

Co-Occurring Substance Use Disorders, Mental Health Conditions and Offending Patterns among Local Jail Detainees

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Abstract

Basic prevalence data have documented the high rates of behavioral health needs among adults in jail, but much of this work is ambiguous, often glossing over specific conditions such as personality disorders and certain types of substance use disorders (SUD) (e.g. alcohol use disorder, opiate use disorder, etc.). The work in this area has also asserted multiple conditions are “the rule, not the exception” (Scott, Lewis, & McDermott, 2006), but there is still a limited amount of information available regarding the relationship between specific combinations of mental health conditions, SUDs, and offending patterns among jail detainees. The current study drew on data collected with the Comprehensive Addictions and Psychological Evaluation – 5 (CAAPE–5) over the course of a year from a random sample of adults detained in a local jail. The sample consisted of 258 adults with nearly three quarters (74%) of the sample meeting criteria for a mental health condition in combination with a minimum of one SUD. Additionally, nearly one third (31%) met criteria for multiple severe SUDs. Bivariate results indicated detainees with a combination of mental health and SUD were more likely to be booked into the jail for felony ($\chi^2(2) = 6.35, p = .042$) offenses and property ($\chi^2(2) = 6.56, p = .038$) offenses relative to detainees who did not meet similar criteria. A series of multivariate logistic regression analyses demonstrated detainees who met criteria for specific mental health conditions (i.e. PTSD, depression, antisocial personality disorder (ASPD), or obsessive compulsive personality disorder (OCPD)) in conjunction with multiple SUDs were significantly more likely to be charged with a felony offense. Detainees with PTSD and multiple SUDs were also more likely to be booked into the jail on multiple prior occasions. These results demonstrate the need for systematic comprehensive behavioral health assessments in local detention facilities in the effort to reduce repeat jail admissions.

Keywords: inmates, detainees, offending, jail, corrections, substance use disorder, behavioral health

1.0 Introduction

More than 10 million people are admitted into jails across the US annually, and this number has been rising among smaller facilities located in rural areas (Zheng, 2018; Subramanian, Henrichson, & Kang-Brown, 2015). The latest report shows 750,000 adults were detained in the nation’s jails at any given time (Kaeble & Cowhig, 2018). Importantly, data from large metropolitan area facilities shows that most adults who are booked into jails have had prior experience being admitted to the correctional center with 80% reporting at least one prior arrest (Office of National Drug Control Policy [ONDCP], 2014). These data clearly demonstrate there is an unmet need to identify underlying factors which contribute to multiple jail admissions.

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Prior research has shown behavioral health indicators play an important role in this process, and adults who are detained in local jails suffer from a complex array of conditions. Recent data drawn from a representative sample of sentenced jail inmates across the United States indicated two thirds (63%) met DSM-IV criteria for drug dependence or abuse and localized research has shown alcohol, opioid, and amphetamine disorders tend to be the most prevalent, depending on the location of detention centers (Proctor, Hoffmann, & Raggio, 2018; Raggio, Kopak, & Hoffmann, 2017; Trotter et al., 2018).

There are also many pressing mental health needs among adults in local correctional centers. Nationally, it is estimated that almost half (44%) of adults in jail have been classified with a history of a mental health condition (Bronson & Berzofsky, 2017). More detailed examinations of these conditions among adults in jails have indicated 40 – 50% reported symptoms consistent with antisocial personality disorder, posttraumatic stress disorder (PTSD), depression, and manic disorders (Proctor & Hoffmann, 2012; Raggio, Hoffmann, & Kopak, 2017).

Substance use disorders and mental health conditions are often presented in combination with one another among adults in local detention facilities. Researchers have recently found that mental health disorders occur in the presence of substance use disorders among 11% - 17% of adults in local jails (Tracy & Carkin, 2016). This estimate puts the co-occurrence of substance use disorder and mental health conditions at approximately nine times higher among jail detainees relative to the general public (Blandford & Osher, 2013). When examined within the context of the rate of co-occurrence among adults with severe mental health conditions, one prevalence study indicated 72% of adults with indications of a severe mental health disorder also reported problems attributed to substance use (National GAINS Center, 2004).

The co-occurrence of these conditions has also been connected to higher rates of involvement in the criminal justice system. For instance, a series of recent studies conducted in the city of Philadelphia found adults with co-occurring substance use and serious mental health conditions were readmitted to the jail at higher rates after having spent less time in the community compared to adults who did not have similar conditions (Wilson et al., 2011; Wilson et al., 2014). Complimentary results were observed among adults who were recently released from a local Massachusetts jail, with the co-occurrence of substance use and mental health conditions significantly associated with a higher number of rear rests and convictions (Tracy & Carkin, 2016). These results converge with other findings indicating adults under probation supervision with substance use disorders and mental health conditions were at higher risk for future criminal activity compared to those who screened positive only for a substance use disorder, only a mental health condition, or neither (Balyakina et al., 2014). A similar relationship has also been observed in data collected from the general population showing a higher prevalence of arrest among adults who present symptoms consistent with substance use disorders and mental health needs relative to those who did not meet criteria for a similar combination of conditions (Prince & Wald, 2018).

Despite the high prevalence of these conditions and the increased risk for criminal justice involvement among adults with co-occurring disorders, little research has examined the more detailed associations between offending patterns and different combinations of conditions. The scant work in this area has provided some insight into these potential relationships with the identification of several notable connections. One of the most well-documented relates to the link between PTSD and serious offending. The empirical basis for this relationship has established a connection between PTSD and violent offending (McCabe et al., 2012), as well as a correlation between this prevalent condition and heightened risk of arrest for a felony offense (Sadeh & McNeil, 2015).

Much less established are the associations between other disorders and various types of offending, but some researchers have investigated these possibilities. One international study of patients with depression who were not involved in the criminal justice system, for example, found an elevated risk for violence among those who experienced symptoms relative to those who did not have similar indications (Fazel et al., 2015). Another review of the current research in this area confirmed the association between mental health conditions and violence, with a particular emphasis on certain personality disorders, but this work has not considered the large population of adults detained in local jails across the United States (Howard, 2015).

Although existing work that has focused on co-occurring substance use and mental health disorders has provided some insight regarding the associations between these conditions and criminal justice involvement, there are many gaps remaining in our knowledge. The most glaring lack of information is related to the absence of data collected from adults detained in local correctional facilities, and this tends to occur for a number of reasons, the most influential of which is related to the rapid turnover of detained adults in local facilities.

With the average jail stay lasting slightly more than 10 days (Zheng, 2018), this leaves little time to collect data with this highly mobile segment of the population. Another important reason much of this work has glossed over adults in jails is associated with the lack of personnel and corresponding budgetary resources to conduct research with this population in the rural locations that characterize one quarter of all local jails in the United States (Zheng, 2018). Considering these constraints, most of the work that has examined co-occurring conditions has concentrated on state prisoners, and most of the attention has been devoted to less prevalent serious psychiatric disorders compared to more prevalent personality disorders. Finally, this work has not yet examined the various combinations of co-occurring disorders as they relate to offense type, severity, and jail admission history.

Considering the paucity of research in this area, the current study was designed to contribute to our understanding of the associations between substance use disorders, mental health conditions, and offending. The first aim was to detail the rates of co-occurrence of specific combinations of conditions among adults detained in a local correctional facility. The second aim was to examine associations between these combinations and offending. Detailing these relationships can help to inform the ways in which local detention facilities, and their surrounding communities address co-occurring conditions.

2.0 Methods

Data for the current study were collected from a sample of adults recently admitted to a county detention facility located in Western North Carolina. During the collection period, which was initiated in December 2015 and concluded in August 2016, the county serving as the study site had a population of nearly 60,000. According to recent estimates (US Census Bureau, 2018), the median age in this area was 47 years, 46% of the population was male, and predominately White (96%). Regarding educational attainment, 44% of the population in this area completed some college or earned an associate's degree and the median annual income among residents over 25 years of age was \$31,500.

The facility where this study was conducted has many characteristics typical of a small rural jail. The detention center is designed for adult pretrial detainees, as well as inmates who have been sentenced to remain in custody for a period lasting no longer than one year. The jail operates near capacity with a daily census count ranging from 100 to 125. As demonstrated in previous research examining the differences between rural and urban jails, this facility does not have full time medical personnel (Applegate & Sitren, 2008). The detention center does employ one healthcare professional to conduct triage assessment while comprehensive behavioral health work-ups are not routine. Adults who were booked into the jail within the previous 24 to 96 hours were eligible to participate in the study. The names of recently admitted detainees were placed in a cup and drawn randomly. Selected participants were informed their responses would remain confidential and any information provided could not influence their current legal status. Detainees who agreed to participate signed consent forms approved by the Institutional Review Board of the university with which the researchers are affiliated. Participants did not receive any incentives for their participation in the study.

A member of the research team conducted a clinical interview with each participant to collect information related to a range of behavioral health conditions. These structured assessments consisted of the Comprehensive Addiction and Psychological Evaluation-5 (CAAPE-5; Hoffmann, 2013), which was designed to cover a range of behavioral health issues in a manner that is compatible with the DSM-5 (American Psychiatric Association, 2013). The CAAPE-5 has been validated for use with correctional populations (Proctor & Hoffmann, 2012; Tracy & Carkin, 2016), and gathers information related to demographic background characteristics while also providing an assessment of common mental health conditions and disorders for many substances (i.e. alcohol, marijuana, cocaine, heroin, amphetamines, hallucinogens, and inhalants). The complete interview can take from 25 – 35 minutes, depending on the number of items endorsed by a participant. Following the completion of the clinical interview, a member of the research team extracted offending-related data from the jail's records management system. Information pertaining to offense type, severity (i.e. felony or misdemeanor), and retrospective jail admissions in the 12-month period immediately preceding the interview were recorded.

These items were linked to detainees' demographic background information, substance use, and mental health indicators to assess the relationships between offending and co-occurring conditions.

3.0 Results

3.1 Descriptive statistics

The final study sample consisted of 258 detainees, who ranged in age from 18 – 66 years ($M = 32.7$, $SD = 10.2$). The majority (69%, $N = 179$) of the sample was comprised of male participants, and most (61%, $N = 157$) were not working immediately prior to being booked into the jail. In terms of marital status, approximately half (52%, $N = 133$) of detainees reported they had never been married in the past. About one third (35%, $N = 91$) of detainees had not finished high school or earned a general education diploma (GED). The majority (66%, $N = 171$) of the sample had been booked into the jail on at least one prior occasion. Regarding the types of offenses for which detainees were recently booked into the jail, the largest (75%) proportion of charges were nonviolent, followed by property related (39%) offenses, and violent (14%) offenses. Nearly half (47%) of the issued charges were for felony offenses.

Table 1. Prevalence rates for select substance use and mental health conditions

Condition	Prevalence (%)	n
Substance use disorders		
Alcohol	33.6	91
Cocaine	7.4	20
Marijuana	19.6	53
Heroin	33.2	90
Stimulants	45.8	124
Other mental health conditions		
Major depressive episode	49.5	134
Manic episode	32.5	88
PTSD	48.3	131
Panic attacks	29.9	81
Psychoses	8.9	24
ASPD	47.2	128
OCPD	16.7	46

Note: Substance use disorders include moderate and severe classifications

Substance use disorders and mental health conditions were fairly prevalent in the study sample and these rates are presented in Table 1. The most common substance use disorder among detainees was attributed to stimulants, which primarily consisted of amphetamines. One-third of detainees met criteria for moderate-to-severe heroin use disorder and an equal proportion met criteria for alcohol use disorder. Mental health conditions were also widespread with almost half of detainees reporting symptoms consistent with a recent major depressive episode. Similar proportions of detainees reported symptoms consistent with posttraumatic stress disorder and antisocial personality disorder.

Table 2. Prevalence rates for select substance use disorders by mental health conditions

Substance use disorders	Major depressive episode (n = 134)	Manic Episode (n = 88)	PTSD (n = 131)	Panic attacks (n = 81)	Psychoses (n = 24)	ASPD (n = 128)	OCPD (n = 46)
Alcohol	37.3	40.9	42.8	42.0	33.3	41.4	39.1
Cocaine	10.5	5.7	11.5	9.9	12.5	12.5	6.5
Marijuana	20.2	26.1	22.9	19.8	37.5	30.5	19.6
Heroin	42.5	39.8	38.2	35.8	33.3	38.3	43.5
Stimulants	53.7	51.1	53.4	58.0	58.3	58.6	56.5

Note: Substance use disorders include moderate and severe classifications

The prevalence rates of substance use disorders are presented according to observed mental health conditions in Table 2. This descriptive information shows more than half of detainees who reported a recent major depressive episode also met criteria for a moderate to severe stimulant use disorder. This pattern was consistent across all mental health conditions with more than half of detainees who met criteria for each condition also meeting criteria for moderate to severe stimulant disorder. Heroin use disorder was also frequently observed among detainees with various mental health conditions, ranging from a low rate of 33% among detainees presenting symptoms of psychoses to a high rate of nearly 44% among detainees meeting criteria for obsessive compulsive personality disorder.

3.2 Bivariate results

Detainees were classified according to whether criteria were met for 1) a mental health condition, 2) a substance use disorder, or 3) both a mental health condition and a substance use disorder. As seen in Table 3, nearly three quarters (74%, N = 190) of detainees fell into the third group having met criteria for both a mental health condition and a substance use disorder. Cross tabulations conducted with chi-square analyses demonstrate detainees with co-occurring conditions were no more likely to have been booked into the jail in the past relative to detainees who met criteria for solely a mental health condition or a substance use disorder ($\chi^2(2) = 1.79, p = .409$). However, a significantly larger proportion of detainees with a mental health condition as well as substance use disorder was booked for a felony offense ($\chi^2(2) = 6.35, p = .042$) relative to detainees who did not meet criteria for both mental health conditions and substance use disorder. This trend was also observed with regard to property offenses. A significantly larger proportion of detainees with both a mental health condition and substance use disorder was also charged with a property offense ($\chi^2(2) = 6.56, p = .038$) compared to detainees who did not meet criteria for both conditions. There were no significant differences between detainees who met criteria for a combination of mental health conditions and substance use disorder in terms of being charged for violent ($\chi^2(2) = 2.51, p = .285$) offenses or nonviolent offenses ($\chi^2(2) = 4.68, p = .096$).

Table 3. Cross tabulations of mental health and substance use disorders by offending variables

Conditions	Prior jail booking (%)	Felony* (%)	Property* (%)	Violent (%)	Nonviolent (%)
Mental health only (n = 23)	69.6	34.8	21.7	17.4	56.5
Substance use disorder only (n = 45)	57.8	33.3	28.9	6.7	80.0
Co-occurring disorders (n = 190)	67.9	51.6	43.7	15.3	75.3

Note: * $p < .05$.

3.3 Multivariate results

Multivariate binary logistic regression analyses were conducted to assess the associations between offense type, offense severity, prior jail admissions, and specific combinations of mental health conditions observed in conjunction with substance use disorders. Before conducting this series of analyses, a set of models was estimated to compare detainees who met criteria for multiple mental health conditions and multiple substance use disorders to detainees who did not meet these criteria while controlling for age, gender, employment status, marital status, and education level. These results, presented in Table 4, indicate detainees who met criteria for multiple mental health and substance use disorders were significantly more likely to be charged with a felony offense relative to detainees who did not meet similar criteria. Detainees who met criteria for multiple mental health conditions and substance use disorders were also more likely to be charged with nonviolent offenses, but this result fell just short of the generally accepted level of significance.

Table 4. Logistic regression results with multiple disorders predicting offense severity and type

Variable	Felony offense			Nonviolent offense		
	OR	Wald's χ^2	p	OR	Wald's χ^2	p
Age	1.32	0.83	.363	0.61	1.92	.166
Female	1.17	0.30	.583	1.21	0.29	.587
Unemployed	0.83	0.47	.494	1.66	2.70	.101
Never married	1.12	0.15	.699	1.89	3.67	.055
Low education	1.29	0.91	.340	1.46	1.38	.241
Co-occurring disorders	1.79	5.14	.023	1.80	3.71	.054

The first set of models to assess the specific relationship between offense type, severity, jail admissions, mental health conditions, and substance use disorders examined PTSD in combination with one or two substance use disorders and PTSD in combination with more than two substance use disorders compared to detainees who did not present indications of PTSD in combination with substance use disorder. These results, which are presented in Table 5, indicate detainees who presented indications of PTSD in combination with more than two substance use disorders were more than three times as likely to be charged with a felony offense as detainees who did not present similar indications or meet criteria for multiple substance use disorders. A similar pattern was observed with regard to prior jail admissions. Detainees who displayed conditions consistent with PTSD and also met criteria for more than two substance use disorders were significantly more likely to be booked into the jail on multiple prior occasions relative to detainees who did not meet similar criteria for PTSD in combination with more than two substance use disorders.

Table 5. Logistic regression results with PTSD and SUDs predicting offense severity and prior jail admission

Variable	Felony offense			Prior jail admission		
	OR	Wald's χ^2	p	OR	Wald's χ^2	p
Age	1.40	1.18	.277	1.40	1.06	.303
Female	1.10	0.11	.739	1.16	0.20	.651
Unemployed	0.89	0.19	.662	1.18	0.34	.559
Never married	1.12	0.15	.694	0.41	8.46	.004
Low education	1.26	0.71	.401	1.45	1.63	.202
PTSD + 1/2 SUD	1.38	1.06	.303	1.02	0.00	.962
PTSD + >2 SUD	3.20	12.14	<.001	2.09	3.97	.046

This pattern was also observed in the binary logistic regression models which estimated the probability of being charged for a felony offense or a property offense among detainees who presented symptoms consistent with antisocial personality disorder and multiple substance use disorders. Results presented in Table 6 indicate detainees who displayed indications consistent with antisocial personality disorder and met criteria for more than two substance use disorders were more than two times as likely to be charged for a felony offense compared to detainees who did not present indications consistent with antisocial personality disorder in combination with multiple substance use disorders. The same result was also observed with regard to charges for a property offense. Detainees who presented symptoms consistent with antisocial personality disorder and multiple substance use disorders were significantly more likely than detainees who did not meet similar criteria to be charged with a property offense.

Table 6. Logistic regression results with ASPD and SUDs predicting offense severity and type

Variable	Felony offense			Property offense		
	OR	Wald's χ^2	p	OR	Wald's χ^2	p
Age	1.27	0.60	.437	1.25	0.50	.481
Female	1.36	1.16	.281	1.69	2.78	.096
Unemployed	0.85	0.38	.538	1.20	0.38	.538
Never married	1.18	0.34	.560	2.34	7.80	.005
Low education	1.21	0.49	.485	1.48	1.90	.178
ASPD + 1/2 SUD	1.17	0.11	.738	1.50	0.65	.419
ASPD + >2 SUD	2.11	7.44	.006	2.62	11.09	<.001

A noticeably different result, presented in Table 7, was observed with regard to detainees who presented symptoms of depression and met criteria for substance use disorder. Detainees who reported symptoms consistent with depression and also met criteria for one or two substance use disorders were significantly less likely to be charged with a felony offense, but significantly more likely to be charged with a violent offense relative to detainees who did not present similar symptoms.

Table 7. Logistic regression results with depression and SUDs predicting offense severity and type

Variable	Felony offense			Violent offense		
	OR	Wald's χ^2	p	OR	Wald's χ^2	p
Age	1.29	0.72	.396	2.62	4.67	.031
Female	1.11	0.13	.715	0.37	4.05	.044
Unemployed	0.85	0.35	.552	0.95	0.01	.903
Never married	1.20	0.40	.526	0.42	4.01	.045
Low education	1.21	0.50	.481	0.89	0.08	.782
Depression + 1/2 SUD	0.35	3.86	.049	3.36	4.54	.033
Depression + >2 SUD	1.46	1.91	.167	1.69	1.64	.200

The final set of binary logistic regression models examined the relationships between obsessive compulsive personality disorder, substance use disorders, offense type, and offense severity. These results, presented in Table 8, demonstrate detainees who reported symptoms consistent with obsessive compulsive personality disorder and also met criteria for one or two substance use disorders were significantly more likely to be charged with a violent offense relative to detainees who did not report similar symptoms. In addition, detainees who reported a combination of symptoms consistent with obsessive compulsive personality disorder and more than two substance use disorders were significantly more likely to be charged with a felony offense compared to detainees who did not report symptoms.

Table 8. Logistic regression results with OCPD and SUDs predicting offense severity and type

Variable	Felony offense			Violent offense		
	OR	Wald's χ^2	p	OR	Wald's χ^2	p
Age	1.36	1.00	.317	2.78	5.26	.022
Female	1.30	0.80	.372	0.44	2.99	.084
Unemployed	0.79	0.76	.383	0.90	0.07	.785
Never married	1.14	0.21	.643	0.46	3.27	.071
Low education	1.29	0.87	.351	0.97	0.01	.938
OCPD + 1/2 SUD	0.65	0.25	.620	6.80	5.07	.024
OCPD + >2 SUD	2.71	6.68	.010	2.19	2.75	.097

4.0 Discussion

The primary objective of this study was to add to the current knowledge related to offending patterns among detainees who meet criteria for mental health conditions in combination with substance use disorder. One of the most prominent findings was that the vast majority of this random sample of detainees experienced some combination of a mental health condition and substance use disorder. This underscores the desperate need to conduct comprehensive behavioral health assessments with this population. Many local detention facilities, including the one which served as the site for the current study, do not have full time medical personnel to carry out these assessments. In the absence of such practices, it is impossible to address the widespread behavioral health needs among detainees without a full understanding of the nature and extent of the conditions requiring attention.

Another important finding was related to the greater likelihood of being charged with a felony offense observed among detainees who reported symptoms consistent with mental health conditions and multiple substance use disorders. More specifically, detainees who reported symptoms consistent with PTSD, ASPD, OCPD, depression and more than two substance use disorders were more likely to be charged with more serious felony offenses.

Although research has not examined the detailed relationships between these specific mental health conditions, multiple substance use disorders, and more severe offense types, these results are consistent with some work which has concentrated on the offending patterns among detainees with these mental health conditions. For example, PTSD has been linked to more serious felony offenses among adult detainees in a study conducted in a jail in San Francisco (Sadeh & McNeil, 2014).

Earlier work has also noted the relationship between more severe offenses and ASPD in early adulthood (Mannuzza, Klein, Konig, & Giampino, 1989). Another study has also observed a fairly high prevalence of OCPD in a sample of juvenile detainees who were taken into custody primarily for felony offenses (Wareham & Dembo, 2007). These connections between specific mental health conditions and charges for more serious offenses are important, but not yet fully understood. Future research may examine the underlying causal relationships between OCPD and certain felony offenses, for example, to document precisely how this condition may contribute to particular behaviors.

Detainees who reported symptoms consistent with PTSD and also met criteria for more than two substance use disorders were at significantly greater risk of being booked into the jail on multiple previous occasions. This may be one of the most challenging combinations of behavioral health conditions to treat, partly due to the documented possibility of increased risk for substance use relapse among detainees who meet criteria for both PTSD and substance use disorder (Kubiak, 2004). Another facet to this complicated issue is related to age given that younger detainees with PTSD have also been found to be more likely to reoffend compared to their peers who did not meet criteria for the disorder (Becker et al., 2012). Despite the inability to fully understand the complexity of these overlapping conditions, the proper assessment of both of these disorders is the first vital step in the process to addressing the underlying conditions related to the chronic substance use that contributes to repeat offending in this population.

The combination of antisocial personality disorder and multiple substance use disorders increased the likelihood that detainees were booked into the jail for a property offense. Existing evidence indicates there is a connection between involvement in acquisitive offenses, such as burglary, larceny, and theft, mostly as a method to finance costly drug use (Hayhurst et al., 2017). This explains the association between the presence of multiple substance use disorders and property offenses, but the role of antisocial personality disorder is less clear. Importantly, substance use treatment patients with ASPD have also reported more substance-related problems compared those who did not meet criteria for this personality disorder (Westermeyer & Thuras, 2005). Again, more work is required to elucidate the way in which this directly contributes to property offending, but adults with ASPD have also reported a variety of family and legal problems (Westermeyer & Thuras, 2005), which can also contribute to financial hardship and serve as further motivation to become involved in potentially lucrative property offenses.

This study provides additional detail regarding the relationships between mental health conditions, substance use disorder, and offending patterns, but there are limitations which must be acknowledged. The findings presented here are derived from one local detention facility in a single state. The strength offered by a random sampling design is noteworthy, but additional work should be conducted to replicate the results in other local jails of similar and various sizes. Over the course of the data collection process, there were some instances where correctional officers determined some detainees to be ineligible for the study due to severe behavioral misconduct. In order to maintain the safety of the researchers, these detainees were not invited to participate. This could have introduced selection bias with detainees experiencing the most severe behavioral health issues being excluded from the study. Finally, the sample size is relatively small for conducting a number of multivariate analyses where chance characteristics of the sample might result in spurious findings. This can be directly addressed through replication to verify that results remain stable across various combinations of conditions.

Overall, this study highlights the prevalence of multiple behavioral health conditions among adult jail detainees, and their important connections with offending patterns. The detailed relationships between specific mental health conditions and substance use disorders offered through these data can help inform jail administrators about the immediate needs among their detained populations. The high rates of multiple conditions observed in this sample of jail detainees also reinforces the need for comprehensive behavioral health assessments, which are recommended by the National Commission on Correctional Health Care (2014). Given the significant relationships between behavioral health and offending patterns, jails that do not address these often unmet needs will continue to readmit adults for certain types of offenses.

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