

PERSONALITY DISORDER PROFILES IN INCARCERATED MALE RAPISTS AND CHILD MOLESTERS

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This study examined personality disorders and their features in two groups of incarcerated male sexual offenders, rapists (N = 251) and child molesters (N = 311). These groups were compared to a control group of non-sexual offenders (N = 296). All of these inmates (N = 858; M age = 35 years, range 17-73 years) had been routinely administered the Coolidge Correctional Inventory (CCI), a 250 item, self-report, DSM-IV-aligned, personality and neuropsychological inventory, upon their admission to the Colorado Department of Corrections. The anonymized data were analyzed through analyses of variance and chi-square. The results indicated that non-sexual offenders do have more classically criminal personality characteristics than sexual offenders, however, the rapists appeared to have more important psychopathological similarities with the non-sexual offenders, particularly in regard to antisocial and sadistic personality traits, than with the child molesters. Limitations of the study are discussed, including the use of a self-report measure and validation of criminal history.

This study examined personality disorders and their features in two groups of incarcerated sexual offenders, rapists and child molesters. A previous study using the *Millon Clinical Multiaxial Inventory* (MCMI-III) (1) by Ahlmeyer et al. (2) compared incarcerated rapists (N = 223) and child molesters (N = 472) with non-sexual offenders (N = 7,226) and found that non-sexual offenders had more classically criminal personality characteristics such as antisocial, narcissistic, and sadistic personality disorders, whereas sex offenders were more likely to have personality disorders related to emotional and social distress, for example, depressive, avoidant, and schizoid personality disorders.

With regard to differences between the sex offender groups, Ahlmeyer et al. (2) found both groups had the highest prevalence rates for the avoidant personality disorder (28% of rapists met criterion whereas 41% of child molesters met criterion) and this difference was significant (odds ratio, $p < .05$).

The two groups were not significantly different in their prevalence of antisocial personality disorder (rapists, 25%; child molesters, 24%). The largest difference in prevalence rates was for dependent personality disorder (rapists, 17%; child molesters, 30%). There was also a significant difference in prevalence rates for depressive personality disorder; 30% of the child molesters met criterion, whereas only 20% of the rapists met criterion. Child molesters had significantly greater prevalence rates than rapists on self-defeating personality disorder (child molesters, 18%; rapists, 11%). Finally, child molesters had significantly greater prevalence rates for schizoid personality disorder (child molesters, 18%; rapists, 12%).

Ahlmeyer et al. (2) concluded that sexual offenders had greater levels of psychopathology in affective and social spheres than non-sexual offenders. They also concluded that child molesters had high levels of psychopathology compared to rapists, and child molesters' disturbances did not appear to be "classically" criminal. One potential limitation with this study is that the MCMI-III adjusts the personality disorder scores according to base rates of the prevalence of these disorders in the general population (1). Thus, the previously noted prevalence rates in the Ahlmeyer et al. study must be interpreted with caution.

In a retrospective archival study, Craig and colleagues (3) also examined personality traits in sex offenders and non-sex offenders. Interestingly, their study consisted of a sexual offender group (N = 85), a violent non-sexual offender group (N = 46), and a general offender group (N = 22). Of these 153 offenders, 139 had completed the Special Hospitals Assessment of Personality and Socialization (SHAPS) (4). They found that violent offenders displayed greater psychopathology than the other two groups and were characterized by psychopathic deviate and aggressive traits. The violent offenders scored significantly higher on the Hostility, Depression, Tension, Psychopathic Deviate, Impulsivity, and Aggression scales than the sexual and general offender groups. The sexual offender group shared more personality traits in common with the general offender group than with the violent offenders. One problem with the Craig et al. study was that their assessment measure was not aligned with the diagnoses and the criteria in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR) (5), which is the

prominent diagnostic and classification system for much of the Western world (6, 7).

Shechory and Ben-David (8) examined whether anxiety and aggression are important variables for distinguishing rapists from child molesters. The participants in their study consisted of 88 incarcerated, convicted, randomly selected male sexual offenders, who were divided into two groups; rapists ($N = 43$) and child sexual molesters ($N = 45$). Each offender completed the Spielberger State-Trait Anxiety Inventory (9), as well as the Buss-Durkee Hostility Inventory (10). They found that rapists had significantly higher levels of aggression, assault, indirect hostility, negativism, and verbal hostility than child molesters. In contrast, no differences in levels of state or trait anxiety were found between the two groups. Shechory and Ben-David proposed that a possible explanation for not finding significant differences between the two groups in levels of anxiety might be due to the sample having been incarcerated sexual offenders versus non-incarcerated sexual offenders. These researchers considered that the impact of imprisonment may in itself increase anxiety for sexual offenders, given their exposure to more hostility and violence from other non-sexual offenders, so that any differences between the rapists and child molesters were nil. Nonetheless, Shechory and Ben-David concluded that although both groups were not significantly different in levels of state or trait anxiety, they still likely suffer from sexual anxiety but the nature of the sexual anxiety might differ for each group. They hypothesized that rapists fear heterosexual relationships whereas molesters are afraid of performing the sexual act with other adults. Thus, the child molesters choose children to meet their intimacy needs, whereas rapists would be more likely to be driven by the need to compensate for their inadequacy in heterosexual relationships by dominating or controlling their victims to prove their sexual capability. Based on these speculations, it would appear more likely that child molesters would be more avoidant than rapists of other people their own age, whereas rapists would be more likely to show antisocial traits.

In light of the previous review, the following hypotheses were made about incarcerated sexual offenders: 1) Non-sexual offenders would have higher levels of narcissistic, antisocial, and sadistic personality traits than sexual offenders; 2) Rapists would have higher levels of antisocial and narcissistic personality traits than child molesters; 3) Child molesters would

have higher levels of avoidant, dependent, schizoid and self-defeating personality traits than rapists and non-sexual offenders; 4) Child molesters would have higher levels of depression and anxiety than rapists and non-sexual offenders.

METHOD

Participants and Procedure

Upon routine admission, 19,505 inmates had been administered the 250-item, self-report, personality and neuropsychology inventory (Coolidge Correctional Inventory [CCI], [11, 12]) over a five year period. The CCI is routinely administered to all inmates upon intake by the Colorado Department of Corrections (CDOC) staff, and institutional research permission was obtained to use anonymized archival data from the CDOC. The CCI protocols were first scrutinized for test validity (no random responding, not more than 15 items left blank, and excessive denial and excessive endorsement [for the latter two scales this meant greater than three SDs from the normative means]). This procedure eliminated approximately 19% of the total sample from further scrutiny.

Next, a sample of rapists was chosen (e.g., sex offenses against adults, including sexual assault, sexual assault of the physically helpless, and sexual assault causing submission of the victim; $N = 251$; M age = 35 years, $SD = 10.53$ years), and a sample of child molesters (e.g., sexual exploitation of a child, sexual assault on a child by one in a position of trust, and aggravated incest; $N = 311$; M age = 33 years, $SD = 9.49$ years). A control sample of non-sexual offenders (e.g., burglary, escape, drug possession, kidnapping, assault, murder, forgery, and menacing; $N = 296$; M age = 38 years, $SD = 12.03$ years) was then chosen to approximate the sample sizes and age of the participants for each of the previous two groups. The final sample consisted of 858 adult male inmates (ages 17 to 73 years; M age = 35 years, $SD = 10.96$). The child molester group was significantly younger than the rapist group and the non-sexual offender group, although the effect size was small. The ethnicity of the offenders was: 56% Caucasian, 26% Hispanic, 15% African-American, 2% American-Indian, and less than 1% Asian.

Measure

The Coolidge Correctional Inventory (11, 12) is a self-report, DSM-IV-TR aligned, personality and neuropsychological inventory, which assesses (among other Axis I, Axis II, and neuropsychological disorders) 12 personality disorders from Axis II and the appendix of DSM-IV-TR and two personality disorders from DSM-III-R (sadistic and self-defeating) and two DSM-IV-TR Axis I disorders (generalized anxiety disorder and major depressive disorder). The norms for the CCI are based on a nonclinical, unincarcerated, community-based sample of purportedly normal adults ($N = 718$; 358 males and 358 females; M age = 30.3 years old, $SD = 15.2$ years; age range = 16 to 83 years). Approximately 76% were Caucasian, 4% were African-American, 7% were Hispanic, 3% were Asian, and 10% were in a mixed ethnicity category. Approximately, 65% were single or divorced at the time of test administration, 25% were married, and 10% were in an "other" category. The preliminary internal scale reliabilities for the CCI Axis I and Axis II scales were good with a median $\alpha = .75$ (range: $\alpha = .58$ to $.85$), and factor analyses supported the expected conceptual structures of the personality disorders scales (13). The original CATI, upon which the CCI is based, has excellent test-retest (median) reliability ($r = .90$) across its scales (14). According to the CCI manual (11), a T score of 70 or above on any scale is considered to be clinically significant (i.e., the disorder in question is highly likely to be present). Each CCI item is answered on a 4-point Likert-type scale ranging from 1 (strongly false), 2 (more false than true), 3 (more true than false), to 4 (strongly true). There are two validity scales: a 97-item Deny Blatant Pathology scale measuring excessive denial or malingering, and a 3-item Random Responding scale.

RESULTS

The four main hypotheses were tested with analyses of variance (ANOVA) for the 14 personality disorders and two Axis I scales (Generalized Anxiety Disorder and Major Depressive Disorder). Results are summarized in Table 1. Tukey's post hoc analyses were used to examine mean differences ($p < .05$) between the three groups. Of the 14 personality disorder scales, six achieved a small effect size, whereas eight failed to reach even a small effect size ($\eta^2 = .01$). Both Axis I disorders had a small effect size.

Table 1. CCI Scale Means, ANOVA, Post Hoc Results, and Effect Sizes

Personality Disorders and Clinical Syndromes	Non-sexual Offenders Mean (SD)	Rapists Mean (SD)	Child Molesters Mean (SD)	F	Eta Squared η^2
Antisocial	54.9 (9.9)	53.6 (10.8)	50.9 (9.7)	12.26**	.03
Avoidant	47.4 (8.2)	50.8 (9.7)	52.7 (10.1)	24.76**	.05
Borderline	47.5 (7.6)	49.3 (9.6)	49.0 (9.5)	3.02	.007
Dependent	46.2 (8.9)	49.0 (9.1)	50.2 (10.6)	13.40**	.03
Depressive	44.1 (10.1)	47.6 (11.8)	49.1 (12.7)	14.81**	.03
Histrionic	43.8 (8.3)	43.2 (8.3)	42.8 (8.2)	1.30	.003
Narcissistic	43.0 (8.6)	41.9 (8.7)	42.3 (8.7)	1.14	.002
Obsessive-Compulsive	45.0 (9.0)	46.8 (10.1)	47.1 (10.0)	3.91*	.009
Paranoid	51.1 (9.6)	50.7 (10.3)	50.6 (11.1)	0.13	.001
Passive-Aggressive	46.4 (9.1)	47.3 (10.1)	47.7 (10.1)	1.48	.003
Schizotypal	47.9 (10.2)	49.6 (11.1)	50.0 (12.3)	2.75	.006
Schizoid	53.2 (9.6)	55.4 (11.1)	56.1 (11.2)	6.03**	.01
Sadistic	47.9 (9.5)	47.1 (9.5)	45.1 (8.6)	7.66**	.02
Self-Defeating	51.9 (9.5)	53.1 (10.1)	53.9 (10.5)	2.93	.007
Anxiety	47.4 (9.6)	50.3 (11.5)	51.2 (11.5)	9.76**	.02
Depression	48.9 (9.2)	52.5 (11.9)	53.5 (12.2)	14.13**	.03

Note. * $p < .05$; ** $p < .01$ Tukey HSD: means with similar superscripts are not significantly different. Eta Squared effect sizes: .01 = small, .06 = medium, .14 = large.

Hypothesis 1: As predicted, non-sexual offenders were higher on the Antisocial scale than child molesters but contrary to the hypothesis, non-sexual offenders were not significantly different than rapists. Also as predicted, non-sexual offenders were significantly higher than child molesters on the Sadistic scale but not significantly higher than rapists. Contrary to the hypothesis that non-sexual offenders would be more narcissistic, there were no significant differences among the three groups.

Hypothesis 2: As predicted, rapists had significantly higher levels of antisocial personality traits than child molesters. However, contrary to this hypothesis, rapists did not differ from the child molesters in narcissistic personality traits.

Hypothesis 3: As hypothesized, child molesters had higher levels of avoidant personality traits than rapists and as predicted they were also more avoidant, dependent and schizoid than non-sexual offenders. However, contrary to this hypothesis, no significant differences were found between child molesters and rapists in dependent and schizoid personality traits. Also, contrary to this hypothesis, no differences were found among the groups on the Self-Defeating scale.

Hypothesis 4: This hypothesis was only partially supported as child molesters, as predicted, were significantly higher on both the Generalized Anxiety and Major Depressive scales than non-sexual offenders but there were no significant differences between the sex offender groups.

Additional Findings: On the Depressive Personality Disorder scale, non-sexual offenders showed lower levels than the rapist and child molester group. Child molesters were higher than non-sexual offenders on the Obsessive-Compulsive scale but not significantly different from rapists and the latter two groups were not different from each other.

A number of patterns can be gleaned from these results. Both types of sexual offenders appear to be more impaired in the areas of affective functioning than non-sexual offenders. The two groups most different from each other were the non-sexual offenders and child molesters, with significant differences on seven personality disorder scales and both Axis I scales (non-sexual offenders scored higher than child molesters on the Antisocial and Sadistic scales and scored lower on the Avoidant, Dependent, Depressive, Obsessive-Compulsive, and Schizoid scales; non-sexual offenders scored significantly lower on the Generalized Anxiety Disorder and Major Depressive Disorder scales). Rapists, in contrast, differed from non-sexual offenders on four personality disorder scales and both Axis I scales (non-sexual offenders scored lower on the Avoidant, Dependent, Depressive, and Schizoid scales; non-sexual offenders scored significantly lower on the Generalized Anxiety Disorder and Major Depressive Disorder scales).

Table 2. The Percentage of Inmates Meeting CCI Criterion (T score \geq 70) for a Personality Disorder

Personality Disorders	Non-sexual Offenders	Rapists	Child Molesters	χ^2	p
Antisocial	19.3	12.4	6.4	22.69	.001*
Avoidant	17.2	29.5	37.6	31.42	.001*
Borderline	8.1	15.1	16.7	10.82	.004*
Dependent	2.4	5.6	8.0	9.66	.008*
Depressive	5.4	12.0	15.8	16.78	.001*
Histrionic	9.5	8.4	9.0	0.19	.91
Narcissistic	16.9	11.6	9.0	8.92	.01*
Obsessive-Compulsive	23.0	24.3	21.9	0.47	.79
Paranoid	15.2	15.1	17.4	0.71	.70
Passive-Aggressive	6.4	12.0	11.6	6.18	.04*
Sadistic	7.8	5.6	5.5	1.67	.43
Self-Defeating	3.0	6.0	7.1	5.13	.08
Schizotypal	5.7	13.1	15.1	14.48	.001*
Schizoid	12.2	22.7	21.2	12.35	.05*

*p < .05.

Chi-square tests were conducted to compare the rates of the personality disorders (T score \geq 70) among the three offender groups. The results are presented in Table 2. As can be seen in Table 2, the greatest prevalence rate for non-sexual offenders was for obsessive-compulsive, antisocial, avoidant, and narcissistic personality disorders (in order of their prevalence). For rapists and child molesters, avoidant personality disorder had the highest prevalence rate, followed by obsessive-compulsive, schizoid, paranoid, and borderline personality disorders. With regard to the general hypothesis that non-sexual offenders have more criminal personality characteristics (antisocial,

narcissistic, and sadistic) than sex offenders, the chi-square analyses provided strong support. On all three of these personality disorder scales non-sexual offenders had higher prevalence rates than the sex offenders. With regard to the general hypothesis that sex offenders were more likely to have personality disorders related to emotional and social distress (depressive, avoidant, and schizoid), there was also strong support. The sex offenders had higher prevalence rates on all three of these scales than non-sexual offenders.

DISCUSSION

The first hypothesis predicted that non-sexual offenders would have higher levels of particular personality disorder traits than sexual offenders. However, it was found that there were some important personality disorder trait differences between the two sex offender groups. Therefore, the three groups will be discussed by paired comparisons.

Rapists and child molesters were significantly different on three of the 14 personality disorder scales. Rapists were more antisocial (12.4% prevalence rate) than child molesters (6.4%), and rapists scored significantly higher than child molesters on the Sadistic scale, but it was not reflected in their respected prevalence rates (5.6% versus 5.5%). Child molesters were significantly more avoidant than rapists but both groups had substantial prevalence rates (37.6% versus 29.5%), and both of these rates are the highest for all of the personality disorders for each of these two groups. With regard to the Axis I disorders, there were no significant differences within the groups on the Generalized Anxiety Disorder and Major Depressive Disorder scales, but both groups were significantly higher on these scales than the non-sexual offenders.

Non-sexual offenders and rapists were significantly different on four of the 14 personality disorder scales. Rapists were more avoidant (29.5% prevalence rate versus 17.2%), dependent (5.6% versus 2.4%), depressive (12.0% versus 5.4%), and schizoid (22.7% versus 12.2%) than non-sexual offenders. With regard to the Axis I disorders, as noted previously, rapists scored significantly greater on the Generalized Anxiety Disorder and Major Depressive Disorder scales.

Non-sexual offenders and child molesters were significantly different on seven of the 14 personality disorder scales. Child molesters scored signifi-

cantly greater than the non-sexual offenders on the Avoidant (37.6% prevalence rate versus 17.2%), Dependent (8.0% versus 2.4%), Depressive (15.8% versus 5.4%), Obsessive-Compulsive (21.9% versus 23.0% [not reflected in these prevalence rates]), and Schizoid (21.2% versus 12.2%) scales. The non-sexual offenders scored significantly greater than the child molesters on the Antisocial (19.3% versus 6.4%) and the Sadistic scales (7.8% versus 5.5%). The child molesters scored significantly higher than the non-sexual offenders on the Generalized Anxiety Disorder and Major Depressive Disorder scales.

The present results appeared to support only partially the first hypothesis, which was based on Ahlmeyer et al.'s (2) findings that non-sexual offenders have more classically criminal personalities than sex offenders. Non-sexual offenders did score higher than child molesters on the Antisocial and Sadistic scales, but non-sexual offenders did not score differently than rapists on those scales. Furthermore, there were no differences among all three groups on the Narcissistic scale. The second hypothesis was also only partially supported. The rapists did have higher levels of antisocial traits than child molesters, but as noted previously they did not differ in their narcissistic traits. With regard to the third hypothesis, child molesters had higher levels of avoidant traits, but contrary to the hypothesis child molesters did not differ from rapists on dependent, schizoid, or self-defeating traits. Also, largely in support of third hypothesis, child molesters had significantly higher avoidant, dependent, and schizoid traits than non-sexual offenders. Contrary to the hypothesis however, they did not differ on their self-defeating traits. Consistent with the fourth hypothesis, child molesters had higher levels of depression and anxiety than non-sexual offenders, but contrary to the hypothesis, they did not differ from rapists on these scales.

With regard to the general contentions by Ahlmeyer et al. (2) that non-sexual offenders had more classically criminal personality characteristics such as antisocial, narcissistic, and sadistic personality disorders, the chi-square analyses of the percentage of inmates meeting criterion for a personality disorder on the CCI scales provided strong support. Non-sexual offenders had significantly higher rates than both sexual offender groups on all three scales. There was also strong support for their contention that the sexual offender groups were more likely to have personality traits related to

emotional and social distress (e.g., depressive, avoidant, and schizoid personality disorders), as again, the previous analyses supported this prediction.

In summary and across all of the statistical analyses, there seems to be general support that non-sexual offenders have more classically criminal personality characteristics than sexual offenders. However, there is at least one important qualification of this conclusion. The previous contention only seems to hold for non-sexual offenders versus child molesters, at least for the results in the present study. Overall, the rapists appeared to have more important psychopathological similarities with the non-sexual offenders than the child molesters. For example, rapists were significantly higher than child molesters on two of the scales considered to be "classically criminal," Anti-social and Sadistic. Furthermore, child molesters scored significantly higher than rapists on the Avoidant scale, as was predicted from the literature. Thus, one important implication of the present findings might be that future studies should perhaps avoid lumping sexual offenders into a single group for analyses. Of course, this would be true for making any therapeutic or rehabilitation decisions on a single inmate.

There are several possible explanations which could account for the differences in results between the present study and that of Ahlmeyer and colleagues. The most obvious would be the use of the MCMI-III versus the CCI in measuring the personality traits. An important difference between the two measures is that the MCMI-III uses base rates in establishing scale scores, whereas the CCI uses T scores based on normative data from a non-clinical, unincarcerated, purportedly normal sample. The MCMI-III scores for establishing clinical syndromes are dependent upon base rates, which are adjusted according to the setting (e.g., correctional, inpatient), gender, level of disclosure, presence of acute anxiety or depression, and tendency to deny or complain excessively. Consequently, some individual profiles are altered significantly and some are not (15). In addition, the CCI personality disorder scales were specifically created to match the DSM criteria and general features for each disorder. The MCMI-III is based on Millon's evolutionary theory, and he has stated that the DSM criteria are not sacrosanct. Therefore, some MCMI-III scales do not measure a personality disorder construct in the same manner that the CCI does, and the Narcissistic and Antisocial personality disorder scales are among those scales. For example, Millon's theory posits

that the antisocial individual is motivated to be independent and avoids control and dominance (15), so that MCMI-III scale's items seek to measure those traits, in addition to the antisocial DSM-IV criteria. It is also important to note that the use of T scores ≥ 70 on the CCI scales to establish base rates may be highly conservative. A recent study of the prevalence of ADHD in 3,962 inmates revealed that the T score method yielded a prevalence of 6.3% whereas a categorical diagnosis (e.g., having to meet a specified number of ADHD DSM-IV-TR criteria) yielded a prevalence rate of 16.3% (12).

Another important limitation of the present study is that only the inmates' current conviction at the time of the CCI administration was used for group classification, yet many inmates often commit various types of crimes throughout their lifespan. Therefore, it is possible that the groups are not "pure" in the sense that an inmate classified, for instance, as a rapist may also be a child molester because of having sexually abused a minor sometime previously to his current conviction—an offense for which he may or may not have been convicted. Similarly, a non-sexual offender (e.g., drug trafficker) may have previously in his criminal history committed acts of rape, therefore placing him in an entirely different category. Thus, it is clear that the waters may have been muddied by only considering the inmates' current crimes. Another limitation of the present findings is that the results relied on self-reports by inmates. Consequently, given their incarceration and possible desire to appear less dysfunctional than they may be for various reasons, their self-reports may not be as accurate of a reflection of their psychopathology as self-reports in conjunction with collateral information by clinicians, family members or victims. Of course, this criticism holds for any studies using only self-report measures. Future studies should certainly attempt to seek this collateral information regarding not only the inmates' psychopathology but also these studies should attempt to ascertain a more detailed past history for each inmate, including criminal history, demographic information, and significant life events. Despite these varying limitations, it appears that future research with the CCI is certainly warranted.

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