41</td>
<td>.53</td>
<td>.58</td>
<td>.61</td>
</tr>
<tr>
<td>Maximum Rating</td>
<td>.81</td>
<td>.78</td>
<td>.54</td>
<td>.51</td>
<td>.46</td>
<td>.57</td>
</tr>
<tr>
<td>Mean Rating</td>
<td>.80</td>
<td>.78</td>
<td>.69</td>
<td>.74</td>
<td>.45</td>
<td>.64</td>
</tr>
</tbody>
</table>

Note. \(^a\) loaded only on mean rating; \(^b\) loaded only on maximum rating; \(^c\) loaded only on index rating; \(^ab\) did not load on index rating; \(^ac\) did not load on maximum rating; \(^*\) did not load in Study 1 due to mutually exclusive coding with Cunnilingus on Victim.
Table 2

*Relative Strengths of Sadism, Psychopathy, and their Interaction in the Prediction of General Violence and Sexual Crime Behavior Factors*

<table>
<thead>
<tr>
<th>General Violence</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Predictor</td>
<td>$\Delta R^2$</td>
</tr>
<tr>
<td><strong>Unsocialized Aggression</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadism</td>
<td>.00</td>
<td>Sadism</td>
</tr>
<tr>
<td>Psychopathy Facets</td>
<td>.25 ***</td>
<td>Psychopathy Facets</td>
</tr>
<tr>
<td><strong>Juvenile Assault</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadism</td>
<td>.07 ***</td>
<td>Sadism</td>
</tr>
<tr>
<td>Psychopathy Facets</td>
<td>.11 ***</td>
<td>Psychopathy Facets</td>
</tr>
<tr>
<td><strong>Adult Assault</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadism</td>
<td>.12 ***</td>
<td>Sadism</td>
</tr>
<tr>
<td>Psychopathy Facets</td>
<td>.07 ***</td>
<td>Psychopathy Facets</td>
</tr>
</tbody>
</table>

| Sex Crime Behavior Factors | | |
|---------------------------|----------------|
| **Mean Violence Severity** | | |
| Sadism                    | .02 *          | Sadism   | .03 ***  |
| Psychopathy Facets        | .10 ***        | Psychopathy Facets | .11 *** |
| Sadism/Total PCL          | .02 *          | |
| **Mean Sexual Control**   | | |
| Sadism                    | .01 *          | Sadism   | .04 ***  |
| Psychopathy Facets        | .01            | Psychopathy Facets | .02 ** |
| **Mean Sexual Behavior**  | | |
| Sadism                    | .00            | Sadism   | .00      |
| Psychopathy Facets        | .05 *          | Psychopathy Facets | .08 *** |

*Note.* The $\Delta R^2$ reflects the change that occurred when this component was entered into Block 2 of the model with the alternative entered in Block 1; the interaction $\Delta R^2$ reflects the change that occurred when it was entered in Block 3. Interactions were calculated using the total PCL-R score, not the individual facets; insignificant interactions were not included in the table. Sadism ratings in Study 1 were self-report; sadism ratings in Study 2 were based on data in archival records. *$p < .05$. **$p < .01$. ***$p < .001$.***
Table 3

Relative Strengths of Psychopathy Facets and Cross-Factor Interactions (F1 x F3, F1 x F4, F2 x F3, F2 x F4) in the Prediction of General Violence and Sexual Crime Behavior Factors

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Predictor</td>
<td>β</td>
</tr>
<tr>
<td>General Violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Unsocialized Aggression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 Interpersonal</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.23***</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>.37***</td>
<td></td>
</tr>
<tr>
<td>2. Juvenile Assault</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 Interpersonal</td>
<td>.19**</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.22***</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>.24***</td>
<td></td>
</tr>
<tr>
<td>3. Adult Assault</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 Interpersonal</td>
<td>.14*</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.19**</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>.26**</td>
<td></td>
</tr>
<tr>
<td>Sex Crime Behavior Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Mean Violence Severity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 Interpersonal</td>
<td>-.12*</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>.19**</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>.18**</td>
<td></td>
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<tr>
<td>2. Mean Sexual Control</td>
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</tr>
<tr>
<td>F1 Interpersonal</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>3. Mean Sexual Behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 Interpersonal</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>F2 Affective</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>F3 Impulsivity</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>F4 Antisocial</td>
<td>-.27**</td>
<td></td>
</tr>
<tr>
<td>F1 x F4 Interpersonal*Antisocial</td>
<td>.16*</td>
<td></td>
</tr>
</tbody>
</table>

Note. The β reflects the standardized coefficient for this component in the full model with all four facets entered in Block 1 and all four interactions entered in Block 2. Insignificant interactions were not included in the table. Juvenile and Adult Assault ratings in Study 1 were self-report; Juvenile and Adult Assault ratings in Study 2 were based on data in archival records. *p < .05. **p < .01. ***p < .001.
Table 4

Correlation Matrices for Sadism, Psychopathy, and the Psychopathy Facets

<table>
<thead>
<tr>
<th></th>
<th>Psychopathy (Total PCL Score)</th>
<th>Facet 1 (Impersonal)</th>
<th>Facet 2 (Affective)</th>
<th>Facet 3 (Impulsive)</th>
<th>Facet 4 (Antisocial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadism (MDS.A)</td>
<td>.35***</td>
<td>.26***</td>
<td>.09</td>
<td>.28***</td>
<td>.27***</td>
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<tr>
<td>Psychopathy</td>
<td></td>
<td>.55***</td>
<td>.58***</td>
<td>.71***</td>
<td>.80***</td>
</tr>
<tr>
<td>Facet 1</td>
<td></td>
<td>.22***</td>
<td>.21***</td>
<td>.19**</td>
<td></td>
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<tr>
<td>Facet 2</td>
<td></td>
<td>.15**</td>
<td>.36***</td>
<td></td>
<td></td>
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<tr>
<td>Facet 3</td>
<td></td>
<td>.45***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadism (MTC Typology)</td>
<td>.16**</td>
<td>.14**</td>
<td>.10*</td>
<td>.04</td>
<td>.15**</td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
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<td>.69***</td>
<td>.71***</td>
<td>.79***</td>
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<td>.31***</td>
<td>.31***</td>
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<td>Facet 2</td>
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<td>.35***</td>
<td>.29***</td>
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<tr>
<td>Facet 3</td>
<td></td>
<td>.56***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Number of scores correlated provided in parentheses. Study 1 sadism was measured via self-report; Study 2 sadism was determined via archival ratings. *p < .05. **p < .01. ***p < .001.
APPENDIX B: FIGURES

Figure 1. Study 1; n = 294. Scatterplot of the interaction of low, moderate, and high self-reported sadism levels with archivally-rated total PCL-R scores on the Violence Severity factor during sexual crimes.
Figure 2. Study 1; n = 233. Scatterplot of the interaction of low, moderate, and high Facet 1 (Interpersonal) scores with Facet 4 (Antisocial) scores on the Sexual Behavior factor during sexual crimes; holding Facets 2 and 3 constant at zero.
Figure 3. Study 2; n = 409. Scatterplot of the interaction of low, moderate, and high Facet 1 (Interpersonal) scores with Facet 4 (Antisocial) scores on the commission of Juvenile Assaults; holding Facets 2 and 3 constant at zero.
REFERENCES


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