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# Violent and Disruptive Behavior among Drug-Involved Prisoners: Relationship with Psychiatric Symptoms

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## Abstract

This study examines the relationship between psychiatric symptoms and violent/disruptive behavior among 192 inmates who participated in prison-based substance abuse treatment. Participants came from two sites able to provide narrative reports of disciplinary actions in the Criminal Justice Drug Abuse Treatment Studies' Co-Occurring Disorders Screening Instrument study. In multivariate logistic models, a lifetime history of thought insertion/control ideation (OR, 11.6; 95% CI, 1.8–75.2), antisocial personality disorder (OR, 3.3; 95% CI, 1.2–8.9), and disciplinary action related to possession of controlled substances or contraband (OR, 4.9; 95% CI, 1.9–12.3) were associated with increased risk for violent or disruptive behavior while in prison, whereas lifetime phobic symptoms (OR, 0.2; 95% CI, 0.1–0.54) and high school graduation (OR, 0.4; 95% CI, 0.2–1.0) were associated with a decreased risk of violence and disruptive behavior in general. We conclude that, among inmates in substance abuse treatment, symptoms that increase risk for violence or disruptive behavior include thought control/insertion ideation and disciplinary infractions related to controlled substances, contraband, or failure to participate in assigned programs, as well a history of antisocial personality disorder. Published in 2008 by John Wiley & Sons, Ltd.

## INTRODUCTION

Violent and disruptive behavior by inmates during incarceration is a major concern to prison staff and administrators, both in terms of safety within the institution and for the detrimental effect of disruptive or violent behavior on the in-prison rehabilitative process. Furthermore, researchers and penologists have concluded that prison misconduct/violence can forecast recidivism upon release to the community (Gendreau et al., 1997; Zamble & Porporino, 1988). For these reasons alone, the assessment of offender risk is essential for the prevention of violence and other misconduct within prisons and all types of incarceration, as well to identify prisoners with special needs regarding rehabilitation. Appropriate assessment of a given inmate's risk for violent or disruptive behavior is essential to ensure the safety of the prison environment. The assessment of violence risk involves consideration of factors associated with an increased likelihood of violence to guide security classification and

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placement (Austin, 2003; Byrne & Hummer, 2007). The need to assess risk for violence is of similar or greater concern to drug courts and other diversion programs.

Jail administrators perceive the highest risk of disruptive behaviors among inmates with mental disorders—higher than gang members, long-term inmates, or repeat offenders (Ruddell et al., 2006). Despite stereotypes, the literature examining mental illness as a static risk factor in the community suggests most mentally ill persons are not more violent than the general population (Monahan et al., 2005), but they are at higher risk of substance use disorders (Torrey et al., 2008), which in combination with certain psychiatric symptoms increase the risk of violent behavior (Arseneault, Moffitt, Caspi, Taylor, & Silva, 2000; Eronen, Angermeyer, & Schulze, 1998; Scott & Resnick, 2006; Steinert, 2002; Swanson, Holzer, Ganju, & Jono, 1990; Swanson et al., 2006). According to this literature, particular psychiatric symptoms, such as command hallucinations to harm others (Monahan et al., 2001), hallucinations that provoke anger (Cheung, Schweitzer, Crowley, & Tuckwell, 1997), and limited insight regarding a schizophrenic condition (Buckley et al., 2004) have been associated with increased risk for violence. Other symptoms have been found to reduce the risk of violence. Overall, offenders with schizophrenia have been found to be less likely to commit violent offenses (Rice & Harris, 1995). Some studies have suggested that negative psychotic symptoms such as social withdrawal and body/mind control delusions might either mitigate or act as protective factors when predicting violence (Appelbaum, Robbins, & Monahan, 2000; Swanson et al., 2006). Furthermore, disorders such as depression/dysthymia, schizophrenia/schizoaffective disorder and bipolar disorder have not been found to be significantly associated with violence (Appelbaum et al., 2000).

Taken together, these findings suggest that psychiatric status is best conceptualized as a dynamic influence on violence risk, with changing symptoms, severity and other mitigating factors more important than the static history of a particular disorder (Douglas & Skeem, 2005). Given that symptoms of mental problems are found among 56% of inmates in federal prisons, 45% in state prisons and 64% in local jails, the potential impact of psychiatric symptoms on violence within criminal justice institutions might be considerable (James & Glaze, 2006).

Few studies have examined the relationships between co-occurring mental health symptoms and violence in prisons. A meta-analysis of prison misconduct studies found that antisocial attitudes were among the strongest predictors of misconduct (Coid, 2002; Gendreau et al., 1997). The literature is equivocal as to whether greater psychopathy is associated with misconduct among institutional populations (Guy, Edens, Anthony, & Douglas, 2005; Richards, Casey, & Lucente, 2003). Other work suggests that substance use history increases both substance use and non-substance-use rule infractions (Jiang, 2005), but drug convictions are associated with lower rates of prison violence (Cunningham & Sorensen, 2006). Inmates with co-occurring mental health disorders, personality disorders, and/or substance use thus appear particularly challenging to manage.

A small set of studies have examined prison violence and its relationship to substance abuse treatment. Participation in prison-based addiction treatment appears to decrease, but not eliminate, disciplinary problems (Langan & Pelissier, 2001; Welsh, McGain, Salamatin, & Zajac, 2007). Several studies have identified risk factors for disruptive behavior in prison-based substance abuse treatment programs, including younger age, more serious prior offenses, prior misconducts, and more months in prison after treatment completion (Langan & Pelissier, 2001; Welsh et al., 2007). The current study examines an in-prison substance abuse treatment sample to explore the relationship between mental health symptoms, substance use, and violence. We hypothesized that mental health symptoms and substance use as dynamic risk

factors would have greater associations with violence than would static diagnoses of mental and/or substance use disorders.

# METHOD

## Study Population

The data for this study come from the Co-Occurring Disorders Screening Instrument (CODSI) study of the National Institute on Drug Abuse (NIDA) funded Criminal Justice Drug Abuse Treatment Studies (CJDATS) initiative (Sacks et al., 2007). The CODSI study involved recruitment of a sample of 324 consecutive new admissions to 13 prison substance abuse treatment programs affiliated with four CJ-DATS Research Centers. A study subject was considered to be a "new admission" for 14 days from his/her entry to the treatment program. Exceptions were made under special circumstances; e.g., potential subjects were missed when a lockdown prevented interviews from being scheduled so that the initial test battery could not be completed within two weeks of entry to the program. In order to have a sufficient number of women in the study, the sample was stratified to include one-third women, which represented an over-sampling compared with the actual percentage of women in state prison populations (7%, Harrison & Beck, 2005). A total of 355 inmates were approached to participate in the CODSI study; 29 (9%) refused to participate in the study and a communication barrier prevented two inmates (0.6%) from participating. The two inmates who reported a problem understanding the questions were replaced by the next subjects to enter the treatment program. With certification from the Office for Human Research Protections (OHRP), institutional review boards at the participating CJ-DATS Research Centers approved the study. The consent process was free from coercion; participation was entirely voluntary.

## Procedure

The current analysis focuses on the two sites that were able to provide narrative data about in-prison disciplinary actions; hence, the sample for the current analysis includes 192 subjects. These narrative comments on in-prison disciplinary actions came as text files abstracted from correctional officers' reports. The dates and timing of these reports were unknown, thus the study design is considered cross-sectional. From these reports, we categorized in-prison disciplinary behaviors into six categories: (1) violence and/or threat of violence; (2) failure to participate in assigned program (work, education, vocation, or SAP); (3) personal grooming (appearance, smoking, unallowed tattooing); (4) disruptive behaviors, including disrespect, abusive language, etc.; (5) possession or use of controlled substances or other contraband (includes refusal to submit to drug testing as such individuals are considered guilty of use); and (6) offenses that do not really fit one of the previous categories, i.e. stealing state food, overfamiliarization, excessive appeals, etc.). We dummy coded the six categories as 1 if having any in-prison violation in the respective categories, otherwise 0. We further dummy coded "ever had any in-prison violation" as 1 if a prisoner had an in-prison violation in any or all of the above six categories, otherwise 0.

**Dependent Variables—**For the outcome of violence and/or threat of violence, an indicator variable was coded as 1 if a prisoner had any in-prison violation in Category (1) described above, otherwise 0. For the outcome of violence and/or disruptive behavior, an indicator variable was coded as 1 if a prisoner had any in-prison violation in Categories (1) or (4) described above, otherwise 0.

## Explanatory Variables

**Demographic, crime, and drug use variables:** A structured interview collected socio-demographic background including education and employment, criminal history, health and psychological status, and drug history (CJ-DATS Steering Committee, 2004). We examine the

client age, sex, race, education, number of prior arrests lifetime, current crime violence, number of violent offenses lifetime, primary drug use for stimulants, opiates, and marijuana, and finally primary alcohol use. Race is coded as African American, Hispanic, or other, with White as the referent. High school graduation is dummy coded. Narrative reasons for the current conviction are evaluated, with keywords in the convictions containing *robbery*, *murder*, *menacing*, *arson*, *assault*, *weapon*, or *homicide* dummy coded as violent current crime conviction, otherwise non-violent current crime conviction as the referent. Number of lifetime violent offenses is summed from a list of lifetime violence offenses, which include committed robbery, assault, kidnapping, terrorism, homicide, arson, weapon offense, and sex offense. If the inmate commits none of the above offenses, the number of lifetime violent offenses is 0. Moreover, we derive alcohol use and primary drug use of stimulants, opiates, and marijuana from the inmates' responses to the question on their No. 1 most serious drug before the prison substance abuse treatment programs. If the inmates' answers are among crack/freebase, cocaine (by itself), heroin and cocaine (mixed together), methamphetamine, and other amphetamines, we dummy code stimulants as 1, otherwise 0; if inmates' answers are among heroin and methadone (mixed together), heroin (by itself), street methadone, and other opiates, we dummy code opiates as 1, otherwise 0; if marijuana/hashish, then we dummy code marijuana as 1, otherwise 0; if alcohol, then we dummy code alcohol as 1, otherwise 0.

**Psychiatric symptoms and diagnoses:** The CODSI study administered three psychiatric screening instruments: the 22-item Mini-International Neuropsychiatric Interview—Modified (MINI-M) (Sheehan, 1993), the 18-item Mental Health Screening Form (MHSF) (Carroll & McGinley, 2001), and the 15-item Global Appraisal of Individual Needs Short Screener Version 1.0 (GSS; Dennis, Chan, & Funk, 2006), excluding the five items in the substance abuse section. For severe mental health disorder screening, we created indicator variables for cut-off points suggested by the developers of each scale of 10 or greater for MINI-M; 11 or greater for MHSF; and 5 or greater for GSS (Sacks et al., 2007). Based on the CODSI validation study (Sacks et al., 2007), we also examine indicator variables at cut-off points of 3 or greater for any mental health disorder (CODSI-MD screener), and 2 or more for severe mental health disorder screening (CODSI-SMD). Important individual symptoms, e.g. psychotic symptoms, were also considered individually in bivariate analyses.

For symptoms of thought insertion or control ideation, we created a dummy variable from the MINI-M question "Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self?". For phobic-type symptoms, an indicator variable is created from the MHSF question "Have you ever experienced any strong fears? Examples include: Heights, insects, animals, dirt, attending social events, being in a crowd, being alone, being in places where it may be hard to escape or get help".

The Structured Clinical Interview for DSM-IV (SCID) (First, Spitzer, Williams, & Gibbons, 1995) measured lifetime mental disorders. SCID mental health disorder diagnosis was dummy coded as 1 (otherwise 0) if the inmate met criteria for any Axis I or II diagnosis. If the inmate ever had bipolar disorder, schizophrenia or related disorder, major depressive disorder, or a suicide attempt, we coded SCID Severe Mental Health Disorder Diagnosis as 1, otherwise 0. In addition, if the inmate had antisocial personal disorder we dummy coded as 1, otherwise 0.

**Statistical methods:** Bivariate analyses describe the demographic and screening characteristics of the clients by in-prison violence or threat of violence, non-violent disruptive behavior, or both. In a process of non-automated backward selection, bivarate correlates of any of the outcomes at the $P < 0.2$ level of significance entered multivariate logistic regression models; final models retain explanatory variables significant in any model at $P < 0.05$. Because women were oversampled in the survey, the models are estimated weighting by the inverse of

the probability of respondents in the various strata being included in the sample. Given this weighting, the normal standard errors would be underestimates of the variation in the regression coefficients. Therefore, robust standard errors calculated using the Huber–White sandwich estimator of the variance are calculated and reported (StataCorp, 2005); all significance tests were two tailed.

## RESULTS

Of the 192 inmates in this analysis, 91.8% are male, 49.7% are white, 17.6% are black, 25.0% are Hispanic, and 34.8% graduated from high school. Although 75.3% reported lifetime violent offenses, only 16.6% had a current conviction for a violent offense. The mean number of prior arrests was 18.1. Primary drug was a stimulant for 43.6%, opiates for 7.2%, marijuana 6.6%, and alcohol for 37.0%. MINI-M score was 10 or above for 28.2%, MHSF score was 11 or above for 20.9%, and 37.8% had a GSS score 5 or above. CODSI-MD was positive for 68.3% of subjects and CODSI-SMD for 24.9%. Symptoms of thought insertion or control ideation were reported by 7.1% and 49.0% had lifetime phobic-type symptoms. For summary SCID diagnosis, 73.9% had a SCID diagnosis, 33.6% had SCID severe mental disorder diagnosis, and 61.9% met criteria for antisocial PD diagnosis.

Regarding in-prison behavior, 66.8% had at least one disciplinary action: 19.2% had violence or threat of violence, 8.9% failed to participate in assigned program (work, education, vocation, or SAP), 5.1% violated personal grooming rules (appearance, smoking, tattooing), 45.0% had non-violent disruptive behavior (abusive language, disrespect, etc.), 41.3% possessed or used controlled substances or other contraband (includes refusal to submit to drug testing), and 8.2% had other violations (offenses that do not really fit one of the previous categories, i.e. stealing state food, overfamiliarization, excessive appeals, etc.).

In general, bivariate analyses suggest that inmates with thought insertion or control ideation, or who had other disciplinary actions, were significantly more likely to have in-prison violence or disruptive behavior (Table 1). In addition, the rate of overall disciplinary actions varied widely across the two centers from 68.8% inmates in Site 1 versus 37.2% in the other site ($P < 0.0001$). Other race also appears to be associated with higher rates of disciplinary action. Pre-incarceration use of alcohol or type of primary substance used was not related to risk of in-prison violence or disruptive behavior.

### Violence or Disruptive Behavior

In multivariate models (Table 2), symptoms of thought insertion or control ideation increased the chances of violence or disruptive behavior 11.6-fold. Conversely, those with phobic-type symptoms were less likely to have overall violent or disruptive behavior than those without the symptoms. Presence of antisocial personal disorder also increased violent or disruptive behavior by a factor of 3.3. Individuals with a disciplinary action related to possession or use of controlled substance or contraband were 4.9 times more likely to have violent or disruptive behavior. Inmates with high school education tended to be less likely to have violent or disruptive behavior (OR 0.4, $P = 0.054$). Finally, inmates at one site had 3.2 times more reports of violent or disruptive behavior than those at the other site. Lifetime violent offenses, age, race, and gender exerted no influence (data not shown).

In a separate model of violence or threat of violence only, thought insertion/control ideation increased the chance of violence 6.4-fold. Prisoners with phobic-type symptoms were again less likely to have violent behavior. Disciplinary action related to possession or use of controlled substance or contraband was associated with a tripling of the likelihood of violence or threat of violence. Similarly, disciplinary action related to a failure to participate in an assigned program (including work, education, vocation, or substance abuse treatment)

increased the chances of violence or threat of violence 4.5-fold. Compared with the model of either violent or disruptive behavior, no additional variables emerged in separate models of disruptive behavior only. Antisocial personality disorder (OR 2.5, $P = 0.055$) tended to increase the likelihood of disruptive behavior, while having completed high school (OR 0.5, $P = 0.088$) tended to decrease it.

## DISCUSSION

In this population of inmates in substance abuse treatment programs, thought insertion/control ideation and antisocial personality disorders were associated with increased risk for violent or disruptive behavior while in prison, while phobic-type symptoms were associated with a decreased risk. Violent behavior is associated with the combination of schizophrenia-spectrum and substance use disorders among community populations (Arseneault et al., 2000; Swanson et al., 1990), but might, in part, result from medication nonadherence associated with active substance use (Swartz et al., 1998). Our findings suggest that these effects generalize to correctional settings, where medication adherence can be more controlled. Furthermore, consistent with prior literature on the relationships between violence and psychotic diagnoses, we could find no association between psychiatric diagnoses, as determined by screening instruments or the SCID, and the risk of violent or disruptive behavior while in prison.

Although the MacArthur Violence Risk Assessment Study, a large-scale cohort study of more than 1000 persons discharged from psychiatric hospitals, did not find that delusions increased the risk for violence (Appelbaum et al., 2000), the current findings are consistent with studies of community-dwelling and hospitalized schizophrenic patients, which found that “positive” psychotic symptoms, which include control ideation, are associated with an increased risk of violence (Swanson et al., 2006; Steinert, 2002). Other research has shown that increased levels of violence are associated with persecutory delusions (Link et al., 1992; Link & Stueve, 1995; Swanson etal., 1990; Wessely, 1993), the misperception of hostile intent on the part of others (Monahan et al., 2001; Scott & Resnick, 2006), command hallucinations to commit violence (Monahan et al., 2001), and hallucinations that gave rise to negative emotions such as anger (Cheung et al., 1997). The focus on in-prison violence and the ability to separate control delusions as individual symptoms most likely explain why these findings differ from those of Duncan and colleagues (2008), which found no relationship between violence and hallucinations. However, even among psychotic persons, it remains likely that most aggressive behavior will result from “adverse interpersonal interactions,” such as arguments, rather than internal stimuli such as commanding auditory hallucinations (Quanbeck et al., 2007).

Phobic-type symptoms appear to have reduced the likelihood of acting out. Phobic-type symptoms, though not restricted to psychotic persons, might function similarly to “negative” psychotic symptoms in that they constrict externalized actions. “Negative” psychotic symptoms such as social withdrawal reduce the risk of violence (Swanson et al., 2006). Reported fearfulness might also reflect low status in the prison pecking order or a fear of reprisals for aggressive behavior. However, we could find no prior literature reporting a relationship between phobic symptoms and violence, so these findings should be considered exploratory pending confirmation in future investigations.

The present sample differs from community samples in significant ways. For example, psychopathy might be a weak predictor of violence in controlled settings such as psychiatric hospitals (Steinert, 2002) and prisons (Guy et al., 2005; Richards et al., 2003) in which potential triggers such as family conflict are absent. The present study also reports on a selective sample that has committed crimes and might be more representative of individuals who lack the insight into their illness necessary to control their behavior (Buckley et al., 2004) and coping mechanisms that would help them to moderate their hallucinations or delusional thinking

(Cheung et al., 1997). In these ways, the sample differs from patients discharged from psychiatric hospitals who were followed in the MacArthur study. Nevertheless, the current findings resonate with those of Swanson et al. (2006) regarding positive and negative symptoms as risk factors for violence.

Like that by Duncan et al. (2008), the current study found an association between antisocial personality disorder and in-prison violence. Antisocial personality disorder is likely a risk for predatory aggression, defined as violent acts that are "planned, purposeful and goal directed" (Scott & Resnick, 2006). In a meta-analysis of studies of violent recidivism among mentally ill offenders, antisocial personality disorder, younger age, and criminal history were among the strongest predictors (Bonta, Law, & Hanson, 1998). It has been suggested that past violence predicts future violence (Monahan et al., 2001, 2005), but variables characterizing persons with a high violence risk tend to lose their weight in studies utilizing high-risk samples (Steinert, 2002). This phenomenon might explain why the current study found no effect of lifetime number of violent offenses, younger age, or male gender.

The limited relationship between prior type of substance use and violence is not surprising given the more limited access to substances inside the prison walls. In addition, drug convictions tend to be associated with less prison violence (Cunningham & Sorensen, 2006). Substance use appears to function as a dynamic risk factor and a history of a substance use disorder has limited predictive ability as a static risk (Douglas & Skeem, 2005). The disinhibiting effects of substance intoxication on aggression and its association with violence are well established (Steadman et al., 1998; Swanson, 1994). Supporting this assertion, possession or use of controlled substances or other contraband in prison had a strong, independent association with violent and disruptive behavior. This said, we cannot determine definitely whether substance use within prison itself causes the increased risk for violence, especially since others have suggested that active substance use does not fully explain violent behavior among persons with co-occurring disorders (Wallace, Mullen, & Burgess, 2004). We also cannot discern whether the association between violence and failure to participate in assigned programs such as work, education, or vocational or substance abuse programming results from not receiving needed services in these domains. In both cases, it remains possible that these individuals' disregard for authority itself explains any association with violent or disruptive behavior.

This study has several limitations. Correctional officers wrote the narratives for disciplinary actions, which are thus subject to reporting biases. Our study would be biased, for example, if correctional officers are more likely to charge or report infractions among prisoners with certain psychotic features, prior infractions for contraband, or antisocial traits. Differential reports along organizational, cultural, racial, and other lines might explain the almost twofold difference in the incidence of disciplinary reports between the two study sites. Other possible differences across sites might involve the number of prisoners housed in a facility, availability of services or the length of time over which infractions could be recorded. In this regard, we have no information about the time duration over which the infractions were recorded and whether they occurred before or after entry into substance abuse treatment or enrollment into the CODSI study. Thus, this study's cross sectional design, examination of a single time point, and small number of sites limits causal inference about the relationship between disruptive behavior and its correlates. Finally, the findings derive from prisoners in prison substance use programs and might not generalize to other prison populations.

Despite these limitations, we conclude that prisoners with substance use disorders at risk for violence or disruptive behavior include those who suffer from a sense of being possessed or controlled, those with antisocial personality disorder, and those who possess or use controlled substances or other contraband in prison or fail to participate in assigned programs. Further

study is needed with incarcerated and community “dual diagnosis” offender populations regarding the presence of command or control hallucinations, antisocial personality disorder, proneness to anger, and in-prison substance use, as well as insight and coping mechanisms to prevent the emergence of violent behavior. Future investigations should also determine whether and which targeted interventions might alleviate symptoms that increase the risk of violence, improve the safety and functioning of the prison system, and reduce recidivism.

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**Table 1**

Client characteristics by in-prison violent and/or disruptive behavior

| | Either violent or disruptive behavior | Neither violent nor disruptive behavior |
|---|---|---|
| | *N* = 92 | *N* = 100 |
| Client age, mean (std) | 33.5(9.8) | 34.1(8.7) |
| Client sex, % | | |
| Female | 40.7 | 59.3 |
| Male | 50.7 | 49.3 |
| Race, % | | |
| African American/Black | 61.8 | 38.2‡ |
| Hispanic/Latino | 59.7 | 40.3‡ |
| Other | 71.8 | 28.2‡ |
| Anglo/White/Caucasian | 37.4 | 62.6‡ |
| Education, % | | |
| High school graduate | 49.0 | 51.0 |
| Less than high school | 50.4 | 49.6 |
| Research center, % | | |
| Site 1 | 68.8‖ | 31.2‖ |
| Site 2 | 37.2‖ | 62.8‖ |
| No. of prior arrests, mean (std) | 18.1(17.1) | 18.1(19.2) |
| Current incarceration for violent offense, % | | |
| Yes | 49.5 | 50.5 |
| No | 48.2 | 51.8 |
| No. of lifetime violent offenses, mean (std) | 43.1(126.4) | 20.9(63.5) |
| Ever committed violent offense, % | | |
| Yes | 49.5 | 50.5 |
| No | 51.2 | 48.8 |
| Primary drug, % Stimulant | | |
| Yes | 44.6 | 55.4 |
| No | 52.2 | 47.8 |
| Opiates | | |
| Yes | 65.1 | 34.9 |
| No | 47.6 | 52.4 |
| Marijuana | | |
| Yes | 77.8 | 22.2† |
| No | 46.9 | 53.1† |
| Alcohol | | |
| Yes | 42.7 | 57.3 |
| No | 52.5 | 47.5 |
| MINI-M score 10 or above, % | | |
| Yes | 54.5 | 45.5 |
| No | 48.1 | 51.9 |
| MHSF score 11 or above, % | | |

| | Either violent or disruptive behavior | Neither violent nor disruptive behavior |
|---|---|---|
| Yes | 44.1 | 55.9 |
| No | 51.4 | 48.6 |
| GSS score 5 or above, % | | |
| Yes | 53.1 | 46.9 |
| No | 48.0 | 52.0 |
| CODSI-MD score 3 or above, % | | |
| Yes | 47.3 | 52.7 |
| No | 55.6 | 44.4 |
| CODSI-SMD score 2 or above, % | | |
| Yes | 41.4 | 58.6 |
| No | 52.7 | 47.3 |
| Lifetime thought insertion or control ideation, % | | |
| Yes | 71.9 | 28.1 |
| No | 48.2 | 51.8 |
| Lifetime phobic symptoms, % | | |
| Yes | 37.7 | 62.3 |
| No | 61.6 | 38.4 |
| Any diagnosis on SCID, % | | |
| Yes | 51.2 | 48.8 |
| No | 46.4 | 53.6 |
| Severe diagnosis on SCID (bipolar, MDD, schizophrenia, or suicidality), % | | |
| Yes | 52.7 | 47.3 |
| No | 48.5 | 51.5 |
| Antisocial PD diagnosis on SCID, %[*] | | |
| Yes | 52.6 | 47.4 |
| No | 44.7 | 55.3 |
| Other disciplinary infractions, % | | |
| Failure to participate in assigned program (work, education, vocation, or SAP) | | |
| Yes | 66.7 | 33.3 |
| No | 48.3 | 51.7 |
| Personal grooming (inappropriate appearance, smoking, tattoos and tattooing) | | |
| Yes | 61.7 | 38.3 |
| No | 49.3 | 50.7 |
| Possession/use of controlled substances or other contraband (includes refusing drug testing) | | |
| Yes | 70.9 | 29.1[§] |
| No | 35.2 | 64.8[§] |
| Other (e.g. stealing food, overfamiliarization, excessive appeals, etc.) | | |
| Yes | 73.9[†] | 26.1[†] |
| No | 47.8[†] | 52.2[†] |

[*] Overall missing $N = 43$.

$^{\dagger}P < .05.$;

$^{\ddagger}P < .01.$;

$^{\S}P < .001.$

**Table 2**

Multivariate correlates of in-prison violence and/or disruptive behavior

| | Odds ratio estimate (95% CI)* | | |
|---|---|---|---|
| | **Either violence or disruptive behavior** | **Any violence/threat of violence** | **Disruptive behavior only** |
| Lifetime thought insertion/control ideation | 11.6 (1.8, 75.2)† | 6.4 (1.2, 34.0)† | 9.0 (1.7, 48.6)† |
| Lifetime phobic symptoms | 0.2 (0.1, 0.4)‖ | 0.3 (0.1, 0.8)† | 0.3 (0.1, 0.7)‡ |
| Antisocial personality disorder | 3.3 (1.2, 8.9)† | 1.3 (0.5, 3.6) | 2.5 (1.0, 6.5)** |
| Possession/use of controlled substances or other contraband (includes refusing drug testing) | 4.9 (1.9, 12.3)§ | 3.0 (1.0, 8.9)† | 3.9 (1.7, 9.4)‡ |
| Failure to participate in assigned program (work, education, vocation or SAP) | 1.3 (0.5, 5.3) | 4.5 (1.2, 16.8)† | 20. (0.5, 7.3) |
| High school graduate | 0.4 (0.2, 1.0)¶ | 0.6 (0.2,1.9) | 0.5 (0.2, 1.1)¶ |
| Study site | | | |
| Site 1 | 3.2 (1.3, 8.1)† | 2.0 (0.7, 6.0) | 3.3 (1.3, 8.3)†† |
| Site 2 | referent | referent | referent |

*Compared to those with neither violence nor disruptive behavior.

†$P \leq .05$.;

‡$P \leq .01$.;

§$P \leq .001$.;

‖$P \leq 0001$.;

¶$P = 0.054$.;

**$P = .055$.;

††$P = 0.082$.