BEHAVIORAL HEALTH AND RECIDIVISM AMONG RURAL COUNTY JAIL INMATES

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By

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ABSTRACT

BEHAVIORAL HEALTH AND RECIDIVISM AMONG RURAL COUNTY JAIL INMATES

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The United States has higher rates of incarceration than any other country. Incarceration has negative effects on individuals, their families, and society. Jails face two major issues that this study focuses on: high rates of behavioral health disorders and high rates of recidivism. Of all correctional settings, jails have been found to have the highest rates of behavioral health disorders. This is problematic for these facilities, as there is a legal requirement that jails assess for, and treat, mental illness. Recidivism is also a concern for jails, contributing to the overcrowding that many of these facilities experience. Research is in general agreement that mental health disorders (MHD) and substance use disorders (SUD) are associated with a higher risk of recidivism; however, research in rural jails is lacking. The current study includes a three and a half year follow up to assess the link between behavioral health and recidivism among 283 rural county jail inmates. The relationship between MHDs, SUDs, & recidivism is investigated in order to determine which, if any, behavioral health disorders are associated with higher risk of rearrest. Findings support the need for correctional facilities to implement evidence-based interventions for individuals at higher risk of recidivism, potentially leading to a decrease in recidivism rates.

CHAPTER 1: INTRODUCTION

The United States incarcerates more people per capita than any other country (Henrichson, Rinaldi, & Delaney, 2015). Thus far in 2020 there have been 631,000 individuals incarcerated in local jails (Sawyer & Wagener, 2020), leading to overcrowding in many of these facilities. Furthermore, jail is expensive. The cost per day for each inmate is approximately eighty-eight dollars, which varies depending on the facility (Hyle, 2018). In 2011, a study on the price of incarceration reported that local communities spent $22.2 billion on jails (Carson & Sabol, 2012).

Incarceration also has direct costs to the families of those in jail or prison. The National Institute of Justice reports that having a parent who is incarcerated has negative effects on the child's emotional and physical health as well as their education and financial status (Martin, 2017). Additionally, having a parent who is incarcerated often leads to future involvement in the criminal justice system, leading to an intergenerational cycle of incarceration (Martin, 2017). Further, arrest, incarceration, and having a criminal history causes struggles with finding employment opportunities and financial earnings, which also has a lasting impact on these individuals' families (Kling, 2001; Holzer, 2007)

Two major issues faced by correctional facilities include a high prevalence of mental health disorders (MHD) and substance use disorders (SUD) and high rates of recidivism. Correctional facilities face higher rates of MHDs and SUDs than the general population, with jails experiencing higher rates than prisons (Prins, 2014; Bronson & Berzofsky, 2017). These rates are problematic for these facilities due to the legal requirements that these disorders are screened for and treated appropriately during incarceration, despite often lacking resources in correctional settings (National Commission on Correctional Health Care, 2019).

Recidivism is troublesome for correctional facilities and society. High rates of recidivism, while contributing to overcrowding, also indicate that the incarceration is potentially failing to meet the goal of deterrence (Cullen et al., 2011). Additionally, recidivism is concerning for society, as this contributes to the cost of incarceration throughout the country and higher rates of victimizations, especially property crime victims, as these offenders have the highest recidivism rates of all types of offenses (Alper et al., 2018).

In order to reduce high recidivism rates, the link between behavioral health and recidivism deserves further attention. Prior research on recidivism and behavioral health is often limited to prisons rather than jails, and often includes a restricted view of what constitutes behavioral health conditions, including a focus on only "serious mental illness" or only a short list of specific disorders. Although research on the link between recidivism and behavioral health among jail inmates is limited, studies indicate that MHDs and SUDs, as well as the comorbidity of both, are linked to higher risk of rearrest (Gagliardi et al., 2004; Eno Louden & Skeem, 2011; Hakansson & Berglund, 2012; Sadeh & McNeil, 2015; Raggio et al., 2017; Combs et al., 2019).

There is a need for further research that focuses on recidivism and behavioral health in jails, as these settings are often disregarded in the literature. If there is indeed a link between certain MHDs and SUDs with higher recidivism rates, interventions should be implemented that are specially designed for these individuals in an effort to reduce recidivism. The proposed study intends on assessing the link between behavioral health and recidivism among local county rural jail inmates during a three-and-a-half-year time frame after release.

CHAPTER 2: LITERATURE REVIEW

Prevalence of Mental Health and Substance Use Disorders in Correctional Facilities

Correctional facilities face higher rates of behavioral health conditions than the general population, with jails experiencing the highest rates of mental health disorders (MHD) and substance use disorders (SUD) among all correctional settings (Prins, 2014; Bronson & Berzofsky, 2017). A 2014 review of the literature on behavioral health conditions in correctional facilities found that jail inmates have four to six times higher rates of mental illness than the general population, while state prisoners have three to four times higher rates (Prins, 2014). Further, the Bureau of Justice has found that 44% of jail inmates have a prior diagnosis of a MHD by a mental health professional (Bronson & Berzofsky, 2017). This study also found that one in four jail inmates met criteria for serious psychological distress, measured by the use of a screen for serious mental illness, leading to only 36% of jail inmates who did not have either a history of a mental illness diagnosis or meet criteria for severe psychological distress (Bronson & Berzofsky, 2017).

High rates of behavioral health disorders are problematic for correctional facilities, especially jails. Not only are jails typically unequipped to identify and care for mentally ill individuals; these facilities are also legally mandated to assess for MHDs and SUDS, and to then provide incarcerated individuals with appropriate mental health services. As a result of the 1976 Supreme court case of *Estelle v. Gamble*, inmates must be given access to appropriate health care; if they are not, this is considered to be cruel and unusual punishment (*Estelle v. Gamble*, 1976). Additionally, the length of time spent in jail is highly variable and unpredictable, further complicating the process of assessing and providing services for behavioral health disorders (Cunniff, 2002; Zeng, 2018).

The Bureau of Justice Statistics defines jails as short-term facilities; while prisons incarcerate individuals who are sentenced for more than one year, jails hold individuals who are awaiting sentencing or a trial, or those who are sentenced for a term of less than a year (Bureau of Justice Statistics, n.d.). In 2002 the average length of stay in jails was between ten and twenty days; however, this statistic had substantial variation depending on the situation. Individuals who are booked for a new offense often spend only one or two days incarcerated before they are released (Cunniff, 2002). A more recent study by the Bureau of Justice Statistics found that this number had increased; the average expected length of stay in jails in 2016 was twenty-five days. Again, this number varies depending on the circumstances; jails with a small average daily population (<49) had an average stay of eleven days, while larger jails with a higher daily population (>2,500) had an average expected stay of thirty-four days (Zeng, 2018).

Jails are required to follow the National Commission on Correctional Health's (NCCHC) standards for providing mental health services to inmates. The NCCHC defines these services as "the use of a variety of psychosocial and pharmacological therapies, either individual or group, including biological, psychological, and social, to alleviate symptoms, attain appropriate functioning, and prevent relapse" (National Commission on Correctional Health Care, 2018). In order to fulfill this requirement, jails are required to assess for suicidal ideation, current or past mental illness, history of psychiatric hospitalizations, prescription or illicit substance use, and current or prior withdrawal symptoms upon arrival to the facility, or as soon as possible (National Commission on Correctional Health Care, 2019). If, during this screen, a need for mental health services is identified, the facility is responsible for providing adequate treatment by delivering appropriate interventions. These services are recommended to be provided by clinical staff in the facility, if available, or through external behavioral health agencies who are

contracted with the facility to provide mental health services to inmates (Substance Abuse and Mental Health Services Administration, 2017). Notably, these requirements do not provide information or assistance on how these services can be paid for, which produces an additional obstacle for these facilities.

Further complicating the ability to correctly screen and identify mental health needs, jails typically receive inmates directly from the community. Individuals may be intoxicated or under the influence of other substances at the time of booking. This could affect the facility's ability to correctly identify MHDs or SUDs, therefore being unable to correctly determine the prevalence of these conditions in their facility.

Specific Behavioral Health Conditions in Jails

As previously discussed, jails experience higher rates of mental health and substance use disorders than the general population, and the highest rates of all correctional facilities (Prins, 2014; Bronson & Berzofsky, 2017). In an effort to better target the treatment of MHDs and SUDs, research has aimed to identify which specific diagnoses are more common in correctional settings.

Substance use disorders have been consistently found to be the most common behavioral health disorder among jail inmates (Young, 2003; Karberg & James, 2005; Lynch et al., 2014; Raggio et al., 2017), at rates much higher than the general population, which is nine percent (Cloud, 2014). Substance dependence and abuse have been found to affect more than two thirds of jail inmates (Karberg & James, 2005) and approximately half of prison inmates (National GAINS Center, 2004). A 2014 study on the prevalence of behavioral health conditions among female jail inmates found that SUDs were the most common occurring behavioral health disorder among the participants, with 82% meeting criteria for a lifetime occurrence of a SUD and 53%

meeting criteria for a current diagnosis of a SUD. This study compared urban and rural jail inmates from the states of Colorado, Idaho, South Carolina, and Washington D.C. and found no significant differences in SUD prevalence rates (Lynch et al., 2014). Additionally, a study of 225 rural jail inmates found that 72% met criteria for a severe substance use disorder according to the DSM-5 (Raggio et al., 2017). These findings are in agreement with a prior study that looked at SUDs among female prison inmates and found 70% of the sample to be dependent on at least one substance (Proctor, 2012).

The specific type of SUDs tends to vary depending on location, as rural and urban areas, as well as differing geographic regions, often see different types of substances being abused. A 2012 study by the Substance Abuse and Mental Health Services Administration (SAMHSA) found that substance use treatment admission in rural areas are more likely to include alcohol and non-heroin opiates, while urban treatment facilities are more likely to see higher rates of cocaine and heroin use (SAMHSA, 2012). This study found similar rates of methamphetamine use in rural and urban areas (SAMHSA, 2012). In 2002 the Bureau of Justice Statistics found that 47% of jail inmates met criteria for alcohol dependence or abuse. Further, 54% of inmates in this study met criteria for dependence or abuse of any drug; however, this was not broken down into dependence or abuse statistics for specific types of drugs (Karberg & James, 2005). A later study by the Bureau of Justice Statistics found an increase in drug abuse or dependence among jail inmates from 2007-2009, with a rate of 63% of jail inmates meeting criteria. Again, specific dependence or abuse rates for each type of drug was not included in this study; however, the percentages of regular use for specific drugs was reported, with 64% reporting regular marijuana use, 39% cocaine, 19% heroin/opiates, 24% stimulants, and 23% hallucinogens (Bronson et al., 2017). The previously mentioned study which found 73% of rural county jail inmates to have a

severe substance use disorder found that 40% of their sample met criteria for severe stimulant use disorder, 36% severe opioid use disorder, 25% severe alcohol use disorder, and 14% severe cannabis use disorder (Raggio et al., 2017).

An additional disorder that has been found to have high prevalence in correctional settings is Posttraumatic Stress Disorder (PTSD). In a sample of 283 rural jail inmates who participated in the Comprehensive Addictions and Psychological Evaluation – 5 (CAAPE-5), 58% of females and 44% of males had indications for PTSD (Combs et al., 2019). A 2014 study of female jail inmates in Colorado, Idaho, South Carolina, and Washington D.C. found similar results, with 53% of their participants meeting criteria for PTSD, which was assessed with a structured clinical interview. These findings are in agreement with a 2015 study that also used a structured clinical interview to assess for PTSD among jail inmates and found that 46% of the sample met criteria for the diagnosis (Gosein et al., 2015).

Many studies focus on determining prevalence of "serious mental illness" in correctional facilities. The definition of serious mental illness varies amongst researchers; however, this umbrella term typically includes major depressive disorder, bipolar disorder, schizophrenia spectrum disorder, and other psychotic disorders. For example, a 2009 study by Steadman et al. defined serious mental illness as "major depressive disorder; depressive disorder not otherwise specified; bipolar disorder I, II, and not otherwise specified; schizophrenia spectrum disorder; schizoaffective disorder; schizophreniform disorder; brief psychotic disorder; delusional disorder; and psychotic disorder not otherwise specified. This study used the Structured Clinical Interview for DSM-IV (SCID; Fitz et al., 1997) to assess jail inmates for serious mental illness defined with the previously mentioned diagnoses and found 15% of men and 31% of women to meet criteria (Steadman et al., 2009). These findings are similar to a 2014 study on female jail

inmates, which found that 32% of their sample met criteria for a current serious mental illness: 22% for major depressive disorder; 8% for bipolar disorder; and 4% for schizophrenia spectrum disorder (Lynch et al., 2014).

Incarcerated populations also include a high rate of comorbidity, or the combination of two or more SUDs and MHDs. In a study that focused on re-entry programs for dually diagnosed offenders, it was reported that more than 60% of the inmates in three middle Tennessee rural jails reported both mental health and substance use concerns at the time of arrest (Miller & Miller, 2016). Additionally, a 2012 study that used a sample of inmates who met criteria for a SUD found that 55% of the participants also met criteria for PTSD (Proctor & Hoffmann, 2012).

Research is in agreement that incarcerated populations include higher rates of MHDs and SUDs than the general population, with rates of PTSD, serious mental illness, substance dependence, and comorbidity appearing to be the most common behavioral health conditions in incarcerated populations. These findings warrant further attention in order to determine what consequences these high rates have on these facilities.

Recidivism

The National Institute of Justice defines recidivism as "a person's relapse into criminal behavior, often after the person receives sanctions or undergoes intervention for a previous crime" which "is measured by criminal acts that resulted in rearrest, reconviction or return to prison with or without a new sentence during a three-year period following the prisoner's release" (National Institute of Justice, n.d.). These include new charges as well as parole or probation violations for prior charges.

A nine year follow up study of prisoners released in 2005 found that 68% of individuals were re-arrested within three years of their release, 79% within six years, and 83% within nine

years (Alper, Durose, & Markman, 2018). This study found that property offenders were the most likely to be rearrested, with a rate of 51% of property offenders being rearrested during the first year after release. The second highest rearrest rates within one year after release was drug offenders, with a rate of 43%. Public order and violent offenders were also found to have high recidivism rates, with rearrest rates during the first year after release of 41% and 39%, respectively. Additionally, males had higher rates of recidivism than females (45% versus 35% during the first year and 24% versus 21% in the ninth year) and younger individuals had higher recidivism rates than older individuals. Age ranges include 24 and younger, 25 to 39, and 40 and older. Rearrest rates for these age ranges during one year after release were 52%, 45%, and 38%, respectively. During year three these rates decreased to 37%, 36%, and 31%, and in year nine the rates for these age ranges were 28%, 26%, and 19% (Alper et al., 2018).

Recidivism is a significant concern for correctional facilities, the criminal justice system, and society. The National Institute of Justice describes the purpose of incarceration as providing incapacitation, specific deterrence, and rehabilitation. Sanctions, including the possibility of arrest, are used in order to deter people from committing additional crime after an initial sanction. (National Institute of Justice, n.d.). High recidivism rates indicate that the goal of deterrence is not being fulfilled by incarceration (Cullen et al., 2011); therefore, recidivism should be a target of research and treatment.

Recidivism is also problematic for society. As previously discussed, property offenders are the most likely to be rearrested after release from prison (Alper et al., 2018). The Federal Bureau of Investigation reported that there were approximately 7.2 million property crimes committed in 2018. Of these offenses, 73% were larceny-theft, 17% were burglary, and 10% were motor vehicle theft, resulting in an estimated loss of $16.4 billion worth of property

(Federal Bureau of Investigation, 2018). Violent offenders also have high rearrest rates. In 2018 there were approximately 1.2 million violent crimes committed in the United States (Federal Bureau of Investigation, 2018). Clearly, society is affected by high recidivism rates, due to both the financial implications of recidivism, as well as the high numbers of victimizations in property and violent crimes.

Recidivism and Behavioral Health

In an effort to determine targets for treatment to reduce recidivism, research has focused on identifying risk factors associated with a higher risk of rearrest. In this research, the consideration of behavioral health is important due to the high rates of MHDs and SUDs among incarcerated populations; however, there is limited recidivism-risk research that has focused on behavioral health. Researchers tend to focus on other factors such as demographics, family history, and types of offenses (Gendreau, Little, & Coggin, 1996; Latessa & Lowenkamp, 2005; Durose, Cooper, & Snyder, 2014). However, recidivism-risk research should increase its focus on behavioral health, as these factors have the potential for intervention and change, while demographics, family history, and prior offenses do not.

The research that has been conducted to assess the link between behavioral health and recidivism has mixed results. For example, a 2009 study found that within one year of release from prison, parolees with a mental illness had a 53% rearrest rate, compared to only 30% for parolees without a mental illness (Eno Louden & Skeem, 2011). These findings are in agreement with a previous study that found a recidivism rate of 77% for offenders with a MHD compared to only 38% for offenders without a MHD (Gagliardi et al., 2004). However, a 2013 study found contrasting results; in a comparison of recidivism within one year of release, offenders with mental illness had no significant differences compared to those without mental illness; however,

this study identified mental illness with only the use of a fourteen item scale administered by self-report (Skeem et al., 2013).

As previously discussed, correctional facilities face high rates of PTSD among inmates. One study examined the relationship between PTSD and recidivism and found that a sole diagnosis of PTSD increased the risk of recidivism; specifically, the researchers found that PTSD was associated with a greater likelihood of being arrested for a new criminal charge during the twelve months after being released. In this sample the participants who met criteria for PTSD had 1.4 times greater odds of rearrest than those who did not meet criteria (Sadeh & McNeil, 2015).

A specific focus in research on behavioral health and recidivism is the reoffending of individuals with SUDs. A 2012 study, as well as a more recent study, found that heroin and amphetamine use was associated with higher recidivism rates (Hakansson & Berglund, 2012; Raggio et al., 2017). Recidivism among individuals with SUDs can be compared to relapse; when a person with a SUD attends treatment for drug use, then uses after release, this is comparable to an individual being incarcerated, therefore unable to use drugs, then using again after being released, leading to rearrest. In a 2014 study that looked at relapse after release, researchers found that 61% of offenders with methamphetamine use disorder relapsed within one year of release from treatment (Brecht & Herbeck, 2014).

As a result of research on the link between behavioral health and recidivism, a risk scale used to evaluate the risk of readmission to jail was recently constructed. Kopak et al. (2019) applied a nine-item screen to a sample of rural jail inmates to assess for recidivism risk and found that this brief screen predicted higher likelihood of recidivism; jail inmates who scored two or higher on the nine-item screen were three times more likely to be readmitted within one

year of release when compared to inmates who scored zero. The nine-item scale includes questions about both SUDs and MHDs. Six of the nine items are from the UNCOPE, which is a brief screen that includes criteria from the substance use diagnoses in the Diagnostic and Statistical Manual of Mental Health Disorders, Fifth Edition (DSM-5; American Psychiatric Association, 2013). These items include using a substance more than planned, neglecting responsibilities due to substance use, a history of wanting to cut down on use or stop completely, having others object to use, being preoccupied with using, and using in an effort to experience relief from emotional stress. The nine-item screen also included a history of injecting drugs as a risk item. Lastly, two items for PTSD were included due to the high rates of PTSD found in incarcerated populations. These two items included the questions of: "Have you ever experienced or witnessed a traumatic event that involved possible death or serious injury?" and "Has learning about a violent or life-threatening accident or event involving a family member or close friend ever caused you distress?" (Kopak et al., 2019). This screen showed a successful ability to predict recidivism within a year after release; therefore, further research should be done to determine the effectiveness of recidivism prediction that this screen has for longer time frames.

The UNCOPE screen for substance dependence was also used in a recent study of Australian detainees. This study found that 65% of the interviewed detainees screened positive for dependence on the UNCOPE. Of this group, 68% self-identified as dependent on drugs. Results of this study showed that self-identifying as drug dependent was associated with high rates of prior offenses, indicating that the internalization of drug-dependence as a part of one's identify has effects on the frequency of drug related offenses (Langfield & Payne, 2020).

Research is in general agreement that there is a link between behavioral health and recidivism; however, this area of study requires further attention. Notably, the majority of recidivism research focuses on prison populations. However, as previously mentioned, jails face the highest rates of MHDs and SUDs among all correctional settings and are also dealing with the high rates of recidivism. Additionally, recidivism research is often limited to no more than one-year post-release. Further research should be conducted on a longer time frame in order to assess how recidivism rates change with time after release.

Recidivism Intervention Efforts

In response to the concerningly high recidivism rates among incarcerated populations, there has been a recent increase in focus on interventions that are aimed at reducing recidivism. This focus has included an emphasis on the implementation of mental health and drug courts, providing treatment during incarceration, and the use of reentry programs to attempt to prepare individuals for their release back into the community.

Mental health courts were designed to bridge the gap between correctional facilities and mental health treatment providers, and they operate by assisting mentally ill offenders in connecting with treatment services within their community. Mental health courts operate based on their local needs, regulations, and available services (Almquist & Dodd, 2009). Offenders with potential mental illness are often referred to mental health courts by judges, jail staff, or family members. Research on the effectiveness of mental health courts on reducing recidivism shows that individuals who participate in mental health court have lower rates of recidivism than mentally ill individuals who go through the traditional court procedure (Almquist & Dodd, 2009; Anestis & Carbonell, 2014). These findings were supported by a recent meta-analysis on the

effectiveness of mental health courts, which found that these courts have a significant, but small, effect on reducing recidivism rates (Lowder, Rade, & Desmarais, 2018).

Similar to mental health courts, drug courts are specialized programs that are designed for offenders who have substance dependence with the goal of reducing recidivism and relapse. Drug courts operate by identifying participants with a needs-assessment, then linking them with treatment and rehabilitation services (U.S. Department of Justice, 2020). Research on the effectiveness of drug courts indicates that drug courts are generally effective at reducing recidivism risk; however, the time frames that this effect is seen may vary. A study of 475 drug offenders in Florida found that those who participated in drug court had significantly lower recidivism rates only between twelve and eighteen months; no significant differences in recidivism were found for participants who participated in drug court and those who did not for the first twelve months after release or after eighteen months post-release (Krebs et al., 2007). Contrastingly, a meta-analysis of drug court effectiveness found that the participation in a drug court program led to an average drop in recidivism from 50% to 38%, and that these findings lasted up to three years from the time of release (Mitchell et al., 2011). Additionally, a recent study found that drug court participants who completed the program were significantly less likely to reoffend during the first year of release than those who failed the drug court program (Gibbs, Lytle, & Wakefield, 2019). These results clearly indicate that there is a need for additional research on drug courts' effectiveness on reducing recidivism. While research is in a general agreement that drug courts have an effect on reducing recidivism, the details of this effect are unclear due to mixed results.

Providing treatment to individuals during incarceration has also been considered as a potential tool for recidivism reduction. Findings on the effect of mental health treatment on

recidivism are mixed. A 2014 study found that a sample of state prison inmates who were receiving mental health treatment for a psychiatric disorder while incarcerated did not show significantly different recidivism rates in a 24 month follow up (Fisher et al., 2014). Contrastingly, a systematic review of the literature on the effect of prison-based psychological intervention on recidivism found that fifteen of twenty-three included studies found a significant reduction in recidivism rates for individuals who were provided with psychological treatment while incarcerated, concluding that therapeutic treatment appears to be successful in reducing recidivism (Andrade et al., 2018). While research on the implementation of treatment during incarceration has a strong focus on prison populations, one study looked at the effect of interactive journaling while incarcerated on rearrest rates among jail inmates and found that recidivism rates after one year were significantly lower for those who engaged in interactive journaling (51%) compared to those who did not (66%), concluding that this treatment could potentially lead to lower recidivism rates (Proctor, Hoffmann, & Allison, 2012).

An additional effort used decrease recidivism rates among individuals with MHDs and SUDS is the use of reentry programs. The Substance Abuse and Mental Health Services Administration (SAMHSA) recommends that correctional facilities implement the Assess, Plan, Identify, and Coordinate (APIC) model (Osher, Steadman, & Barr, 2002) in order to plan for inmates with MHDs and SUDs reentry into the community (SAMHSA, 2017). This recommendation includes identifying those who have a positive screen for behavioral health concerns, then obtaining specific information about that individual. Some important information to obtain in this step includes their clinical needs, basic demographics, protective factors like family support, community needs such as housing and employment, and public safety risks. SAMHSA recommends that this information is gathered by conducting a comprehensive

assessment. Next, correctional facilities are encouraged to develop personalized treatment plans that include collaboration with behavioral health providers. SAMHSA emphasizes the importance of adhering to the developed treatment plan especially during the days and weeks following release. SAMHSA encourages the collecting and analyzing data in order to monitor reentry program effectiveness; however, they acknowledge that this is often difficult for correctional facilities to do (SAMHSA, 2017). A significant obstacle in evaluating these programs is the availability of reliable data; SAMHSA acknowledges that the sharing of data between jails' systems and community-based treatment providers can be difficult. One follow-up study included in the reentry program initiative showed that reentry programs did lower risk of recidivism; however, there was a substantial difference among the voluntary programs, with these showing higher impacts on rearrests than mandatory programs (Willison, Bieler, & Kim, 2014).

While significant efforts have been made to reduce recidivism rates, these rates continue to be an issue among correctional facilities. As noted, the analysis of efficacy for these interventions is difficult and requires reliable collection of data and collaboration between facilities and providers. Mandates on the incorporation of these various intervention techniques vary among counties and states, and it is unclear how many facilities are implementing these techniques. In 2018, the Executive Director of the President's Federal Interagency Council on Crime Prevention and Improving Reentry discussed the lack of empirical research available on the efficacy of crime prevention and reentry programs. In this presentation, it was explained that due to the lack of randomized controlled trials, there are currently no reentry programs that meet the definition of being evidence based (Muhlhausen, 2018). Additionally, reentry programs are likely to each have unique features that affect their level of success; some clinicians are more

effective than others, the level of community engagement will differ between programs, and the extent to which each program focuses on effective interventions will vary. These substantial differences further enhance the difficulty in accurately analyzing the effects of reentry programs. Until further research is conducted on reentry programs, it is unclear if they are making statistically significant differences in recidivism rates.

Research Limitations

Previous research studies on behavioral health conditions and recidivism in correctional facilities include limitations that warrant discussion. Specifically, research on the prevalence of MHDs and SUDs often involves methodological issues that lead to a skewed focus on some disorders over others. Also, recidivism research is often focused on prisons rather than jails, although jails have higher rates of behavioral health disorders than prisons and are directly and negatively affected by recidivism.

Research on the prevalence of MHDs and SUDs in correctional settings include a variety of techniques used to identify these disorders among inmates, leading to inconsistencies in what constitutes a diagnosis and the prevalence rates reported. As previously noted, studies often focus on what they refer to as "serious mental illness" when examining rates of behavioral health disorders among inmates. This is a reductionist method that does not consider important potential diagnoses, including SUDs, PTSD, depressive disorders, anxiety disorders, panic disorder, etcetera. These disorders should be included in research on the prevalence of behavioral health conditions in correctional settings.

In addition to the limitations in what diagnoses are considered, methods used to measure MHDs and SUDs vary amongst researchers. Understandably, many studies employ the use of brief screens in an effort to save time and reach as many inmates as possible; however, this

technique leads to limitations in these findings. When possible, the use of comprehensive, structured diagnostic interviews increases the ability to identify more accurate rates of MHDs and SUDs among these populations.

An essential limitation on recidivism research is the unproportionate focus on prisons rather than jails. While studies on recidivism among prison inmates is important, jails also need a strong emphasis amongst the literature. As noted, jails include short-term stays, which consequently leads to higher opportunities for rearrest among these inmates; recidivism rates for prison populations are not comparable to rates for jail populations. Therefore, future research should focus on recidivism rates, risk factors, and intervention among jail populations.

Statement of the Problem

As discussed, incarcerated populations include significantly higher rates of mental health and substance use disorders than the general population. Of all correctional settings, jails face the highest rates of behavioral health conditions. Additionally, correctional facilities are affected by high rates of recidivism, which contributes to the struggles with overcrowding and providing adequate resources to inmates with behavioral health conditions, which is legally mandated. Recidivism also places strain on law enforcement personnel and resources. Research on the link between behavioral health disorders and recidivism is lacking; further research should focus on local rural jails, as these settings are often overlooked in research. The U.S. Census Bureau reports that jail incarceration in rural areas is growing quickly (Porter, Voorheis, & Sabol, 2017) and a study by the Vera Institute of Justice reported that rural jail inmates account for the fastest growing incarcerated population (Kang-Brown & Subramanian, 2017). In 2019 rural county jail incarceration rates were more than double urban rates (Mateus, 2019). It is important that future research investigates the relationship among mental illness and substance use disorders with

recidivism in order to implement evidence-based interventions to identify and appropriately respond to MHDs and SUDs among inmates, especially those in rural jails. This could potentially lower the rates of rearrest among these individuals.

Hypotheses

Hypothesis 1: It is hypothesized that previously identified MHDs and SUDs associated with higher risks of recidivism in a one-year study of this sample will be associated with higher rates of recidivism in a three-and-a-half year follow up.

1a: It is hypothesized that the combination of a methamphetamine/stimulant use disorder and opioid use disorder will be associated with higher rates of recidivism.

1b: It is hypothesized that alcohol use disorder will be associated with higher rates of recidivism.

1c: It is hypothesized that the number of severe SUDs will be a predictor of higher rates of recidivism; meaning that inmates who meet criteria for two or more severe SUDs will have higher numbers of arrests in the three-and-a-half year follow up.

Hypothesis 2: It is hypothesized that the recidivism risk scale developed by Kopak et al. 2019 will be associated with higher rates of recidivism and charges in a longer time frame (three-and-a-half years compared to one-year post-release).

2a: It is hypothesized that positive responses to the UNCOPE screen (using a substance more than planned, neglecting responsibilities due to substance use, a history of wanting to cut down on use or stop completely, having others object to use, being preoccupied with using, and using in an effort to experience relief from emotional stress) will be associated with higher rates of recidivism.

2b: It is hypothesized that a history of drug injecting will be associated with a higher risk of recidivism.

2c: It is hypothesized that positive responses to the previously identified Posttraumatic Stress Disorder questions ("Have you ever experienced or witnessed a traumatic event that involved possible death or serious injury?" and "Has learning about a violent or life-threatening accident or event involving a family member or close friend ever caused you distress?") will be associated with higher risk of recidivism.

Hypothesis 3: It is hypothesized that specific MHDs and SUDs will be associated with higher rates of recidivism in the three-and-a-half-year time frame that were not identified in the previous one-year time frame. This hypothesis is exploratory in nature; therefore, all MHDs and SUDs measured will be included.

Hypothesis 4: It is hypothesized that property and drug offenders will have higher rates of recidivism than other types of offenders, echoing previous findings that these two types of offenders have higher rearrest rates than all other types of offenders.

CHAPTER 3: METHODOLOGY

Participants

Participants in this study are 283 (males=200, females=83) individuals who were incarcerated in the Haywood County Detention Center in Waynesville, North Carolina between 10 December 2015 and 21 November 2016. Participants were randomly selected by drawing of names of those who were booked within the four days prior to the date of interview. Female inmates were oversampled in an effort to obtain a comparable sample of females to males. Inmates who were sentenced to the department of corrections were censored, as being sentenced means that these individuals are removed from society, thus eliminating the possibility of being rearrested during the sentenced time frame.

The average age of participants was 33 years old (SD=10.25), with ages ranging from 18 to 66. Eighty-five percent of participants were Caucasian. The second most prevalent ethnicity was Native American (10%), followed by African American (3%). Half of the participants have never been married. Further, 19% report a history of divorce, 18% were currently married, and 9% were currently separated. Forty-eight percent of participants reported that their highest level of education was a high school degree or GED and 34% reported no high school diploma. Regarding participants who reported completing higher education, 6% completed vocational school, 9% obtained their associate degree, and 3% reported having a bachelor's degree. At the time of the interview, 48% of participants reported that they were unemployed, with 32% working part time and 7% working full time. Ten percent reported that they were disabled. The most common type of job for those participants who were employed was labor, with 46% reporting this type of work. Nearly half (45%) reported their personal income to be less that

$10,000 in the 12 months prior to the interview, followed by 28% reporting between $10,000 and $20,000. Sociodemographic factors for participants are presented in Table 1.

Measures

Participants previously took part in the administration of the Comprehensive Addictions and Psychological Evaluation (CAAPE-5), which was used to assess for potential MHDs and SUDs. The CAAPE-5 is a structured clinical assessment that is used to assess for co-occurring MHDs and SUDs (See Appendix B). This diagnostic assessment can be administered in approximately thirty minutes, depending on the frequency of positive responses. Questions on the CAAPE-5 simply require a yes/no response, and the structured interview includes branching to guide the administration, omitting the need for clinical judgement in interpretation of results. The CAAPE-5 shows internal consistency, with Cronbach's alpha scores ranging from .74 to .90 for each diagnostic subscale. Further, the CAAPE-5 has been found to have 95% agreement with the Structured Clinical Interview for DSM (SCID). Diagnostic criteria included in the CAAPE-5 is consistent with the current version of the Diagnostic Statistical Manual for mental health disorders (DSM-5). The CAAPE-5 also includes demographic information for each participant.

Recidivism was measured with the use of the jail's electronic system (JMS), which tracks arrest records for all inmates in the facility. JMS was accessed to gather information about all arrests and charges for each participant from the booking at the time of the interview until three and a half years from the date of interview. This time frame was chosen due to it being the longest time frame available to capture each person who was interviewed. The jail readmission variable was dichotomized for analyses, separating participants into two groups: a group of those who were rearrested either once or none in the three and a half years, and those who were

rearrested more than once. Thus, recidivism in this study's analyses captures those who were rearrested multiple times after release.

Procedure

The 283 randomly selected participants were interviewed in a private room where attorneys typically meet with their clients. The interviewer was a graduate student studying psychology, and the interview room included only the interviewer and the participant. Before the CAAPE-5 was administered participants were provided with a description of the study. They were told that participation was voluntary and would not provide any direct benefits. Limits of confidentiality were explained as well. If the participants agreed to take part in the interview, informed consent was signed and the CAAPE-5 was administered.

Recidivism data were gathered for each participant by running individual arrest reports in JMS, the facility's electronic system. These reports include information for all arrests and charges from the time of the interview until three and a half years post-release. Arrest reports for all participants were obtained from JMS on 31 August 2020. The variable for jail readmission was dichotomized into two groups: participants who were either not rearrested or were rearrested only once during the three-and-a-half years after release, and those who were arrested two or more times during this time frame. This was done in an effort to focus on inmates who were rearrested multiple times rather than only once.

Analyses

Hypothesis 1 was tested with a Pearson chi square to analyze preliminary relationships between jail readmission and the independent variables. If Pearson chi square produced a statistically significant result, a multivariate logistic regression was then used to further assess statistically significant relationships between the independent variables and jail readmission

while controlling for potentially confounding variables, including gender, marital status, and current employment status. The independent variables include methamphetamine/stimulant use disorder and opioid use disorder, alcohol use disorder, and number of severe SUDs, measured by the CAAPE-5. Cramer's V was also calculated to assess effect size for all Pearson chi square tests with statistical significance, and Wald's chi-square was calculated as a post hoc measure for all statistically significant logistic regression results. Participants who do not meet criteria for the diagnosis were used as the comparison group.

Hypothesis 2 was measured using a Pearson chi squared as a preliminary analysis of the differences in jail readmission among the recidivism risk factors identified by Kopak et al., 2019. For all statistically significant chi square values, a logistic regression was then used to further analyze the relationship between risk factors and jail readmission rates while controlling for potentially confounding variables. These risk factors included the UNCOPE screen, a history of drug injection, and the identified PTSD questions. Cramer's V was calculated to determine the strength of the relationship for any statistically significant chi square, and Wald's chi-square is included as a post hoc measure for all logistic regression results.

Hypothesis 3 was tested with a Pearson chi squared for preliminary analysis, and statistically significant findings led to the use of a logistic regression to further assess statistically significant differences in jail readmission rates relative to the independent variables, which include nine levels of SUDs and 13 levels of MHDs measured by the CAAPE-5. Cramer's V was calculated to assess the strength of association for any statistically significant chi square values, and Wald's chi-square was calculated as a post hoc measure for logistic regression findings.

Hypothesis 4 was initially tested with the use of Pearson chi square as a preliminary analysis of the differences in jail readmission for property and drug offenders. If a statistically significant relationship was observed, a logistic regression was conducted to further analyze the relationships among offense type and jail readmission while controlling for potentially confounding variables. Cramer's V was used to determine the strength of association for any significant chi square results, and Wald's chi-square was used as a post hoc analysis for logistic regression results.

CHAPTER 4: RESULTS AND DISCUSSION

Results

Substance use disorders (SUD) were the most prevalent behavioral health condition among the 283 interviewed participants, with 86% meeting criteria for at least one SUD based on their responses to the CAAPE-5 questions, which are based on diagnostic criteria from the DSM-5 (American Psychiatric Association, 2013). Further, 68% of participants met criteria for at least one severe SUD. Prevalence rates for specific types of severe SUDs include: 38% for methamphetamines/stimulants; 30% for heroin/opioids; 24% for alcohol; 12% for marijuana; and 5% for cocaine. Forty percent of the participants reported a history of injecting drugs at least once in the previous twelve months, and 33% reported regularly injecting substances. SUD prevalence rates are presented in Table 2.

Posttraumatic Stress Disorder (PTSD) was the most common mental health disorder (MHD) among participants, with 48% meeting the DSM-5 criteria for a diagnosis of PTSD. Further, 29% of inmates reported a history of panic attacks. Depressive episodes were also among the most prevalent of MHDs, with 35% reporting that they had experienced a major depressive episode in the past two months, and an additional 14% reporting having experienced a major depressive episode prior to previous two months. A history of manic episodes was reported by 18% of participants. Eleven percent met DSM-5 criteria for possible Bipolar Disorder. Antisocial Personality Disorder was the most common personality disorder measured, with 35% of participants meeting criteria. Additionally, 30% of participants met criteria for Obsessive Compulsive Personality Disorder and 12% met criteria for Borderline Personality

Disorder. A history of hallucinations and/or delusions was reported by 7% of the interviewed inmates. See Table 2 for prevalence rates for MHDs among participants.

At the time of the interview, 14% of participants were currently incarcerated for a violent crime and 37% for a property offense. Drug and alcohol related charges were the current offense for 39% of participants. An analysis of the recidivism data collected from the Jail Management System for the three-and-a-half year time frame from the date of the interview revealed that 75% of the participants were re-arrested at least once during that time. Further, 48% were re-arrested more than one time during the three-and-a-half years after the interview.

For hypothesis 1, Pearson chi square revealed no statistically significant relationship between alcohol use disorder and jail readmission ($\chi^2(1) = 0.86$, $p = .35$), indicating that participants with an alcohol use disorder were not significantly more likely to be rearrested multiple times after release when compared to those without alcohol use disorder. A statistically significant relationship was observed between multiple rearrests and the combination of opioid and amphetamine use disorders ($\chi^2(1) = 9.07$, $p = .003$), indicating that participants who met criteria for opioid and amphetamine use disorders were more likely to be arrested multiple times after release compare to those who did not met criteria for both of these disorders. Cramer's V was calculated to determine the strength of the relationship and revealed a small effect with this relationship (Cramer's V = .179). A logistic regression then confirmed a statistically significant relationship between opioid and amphetamine use disorder with jail readmission (OR = 1.88, 95% CI = 1.05 – 3.53, p = .03). A statistically significant relationship was also found between multiple bookings after release and the number of severe SUDs ($\chi^2(1) = 4.28$, $p = .039$). Specifically, participants who met criteria for two or more severe SUDs were more likely to be arrested multiple times after release compared to those who did not meet criteria for two or more

SUDs. Although this relationship was statistically significant, it was classified as weak (Cramer's V = .123). A logistic regression also found a statistically significant relationship among the number of severe SUDs and jail readmission after controlling for potential confounding variables (OR = 1.85, 95% CI = 1.09 – 3.14, p = .024). Significant logistic regression results are presented in Table 3.

Pearson's chi square was used to analyze hypothesis 2 and revealed no statistically significant relationship between four positive responses on the UNCOPE screen and multiple rearrests. While this number was approaching significance ($\chi^2(1) = 3.40$, p = .065), it did not meet the threshold to achieve statistical significance. There was also no statistically significant relationship found between PTSD criteria and jail readmission ($\chi^2(1) = 1.85$, p = .174). However, a history of injecting substances was found to have a statistically significant relationship with jail readmission ($\chi^2(1) = 12.92$, p <.001). Participants who reported no history of drug injection were less likely to have multiple rearrests in the 3.5 years after release compared to those who did report a history of injecting (38% compared to 59%). Post-hoc analysis indicated this relationship was relatively weak (Cramer's V = .214). A logistic regression also revealed a statistically significant relationship between injecting substances and jail readmissions (OR = 2.65, 95% CI = 1.59 – 4.43, p < .001). See Table 3 for significant logistic regression results.

Hypothesis 3 was an exploratory hypothesis to determine which, if any, SUDs and MHDs included in the CAAPE-5 interview are related to higher risk of jail readmission. Statistical analysis of hypothesis 3 revealed statistically significant relationships for one SUD and one MHD. Specifically, moderate or severe amphetamine use disorder was associated with a higher risk of jail readmission ($\chi^2(1) = 13.61$, p <.001). Cramer's V revealed a weak effect with this

relationship (Cramer's V = .219). A logistic regression also revealed a statistically significant finding between amphetamine use disorder and jail readmission; specifically, participants who met criteria for amphetamine use disorder were more than twice as likely to have multiple rearrests than those who did not meet criteria for amphetamine use disorder (OR = 2.68, 95% CI = 1.61 – 4.45, $p < .001$). The only MHD found to have a statistically significant relationship with multiple bookings was antisocial personality disorder ($\chi^2(1) = 9.72$, $p = .002$). This relationship was found to have a small effect size Cramer's V = .185). A logistic regression also revealed a statistically significant relationship between jail readmission and antisocial personality disorder (OR = 2.21, 95% CI = 1.36 – 3.60, $p = .001$). Additionally, Pearson's chi square for marijuana use disorder (moderate or severe) and multiple bookings approached significance ($\chi^2(1) = 3.57$, $p = .059$) with a small effect size (Cramer's V = .112). Significant logistic regression results are presented in Table 3.

Statistical analyses of hypothesis 4 revealed no statistically significant relationships between property offenders and jail readmission ($\chi^2(1) = .51$, $p = .473$). There was also no statistically significant relationship between drug offenses and jail readmission ($\chi^2(1) = 0.27$, $p = .60$).

Discussion

Before discussing the findings of this study, it is important to acknowledge the limitations. One limitation of this study is the self-report nature of methodology that was used to assess for behavioral health conditions, as well as the inability to verify diagnostic impressions by an expert clinician. Further, the use of more than one assessment technique would have strengthened the methodology of this project. When interpreting the results of this study, it is important to recognize that data collection took place in one rural detention center rather than

multiple facilities. Also, as previously discussed in the results for hypothesis 4, this sample did not reflect the same results that have been observed in the literature regarding recidivism and property/drug offenders. It is possible that this is due to lack of presence that rural county jails have among the literature on correctional facilities. Despite these limitations and discrepancies, the findings of this study can meaningfully contribute to our knowledge of the link between recidivism and behavioral health in correctional settings and have practical implications that should be considered by correctional facilities.

First, the jail readmission rates observed in this study emphasize the severity of recidivism. Nearly half (48%) of the participants were re-arrested multiple times within the three-and-a-half year time frame after release. This single finding highlights the importance of attempting to understand recidivism's contributing factors. As previously discussed, correctional facilities are experiencing overcrowding issues, which affect these facilities individually, as well as society.

It is also clear that greater emphasis needs to be placed on the identification and treatment of individuals with SUDs, especially amphetamine use disorder itself, and when comorbid with opioid use disorder. As previously mentioned, SUDs were the most prevalent behavioral health condition among this study's participants. This indicates that correctional facilities are facing high rates of clinically significant addiction, and they are often unequipped to identify and treat these disorders. Further, this study's findings show that inmates who meet criteria for amphetamine and opioid use disorder are more likely to return to jail after release. Therefore, this stresses the importance of increasing the focus on these diagnoses. These results strongly indicate that the identification and treatment of these conditions could significantly reduce the likelihood that these individuals are readmitted to the jail.

The findings on drug injection are also important. The use of needles for drug administration is not only a public health concern due to potential transmission of illnesses and overdoses; it also increases the likelihood of having multiple jail readmissions after release, according to this study's results. Each of these consequences of drug injection should be considered. If not already doing so, correctional facilities should implement education around the risks of intravenous injection as well as proper needle disposal techniques. Further, individuals who report a history of injecting substances should be prioritized for treatment in an effort to reduce recidivism rates.

This study also found a relationship between recidivism and antisocial personality disorder (ASPD). Research on the treatment of ASPD is limited and there is a longstanding view that therapy is not effective for treating individuals with ASPD (Meloy & Yakeley, 2011). However, a meta-analysis of studies that have examined treatment efficacy for individuals with ASPD (sometimes referred to as psychopathy) shows an overall positive effect on symptoms through psychotherapy, especially when therapy lasts for at least a year (Salekin et al., 2010). Therefore, correctional settings should consider implementing a procedure to assess for ASPD, and then refer these individuals to treatment in an effort to reduce their risk of recidivism.

Much of this discussion includes the suggestion that correctional facilities implement procedures to identify and then treat (or refer to treatment) with evidence-based therapy for the various behavioral health conditions that were found to increase risk of recidivism. In order to incorporate this change, it is vital that correctional settings employ a behavioral health clinician who is able to screen each inmate for mental health and substance use concerns as close to the time of their arrest as possible, then follow up with additional and more thorough assessment when needed. If beginning treatment during incarceration is an option, it is suggested that this is

implemented as well. A key issue for achieving either assessment or treatment is the availability of funding via the correctional or law enforcement budgets. If such funding is not available, it would be beneficial to have procedures to refer the individual for assessment and treatment after they are released from incarceration.

The clinician or case manager should also assist in determining the individual's qualification for financial support or reimbursement for services, therefore leading to an increase in availability and access of services. It is recommended that the clinician or case manager hired by the detention facility assists the inmates who meet criteria for a MHD or SUD with determining if they have coverage for behavioral health services and assisting with finding insurance if they are not currently covered. Incarcerated individuals have unique rules regarding their ability to enroll in healthcare coverage. Specifically, incarcerated individuals qualify for lower monthly-premium costs and are eligible to enroll in coverage within sixty days of release, regardless of the time of year. Additionally, incarcerated individuals can apply for Medicaid while they are incarcerated in order to be covered more quickly after being released. Medicaid and other healthcare applications can be completed either online or by mail (healthcare.gov, n.d.). After determining treatment coverage, the clinician should then assist inmates by referring them to treatment in a facility that accepts their coverage and is easily accessible for the individual after they are released. If possible, a warm handoff with a provider at the time of release is recommended in an effort to increase the likelihood of following up with treatment.

Hiring a behavioral health clinician and forming relationships (and possibly contracts) with outside behavioral health providers requires funding; therefore, county governments must consider these practices when determining budgets and funding allocations. As previously discussed, jail is expensive, and high rates of recidivism contribute to the cost of incarceration on

society as well as the issue of overcrowding that many correctional facilities are experiencing. Allocating funding to the ability for incarcerated individuals to receive behavioral health treatment could lead to a reduction in recidivism rates; therefore, it is possible that the financial cost of incorporating these changes and hiring a behavioral health clinician could eventually pay for itself by reducing recidivism rates for those individuals who receive treatment.

In order to increase the likelihood of receiving support from county governments, it is recommended that correctional facilities develop and sustain research partnerships that provide jails with the opportunity to document prevalence rates of MHDs and SUDs within the specific facility. These numbers are essential in providing proof of the need for increased treatment access for those who are incarcerated. The documented prevalence rates and specific MHDs and SUDs found to be most common can then generate discussion on how these disorders are linked to higher rates of recidivism, and how treating these disorders could potentially lead to a decrease in recidivism rates. It is imperative that county governments support their sheriffs by providing the resources and funding to allow for an increased focus on mental health treatment.

It is also recommended that future research continues to focus on the link between behavioral health and recidivism in rural county jails. Additional studies should attempt to look at long-term recidivism rates (greater than one-year post-release) for offenders with certain MHDs, SUDs, and combinations of conditions to further understand which behavioral health conditions are leading to higher rates of jail readmissions.

These implementations are crucial in order to address the high rates of recidivism and behavioral health concerns that correctional facilities are experiencing. As previously discussed, correctional settings are legally required to assess and provide services for inmates with mental health concerns. Further, the identification of SUDs is important in order to raise awareness of

the potential for withdrawal effects during incarceration so that these symptoms can be medically treated. Additionally, the behavioral health conditions that were found to lead to higher risk of recidivism should be considered a target for intervention in an effort to reduce the severity of recidivism that many correctional settings are facing. Incarcerated individuals, their families, correctional facilities, and society at large could all benefit from the appropriate treatment of behavioral health conditions that so many incarcerated individuals are struggling with.

APPENDIX A: TABLES

Table 1

Sociodemographic Characteristics of Participants

Characteristic	n	%
Gender		
Male	200	70.7%
Female	83	29.3%
Age		
18-29	131	46.3%
30-39	84	29.7%
40-49	47	16.6%
50-59	16	5.7%
60-66	5	1.8%
Race		
Caucasian	239	84.5%
Hispanic/Latino	3	1.1%
Native American	28	9.9%
African American	8	2.8%
Multiracial/Other	5	1.8%
Marital Status		
Never Married	143	50.5%
Divorced	54	19.1%
Currently Married	52	18.4%
Separated	25	8.8%
Living Together	5	1.8%
Widowed	3	1.1%
Level of Education		
High School or Equivalent	138	48.8%
No High School Diploma	97	34.3%
Vocational School	16	5.7%
Associate degree	25	8.8%
Bachelor's Degree	7	2.5%
Employment Status		
Unemployed	137	48.4%
Part Time	21	7.4%
Full Time	90	31.8%
Disabled	30	10.6%
Income		
Less than $10,000	127	44.9%
$10,000 - $20,000	78	27.6%
$20,000 - $35,000	40	14.1%
$35,000 - $60,000	23	8.1%
> $60,000	10	3.5%

Table 2

Behavioral Health Disorder Prevalence Rates

Condition	n	%
Severe Substance Use Disorders		
Methamphetamine/Stimulant	108	38.2%
Heroin/Opioid	84	29.7%
Alcohol	69	24.4%
Marijuana	34	12%
Cocaine	15	5.3%
Mental Health Disorders		
Posttraumatic Stress Disorder	136	48.1%
Panic Disorder	83	29.3%
Depressive Episodes	98	34.6%
Manic Episodes	51	18%
Bipolar Disorder	31	11%
Antisocial Personality Disorder	100	35.3%
Obsessive Compulsive Personality Disorder	84	29.7%
Borderline Personality Disorder	35	12.4%
Psychotic Symptoms	20	7.1%

Table 3

Significant Logistic Regression Results between Behavioral Health Conditions & Multiple Jail Readmissions

Condition	OR	95% CI	p	Wald's V
Hypothesis 1				
Amphetamine/Opioid Use Disorder	2.29	1.38 - 3.79	0.001	10.39
2+ Severe SUDs	1.84	1.08 - 3.14	0.024	5.12
Hypothesis 2				
History of Injecting	2.65	1.58 - 4.43	< 0.001	13.85
Hypothesis 3				
Amphetamine Use Disorder	2.68	1.61 - 4.45	< 0.001	14.38
Antisocial Personality Disorder	2.21	1.36 - 3.6	0.001	10.12

APPENDIX B: CAAPE-5 PREVIEW

CAAPE-5™

Comprehensive Addictions And Psychological Evaluation – 5

Norman G. Hoffmann, Ph.D.

Name: _____

ID #: ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ Interviewer: _____

Date of Birth: ___ ___ / ___ ___ / ___ ___ ___ ___ (month / day / year) Current Date: ___ ___ / ___ ___ / ___ ___ ___ ___ (month / day / year)

1. Gender:
   - ___ (1) Male
   - ___ (2) Female

2. How old are you? ___ ___ years

3. In which ethnic grouping would you classify yourself?
   - ___ (1) Hispanic / Latino
   - ___ (2) African-American
   - ___ (3) Native American
   - ___ (4) Native Hawaiian / Pacific Islander
   - ___ (5) Asian
   - ___ (6) Middle Eastern
   - ___ (7) Caucasian / White
   - ___ (8) Multiracial / Biracial / Other

4. What is your current marital status?
   - ___ (1) Never married
   - ___ (2) Divorced
   - ___ (3) Separated
   - ___ (4) Widowed
   - ___ (5) Living as m
   - ___ (6) Married

5. **If ever marri**
   How ma time
   en married? ___

6. Wh hest d e you have earned?
   - ___ ool diploma earned
   - ___ h school diploma or GED
   - ___ (3) ional/technical/business school grad.
   - ___ (4) Associate degree
   - ___ (5) Bachelor's degree
   - ___ (6) Master's degree
   - ___ (7) Doctoral-level degree

7. What is your current employm s?
   - ___ (1) Working ful pa (wk. or more)
   - ___ (2) Working time y (< 35 hr./wk.)
   - ___ (3) Unemplo
   - ___ (4) N ki y choice
   - ___ (5) ired
   - ___ (tired

8. What is y y job type when working for pay?
   - ___ (1) Professional
   - ___ (2) Upper-level management / business owner
   - ___ (3) Mid-level management
   - ___ (4) Sales / marketing
   - ___ (5) Supervisory
   - ___ (6) Craft / skilled trades / technical
   - ___ (7) Office / white collar / clerical
   - ___ (8) Transportation / equipment operator
   - ___ (9) Laborer / unskilled worker
   - ___ (10) Service worker (waiter / waitress)
   - ___ (11) Domestic worker (housekeeper, etc.)
   - ___ (12) Military service
   - ___ (13) Other (specify) _____

9. In what range was your personal income in the past year?
   - ___ (1) $10,000 or less
   - ___ (2) $10,001 to $20,000
   - ___ (3) $20,001 to $35,000
   - ___ (4) $35,001 to $60,000
   - ___ (5) $60,001 to $90,000
   - ___ (6) Over $90,000

10. When did you last use [name substance]?

Name each substance group including local terminology where appropriate.

Code according to the most recent use:

0 = Never used
1 = Not used for more than 12 months
2 = Used within the past 12 months, but not during past 6 months
3 = Used within the past 6 months, but not during past month
4 = Used in past month
5 = Used within the past week
6 = Used within the past 24 hours

For each substance used in the past month, record number of days used.

Tobacco
0 1 2 3 **4** **5** **6** __ __ days

Alcohol
0 1 2 3 **4** **5** **6** __ __ days

Marijuana
0 1 2 3 **4** **5** **6** __ __ days

Cocaine (powder or crack)
0 1 2 3 **4** **5** **6** __ __ days

Amphetamines / stimulants
0 1 2 3 **4** **5** **6** __ __ days

Sedatives / tranquilizers
0 1 2 3 **4** **5** **6** __ __ days

Heroin / opioids
0 1 2 3 **4** **5** **6** __ __ days

Hallucinogens / PCP
0 1 2 3 **4** **5** **6** __ __ days

Inhalants
0 1 2 3 **4** **5** **6** __ __ days

Other substance (specify) _____
0 1 2 3 **4** **5** **6** __ __ days

If no substance use reported go to Item 48.

One problem or two substances are used, the problems in the past 12 months can be for either substance.

Two-pass option: If multiple substances are used, the general question can be asked without naming a substance. Circle "no" or "yes" above the left column, and skip to the next question. Once all the questions in this section are covered, return to the first "yes" question and do the probes for specific substances.

11. **[U]** - Have you ever spent more time using [name substance] than you intended to?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

12. **[N]** - Have you ever neglected some of your usual responsibilities because of [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

13. [ ] Have you ever wanted to cut down on your use of [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

14. **[O]** - Has anyone ever objected to your use of [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

15. **[P]** - Have you ever found yourself thinking a lot about using [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

16. **[E]** - Have you ever used [name substance] to relieve emotional discomfort, such as sadness, anger, or boredom?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

If no positive responses to Items 11-16, skip to Item 18

Any positive response to the UNCOPE (Items 11- ...ds a possible problem. Two or more positive r...nses ...rs 11-15 indicates at least a mild substance u... ...der, a... or more at least a moderate use disord... the ... findings pertain to the same substance. ...ositiv... ...nse on Item 16 may indicate self-medication.

Continuation of the inter... ...d to cover content necessary to c...rm t...

Criterion 1: Unpla... ...ue ...re use, or longer time using ... Item ...)

17. Have you ... dri... ...ore than you had intend...

If y... sk: ...e that apply to [name substance]?

no			times in past 12 mo.
		...hol	0 1 2 3+
		...uana	0 1 2 3+
	1	Cocaine	0 1 2 3+
	1	Amphetamines / stimulants	0 1 2 3+
	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 2: *Desire and/or attempts to restrict use (includes Item 13)*

18. Have you ever set rules to control your drinking or drug use? **If no to all, skip the next item**

If yes, ask: Does that apply to [name substance]?

no	yes		times in pas... mo.
0	1	Alcohol	...
0	1	Marijuana	...
0	1	Cocaine	0 1 2
0	1	Amphetamines / stimu...	1 2 3+
0	1	Sedatives / tranquili...	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinog...	1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other dru...	0 1 2 3+

19. Have yo... ...iled to ... rules to control your drinkin... drug us...

If yes, ask: ...es that ...y to [name substance]?

no	yes		times in past 12 mo.
0	1	Al...	0 1 2 3+
	1	Marijuana	0 1 2 3+
	1	Cocaine	0 1 2 3+
		Amphetamines / stimulants	0 1 2 3+
		Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 3: Spending a great deal of time using

20. **A.** On a typical Friday, or last day of work for the week, how many hours do you spend drinking or using drugs and getting over the effects of use? __ __

B. For a typical Saturday and Sunday, or two days when you don't work, how many total hours do you spend drinking or using and recovering from use? __ __

C. When you drink or use during a typical work day, such as Monday through Thursday, how many hours would you typically spend drinking or using and recovering from use. __ __

D. During a typical week, on how many weekdays do you drink or use drugs? ___

Estimated hours of use during a typical week equals A + B + (C x D). __ __

Hours of use can be calculated after the interview.

21. Have you ever found yourself planning your activities around being able to drink or use drugs?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

22. Have you ever stayed intoxicated on alcohol or high from drugs for more than a day at a time?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 4: Craving or strong compulsion
(Includes Item 15)

23. Have you ever had a strong craving to [illegible] or use drugs?
If yes, ask: Does that apply to [illegible]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

24. Has the desire to drink or use a drug ever been so strong that you couldn't resist drinking or using?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug	0 1 2 3+

Criterion [illegible] failure
([illegible])

25. Have you [illegible] school because of your drinking [illegible] use?
If yes, [illegible] Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	[illegible]	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

26. Have you ever had any work or school problems related to your drinking or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

27. Have you ever had any financial problems related to drinking or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 6: Social or interpersonal problems (Includes Item 14)

28. Have you ever been violent or hit anyone while drinking or using drugs?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

29. Has your drinking or drug use ever ha… relationship with someone you … ab…
If yes, ask: Does that apply to [n… substa…
no yes …s in pa… 12 mo.

0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocain…	0 1 2 3+
0	1	Amp… stim…nts	0 1 2 3+
0	1	S…tives …ers	0 1 2 3+
0	1	…/ opi…	0 1 2 3+
0		H… …ens / PCP	0 1 2 3+
0		…ana	0 1 2 3+
1		…drug _____	0 1 2 3+

30. Have you ever had conflicts with anyone over matters that might have been related to your drinking or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past … mo.
0	1	Alcohol	0 1 … 3+
0	1	Marijuana	0 1 … 3+
0	1	Cocaine	0 1 … 3+
0	1	Amphetamines / stimulants	0 1 2 …
0	1	Sedatives / tranquilizers	… 1 2 3+
0	1	Heroin / opioids	… 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 7: Soci… because of use

31. Have yo… skipped … family or social functions becaus… your dri…g or drug use?
If yes, … Does t… apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
	1	Marijuana	0 1 2 3+
	1	Cocaine	0 1 2 3+
		Amphetamines / stimulants	0 1 2 3+
	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

32. Have you ever given up or reduced any activities so that you could drink or use drugs?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

33. Has you ever missed any work opportunities or work related activities because of alcohol or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 8: Dangerous behaviors

34. Have you ever injected a drug to get high?
If the response is yes, ask:
Did you inject [name substance]?

no	yes		times in past 12 mo.
0	1	Cocaine	0 1 2 3+
0	1	Heroin or other opioids	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Other drugs _____	0 1 2 3+

35. Have you ever driven any type of motor vehicle wh… you may have been intoxicated or under the infl…?
If yes, ask: Does that apply to [name substa…

no	yes		times in…
0	1	Alcohol	0
0	1	Marijuana	1
0	1	Cocaine	2
0	1	Amphetamines / stimula…	3+
0	1	Sedatives / tran…ers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucino… / PCP	0 1 2 3+
0	1	Inhala…	0 1 2 3+
0	1	Other …	0 1 2 3+

36. Have … done … things while drinking or usi… there … under the influence was dangerous?
If y… …pply to [name substance]?

no	yes		times in past 12 mo.
…	1	…ol	0 1 2 3+
…	1	Marijuana	0 1 2 3+
…	1	Cocaine	0 1 2 3+
…	1	Amphetamines / stimulants	0 1 2 3+
…	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 9: Medical or psychological contraindication

37. Have you ever had any physical problems that might have been caused by drinking or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past … mo.
0	1	Alcohol	0 1 …
0	1	Marijuana	…
0	1	Cocaine	
0	1	Amphetamines / stimulant…	0 1 2
0	1	Sedatives / tranquilizer…	1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other dru… _____	0 1 2 3+

38. Have you ever con… to dri… use drugs when you had a … p… ness that might be made w… use?
If yes, … Does t… pply to [name substance]?

no	yes		times in past 12 mo.
0	1	…	0 1 2 3+
0	1	Marijuana	0 1 2 3+
…	1	Cocaine	0 1 2 3+
…	1	Amphetamines / stimulants	0 1 2 3+
…	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

39. A. Have you ever not remembered things you said or did while drinking or after drinking?

no	yes		times in past 12 mo.
0	1		0 1 2 3+

39. B. Have you ever not remembered things you said or did when using other drugs?

no	yes		times in past 12 mo.
0	1		0 1 2 3+

40. Have you ever drunk or used despite experiencing emotional or psychological problems that might have been caused by or made worse by drinking or drug use?
If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol	0 1 2 3+
0	1	Marijuana	0 1 2 3+
0	1	Cocaine	0 1 2 3+
0	1	Amphetamines / stimulants	0 1 2 3+
0	1	Sedatives / tranquilizers	0 1 2 3+
0	1	Heroin / opioids	0 1 2 3+
0	1	Hallucinogens / PCP	0 1 2 3+
0	1	Inhalants	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Criterion 10: Tolerance

If no alcohol use is reported in past year, skip to Item 43.

41. When you drink, how many standard drinks do you usually have? A standard drink would be 12 oz. of beer, glass of wine or 1.5 oz. of liquor.
    ___ (1) 9 or more
    ___ (2) 7 or 8
    ___ (3) 5 or 6
    ___ (4) 3 or 4
    ___ (5) 1 or 2

42. Have you ever been able to drink about a fifth of liquor or 20 beers or 3 bottles of wine in a day?

no	yes		times in past 12 mo.
0	1	----------	0 1 2 3+

43. Have you ever found that you could drink or use more than you once did? That is, did it take more to get intoxicated or high?
    If yes, ask: Does that apply to [name substance]?

ever no	ever yes		in the past 12 mo. no	in the past 12 mo. yes
0	1	Alcohol----------	0	1
0	1	Marijuana----------	0	1
0	1	Cocaine ----------	0	1
0	1	Amphetamines / stimulants --------	0	
0	1	Sedatives / tranquilizers ----------	0	1
0	1	Heroin / opioids----------	0	
0	1	Hallucinogens / PCP ----------	0	
0	1	Inhalants ----------		1
0	1	Other drug _____		1

44. Have you ever found th[illegible] the same effect with the same amount [illegible]
    If yes, ask: Does th[illegible]pply to [name substance]?

ever no	ever yes		in the past 12 mo. no	in the past 12 mo. yes
0	1	Al[illegible]hol----------	0	1
0	1	[illegible]ana----------	0	1
0		Co[illegible] ----------	0	1
0		[illegible]es / stimulants --------	0	1
	1	[illegible]ives / tranquilizers ----------	0	1
	1	H[illegible]in / opioids----------	0	1
	1	Hallucinogens / PCP ----------	0	1
	1	Inhalants ----------	0	1
	1	Other drug _____	0	1

Criterion 11: Withdrawal

45. Have you ever had shakes, sweating, nausea, fatigue, runny nose, insomnia, or any other ill effects after stopping or cutting down on drinking or drug use?
    If yes, ask: Does that apply to [name substance]?

no	yes		times in past [illegible] mo.
0	1	Alcohol ----------	0 1 2 3+
0	1	Marijuana ----------	[illegible]
0	1	Cocaine----------	0 1 2
0	1	Amphetamines / stimul[illegible]	0 1 2 3+
0	1	Sedatives / tranquili[illegible]	0 1 2 3+
0	1	Heroin / opioids ----------	0 1 2 3+
0	1	Hallucinogen[illegible]	0 1 2 3+
0	1	Inhalants----------	0 1 2 3+
0	1	Other dru[illegible]	0 1 2 3+

46. Have you[illegible]d a d[illegible]ed drugs to ease a hangov[illegible] reduce other ill effects of use?
    If yes, [illegible] Does [illegible]pply to [name substance]?

no	yes		times in past 12 mo.
0	1	A[illegible] ----------	0 1 2 3+
[illegible]	1	Marijuana ----------	0 1 2 3+
	1	Cocaine ----------	0 1 2 3+
	1	Amphetamines / stimulants ------	0 1 2 3+
		Sedatives / tranquilizers ----------	0 1 2 3+
0	1	Heroin / opioids ----------	0 1 2 3+
0	1	Hallucinogens / PCP ----------	0 1 2 3+
0	1	Inhalants----------	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Legal problems: Not a DSM-5 criterion

47. Have you ever been arrested, ticketed, or detained by any law officers for any reason related to your alcohol or drug use?
    If yes, ask: Does that apply to [name substance]?

no	yes		times in past 12 mo.
0	1	Alcohol ----------	0 1 2 3+
0	1	Marijuana ----------	0 1 2 3+
0	1	Cocaine----------	0 1 2 3+
0	1	Amphetamines / stimulants------	0 1 2 3+
0	1	Sedatives / tranquilizers ----------	0 1 2 3+
0	1	Heroin / opioids ----------	0 1 2 3+
0	1	Hallucinogens / PCP----------	0 1 2 3+
0	1	Inhalants----------	0 1 2 3+
0	1	Other drug _____	0 1 2 3+

Comments:

Major Depressive Episode

48. Has there ever been at least a two-week period when you felt depressed, blue, or sad?

___ (0) No ___ (1) Yes

49. Have you ever had at least a two-week period when you lost interest in almost all activities or were unable to get pleasure from almost anything?

___ (0) No ___ (1) Yes

If both Item 48 and Item 49 are "no," skip to Item 59.

50. How recently have you had a two-week or longer period of feeling depressed or when you lost interest in things?

___ (1) In the past 2 months
___ (2) 3 to 6 months ago
___ (3) 7 to 12 months ago
___ (4) Over a year ago

The following questions refer to your experiences during these periods.

51. Did you have trouble getting to sleep and staying asleep or did you find yourself sleeping a lot?

___ (0) No ___ (1) Yes

52.A. Did you lose your appetite or lose weight witho dieting?

___ (0) No ___ (1) Yes: ski

52.B Did you gain weight without intendi o do

___ (0) No ___ (1) Ye

53. Did you have trouble thinking or ntrat

___ (0) No ___ (1)

54. Did you have little gy or w fatigued most days?

___ (0) No ___ (1) Yes

55. Did you orth ty?

___ (0) No ___ (1) Yes

56. Were ntlate e did you find your movements ed?

___ (0) No ___ (1) Yes

id you have any thoughts of death, dying, or suicide?

___ (0) No ___ (1) Yes

58. Did such periods of depression or loss of interest occur when you were not using alcohol or other drugs?

___ (0) No ___ (1) Yes, when not using

Manic Episode

59. At any time in your life, have you ever experienced at least a week when you felt unusually happy or "on top of the world" for no reason?

___ (0) No ___ (1) Yes

60. During a period of a week or more were y ly agitated or irritable?

___ (0) No ___ (1)

61. Has there been a period of a w where you had so much energy that you ne e or no sleep for at least several day

___ (0) No ___ Yes

If Items 59 through 1 are " skip to Item 69.

62. How rec ve you ch a period of at least a week w you felt top of the world or needed little sleep?

___ (1) months
___ (2) 3 to 6 months ago
___ (3) 7 to 12 months ago
___ (4) More than a year ago

The following six questions refer to your experiences ing these periods of elevated or irritable mood.

63. Were you distractible; that is, was it hard to keep your mind focused on a topic or task?

___ (0) No ___ (1) Yes

64. Was there ever a period of at least a week when your thinking seemed speeded up or when you could hardly keep up with your thoughts or they seemed jumbled?

___ (0) No ___ (1) Yes

65. Were you more talkative than usual or did you feel a need to keep talking?

___ (0) No ___ (1) Yes

66. Did you feel you could do almost anything or did you feel very important?

___ (0) No ___ (1) Yes

67. Did you do something you regretted later, such as spending a lot of money, engaging in out of character sexual behavior, or making bad decisions?

___ (0) No ___ (1) Yes

68. Have these types of episodes always been associated with alcohol or drug use or have they happened when you were not using?

___ (0) Only with use ___ (1) When not using

Panic

69. Have you ever experienced a distinct period of intense fear or discomfort in the absence of any real danger?

___ (0) No ___ (1) Yes

If no, skip to Item 76.

70. How may such periods have you experienced in the past 12 months? ___ ___ panicky periods

Score one criterion for each positive response coded "1"

71. During such a period, have you experienced choking, shortness of breath, or smothering sensations?

___ (0) Neither
___ (1) Choking only
___ (1) Shortness of breath / smothering

72. Did you feel dizzy, lightheaded, or faint?

___ (0) No ___ (1) Yes

73. During a period of fear, did you experience sweating, shaking, or trembling?

___ (0) None
___ (1) Sweating
___ (1) Shaking or trembling

74. Did you have nausea or stomach distress, chest pa… or a pounding heart?

___ (0) None
___ (1) Nausea or stomach distress
___ (1) Chest pains
___ (1) Pounding or racing h…

75. During such a period, were you afr… of going crazy or dying?

___ (0) Neither
___ (1) Goin… y / …ng control
___ (1) Dy…

Comment…

Posttraumatic Stress

76. Have you ever experienced or witnessed a traumatic event that involved possible death or serious injury?

___ (0) No ___ (1) Yes

77. Has learning about a violent or life threatening … dent or event involving a family member or close fri… wer caused you distress?

___ (0) No ___ (1) Y…

If both Item 76 and Item 77 are … to Item 89.

78. Do the memories of that experie… coming back into your mind? (Cri…

___ (0) No ___ (1) Yes

79. Have you ever had … han… distressing dream about that …ressf… time? (B)

___ (0 … ___ (1) Yes

80. Have yo… fel… though the event was happening again? (B)

___ (0) No ___ (1) Yes

…you ever experienced intense distress when …ing reminds you of the stressful event? (B)

___ (0) No ___ (1) Yes

82. Have you actively avoided thoughts or feelings associated with the event? (Criterion C)

___ (0) No ___ (1) Yes

83. Do you avoid places or things that remind you of the event or otherwise avoid such memories? (Criterion C)

___ (0) No ___ (1) Yes

84. Are you unable to remember some parts of the event or stressful time? (Criterion D)

___ (0) No ___ (1) Yes

85. Have you been more withdrawn since the event, or less interested in activities you used to enjoy? (D)

___ (0) No ___ (1) Yes

86. Since the event, have you found it hard to be happy or to feel positive about the future? (D)

___ (0) No ___ (1) Yes

87. Since the event, have you had trouble sleeping, concentrating, or dealing with anger? (Criterion E)

___ (0) No ___ (1) Yes

88. Since the event, are you more easily startled? (E)

___ (0) No ___ (1) Yes

Anxiety and Phobias

89. Do you tend to worry about things or possible events when others might say there is no good reason to worry?
___ (0) No ___ (1) Yes

90. Are you often anxious about things or possible events even though others say there is no danger or problem?
___ (0) No ___ (1) Yes

91. Do you have problems concentrating or forgetting things because you are anxious?
___ (0) No ___ (1) Yes

92. Do you frequently feel nervous, keyed up, or on edge?
___ (0) No ___ (1) Yes

93. Are you afraid of going into open areas, public places, or away from home even when there is no real physical danger?
___ (0) No ___ (1) Yes

94. Does your avoidance of situations or things interfere with your life?
___ (0) No ___ (1) Yes

Obsessions / Compulsions

95. Are you repeatedly bothered by ideas, thou… or impulses that seem to come from nowhere?
___ (0) No **Skip to #97** ___ (1) Y… **…k #9…**

96. Do you have to do something to …rol o… these thoughts or impulses go away?
___ (0) No ___ (1) …

97. Do you spend a lot …me on activ… necessary to overcome thou… or i…ses?
___ (0) No ___ (1) Yes

98. Do a… …s or t… …vities to control them int… w… daily life?
___ (0) … ___ (1) Yes

9… …ou ha… …o do things again and again in the same …ct way to reduce stress and anxiety or to keep …mething bad from happening?
… (0) No ___ (1) Yes

Conduct Disorder

100. Before the age of 13, did you skip school a number of times?
___ (0) No ___ (1) Yes

101. Did you run away from home overnight at lea… …ce?
___ (0) No ___ (1) Yes

102. Before the age of 15, did you star… …al fights … others more than once or twice?
___ (0) No ___ …

103. Did you ever use a g… …lade… …er weapon in more than one …
___ (0) No ___ …es

104. Before th… …f 15, … …ver deliberately destroy someo… property?
___ (… ___ (1) Yes

105. Did you se… …ith the intention of causing damage?
___ (0) No ___ (1) Yes

10… …ou ever do cruel things to people or animals?
___ (0) No ___ (1) Yes

107. Did you frequently lie to get things you wanted?
___ (0) No ___ (1) Yes

108. Before the age of 15, did you ever force others to give you things that belonged to them?
___ (0) No ___ (1) Yes

109. Did you ever break into a home or car to steal or steal something without confronting the victim?
___ (0) No ___ (1) Yes

ASPD

110. Since the age of 15, have you ever done dangerous things just for the thrill or the fun of it?
___ (0) No ___ (1) Yes

111. Since the age of 15, did you often do things for which you could have been arrested?
___ (0) No ___ (1) Yes

112. Since the age of 15, have you been arrested for a criminal offense?
___ (0) No ___ (1) Yes

113. Since the age of 15, have you ever lied or conned people to get what you wanted?
___ (0) No ___ (1) Yes

114. Since the age of 15, have you done things impulsively without thinking ahead to consequences?
___ (0) No ___ (1) Yes

115. Since the age of 15, have you been involved in any fights?
___ (0) No ___ (1) Yes

116. Since the age of 15, have you ever been unable to pay bills or debts because you had spent the money on something else?
___ (0) No ___ (1) Yes

Paranoid Personality

117. Do you tend to hold a grudge?
___ (0) No ___ (1) Yes

118. Have you frequently been concerned that someone may be trying to harm or control you?
___ (0) No ___ (1) Yes

119. Have you ever been suspicious about the loyalty or trustworthiness of family or friends?
___ (0) No ___ (1) Yes

120. Have others ever suggested that you [illegible] easily offended?
___ (0) No ___ (1) Yes

Schizoid Personality

121. Do you prefer doing things
___ (0) No ___ (1) Yes

122. Are you a lone[illegible] you don't need or want close friendships
___ (0) No ___ (1) Yes

123. Do you rarely experience strong emotions?
___ (0) No ___ (1) Yes

Borderline

124. Do you find that your mood can change quickly?
___ (0) No ___ (1) Yes

125. Are your friendships more intense than those of most people?
___ (0) No ___ (1) Yes

126. Do your friendships tend not to last long?
___ (0) No ___ (1) Yes

127. Do you frequently experience feelings of emptiness or boredom?
___ (0) No ___ (1) Yes

128. Are you overly worried of being abandoned by someone you care about?
___ (0) No ___ (1) Yes

129. Have you done impulsive things that caused you problems?
___ (0) No ___ (1) Yes

Dependent Personality

130. Have you had difficulty making decisions without advice or reassurance from others?
___ (0) No ___ (1) Yes

131. Have you found it more comfortable to let others make important decisions?
___ (0) No ___ (1) Yes

132. Do you frequently agree with people even when you think they are wrong just to avoid offending them?
___ (0) No ___ (1) Yes

133. Are you uncomfortable when you are alone?
___ (0) No ___ (1) Yes

134. Do you have trouble starting or doing things on your own?
___ (0) No ___ (1) Yes

135. Are you willing to do most anything to get support and reassurance from people you care about?
___ (0) No ___ (1) Yes

Obsessive-Compulsive Personality

136. Would you say you are a bit of a perfectionist?
___ (0) No ___ (1) Yes

137. Do you tend to keep things even when you have no immediate use for them?
___ (0) No ___ (1) Yes

138. Are you a person who pays close attention to details?
___ (0) No ___ (1) Yes

139. When you work with others, do you tend to be in charge or see to it that the others do things right?
___ (0) No ___ (1) Yes

140. Are you a harder worker than most people?
___ (0) No ___ (1) Yes

Psychosis Indications

141. Have you ever heard voices when no one was there?
___ (0) No ___ (1) Yes

142. Have you ever smelled, tasted, or felt something touching you and there was nothing around to cause it?
___ (0) No ___ (1) Yes

143. Have you ever seen things others could not see?
___ (0) No ___ (1) Yes

If all Items 141 – 143 are "no" end the interview.

144. Have you ever had these experiences when you were **not** using alcohol or drugs?
___ (0) No ___ (1) Yes

145. Have you ever heard voices or seen things at a time when you were **not** drifting off to sleep or just waking up?
___ (0) No ___ (1) Yes

146. Have you ever thought you had special powers, such as being able to read people's minds, predict the future, or move objects with your mind?
___ (0) No ___ (1) Yes

End Interview

Complete observation after interview.

147. Is speech disorganized or idiosyncratic (peculiar)?
___ (0) No ___ (1) Yes

148. Does this individual manifest unusual behaviors or mannerisms?
___ (0) No ___ (1) Yes

149. Is affect flat or inappropriate to the situation?
___ (0) No ___ (1) Yes

150. Is motor activity unusual – either stiff, nearly immobile, or inappropriately active?
___ (0) No ___ (1) Yes

COMMENTS

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