ELEVATED PSYCHOPATHY SCORES AMONG MIXED SEXUAL OFFENDERS

Replication and Extension

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Past research has revealed a relationship between sexual offending and psychopathy. Notably, offenders who sexually assault a minor as well as an adult (mixed offenders) score higher on the Psychopathy Checklist–Revised (PCL-R) than child sex offenders, rapists, and nonsex offenders. Moreover, both PCL-R Factor 1 (interpersonal-affective traits) and PCL-R Factor 2 (impulsive-antisocial traits) scores have been implicated in explaining these higher psychopathy scores. Using data from 2,514 male prisoners, focusing on a subset of 40 mixed offenders, we attempted to replicate and clarify these findings. As predicted, mixed offenders scored higher on PCL-R total and Factor 1 than other offender groups. Given this distinctive profile, greater understanding of the association between these psychopathic traits and mixed sexual offending may be crucial for evaluating and treating sex offenders as well as for reducing victimization.

Keywords: psychopathy; sex offenders; personality; Factor 1; stress reaction

Criminal sexual behavior comprises a wide spectrum of actions that affect diverse types of victims. Sex offenders violate the rights of these victims across a variety of situations through the use of self-gratifying tactics. However, sex offenders defy simple characterization because they are heterogeneous, both in constellation of predisposing factors and degree of severity (Hildebrand, De Ruiter, & de Vogel, 2004; Mann & Barnett, 2013).

Given the apparent heterogeneity of sex offenders, researchers have developed typologies and distinct sex offender profiles to facilitate identification of important etiological processes (Parent, Guay, & Knight, 2011, 2012; Walters, Knight, & Thornton, 2009; authors' note: This work was supported by Grant 5R21DA030876 from the National Institute on Drug Abuse (NIDA). We thank many at the Wisconsin Department of Corrections for their continued support of this research. We also thank Dr. Arielle Baskin-Sommers, PhD, and Rachel Bencic, MS. Correspondence concerning this article should be addressed to Allison R. Brown, 3333 N Green Bay Rd., North Chicago, IL 60064; e-mail: Allison.Brown@my.uw.edu.

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Woodworth et al., 2013). While recognizing the importance of refining general typologies, the goal of this study is more circumscribed. Specifically, we wish to replicate and extend previous research, which links the personality dimension of psychopathy with a sexual offender subtype whose offending includes both child and adult victims. To this end, we adopt a common sex offender typology that distinguishes child sex offenders, rapists, and mixed offenders (i.e., offenders who sexually assault both minors and adults) from non-sexual offenders (see also Porter et al., 2000).

Following others, we presume that each type reflects distinct antisocial behaviors and motivations. For example, child sex offenders are frequently characterized by low self-esteem (e.g., feelings of inadequacy) and poor social skills (Robertiello & Terry, 2007), and often use “grooming” techniques to manipulate their victims into complying with sexual abuse (Craven, Brown, & Gilchrist, 2006). According to Mann and Barnett (2013), they are also likely to view children as sexual beings and believe that their actions do not harm the victims. By contrast, research indicates that rapists are more likely to possess coercive sexual fantasies and use violence in the commission of their crimes (Marshall, Laws, & Barbaree, 1990). Rapists also tend to endorse negative views of women, such as believing that women enjoy coercive sexual advances or that they are subordinate to males (Kuznetsov, Pierson, & Harry, 1992). Furthermore, while some rapists are sexually motivated, others are motivated by anger or a desire for control and power (Robertiello & Terry, 2007). In some cases, rapists may experience intense anger and offend sexually so as to diffuse a psychologically threatening or emotionally uncomfortable state (Mann & Barnett, 2013).

Even though mixed offenders are defined by a combination of sex offenses that includes child and adult victims, their profile distinguishes them from child sex offenders and rapists. For instance, some have proposed that mixed offenders are characterized as thrill-seeking individuals who are prone to boredom and other psychopathic features (Porter, Campbell, Woodworth, & Birt, 2001; Saleh, Malin, Grudzinskas, & Vitacco, 2010). According to Cann, Friendship, and Gonza (2007), individuals who offend against a variety of age groups demonstrate a more general lack of empathy that goes beyond their treatment of women and children. Thus, although some have argued that virtually all sex offenders display empathy deficits (e.g., Mann & Barnett, 2013), the empathy deficits displayed by mixed offenders may be particularly severe and, some have suggested, rooted in a more far-reaching psychopathic style.

**PSYCHOPATHY**

Psychopathy is a personality disorder characterized by a range of interpersonal-affective and impulsive-antisocial symptoms that suggest a pervasive lack of empathy (Brook & Kosson, 2013; Hare & Neumann, 2009; Jonason & Krause, 2013; Roche, Shoss, Pincus, & Ménard, 2011). Individuals with psychopathy are callous and manipulative, and display a chronic failure to inhibit inappropriate actions (Cleckley, 1941; Patterson & Newman, 1993) that has been linked to defective perspective-taking (Decety, Chen, Harenaki, & Kiehl, 2013; Meffert, Gazzola, den Boer, Bartels, & Keysers, 2013; Newman & Baskin-Sommers, 2011). In addition, they display a propensity for substance use, aggression, and sexual promiscuity that attests to their predilection for sensation-seeking and violating the rights of others (Hildebrand et al., 2004; Neumann & Hare, 2008). Furthermore, their global disinhibition contributes to an antisocial lifestyle that appears to increase the likelihood of committing sex offenses (Quinsey, Rice, & Harris, 1995).
PSYCHOPATHY AND SEX OFFENDING

Substantiating the specific link between mixed sex offenders and psychopathic offenders, mixed sex offenders are more likely to demonstrate psychopathy-related traits (64%) than intrafamilial child sex offenders (i.e., offending against a relative; 6.3%), extrafamilial child sex offenders (i.e., offending against a nonrelative; 10.8%), nonsex offenders (34%), and rapists (29%-35.9%; Porter et al., 2000). Although these rates of psychopathy must be interpreted with caution owing to the relatively small sample sizes, the high prevalence of psychopathy among mixed offenders is relatively consistent (see also Porter et al., 2001) and suggests that these individuals share substantially more psychopathic features than other sex offender groups, including nonsex offenders. Furthermore, to the extent that the association between psychopathy and mixed sexual offending is a reliable one, it may help to clarify the heterogeneous risk assessment findings, recidivism rates, and treatment effects that characterize different sex offender groups (Hildebrand et al., 2004; Roche et al., 2011).

Hare’s Psychopathy Checklist–Revised (PCL-R; 2003) is the most widely used and arguably the best-validated measure of psychopathy (Hare & Neumann, 2008) and was the measure of psychopathy employed by Porter et al. (2000) in their investigation of sex offender subtypes. PCL-R psychopathy is also a risk factor for sexual recidivism, proving especially dangerous in combination with other sexually deviant preferences, and is therefore included in many sex offender risk evaluations (Hanson & Harris, 2000; Hare, Clark, Grann, & Thornton, 2000; Hawes, Boccaccini, & Murrie, 2013; Hildebrand et al., 2004; Porter, Brinke, & Wilson, 2009; Woodworth et al., 2013). Despite preliminary evidence that mixed offenders score higher on the PCL-R total score than other offenders, there is a need to replicate this finding and clarify which psychopathic traits distinguish mixed offenders from other sexual and nonsexual offenders. For instance, although mixed offenders score higher on PCL-R total and Factor 1 (i.e., reflecting the affective-interpersonal components of psychopathy) than child sex offenders, it remains unclear whether these scores distinguish them from rapists and nonsex offenders (Olver & Wong, 2006; Porter et al., 2009; Skrovan, Huss, & Scalora, 2010). Similarly, despite preliminary evidence that mixed offenders score higher on Factor 2 (i.e., reflecting the impulsive-antisocial lifestyle components of psychopathy) than child sex offenders, it is unclear whether they score higher on Factor 2 than both rapists and nonsex offenders (Olver & Wong, 2006; Skrovan et al., 2010).

CURRENT STUDY

The primary purpose of this study is to compare the mean PCL-R scores of mixed offenders with those of other sex offending and nonsex offending subgroups in a general prison population. In addition, we compare the Factor 1 and 2 scores of mixed offenders and other offender subgroups in an attempt to address conflicting results from previous research and determine whether particular components of psychopathy distinguishes mixed offenders and other offender subgroups. Finally, we also attempt to differentiate mixed offenders from other offender subgroups using the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982). Aside from its primary scales, the MPQ has been used to measure the two major factors of psychopathy as identified by the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996). Because interview-based measures of psychopathy like the PCL-R and self-report measures of personality like the MPQ assess psychopathy-related traits in different ways, we use both measures to elucidate the characteristics that
distinguish the mixed offenders from other offender groups. We hypothesize that, relative to other sex offender groups, the mixed offender group will display (a) higher PCL-R total scores, (b) higher PCL-R Factor 1 scores, and (c) higher scores on the MPQ equivalent of PCL-R Factor 1 (i.e., fearless dominance [FD]). In light of past results, no a priori hypotheses are specified for PCL-R Factor 2.

METHOD

PARTICIPANTS

Our sample consists of 2,514 male offenders, who were incarcerated in Wisconsin state prisons and assessed between the years 2000 and 2013. Participants were excluded if they were older than 45 (see Hare, Forth, & Strachan, 1992; Hare, McPherson, & Forth, 1988; Harpur & Hare, 1994), had an estimated intelligence of 70 or lower on either the Shipley Institutes of Living Scale–Revised (Zachary, 1986) or the Wechsler Adult Intelligence Scale–Third Edition (WAIS-III; Wechsler, 1997), were using a prescribed antipsychotic or tricyclic medication, or were diagnosed with a psychotic disorder according to their institution file.

Participants were assigned to one of four groups based on sex offense history: child sex offenders (i.e., intra- and extrafamilial offenders charged with a sex crime[s] against a minor[s] age 17 and below; n = 211), rapists (i.e., charged with sexually assaulting an adult[s] age 18 and above; n = 468), mixed offenders (i.e., charged with a sex crime[s] against a minor[s] as well as an adult[s]; n = 40), and nonsex offenders (i.e., never charged for a sexual crime; n = 1,795). Information used to classify each offender group was gathered from institutional files and included all adult charges and convictions.

PROCEDURE

Individuals meeting inclusion criteria were asked to participate in an ongoing study on the causes of incarceration and informed that participation was completely voluntary and would have no impact on their incarceration status. All inmates consenting to participate were asked to complete a diagnostic interview, a series of personality questionnaires, and a short measure of intelligence. Participants were paid US$15 for completing these assessments. All procedures were approved by the University of Wisconsin–Madison institutional review board.

MEASURES

The PCL-R

The PCL-R (Hare, 2003) is a clinical rating scale consisting of 20 items rated 0 to 2, based on the degree to which the trait is present. Items are rated using information gathered from a semistructured interview, as well as a review of institutional files. The items on the PCL-R are often divided into two factors (Hare et al., 1990; Harpur, Hakstian, & Hare, 1988; Harpur, Hare, & Hakstian, 1989), with Factor 1 representing the interpersonal and affective components of psychopathy (e.g., grandiosity, callousness, pathological lying) and Factor 2 representing the impulsive and antisocial lifestyle components of psychopathy (e.g., parasitic lifestyle, impulsivity, irresponsibility). Two of the 20 items (promiscuous sexual behavior and many short-term marital relationships) are not grouped with either factor but contribute to the total PCL-R score. The two primary factors of the PCL-R may be further disaggregated into two facets, forming a four-facet model (Cooke & Michie, 2001;
Hare, 2003; Hare et al., 1990; Neumann, Hare, & Newman, 2007). Factor 1 may be subdivided into interpersonal (Facet 1) and affective (Facet 2) facets, whereas Facets 3 and 4 consist of the impulsive and antisocial features of Factor 2, respectively. Trained undergraduate students, graduate students, and professional staff completed the PCL-R interviews and ratings. All interviewers were required to complete an intensive training process that included a thorough education of the following: the construct of psychopathy, the development of the PCL-R and PCL-R manual, the Factor structure of the PCL-R, and principles of PCL-R ratings. After this education, new interviewers shadowed experienced interviewers for several months until a very high level of reliability was reached. Dual ratings for PCL-R total scores were available for 559 participants. Using interclass correlation, the interreliability for these ratings was .915.

To investigate whether the four offender groups differed in the diversity of their criminal behavior, we computed a measure of criminal versatility using information from Item 20 of the PCL-R (Criminal Versatility). This index of criminal versatility includes 15 possible crime categories: theft, robbery, drug offenses, assault, murder, weapons, sex crimes, negligence or driving offenses, fraud, escape, kidnapping, arson, obstruction of justice, crimes against the state, and miscellaneous minor crimes. For the purposes of this study, criminal versatility was estimated using the total number of crime categories endorsed for each offender and could vary from 0 to 15.

Multidimensional Personality Questionnaire–Brief Form (MPQ-BF)

The MPQ-BF is a 155-item scale, requiring yes or no responses. The MPQ-BF trait scales are highly correlated with those of the full form MPQ and consistent with its higher order factors (Patrick, Curtin, & Tellegen, 2002). The MPQ includes 11 trait subscales: Well-Being, Social Potency, Achievement, Social Closeness, Stress Reaction, Alienation, Aggression, Control, Harm Avoidance, Traditionalism, and Absorption (Tellegen & Waller, 2008). MPQ data were available for 1,938 of the 2,514 participants used in the primary analyses, which represents 77% of the total sample.

The MPQ-BF was also used to assess the constructs of Fearless Dominance (FD) and Impulsive Antisociality (IA), reflecting the two higher order factors derived from the PPI (see Benning, Patrick, Hicks, Blonigen, & Krueger, 2003). The FD factor is characterized by social dominance, fearlessness, and grandiosity, resembling features of PCL-R Factor 1. The IA factor is related to general antisociality, substance abuse, impulsivity, and aggression, capturing core features of PCL-R Factor 2 (Benning, Patrick, Blonigen, Hicks, & Iacono, 2005). MPQ-FD and MPQ-IA scales contained 24 and 34 items, respectively. Empirical evidence suggests that the MPQ constructs of FD and IA account for a large proportion of the variance in their PPI counterparts ($r = .89$ and $.84$, respectively) and are highly similar to both their corresponding PPI and PCL-R factors (Benning et al., 2005; Benning et al., 2003; Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005).

RESULTS

PRELIMINARY ANALYSES

Prior to conducting primary analyses, we examined whether the mixed offender group differed from any of the other offender groups on age, race, and IQ. Analyses revealed no differences between the mixed offenders and the other three offending groups in age, race,
or IQ. Because mixed offenders by definition have multiple sex offenses (i.e., a sexual assault and molestation), we also examined the possibility that mixed offenders display greater criminal versatility than other offender subgroups. However, the mixed offenders did not commit more types of criminal behavior than the other groups, thus minimizing concerns that greater criminal versatility might inflate the PCL-R total scores of the mixed group. These and other descriptive data for the four groups are provided in Table 1.

### PRIMARY ANALYSES

All statistics reported in text (including tables) are orthogonal simple contrasts computed using SPSS. Given the use of discrete groups and continuous dependent variables, Cohen’s $d$ is reported for all simple contrast estimates of effect size (see Breaugh, 2003). One-way ANOVAs were used to assess group differences on PCL-R total, $F(3, 2,510) = 11.70, p < .001, \eta^2 = .014$; Factor 1, $F(3, 2,512) = 9.57, p < .001, \eta^2 = .011$; and Factor 2 scores, $F(3, 2,417) = 10.73, p < .001, \eta^2 = .013$. Given these significant findings, orthogonal contrasts were used to compare the mixed offenders with each of the other offender groups. These contrasts revealed that mixed offenders scored significantly higher PCL-R total scores than nonsex offenders ($p = .007, d = .46$), child sex offenders ($p < .001, d = .77$), and rapists ($p = .04, d = .36$). Mixed offenders also scored significantly higher on Factor 1 than nonsex offenders ($p = .004, d = .47$), child sex offenders ($p < .001, d = .75$), and rapists ($p = .04, d = .37$). In addition, mixed offenders scored significantly higher on Factor 2 than child sex offenders ($p < .001, d = .58$); however, inspection of the other group means revealed that this was due to the low Factor 2 scores of child sex offenders rather than the high Factor 2 scores of mixed offenders (see Table 2). As such, no further Factor 2 analyses are discussed, but see Table 2 for Facet 3 and 4 results.

Given that mixed offenders were differentiated from other offender groups on Factor 1 scores, we conducted similar analyses and orthogonal contrasts using PCL-R Facets 1 (interpersonal) and 2 (affective) scores in place of PCL-R Factor 1 scores to clarify which facet was responsible for the Factor 1 difference. One-way ANOVAs revealed significant
group differences for both Facet 1, \( F(3, 2,512) = 6.20, p < .001, \eta^2 = .002 \), and Facet 2, \( F(3, 2,512) = 12.00, p < .001, \eta^2 = .005 \). For Facet 1, orthogonal contrasts revealed that mixed offenders scored significantly higher than child sex offenders \( (p = .001, d = .57) \), although only trend-level differences were seen for rapists \( (p = .06, d = .30) \) and nonsex offenders \( (p = .08, d = .27) \). Analyses of Facet 2 revealed that mixed offenders scored significantly higher than nonsex offenders \( (p = .002, d = .54) \) and child sex offenders \( (p < .001, d = .67) \) but differed from rapists at a trend level only \( (p < .1, d = .32) \); see Table 2).

In addition to evaluating PCL-R Factor 1 and Factor 2, we evaluated the self-report analogue of these components using the MPQ-BF. Consistent with findings using the PCL-R, we found that mixed offenders reported significantly higher levels of FD than child sex offenders \( (p = .05, d = .38) \), and trend-level differences for the comparisons involving nonsex offenders \( (p = .09, d = .30) \) and rapists \( (p = .07, d = .33) \). Paralleling the follow-up analyses conducted for Factor 1, we examined which of the three FD subscales (i.e., Social Potency, Fearlessness, Stress Reaction) differentiated the mixed offenders from the other groups. These analyses revealed statistically significant effects for Stress Reaction but not for Fearlessness or Social Potency. As shown in Table 2, mixed offenders had significantly lower Stress Reaction scores than nonsex offenders \( (p = .03, d = .46) \), child sex offenders \( (p = .05, d = .42) \), and rapists \( (p = .03, d = .46) \). Comparable analyses employing Impulsive Antisociality in place of FD yielded no significant effects (all \( p > .50 \)).

**Supplemental Analyses**

Although the mixed sex offender group did not differ from the other offender subgroups in criminal versatility, they did commit more sexual offenses than both child sex offenders \( (p = .05, d = .25) \) and rapists \( (p < .001, d = .80) \). This is to be expected, as categorization into the mixed offender group requires two sexual offenses (child and adult victim). In addition,
we found that mixed offenders and rapists committed similar numbers of sexual assaults, but child sex offenders committed more molestations than the mixed group ($p < .001$, $d = .34$; see Table 1).

**DISCUSSION**

This study aimed to replicate previous findings regarding the high PCL-R scores of mixed offenders and determine which psychopathic and other personality-related features distinguish mixed offenders from other offender subgroups. Consistent with past research (Olver & Wong, 2006; Porter et al., 2009; Porter et al., 2000; Skrovan et al., 2010), we found that mixed offenders scored significantly higher on PCL-R total scores than the other three offender subgroups examined in this study. Moreover, this finding was mirrored in results for PCL-R Factor 1 scores, which were also significantly higher in the mixed offenders than all other groups. Although the mixed group scored higher than the other groups on both facets of PCL-R Factor 1, this pattern of significant findings for both facets highlights the importance of overall PCL-R Factor 1 scores (i.e., the two facets combined).

Combined with previous results (Olver & Wong, 2006; Porter et al., 2009; Porter et al., 2000; Skrovan et al., 2010), our findings provide strong evidence that mixed offenders display higher levels of interpersonal and affective (Factor 1) psychopathic traits than nonsex offenders, rapists, and child sex offenders. Mixed offenders also displayed higher levels of PCL-R Factor 2 traits, including both Facet 3 (lifestyle) and Facet 4 (antisocial) traits, than child sex offenders. However, this finding appears to reflect the relatively low level of impulsive-antisocial traits in child sex offenders primarily because the Factor 2 scores of the mixed offenders did not differ from those of rapists or nonsexual offenders. Finally, as in prior studies reporting high base rates of psychopathy among mixed offenders (Porter et al., 2009; Porter et al., 2000), the rate of psychopathy was highest in the mixed offenders although it was only significantly higher than the rate of psychopathy in child sex offenders.

Additional insight into the personality profile of the mixed offender group is provided by our MPQ findings, specifically, that mixed offenders scored significantly higher on the FD dimension than the other groups. This, combined with mixed offender’s significantly lower scores on the stress reaction component of FD, indicates that mixed offenders do not fit the personality profile of the diffident, socially timid individual often associated with other groups who sexually offend against children (Robertello & Terry, 2007). To the contrary, the personality traits associated with the mixed offender subtype (e.g., high Factor 1 scores, high FD scores) suggest a proclivity toward bold engagement in exploitative behavior (Patrick, Fowles, & Krueger, 2009), which may help to explain the diverse victim type of mixed offenders.

Whereas PCL-R total and Factor 1 scores differentiate mixed offenders from other offender groups, the MPQ data suggest that mixed offenders may resemble a variant of psychopathy, referred to as emotionally stable (Gray, 1987; Hicks, Markon, Patrick, Krueger, & Newman, 2004; Karpman, 1950). Emotionally stable psychopathic individuals, similar to mixed offenders, show low levels of stress reactivity. Perhaps as a result, researchers suggest that emotionally stable psychopaths are more likely to engage in risky behavior and less likely to be affected by negative life events. The distinctively low levels of stress reaction associated with mixed offenders may not only fail to deter them from perpetrating
future sexual offenses but may also prompt them to diversify their sexual offending targets. In other words, mixed offenders may be able to satisfy a range of self-serving exploitative urges with less discomfort than other offenders.

The current results highlight the importance of Factor 1 psychopathic traits, such as callousness, manipulativeness, and grandiosity, in differentiating mixed offenders from non-sexual offenders and even rapists. Although recent studies have revealed Factor 1 as having little predictive utility regarding reoffense patterns of criminal offenders (see Leistico, Salekin, DeCoster, & Rogers, 2008), some have pointed to the importance of Factor 1 characteristics, such as manipulation and lying, as important considerations when examining the efficacy of treatment programs. Specifically, recent research has suggested that, although there is not a direct link between Factor 1 and recidivism, Factor 1 is predictive of poor compliance within treatment settings as well as treatment attrition, both of which may interfere with successful treatment outcomes (see Wong, Gordon, Gu, Lewis, & Olver, 2012). Moreover, although Factor 1 alone may not directly influence the likelihood of recidivism, researchers have suggested that the interaction of Factor 1 traits and other risk factors specific to sexual offenders (e.g., sexual deviancy) may increase the likelihood of sexual reoffense (Hildebrand et al., 2004; Yang, Wong, & Coid, 2010). Such findings may have important implications for sex offender treatment in both individual and group settings as therapists and group facilitators may face unique challenges in working with psychopathic sex offenders (Hildebrand et al., 2004). Accordingly, the mixed sex offender subtype may require specialized treatment. Specifically, some have argued that the mixing of low-risk offenders with high-risk offenders in groups may actually increase the risk of recidivism for low-risk offenders (Andrews & Bonta, 2010). The fact that psychopathic individuals consistently show elevated rates of general and violent recidivism and are characteristically prone to violating terms of probation or parole (Harris, Rice, & Cormier, 1991; Hemphill, Hare, & Wong, 1998; Serin, 1996) also highlights the potential importance of specialized treatment. Thus, there is a need for more research to investigate the implications of combining high- and low-risk sex offenders in group therapy, and relatedly, to determine whether programs should be tailored for mixed offenders.

Although this study provides new insights regarding the psychopathic characteristics of mixed sexual offenders, it is important to identify its limitations. First, the child sex offender group in the current sample consisted of both intra- and extrafamilial offenders. As previous studies have illustrated that intrafamilial child sex offenders score lower on measures of psychopathy than extrafamilial child sex offenders (e.g., Rice & Harris, 2002), the level of psychopathic traits reported in the present study is likely to be influenced by the proportion of intra- versus extrafamilial offenders. Nevertheless, previous research also demonstrates that rapists and nonsex offenders score higher on the PCL-R than both intra- and extrafamilial offenders (Porter et al., 2000). In light of the fact that mixed offenders received higher PCL-R scores than both the rapists and nonsex offenders in the present study, it stands to reason that the mixed offender group would also receive higher PCL-R scores than the child sex offenders regardless of the proportion of intrafamilial and extrafamilial offenders in this group. Thus, our inability to distinguish between intra- and extrafamilial offenders in the child sex offender group is unlikely to meaningfully affect conclusions regarding the elevated psychopathy scores of mixed offenders.

An additional limitation regarding the child sex offender group is that the group consisted of individuals who offended against minors (i.e., age 17 and younger), although
previous studies have often used more stringent age criteria to define the child sex offender (Olver & Wong, 2006; Porter et al., 2009; Porter et al., 2000). Such a broad definition of a child sex offender could lead to overlap in crimes, such that if an offender assaulted two victims, ages 17 and 18, he would be classified as a mixed offender, despite the similarity of his offenses. Nevertheless, the fact that our analyses revealed significant differences between mixed offenders and both rapists and child sex offenders despite the use of less stringent criteria may indicate that the use of a stricter age criterion would strengthen rather than refute the current findings.

A final concern pertains to the substantial differences in sample sizes among the four offender groups. Given the rarity of mixed offenders, this group was much smaller than the other offender groups, particularly the nonsex offender group. Nevertheless, the inclusion of 40 mixed offenders may also be viewed as a strength of the present study as previous studies have employed even smaller sample sizes (Olver & Wong, 2006; Porter et al., 2009; Porter et al., 2000; Skrovan et al., 2010). In light of the overlapping results, particularly with respect to the higher PCL-R total scores of mixed offenders, our findings serve to bolster the generalizability of these findings and the distinctiveness of the mixed offender subgroup of sex offenders.

CONCLUSION

In conclusion, the present study provides strong support for previous findings linking the mixed sex offender subtype to psychopathy and, in particular, highlights the relevance of the interpersonal and affective symptoms of psychopathy. As such, greater understanding of the distinctive association between mixed sexual offending and these psychopathic traits may be crucial for the assessment and treatment of sex offenders, and ultimately for reducing victimization.

NOTES

1. This number corresponds to the number of participants who had full PCL-R and crime data. However, 5 subjects were missing data for age (<.01% of total), 6 subjects were missing data for race (<.01% of total), and 375 subjects were missing intelligence data (15% of total). We included the greatest possible number of subjects in the primary analyses (2,514) to maximize power and because the missing data were not important for addressing the primary research questions.

2. Due to a change in project priorities, the WAIS subscales were substituted for the Shipley-based estimate of IQ beginning on July 1, 2011. As both measures are used to estimate a standard intelligence quotient, this quotient was used in analyses as our measure of IQ. Out of our total 2,514 participants, 1,875 completed the Shipley estimate of intelligence (74.58%), while 639 completed the WAIS subscales (25.42%).

REFERENCES


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