

Spring 6-2017

Risk and Prevalence of Personality Disorders in Sexual Offenders

Allison Sigler

CUNY John Jay College, Allison.sigler@jjay.cuny.edu

Follow this and additional works at: http://academicworks.cuny.edu/jj_etds

 Part of the [Criminology and Criminal Justice Commons](#), and the [Psychology Commons](#)

Recommended Citation

Sigler, Allison, "Risk and Prevalence of Personality Disorders in Sexual Offenders" (2017). *CUNY Academic Works*.
http://academicworks.cuny.edu/jj_etds/23

This Thesis is brought to you for free and open access by the John Jay College of Criminal Justice at CUNY Academic Works. It has been accepted for inclusion in Student Theses by an authorized administrator of CUNY Academic Works. For more information, please contact AcademicWorks@cuny.edu.

Risk and Prevalence of Personality Disorders in Sexual Offenders

Allison Sigler

John Jay College of Criminal Justice

New York, NY

Table of Contents

Abstract.....3

Introduction.....4

 Personality Disorder Prevalence in Sex Offenders.....4

 Factors Related to Recidivism.....7

 Study Overview.....9

Method.....9

 Participants.....9

 Materials.....10

Results.....13

 Personality Disorder Prevalence.....13

 Personality Disorder and Offender Type.....14

 Personality Disorder and Recidivism.....15

 Personality Disorder, Recidivism, and Static-99 Risk Levels.....15

Discussion.....16

 Limitations.....21

 Implications.....22

References.....25

Table 1.....30

Table 2.....31

Table 3.....32

Abstract

Studies suggest that about seventy percent of incarcerated sexual offenders have been diagnosed with a mental disorder, with about fifty percent meeting diagnostic criteria for a personality disorder. Personality disorders have been shown to increase the risk of recidivism in offenders overall. However, little is known about how a personality disorder diagnosis increases this risk for sex offenders. The current study aims to evaluate the prevalence of personality disorders in sexual offenders, whether this varies by offender type, and how these relate to recidivism risk. Archival records from a large sample of convicted sex offenders who were incarcerated in a state prison and released between 1996 and 2007 were examined to assess the prevalence of each of the ten personality disorders by sex offender type (rapist, child molester, non-contact offender) and how this relates to recidivism. The current study found that sex offender type was significantly related to a diagnosis of antisocial personality disorder or borderline personality disorder. Offenders who committed adult sexual assault were most likely to have a diagnosis of antisocial personality disorder; while those who committed both adult sexual assault and molestation of a minor child were most likely to be diagnosed with borderline personality disorder. In addition, it was found that personality disorder diagnosis was not significantly related to, nor could it predict above the Static-99 total risk score, any type of recidivism. These findings are discussed as they pertain to the assessment and treatment of sex offenders with personality disorders.

Introduction

In the forensic population, a large percentage of offenders has been diagnosed with a mental disorder, such as major depression or bipolar disorder, as well as personality disorders at rates higher than those found in the general population (Acha, Rigonatti, Saffi, de Barros, & Serafim., 2011). Sexual offenders often present with personality disorders; including antisocial personality disorder, borderline personality disorder, and avoidant personality disorder, among others (Acha et al., 2011). Many clinicians in this field advocate for treatment plans that are individualized according to which disorder an offender has been diagnosed with (Boccaccini, Rufino, Jackson, & Murrie., 2013). Understanding which personality disorders are associated with a risk of re-offending, and how that is related to sex offender type, is also essential in order to better tailor treatment interventions. Currently, the relationship between personality disorders and risk for reoffending is not well understood, thus this study will examine the prevalence of personality disorders among a large sample of sex offenders, and determine if this varies by type of crime committed. Further the relationship between personality disorders and its relationship to risk and recidivism will be explored.

Personality Disorder Prevalence in Sex Offenders

The defining feature of a personality disorder is that the individual presents with impairments in personality functioning and the presence of pathological personality traits (Wakefield, 2013). Personality disorders have been diagnosed in about 4.4- 21.5% of the general population and in 65% of those who are incarcerated (Fazel & Danesh., 2002). This often affects their self-identity and personality trait expression. This pattern of behavior and emotions is present throughout the individual's life, typically beginning in adolescence or early adulthood, and causes impairment in their interpersonal, occupational, and other areas of functioning. There

are 10 personality disorders listed in the DSM - 5 (APA, 2013): schizoid, schizotypal, paranoid, borderline, antisocial, narcissistic, histrionic, obsessive-compulsive, avoidant, and dependent personality disorders. Each one is associated with separate pervasive traits.

Borderline personality disorder, for example, is associated with poorly developed self image, instability in values, and unstable relationships with others (APA, 2013). These individuals may also experience unstable emotional experiences and intense feelings of nervousness. On the other hand, antisocial personality disorder is characterized by a lack of concern for the feelings of others (APA, 2013). Those diagnosed with antisocial personality disorder often present as deceitful, manipulative, and hostile. Individuals with a diagnosis of antisocial personality disorder are likely to be involved with the criminal justice system (Fazel & Danesh., 2002).

Previous studies have shown that personality disorders were frequently diagnosed among sex offenders. However, it is unknown how the prevalence of these disorders may vary based on which type of sex offense one has committed. For example, Craissati and Blundell (2013) studied 137 male sex offenders and found that 52% of the sex offenders were diagnosed with at least one personality disorder and 25% were diagnosed with multiple personality disorders. Avoidant, dependent, and obsessive-compulsive personality disorders were the most commonly diagnosed personality disorders among those studied (Craissati & Blundell., 2013). Chen, Chen, and Hung (2016) recently found that, in a sample of 68 sex offenders, 59% were diagnosed with a personality disorder. The most common diagnoses in their sample were antisocial, borderline, and obsessive-compulsive personality disorders. Also, Kingston, Olver, Harris, Wong, and Bradford (2015) found that 74% of the sex offenders in their sample were diagnosed with a personality disorder.

Among sex offenders, antisocial and borderline personality disorder are the most commonly diagnosed personality disorders. Borchard, Gnoth, and Schulz (2003) found that 47% of the sex offenders in their sample had at least one personality disorder, with antisocial, borderline, histrionic, and narcissistic personality disorders being the most common. Berner, Berger, Guitierrez, Jordan, and Berger (1992) also found that antisocial and borderline personality disorders were very common in their sample of sex offenders. Chen, Chen, and Hung (2016) found that 29.4% of their sample had a diagnosis of antisocial personality disorder while 14.7% were diagnosed with borderline personality disorder. Borchard, Gnoth, and Schulz (2003) found that 40% of their sample of 47 sex offenders, who all had either impulse control disorder or paraphilia, were diagnosed with antisocial personality disorder.

Overall, these studies suggest that on average, more than 50% of those convicted of a sexual offense carrying a diagnosis of a personality disorder, with antisocial and borderline personality disorders being most common. This is much higher than the 4.4- 21.5% prevalence of personality disorder found in the general population (Fazel & Danesh., 2002).

While it appears that a diagnosis of a personality disorder is very common among those convicted of sexually-based offenses in general, these diagnoses may differ depending on which type of sex crime an offender has committed. For example, Francia, Coolidge, White, Segal, Cahill, and Estey (2010) found that rapists with adult victims had more antisocial personality features than child molesters. Similarly in a small sample of those convicted of rape ($n=10$) and child molestation ($n=10$), Aromaki, Lindman, and Eriksson (2002) found that 7 (70%) of the rapists met criteria for antisocial personality disorder as compared to only 3 (30%) of the child molesters.

In a more extensive study of personality disorder diagnosis in relation to sex offender type, Francia, Coolidge, White, Segal, Cahill, and Estey (2010) analyzed diagnoses of personality disorders among rapists and child molesters. They found, as the previous authors did, that antisocial personality disorder was more common in rapists (12.4%) than child molesters (6.4%). In addition, they found that child molesters (37.6%) had higher levels of avoidant personality disorder traits than rapists (29.5%). Currently, there has not been sufficient research to address the question of whether specific personality disorders are more prevalent in certain types of sex offenders. Most of this research has only assessed the variation between offenders in antisocial personality disorder diagnoses.

Factors Related to Recidivism

Personality disorders in general have been shown to increase the risk of recidivism among offending populations. Walter, Wiesbeck, Dittmann, and Graf (2011) found that 69% of offenders with a dual diagnosis of personality disorder and substance use disorder had committed another crime eight years after their initial offense, of those with only a personality disorder, 33% committed another crime. In comparison, only 25% of offenders without a personality disorder diagnosis committed another crime. Violent recidivism, however, was highest in the group of offenders with only a personality disorder. Howard, McCarthy, Huband, and Duggan (2013) found that non-sexual offenders with borderline personality disorder re-offended at a faster rate (18.8 weeks) than offenders without borderline personality disorder (42.2 weeks). This study highlights the fact that personality disorders may increase the chance of a criminal re-offending, including non-sexual offenders.

Just as they do for offenders in general, the various personality disorders may provide insight into a sex offender's risk of recidivism. Kingston, Olver, Harris, Wong, and Bradford

(2015) found that antisocial personality disorder was significantly predictive of violent and general recidivism in a sample of 392 sex offenders; however it was not predictive of sexual recidivism. In a meta-analysis of 82 sex offender recidivism studies done by Hanson and Morton-Bourgon (2005), antisocial personality was predictive of violent, sexual, and general recidivism.

However, most of the current research in relation to sex offenders' risk of recidivism has only assessed the most common personality disorders in this population, usually borderline and antisocial personality disorders. For example, Hanson and Morton-Bourgon (2005) found that among sex offenders, a diagnosis of antisocial personality disorder, among other variables, predicted both sexual and non sexual re-offending. In another study, Percosky, Boccaccini, Bitting, and Hamilton (2013) found that sex offenders with borderline personality traits were more likely to be noncompliant during treatment.

There has not been sufficient research to assess the risk of recidivism associated with different types of personality disorder diagnoses in sex offender populations. As evidenced above, personality disorder diagnosis can increase the risk of recidivism for all types of offenders, including sex offenders. However, this risk has commonly been studied only in offenders with a diagnosis of antisocial or borderline personality disorder; without considering the risk associated with other personality disorders.

Study Overview

Existing literature suggests that personality disorders are common in sex offenders and that these may be prevalent at a higher rate than in the general population. The current study was conducted to determine if personality disorders are more prevalent in specific types of sex offenders. Further, there is evidence suggesting that the presence of a personality disorder may

elevate a sex offender's risk of recidivism. However, this prevalence and assessment of risk has mostly been studied for only antisocial and borderline personality disorders. Further, the relationship between personality disorder diagnosis and risk for recidivism needs to be further explored.

Therefore, the aims of this study are: (1) to assess the prevalence of personality disorders among a large sample of sex offenders; (2) to examine if differences in type and number of personality disorders differ by offender type; (3) to determine if personality disorders are related to different types of recidivism in sex offenders; and (4) to assess whether personality disorder diagnosis can predict recidivism in sex offenders beyond traditional (Static-99) risk assessment measures. It is hypothesized that variations will be observed by type of sex crime; with rapists exhibiting elevated levels of antisocial personality disorder diagnoses. Further, it is anticipated that a diagnosis of antisocial personality disorder or borderline personality disorder will increase the likelihood of recidivism; as previous studies have shown these disorders to be predictive of risk in sex offenders. In addition, it is predicted that antisocial personality disorder and borderline personality disorder will predict recidivism at a more significant level than the Static-99 risk assessment tool in sex offenders. This research will allow for a better understanding of the personality traits that are associated with certain types of sexual offenses, and, ideally to the formation of more comprehensive, individualized, and better informed, methods of preventing sexual violence and of treating offenders.

Methods

Participants

Data for this study were gathered as part of a larger study examining sex offender placement within the criminal justice system (see Mercado, Jeglic & Markus, 2013). The sample

was comprised of 3194 male sex offenders, whose data were collected from prison records in New Jersey. The offenders were housed either at a prison-based sex offender treatment facility or the general population of New Jersey state prisons system and were released from custody between 1996 and 2007.

Recidivism data for these participants were obtained from the New Jersey State Police criminal records database and include both state and federal recidivism data. Recidivism data were collected regarding both sexual and non-sexual offenses through June 2009 with an average time of 6.5 years from release.

Out of the 3194 total participants, 85 (2.66%) were diagnosed with a personality disorder. Offenders averaged 29.24 (SD= 11.27) years old at the time of their first sexual offense. With regard to race, 41.7 % of the offenders were White, 36.5 % were African American, 20.2 % were Latino, and the remainder of the offenders (1.6%) were Asian/Pacific Islander, American Indian/Alaskan Native, or unknown race. The types of crimes committed by the offenders included molestation of a minor child (73.4 %), sexual assault against an adult (17.8 %), both molestation of a minor child and adult sexual assault (1.0%) and the remainder (3.9%) had committed non-contact sex crimes. Most of the offenders (81.0 %) had female victims.

Materials

Demographic variables

Demographic variables including age, sex, and race of the offender were coded from the files. Age of the offender was calculated using their date of birth. All offenders in the sample were males. Ethnicity of the offender was categorized as White, African American/ Black, Latino, Asian/ Pacific Islander, American Indian/ Alaska Native, or other as determined by the Department of Corrections.

Sex offender type

A variable was created to categorize the offenders based on the type of sex offense they committed during their index offense. The groups included: non-contact offender, adult sexual assault, and molestation of a minor child.

Personality disorder diagnosis

Personality diagnoses were coded from mental health records. Personality disorders were diagnosed by psychologists or psychiatrists. One overall variable included which diagnosis the offender had, including: none, a psychological disorder other than a personality disorder (such as major depression or bipolar disorder), antisocial personality disorder, borderline personality disorder, personality disorder NOS, mixed personality disorder, schizotypal personality disorder, schizoid personality disorder, and narcissistic personality disorder as determined by the DSM-III-R (APA, 1987) or DSM-IV (APA, 1994).

Additionally, separate variables were created to indicate the presence or absence of each of the types of personality disorders. These variables were coded as yes or no for the presence of any personality disorder in each offender. These variables included antisocial personality disorder, borderline personality disorder, personality disorder NOS, mixed personality disorder, and other personality disorder.

Antisocial personality disorder and borderline personality disorder were each coded as their own variable because they were diagnosed more often than any other personality disorder in the sample. Personality disorder NOS and mixed personality disorder were also diagnosed frequently, so a yes or no variable was coded separately for each offender for these diagnoses. The only other personality disorder diagnoses present in the dataset were schizoid, schizotypal, and narcissistic personality disorders. These three diagnoses were coded as yes or no for the

other personality disorder group. This was done due to a very low prevalence of these other diagnoses in the participants.

Recidivism variables

Categorizations occurred based on whether the offender committed another offense after the index offense. These variables were coded as yes or no. There are variables for overall recidivism, re-incarceration, sexual recidivism, violent recidivism, and non-violent recidivism for each offender.

Static-99

Currently, risk for recidivism in adult male sex offenders is most commonly assessed by using the Static-99 risk assessment tool (Hanson & Morton-Bourgon., 2009). The Static-99 was developed by Hanson and Thornton (2000). This assessment tool is coded based on the specific risk factors that a sex offender presents with; these include age at release, prior criminal history, presence of stranger victims, and presence of male victims, among others. A total score is calculated based on the risk factors. Scores range from 0 to 12. The total scores are grouped into risk categories: low (0-1), low-moderate (2-3), moderate-high (4-5), and high (6+). These categories are linked to expected recidivism rates for the offenders. In this dataset, the Static-99 total score was used. This risk level was coded from mental health records prior to the current study (see Mercado, Jeglic & Markus, 2013). The Static-99 total score was coded as a value between 0 and 12.

A meta-analysis conducted by Hanson and Morton-Bourgon (2009), using 118 studies, found high levels of inter-rater reliability for the Static-99; the median rater-agreement coefficient was .90. In another meta-analysis by Hanson and Morton-Bourgon (2005), it was

found that the Static-99 has moderate predictive accuracy for sexual recidivism ($d = .63$), violent recidivism ($d = .57$), and general recidivism ($d = .52$).

Results

Personality Disorder Prevalence

Of the 3194 participants in the original dataset (see Mercado, Jeglic & Markus, 2013), 133 were excluded as they had unknown or missing values for the variable “does the offender have a history of (or currently diagnosed) psychiatric problems, leaving a total sample size of 3061.

Of these 2035 (66%) had no personality disorder or psychological disorder diagnosis, 941 (31%) offenders had a psychological disorder diagnosis other than a personality disorder, 47 (1.54%) offenders were diagnosed with antisocial personality disorder, 10 (.33%) offenders were diagnosed with borderline personality disorder, 13 (.42%) offenders had a personality disorder NOS, 11 (.36%) offenders had mixed personality disorder, 2 (.065%) offenders were diagnosed with schizotypal personality disorder, 1 (.033%) offender was diagnosed with schizoid personality disorder, and 1 (.033%) had narcissistic personality disorder.

Personality Disorder and Offender Type

Next, the frequency of the various personality disorder diagnoses was assessed for each type of sex offender (see Table 1). To assess whether the type of personality disorder differed based on sex offender type, a series of chi-square tests for independence were conducted (see Table 1). Five total chi-square tests for independence were conducted: presence of antisocial personality disorder and sex offender type, presence of borderline personality disorder and sex offender type, presence of personality disorder NOS and sex offender type, presence of mixed

personality disorder and sex offender type, and finally, presence of other personality disorder and sex offender type.

Sex offender type was found to be significantly related to a diagnosis of antisocial personality disorder. For antisocial personality disorder, $\chi^2(3, N=2942) = 32.81, p = .01$, Cramer's $V = .106$, with the prevalence of antisocial personality disorder being higher in offenders who had committed adult sexual assault ($n=23, 4.22\%$) than non-contact offenders ($n=3, 2.52\%$), child molesters ($n=20, .89\%$), and offenders who had committed both adult sexual assault and molestation of a minor child ($n=0, 0\%$).

In addition, sex offender type was found to be significantly related to a diagnosis of borderline personality disorder, $\chi^2(3, N=2942) = 8.41, p = .038$, Cramer's $V = .053$, with those who had committed both adult sexual assault and molestation of a minor child ($n=1, 3.33\%$) being diagnosed at higher rates than adult sexual assaulters ($n=2, .37\%$), child molesters ($n=7, .31\%$) and non-contact offenders ($n=0, 0\%$). Sex offender type was found to not be significantly related to a diagnosis of personality disorder NOS, mixed personality disorder, or other personality disorder.

Personality Disorder and Recidivism

In order to test the hypothesis that personality disorder diagnosis was related to recidivism a series of chi-square tests for independence were conducted to determine whether the likelihood of recidivism varied by personality disorder type. This analysis was run separately for each type of recidivism; this included overall recidivism, re-incarceration, sexual recidivism, violent recidivism, and non-violent recidivism. These variables were coded as either yes (if the participant committed this type of offense after the index offense) or no (see Table 2).

In addition, this analysis was run separately by type of personality disorder diagnosis. The personality disorder groups included antisocial personality disorder, borderline personality disorder, and other personality disorder. The other personality disorder group included diagnoses of personality disorder NOS, mixed personality disorder, schizoid personality disorder, schizotypal personality disorder, and narcissistic personality disorder. These personality disorder diagnoses were grouped together for this analysis because the prevalence of each was low in the sample. These variables were also coded as yes (if the participant was diagnosed with that type of personality disorder) or no. Therefore, there were a total of 15 chi-square tests conducted when each type of recidivism was run against each type of personality disorder group. No significant relationship between whether the offender had re-offended and personality disorder type was found across all analyses.

Personality Disorder, Recidivism, and Static-99 Risk Levels

In addition to conducting these chi-square tests for independence; a logistic regression analysis was run to test the hypothesis that personality disorder diagnosis predicted recidivism at a more significant level than the offender's Static-99 score. The Static-99 score was coded as a score between 0 and 12 for each offender. This regression analysis was run for each type of recidivism separately; overall recidivism, re-incarceration, sexual recidivism, violent recidivism, and non-violent recidivism. Participants that were missing either a Static-99 ($n=764$, 25.0%) score or recidivism data ($n=946$, 30.9%) were excluded from analysis.

The predictor variables included in each regression analysis were the Static-99 total score, whether the participant was diagnosed with antisocial personality disorder (coded as yes or no), and whether they were diagnosed with borderline personality disorder, personality disorder

NOS, mixed personality disorder, or other personality disorder (all coded as either yes or no).

The dependent variable was whether the participant recidivated.

All of the regression equations significantly predicted each type of recidivism. However, contrary to hypothesized, none of the personality disorder diagnoses significantly predicted any type of recidivism after conducting the regression analyses (see Table 3). The Static-99 score was the only predictor variable that significantly predicted each type of recidivism, $p = .000$.

Discussion

This study was conducted in order to study the prevalence of personality disorder diagnoses in a sex offender sample, whether these diagnoses were related to the type of sex offense committed, and whether personality disorder diagnosis could be used as predictors of recidivism. Overall we found that only 85 (2.78%) of the offenders in the sample had been diagnosed with a personality disorder, with borderline and antisocial personality disorder being most frequently diagnosed. Specifically, antisocial personality disorder was most common in offenders who committed adult sexual assault; borderline personality disorder was most common in sex offenders who had committed both adult sexual assault and molestation of a minor child. There was no significant association between personality disorder type and recidivism. Also, personality disorder diagnosis was not a significant predictor of recidivism beyond Static-99 scores.

The prevalence of personality disorder in this sample was significantly lower than that reported in other studies where close to 50% of sex offenders had been diagnosed with a personality disorder (Borchard, Gnoth, & Schulz., 2003). This low prevalence of personality disorder diagnoses in the sample could be due to many factors. First, it is possible that the clinicians that diagnosed these offenders did not adequately assess whether the offenders met

criteria for a personality disorder; which could have resulted in offenders who did meet criteria for a personality disorder not being given the appropriate diagnosis. It is also a possibility that clinicians were not given enough information related to the offender's background, which could have resulted in past expressions of personality disorder symptoms going undetected. It is unclear if clinicians did a thorough investigation into whether the offenders met criteria for a personality disorder; the prevalence of personality disorder diagnosis was lower in this sample than the 4.4-21.5% prevalence in the general population (Fazel & Danesh., 2002). Clinicians may have been limited in the time they had to assess the offender, causing them to have less opportunity to assess for symptoms of personality disorders. Additionally, it is possible that some offenders may have inaccurately reported personality disorder symptoms they potentially experienced; or did not acknowledge the presence of these symptoms. Some offenders may have been unable to effectively express to the clinician potential personality disorder symptoms that they experienced. Offenders may have also been uncooperative during the interview. Also, in order to be diagnosed with a personality disorder, patients must present with a certain number of symptoms of that personality disorder DSM - 5 (APA, 2013).

The low prevalence of personality disorder diagnoses in this study compared to others suggests that the results of this study may not be generalizable to sex offender populations; as they are much more likely to have personality disorder diagnoses. The discrepancy between the prevalence of personality disorder diagnoses in this sample and other studies could be due to the fact that some studies used trained clinicians to interview and diagnose the offenders; while other studies simply review offenders' records to diagnose. Future research should use samples that more accurately reflect the high prevalence of personality disorder diagnoses in sex offenders. Additionally, this sample had a low prevalence of personality disorder diagnoses other than

antisocial, borderline, personality disorder NOS, and mixed personality disorders. These results vary from previous studies, for example, Chen, Chen, and Hung (2016) found a high prevalence of obsessive-compulsive personality disorder in their sample of sex offenders. Also, Francia, Coolidge, White, Segal, Cahill, and Estey (2010) found avoidant personality disorder to be common in samples of both rapists and child molesters. Additional research should be done on sex offender samples with a greater variety of personality disorder diagnoses.

Similar to previous studies, such as the studies conducted by Berner, Berger, Guitierrez, Jordan, and Berger (1992), and Borchard, Gnoth, and Schulz (2003), antisocial and borderline personality disorders were the most frequent diagnoses in this sample. This may be due, in part, to a tendency of clinicians to diagnose these personality disorders more frequently than other personality disorders. For example, Fridell and Hesse (2006) found that antisocial personality disorder is more commonly diagnosed after an un-structured clinical interview than when the SCID-II, a semi-structured clinical interview for the assessment of personality disorder symptoms, is used. Schizotypal personality disorder, in contrast, was found to be under-diagnosed by clinical observation when compared to the SCID-II (Fridell & Hesse., 2006). These authors also suggest that when clinicians ask a high number of questions about the patient's personality, the quality of the information gained is higher. This suggests that clinicians may not be gathering enough relevant information before making personality disorder diagnoses. Antisocial and borderline personality disorders are the most frequent personality disorder diagnoses in offenders (Ogloff et al., 2015). Clinicians may be more comfortable diagnosing these personality disorders than others because these are the disorders that they most commonly diagnose and treat in offenders. Therefore, when diagnosing individuals in forensic settings,

clinicians may be more likely to diagnosis antisocial and borderline personality disorders since they are aware of the fact that they are the most frequent diagnoses given in this population.

Also, we found that sex offender type is significantly related to a diagnosis of antisocial and borderline personality disorders. Similar to previous research (Francia, Coolidge, White, Segal, Cahill, & Estey., 2010), we found that Antisocial personality disorder was most common in offenders who had committed adult sexual assault than child molesters. Research has shown that rapists are more likely to be sexually aggressive than child molesters (Aromaki et al., 2002). In addition, Vess and Skelton (2010) found that sex offenders with adult victims are likely to violently re-offend than those with child victims. Antisocial personality disorder is associated with aggression and risk taking (APA., 2013). Therefore, it is not surprising that rapists, who are more likely than other types of sex offenders to behave in a violent and aggressive manner, are more likely to be diagnosed with antisocial personality disorder.

On the other hand, borderline personality disorder was most common in offenders who had committed both adult sexual assault and molestation of a minor child in their index offense. This suggests that sex offenders with a diagnosis of borderline personality disorder may have less of a preference for victim age; while offenders with a diagnosis of antisocial personality disorder are more likely to offend against adults. Individuals with borderline personality disorder are likely to have dysregulated behaviors (Selby & Joiner., 2013). Dysregulated behaviors are difficult to control and related to reckless and impulsive behaviors. The presence of dysregulation in sex offenders with borderline personality disorder may result in them behaving impulsively when committing offenses. Since they are offending impulsively these sex offenders may take less time to select a victim of a particular age. A diagnosis of mixed personality disorder, personality disorder NOS, or other personality disorder was not significantly related to

whether the offense occurred against adults or children. These offenders may not have a preference in regards to victim age.

The second research question in this study involved evaluating whether personality disorder diagnoses were related to whether or not a sex offender had committed another offense upon release. Contrary to the hypothesis, it was found that personality disorder diagnosis was not significantly related to any type of recidivism. Additionally, regression analyses found that none of the personality disorder diagnoses could significantly predict any type of future recidivism. These findings could have been affected by the high percentage of missing recidivism data ($n=946$, 30.9%). In addition, the percentage of offenders who recidivated overall ($n=674$, 22.0%) was fairly low; this could have affected the results as well.

Contrary to expectation we did not find that a personality disorder was related to recidivism risk in our sample. This differs from the findings of Kingston, Olver, Harris, Wong, and Bradford (2015) who found that personality disorder diagnoses were related to general recidivism more significantly than sexual recidivism and Hanson (2000) who found that a diagnosis of antisocial personality disorder in sex offenders predicted both sexual and non sexual re-offending.

These findings may be due to the fact that personality disorder characteristics are already indirectly assessed by the Static-99. For example, antisocial personality disorder is associated with an increased risk for violence and aggressiveness (APA., 2013). The Static-99 assesses whether the offender has a history of using violence in the index offense or previous offenses (Hanson et al., 2000). If an offender does have a high prevalence of past violence, their score on the Static-99 is increased. Therefore, offenders with antisocial personality disorder, who are more likely to present with violent and aggressive behaviors, will have an increased score on this

measure due to their personality disorder symptoms. As one of the main symptoms of antisocial personality disorder is already accounted for in the Static-99, the diagnosis of this personality disorder would not aid in risk assessment in a manner that goes above and beyond the predictive accuracy of the Static-99. Also, borderline personality disorder is associated with unstable close relationships and impairments in interpersonal functioning. There is a Static-99 item that assesses whether the offender has ever lived with a significant other for more than two years (Hanson et al., 2000). An offender with borderline personality disorder, who likely presents with extreme interpersonal difficulties, is unlikely to have successfully lived with a significant other in the past. Zanarini, Frankenburg, Reich, Wedig, Conkey and Fitzmaurice (2015) found that patients with borderline personality disorder who had not experienced remission of their symptoms were significantly less likely to marry or live with a partner than individuals with this disorder who had been in remission of their symptoms for two years. Therefore, this symptom of borderline personality disorder is already accounted for in the Static-99.

The current study added additional information by studying personality disorders other than antisocial and borderline personality disorders. While antisocial and borderline personality disorders were not related to, or predictive of, recidivism in this sample; neither were diagnoses of personality disorder NOS, mixed personality disorder, or other personality disorder. According to the results of this study, clinicians should not use a personality disorder diagnosis of any type as evidence that an offender is more likely to commit additional crimes.

Limitations

While the results of this research provided insight into the type of offenses an offender may commit based on personality disorder diagnosis, there were several limitations. First, the data were only drawn from offenders in New Jersey. Further research should include offenders

from each area of the U.S. as well as international offenders to determine if recidivism and sex offender type are related to personality disorder diagnosis regardless of location and culture. Also, this study was not experimental so it is not possible to draw causal inferences about the relationships investigated. Further studies could be conducted longitudinally in order to assess whether offenders with a personality disorder who have committed only one sexual offense re-offend at higher rates than sexual offenders without a personality disorder upon release. Further research could also include control groups consisting of non-sexual offenders both with and without a personality disorder diagnosis. However, a study of this kind would be difficult to conduct as there are ethical responsibilities to ensure that these offenders do not commit additional crimes.

Another potential limitation in this study relates to the validity of the personality disorder diagnoses. While these diagnoses were made by trained clinicians with experience working with sexual offenders, using structured clinical interviews that have been shown to be valid in diagnosing personality disorders, there is always the possibility that these offenders could have been lying about their symptoms or the symptoms could have gone unnoticed by the clinician.

Lastly, in this sample, there were many offenders who were missing data related to sex offender type and recidivism. If this information had been used in analyses, it may have altered the results of the study.

Implications

In conclusion, this study found that antisocial and borderline personality disorders were most common in a sample of sex offenders. Treatment plans should aim to address the most common symptoms of these personality disorders, since they are the most common personality disorder diagnoses in sex offender populations. Common symptoms of antisocial personality

disorder include a lack of concern for the needs of others, hostility, and impulsivity (APA., 2013). Borderline personality disorder is associated with interpersonal hypersensitivity, nervousness, and self-harming behavior (APA., 2013). For example, dialectical behavior therapy should be made more readily available to sex offenders. This therapy has been proven to be highly effective in reducing self-harm and improving emotion regulation skills in patients with borderline personality disorder (Edel et al., 2017). Also, Bateman, O'Connell, Lorenzini, Gardner, and Fonagy (2016) found that mentalization-based treatment was effective in reducing symptoms of anger, hostility, paranoia, and self-harm in a sample of forty individuals with comorbid antisocial and borderline personality disorders. Mentalization-based treatment focuses on improving the patient's ability to recognize and understand their own and others' mental states. Psychological treatments such as these, that have been shown to reduce the symptoms of antisocial and borderline personality disorders, should be utilized more often when treating sex offenders.

Also, sex offenders with a diagnosis of antisocial personality disorder are significantly more likely to offend against adults than children. Sex offenders with borderline personality disorder are most likely to offend against both adults and children. Offenders with personality disorder NOS, mixed personality disorder, and other personality disorders may not have a preference towards victim age. This finding can be used in risk assessments to determine whether offenders are more likely to commit crimes against exclusively adults or children based on if they have a diagnosis of antisocial or borderline personality disorder.

Further, specific personality disorder diagnoses were not able to predict whether an offender is likely to commit additional crimes above the Static-99 risk level. This may be a result of the Static-99 already accounting for some of the symptoms of antisocial and borderline

personality disorders. Additional research should be done with samples that more accurately reflect the high prevalence of personality disorder diagnoses in sex offenders; as well as samples that include offenders diagnosed with each of the ten personality disorders. By doing this, the relationship between risk of recidivism and type of personality disorder diagnosis can be understood more completely.

References

- Acha, M., Rigonatti, S., Saffi, F., de Barros, D., & Serafim, A. (2011). Prevalence of mental disorders among sexual offenders and non-sexual offenders. *Jornal Brasileiro de Psiquiatria, 60*, 11-15. doi: 10.1037/t18597-000
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC.
- Aromaki, A., Lindman, R., & Eriksson, P. (2002). Testosterone, sexuality and antisocial personality in rapists and child molesters: a pilot study. *Psychiatry Research, 110*, 239-247. [http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0165-1781\(02\)00109-9](http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0165-1781(02)00109-9)
- Bateman, A., O'Connell, J., Lorenzini, N., Gardner, T., & Fonagy, P. (2016). A randomised controlled trial of mentalization-based treatment versus structured clinical management for patients with comorbid borderline personality disorder and antisocial personality disorder. *BMC Psychiatry, 16*, 1-11. doi: 10.1186/s12888-016-1000-9
- Berner, W., Berger, P., Guitierrez, K., Jordan, B., & Berger, K. (1992). The role of personality disorders in the treatment of sex offenders. *Journal of Offender Rehabilitation, 18*, 25-37. http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1300/J076v18n03_04
- Boccaccini, M., Rufino, K., Jackson, R., & Murrie, D. (2013). Personality assessment inventory scores as predictors of misconduct among sex offenders civilly committed as sexually violent predators. *Psychological Assessment, 25*, 1390-1395. <http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1037/a0034048>
- Borchard, B., Gnoth, A., & Schulz, W. (2003). Personality disorders and psychopathy in sex offenders imprisoned in forensic-psychiatric hospitals- SKID-II and PCL-R results in patients with impuls control disorder and paraphilia. *Psychiatrische Praxis, 30*, 133-138.

<http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1055/s-2003-38607>

Chen, Y., Chen, C., & Hung, D. (2016). Assessment of psychiatric disorders among sex offenders: Prevalence and associations with criminal history. *Criminal Behaviour and Mental Health, 26*, 30-37. <http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1002/cbm.1926>

Craissati, J., & Blundell, R. (2013). A community service for high-risk mentally disordered sex offenders: A follow-up study. *Journal of Interpersonal Violence, 28*, 1178-2000.

<http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1177/0886260512468235>

Edel, M., Raaff, V., Dimaggio, G., Buchheim, A., & Brune, M. (2016). Exploring the effectiveness of combined mentalization-based group therapy and dialectical behaviour therapy for inpatients with borderline personality disorder- A pilot study. *British Journal of Clinical Psychology, 56*, 1-15. doi: 10.1111/bjc.12123

Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23 000 prisoners: a systematic review of 62 surveys. *Lancet, 359*, 545-550.

[http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0140-6736\(02\)07740-1](http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0140-6736(02)07740-1)

Francia, C., Coolidge, F., White, L., Segal, D., Cahill, B., & Estey, A. (2010). Personality disorder profiles in incarcerated male rapists and child molesters. *American Journal of Forensic Psychology, 28*, 1-14. doi: 2010-17906-003

Fridell, M., & Hesse, M. (2006). Clinical diagnosis and SCID-II assessment of DSM-III-R personality disorders. *European Journal of Psychological Assessment, 22*, 104-108. doi: 10.1027/1015-5759.22.2.104

Hanson, K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119-136.

<http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1023/A:1005482921333>

- Hanson, K., & Morton-Bourgon, K. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment, 21*, 1-21. doi: 10.1037/a0014421
- Hanson, K., & Morton-Bourgon, K. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*, 1154-1163. doi: 10.1037/0022-006X.73.6.1154
- Hanson, K. (2000). Will they do it again? Predicting sex- offense recidivism. *American Psychological Society, 9*, 106-109. <http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1111/1467-8721.00071>
- Howard, R., McCarthy, L., Huband, N., & Duggan, C. (2013). Re-offending in forensic patients released from secure care: The role of antisocial/borderline personality disorder co-morbidity, substance dependence and severe childhood conduct disorder. *Criminal Behaviour and Mental Health, 23*, 191-202. <http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1002/cbm.1852>
- Kingston, D., Olver, M., Harris, M., Wong, C., & Bradford, J. (2015). The relationship between mental disorder and recidivism in sexual offenders. *International Journal of Forensic Mental Health, 14*, 10-22. <http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1080/14999013.2014.974088>
- Mercado, C. C., Jeglic, E., & Markus, K (2011). Sex offender management, treatment, and civil commitment: An evidence based analysis aimed at reducing sexual violence. US Department of Justice, 1, 2-81. Retrieved from http://www.ncdsv.org/images/SO-management-treatment-and-civil-commitment_9-2_013.pdf

- Ogloff, J., Talevski, D., Lemphers, A., Wood, M., & Simmons, M. (2015). Co-occurring mental illness, substance use disorders, and antisocial personality disorder among clients of forensic mental health services. *Psychiatric Rehabilitation Journal*, 38, 16-23.
<http://dx.doi.org/10.1037/prj0000088>
- Percosky, A., Boccaccini, M., Bitting, B., & Hamilton, P. (2013). Personality assessment inventory scores as predictors of treatment compliance and misconduct among sex offenders participating in community-based treatment. *Journal of Forensic Psychology Practice*, 13, 192-203.
<http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1080/15228932.2013.795425>
- Selby, E., & Joiner, T. (2013). Emotional cascades as prospective predictors of dysregulated behaviors in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, 4, 168-174. doi: 10.1037/a0029933
- Vess, J., & Skelton, A. (2010). Sexual and violent recidivism by offender type and actuarial risk: reoffending rates for rapists, child molesters and mixed-victim offenders. *Psychology, Crime & Law*, 16, 541-554. <http://dx.doi.org/10.1080/10683160802612908>
- Wakefield, J. (2013). DSM-5 and the general definition of personality disorder. *Clinical Social Work Journal*, 41, 168-183. doi: 10.1007/s10615-012-0402-5
- Walter, M., Wiesbeck, G., Dittmann, V., & Graf, M. (2011). Criminal recidivism in offenders with personality disorders and substance use disorders over 8 years of time at risk. *Psychiatry Research*, 186, 443-445.
<http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/j.psychres.2010.08.009>

Zanarini, M., Frankenburg, F., Reich, B., Wedig, M., Conkey, L., Fitzmaurice, G. (2015). The course of marriage/ sustained cohabitation and parenthood among borderline patients followed prospectively for 16 years. *Journal of Personality Disorders*, 29, 62-70.
http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1521/pedi_2014_28_147

Table 1

Personality Disorders by Offender Type

Variable	Sex Offender Type								χ^2	V
	Non-contact offender		Adult sexual assault		Molestation of a minor child		Adult sexual assault & molestation of a minor child			
Personality Disorder Type	n	(%)	n	(%)	n	(%)	n	(%)		
Antisocial personality disorder	3	(2.59)	23	(4.22)	20	(0.89)	0	(0.00)	32.81**	.106
Borderline personality disorder	0	(0.00)	2	(0.37)	7	(0.31)	1	(3.33)	8.41**	.053
Personality disorder NOS	0	(0.00)	2	(0.37)	9	(0.40)	0	(0.00)	.602	.014
Mixed personality disorder	0	(0.00)	3	(0.55)	8	(0.36)	0	(0.00)	1.035	.019
Other personality disorder	0	(0.00)	0	(0.00)	4	(0.18)	0	(0.00)	1.237	.021

Table 2

Personality Disorders by Recidivism

Variable	Personality Disorder Type											
	Antisocial personality disorder				Borderline personality disorder				Other personality disorder			
	n	(%)	χ^2	V	n	(%)	χ^2	V	n	(%)	χ^2	V
Type of Recidivism												
Overall recidivism	5	(10.64)	.034	.004	0	(0.00)	2.24	.033	6	(21.43)	.632	.017
Re-incarceration	5	(10.64)	.716	.019	0	(0.00)	1.51	.027	3	(10.71)	.189	.010
Sexual recidivism	0	(0.00)	.523	.017	0	(0.00)	.156	.009	0	(0.00)	.365	.014
Violent recidivism	1	(2.13)	.370	.014	0	(0.00)	.178	.010	0	(0.00)	.416	.015
Non-violent recidivism	3	(6.38)	1.547	.029	0	(0.00)	.561	.017	2	(7.14)	.875	.022

Table 3

Personality Disorders and Recidivism Regression

Variable	Personality Disorder Type					χ^2	R^2
	Antisocial personality disorder	Borderline personality disorder	Personality disorder NOS	Mixed personality disorder	Other personality disorder		
Type of Recidivism	n (%)	n (%)	n (%)	n (%)	n (%)		
Overall recidivism	5 (45.45)	0 (0.00)	3 (50.00)	3 (60.00)	0 (0.00)	135	.108
Re-incarceration	5 (45.45)	0 (0.00)	2 (33.33)	1 (20.00)	0 (0.00)	129	.108
Sexual recidivism	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	41.2	.083
Violent recidivism	1 (10.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	38.9	.076
Non-violent recidivism	3 (10.00)	0 (0.00)	2 (66.67)	0 (0.00)	0 (0.00)	59.4	.069

