

Evaluating The Effectiveness Of Mental Health Services For People Who Are Incarcerated With A History Substance Use Disorder In The US: A Rapid Systematic Review

Ewaoluwa Awogbami

Abstract

The United States has the highest incarceration rate globally, with over 1.2 million people incarcerated as of 2022. Correctional facilities encompass two primary structures, namely jails and prisons, with the latter being the focal point of this review. People who are incarcerated have a high prevalence of substance use disorders and mental health disorders. In 2021, 74% of people who are incarcerated were diagnosed with co-occurring disorders. Notably, marijuana stands out as the most prevalent substance abused among incarcerated populations. In the year 2021, people within correctional settings were commonly diagnosed with co-occurring disorders, characterized by concurrent mental health and substance use disorders. Recently, research has been done to assess the effectiveness of mental health services in treating people who are incarcerated with a history of substance use disorder. In this rapid systematic review, I synthesized literature regarding the effectiveness of mental health services for people who are incarcerated with a history of substance use disorder in the United States. A total of 1749 articles were screened by title and abstract from PubMed and Google Scholar, yielding six papers relevant for this review. Data extracted measured treatment outcomes including recidivism rates, criminal activity, relapse, mental health recovery as a result of the six interventions. Five of the studies revealed that the interventions had positive effects on treatment outcomes. Integrating therapeutic community and cognitive behavioral interventions improved mental health recovery, recidivism rates, and criminal activity. Cognitive Behavior Therapy (MI/CBT) and Relaxation Training plus Substance Education was not effective in reducing criminal activity. The findings highlight the importance of comprehensive mental health services tailored to the specific needs of people who are incarcerated with a history of substance use disorder, emphasizing the potential for positive outcomes and the importance for ongoing investment in such services after incarceration.

Keywords: *incarcerated, substance abuse, mental health services, treatment outcome, and mental health recovery*

Date of Submission: 08-11-2025

Date of Acceptance: 18-11-2025

I. Background And Significance

According to The Sentencing Project (2023) the world's highest incarceration rate is in the United States. The Sentencing Project is a non-profit organization that promotes humane and efficient sentencing policies that reduce incarceration. As of December 31, 2022, the incarcerated population in the United States reached 1,230,100, reflecting a 2% rise from 2021 (Bureau of Justice Statistics, 2023). The major difference between jails and prisons is that jails are short-term, locally run facilities that hold criminals awaiting trial, while prisons are long-term facilities run by the federal or state governments, usually used to confine criminals serving terms longer than a year (Bureau of Justice Statistics, 2023). In this review, the primary focus will be prisons, because availability of mental health services is more likely to be restricted in local jails than in state and federal prisons (Taxman et al., 2007). The prevalence of substance use among incarcerated populations is widely known, with many people entering the criminal justice system because of drug or alcohol misuse. Approximately 40% of all state and federal incarcerated individuals (1,421,700) admitted using drugs, and 30% of them claimed drinking alcohol at the time of the offense for which they were serving a sentence (Maruschak et al., 2021). For the criminal justice system to create comprehensive, compassionate, and successful methods, it is essential to acknowledge the interconnectedness of mental health and substance use among the incarcerated population.

Substance use Among People who are Incarcerated

According to the 2010 National Survey on Drug Use and Health (NSDUH), 20.3 million adults were diagnosed with a substance abuse disorder. One in every eight Americans has major drug or alcohol issues, and 45% of the population have co-occurring mental or anxiety disorders (Substance Abuse and Mental Health Services Administration, 2012).

The elevated occurrence of substance use within people experiencing homelessness increases their vulnerability to engaging in criminal activities, including being apprehended for drug possession, drug trafficking, and public intoxication (Greenberg & Rosenheck, 2008). In the United States, substance abuse is a public health problem that impacts mental and physical health, has social implications, and places a significant demand on social and medical resources. Thus, it is imperative to prioritize harm reduction, treatment, and prevention measures.

Prevalence of Mental Health Disorders and Substance use Disorder in Incarcerated Populations

According to Pamplin et al (2023), In the United States, there is a substantial correlation between criminalization, race, and mental health. In the United States, estimates of the frequency of mental illness among prison populations range from three to twelve times greater than those for community samples (Prins, 2014). According to Suzi et al (2021) results showed that between 2009 and 2017, there was a consistent rise in the percentage of incarcerated individuals who were diagnosed with co-occurring disorders, such as mental health issues and substance use disorders. Given the need of mental health services among the incarcerated population, there are numerous kinds of mental health services available to meet the diverse requirements of people who are struggling with their mental health. According to Zoukis (2016) incarcerated individuals have access to voluntary substance abuse rehabilitation programs, group therapy, individual counseling, and drug treatment programs. Mental health and the provision of mental health services in the United States constitute a critical public health challenge, necessitating ongoing efforts to enhance support, reduce stigma, and improve accessibility in order to promote the overall well-being of the population, particularly vulnerable populations.

Effectiveness of Mental Health Services

The effectiveness of mental health services in the US is crucial for fostering overall wellbeing since research indicates that various forms of interventions can greatly improve mental health outcomes and people's quality of life. This emphasizes the significance of easily accessible and extensive mental health support networks across the United States. And there a number of services that worked well;

A quick motivational intervention given to prisoners is said to reduce alcohol and drug usage and alter social networks for those with alcohol use disorders (Owens & McCrady, 2016). The findings showed that carrying out these treatments was achievable and that participants thought they were very beneficial. Kowalski (2020), reviewed peer support is provided for incarcerated individuals. The findings demonstrate a relationship between peer support and improved mental health outcomes, emphasizing the critical role that peers can play in the recovery process. Addressing the risk factors closely linked to involvement with the criminal legal system for people dealing with mental illness according to (Wilson et al., 2023) was found to be effective in facilitating recovery among the participants.

Barriers and Challenges

There are difficulties and obstacles in providing mental health treatments to populations that are incarcerated. These challenges may make it difficult for individuals with mental health needs to get the care they need and may be a factor in the broader mental health crisis that exists in the population of correctional facilities.

Canada et al (2022), identifies several significant obstacles, such as structural problems with the jail system, stigma associated with mental illness, and a lack of funding and training for healthcare professionals. Perceived stigma is a major barrier according to Farabee et al (2019). The findings showed that those who are stigmatized for having mental disorders in prison would choose not to ask for assistance, which had an impact on their adherence to medication and increased recidivism rates. The findings demonstrate the important influence perceived stigma has on the experiences and results of mental health care for those incarcerated.

Budget constraints frequently affect correctional facilities, resulting in a lack of staff and resources for mental health services. Prisons are among the biggest suppliers of mental and physical health services in the country, but they were not intended to be clinical treatment centers, nor are they adequately supported to provide the comprehensive care that those with severe mental illnesses need (Canada et al., 2022). Understanding the impact of these interventions is critical for both correctional facilities and the larger mental health community, as it has implications for informed policy-making and enhanced care delivery in carceral settings.

II. Methods

Objectives

This systematic review follows the standards set by the Preferred Reporting Items for Systematic Reviews and Meta-analyses [PRISMA] (Moher et al., 2009). The primary goal of this review is to evaluate effectiveness of mental health interventions tailored for those who are currently incarcerated and have a history of substance use disorder. The research question was as follows: What is the effectiveness of mental health services for people who are incarcerated with a history of substance use disorder?

Inclusion Criteria

The inclusion criteria will include studies conducted for people who are incarcerated in the United States without age restrictions. Eligible studies would include studies that focus on people who are incarcerated with mental health conditions or/and substance use disorder, necessitating the presence of either condition. Studies conducted within correctional facilities, such as prisons, would be eligible for this review. The study designs would encompass randomized controlled trials (RCTs), quasi-experimental investigations and cross sectional studies. Studies evaluating mental health services or interventions aimed primarily at people who are incarcerated with a history of substance use disorder. These could consist of group therapy, medication, crisis intervention, therapeutics, rehabilitation, counseling, or other mental health services.

Search Strategy

The evaluation was performed with the assistance of the research librarian from Thomas Jefferson University's Scott Memorial Library, a combination of keywords and Medical Subject Headings [MeSH] were established to be used in the final database searches. Relevant studies were identified through peer reviewed articles through advanced database searches PubMed and Google Scholar. On October 24th 2023, a search was done on PubMed:

((((Incarcerated OR inmates OR Prisoners OR "Prisoners"[Mesh] OR offenders) AND (Substance abuse OR "Substance Abuse, Oral"[Mesh] OR "Substance Abuse, Intravenous"[Mesh] OR "Substance-Related Disorders"[Mesh] OR Opioids OR Heroin OR Alcohol)) AND (Mental health services OR "Substance Abuse Treatment Centers"[Mesh] OR Counseling OR Crisis intervention OR "Substance Abuse Detection"[Mesh] OR Rehabilitation OR Therapeutics OR "Mental Health"[Mesh] OR "Mental Health Services"[Mesh] OR "Psychiatric Nursing"[Mesh] OR "Psychiatric Rehabilitation"[Mesh] OR "United States Substance Abuse and Mental Health Services Administration"[Mesh])) AND (Stability OR Treatment outcome OR Reliability OR "Mental Health Recovery"[Mesh] OR Emotional stability OR Health promotion OR Self-management OR Health education OR Adherence OR "Medication Adherence"[Mesh])). Then on January 31st 2024, a search was done on Google Scholar:

(Incarceration OR Inmates OR Prisoners) ("Substance Abuse" OR opioids OR "substance abuse disorder") ("Mental Health services" OR "psychiatric rehabilitation" OR counseling) ("Mental Health recovery" OR "treatment outcome" OR "self management").

Data Management & Study Selection

After conducting the search, articles from PubMed and Google Scholar were selected and imported into RefWorks. Articles were put together into a new folder. Duplicates were then deleted by a rigorous deduplication process. The remaining articles were evaluated for relevancy based on their title and abstract. Following the screening, the remaining full-text articles were evaluated for eligibility.

Relevant data was gleaned from each study, encompassing details such as the publication year and location, study methodology, the specific population under examination, the mental health services or interventions employed, and the outcomes assessed by the researchers. To be eligible for the review, the study met the following criteria: it must be written in English for readability, published within the timeframe of 2012-2023, and conducted within the United States, with a specific focus on incarcerated individuals.

Data Analysis

After the final selection of articles, a single reviewer read and extracted the following data from the articles: the publication year, population, sample size, and range of participants, location of the intervention, the type of study, a short description of the intervention, the location it took place in (prison). Following that, the findings will be analyzed in light of the nature of mental health services provided to incarcerated individuals, reported outcomes such as recovery, treatment outcomes, relapse and recidivism rates, and the type of study methodology used.

III. Results

The PRISMA flow diagram depicted in Figure 1 provides a visual representation of the screening process we completed within RefWorks (Moher et al., 2009). After performing the search, 758 articles from PubMed and 991 from Google Scholar were selected and imported in RefWorks. Articles were merged into a new folder of 1749 articles. After the deduplication process was performed, 207 articles were removed, left with 1542 articles. A total of 1005 articles were screened for relevance by title and abstract. After the final screening, 950 articles were excluded, leaving a total of 50 full text articles to be assessed for eligibility. A total of 49 articles were excluded yielding to a total of 6 papers. Four of the studies were Randomized Clinical Trials (RCT) while one study was a quasi-experiment study, and one cross sectional study.

Population Characteristics

All the 6 studies selected focused on people who are incarcerated, specifically prisons. Both men, women, and youths from different racial backgrounds within the US.

Intervention Characteristics

The interventions all took place within the United States. The interventions implemented by the studies include Cognitive Behavior Therapy (MI/CBT) and Relaxation Training plus Substance Education/12-Steps (Stein et al., 2020), Integrated treatment programs (Wolff et al., 2015), Comprehensive treatment program including therapy and integrated group therapy, and Interpersonal Psychotherapy Treatment (ITP) (Johnson et al., 2012).

Table 2 provides a more thorough explanation of the studies and the interventions.

Outcomes

The outcomes assessed by the studies included recidivism, Recidivism, Therapeutic community treatment, Aftercare following correctional treatment, Self-efficacy regarding substance use Relapse, Criminal activity Self-esteem, self-efficacy, criminal activity, and Opioid use outcomes.

Relevant Findings

JoAnn et al (2012) highlighted that there were statistical significance between-group differences, favoring the treatment group; differences were also identified for posttraumatic stress disorder (PTSD) symptoms and substance-related self-efficacy.

Johnson et al (2012) results demonstrated significant improvements in PTSD symptom severity, mental health symptom severity, self-esteem, and self-efficacy over time.

The results according to Swopes et al (2017) indicated that women in both therapeutic community program, and Cognitive behavioral treatment conditions improved significantly in all outcome categories, including criminal activity, drug use, mental health, trauma.

Morgan et al (2014) results indicated evidence of a strong therapeutic improvement on mental health symptoms and relatively small evidence for reduced criminal thinking.

Wolff et al (2015) highlighted that participants who received integrated treatment (SS or M-TREM) experienced statistically and clinically significant improvement in PTSD symptom severity over time, though the difference in improvements was not statistically significant when compared to the waitlist group (controlling for baseline differences), and the effect size was small.

Results from Stein et al (2020) showed that there were no significant main effects on the average number of joints smoked per smoking day, the average number of times smoked marijuana per week, or the percentage of days used marijuana, and it also showed that there was a decrease in crime activity among the incarcerated youths.

IV. Discussion

The effectiveness of mental health services for people who are incarcerated with a history of substance use disorder is evident, particularly within the controlled environments of prisons. However, it is essential to acknowledge the limitations encountered in delivering these services. While individual treatments like group interpersonal psychotherapy can provide positive outcomes, implementing multiple services like Cognitive Behavior Therapy (MI/CBT) and Relaxation Training plus Substance Education/12-Steps at the same time has the potential to increase effectiveness even further and produce better treatment outcomes, reduce recidivism rates, and promote mental health recovery. Furthermore, mental health care should extend beyond the confines of incarceration, offering continuous support and help to individuals as they reintegrate to their communities.

Future research, particularly longitudinal studies, is imperative to comprehensively understand the long-term effects and outcomes of interventions targeting this population. Such studies would not only shed light on the effectiveness of interventions but also contribute to improving mental health wellness, reducing the rate of

overdose, promoting public safety, and decreasing recidivism rates. Additionally, addressing the stigma surrounding treatment for mental health disorders and substance use disorders is crucial for ensuring effective intervention strategies. This involves creating awareness and advocating for destigmatization efforts within correctional facilities and broader society. Furthermore, sufficient funding and staffing are necessary for implementing effective treatments and delivering comprehensive care to incarcerated people. To successfully meet this population's specific needs, the government must invest in the justice system and recruit qualified staff. Lastly addressing external factors such as negative environments, lack of transition plans back into the community, and homelessness is vital for promoting successful rehabilitation and reintegration into society.

V. Limitations

There are various limitations to this study that merit addressing. First, the literature review was carried out by a single reviewer in order to save time and adhere to the limits of a single academic year. Second, only two databases were searched, again for the purpose of time. Third, it was quite challenging to review because there was so little literature on the topic, due to the restrictions of data due to this vulnerable population.

VI. Conclusion

People who are incarcerated are a vulnerable population. The stress and trauma of being incarcerated can increase the risk of a co-occurring disorder of mental health illness and substance use. The rapid systematic review highlighted the importance and effectiveness of mental health services for people who are incarcerated with a history of substance use disorder in the United States. While there were limitations and constraints in providing these services, the results demonstrated the significant positive impact such interventions can have on treatment outcomes including recidivism and mental health recovery. It is imperative that comprehensive approaches to mental health care in correctional settings be further explored and implemented in the future in order to address the distinctive needs of this population and support their effective rehabilitation and reintegration into society. By emphasizing evidence-based approaches and continuous research, we can strive towards improving the well-being and outcomes of individuals with substance use disorders who are incarcerated, resulting in healthier communities and a more equitable justice system.

Acknowledgments

Thank you very much to Dr Simal Thind, capstone mentor, and Paul Hunter, librarian, for your guidance, feedback, and support throughout this project.

References

- [1]. Amy Blank Wilson, Ph.D., M.S.W., Jonathan Phillips, Ph.D., M.S.W., Melissa L. Villodas, Ph.D., M.S.W., Anna Parisi, Ph.D., M.S.W., Ehren Dohler, M.S.W., Caroline Ginley, M.S., 2023. Assessing The Potential Efficacy Of An Intervention For Incarcerated People With Mental Illness. *Psychiatric Services*. <https://doi.org/10.1176/Appi.Ps.20220355>.
- [2]. Ashley Nellis, 2021. The Color Of Justice: Racial And Ethnic Disparity In State Prisons. The Sentencing Project. <https://www.sentencingproject.org/reports/the-color-of-justice-racial-and-ethnic-disparity-in-state-prisons-the-sentencing-project/>.
- [3]. Bureau Of Justice Statistics, 2023. Prison Report Series: Preliminary Data Release. [https://bjs.ojp.gov/library/publications/prisons-report-series-preliminary-data-release#:~:Text=Final%20statistics%20will%20be%20published,Increase%20from%202021%20\(1%2C205%2C100\)](https://bjs.ojp.gov/library/publications/prisons-report-series-preliminary-data-release#:~:Text=Final%20statistics%20will%20be%20published,Increase%20from%202021%20(1%2C205%2C100).).
- [4]. Canada, K., Barranger, S., Bohrman, C., Banks, A., & Peketi, P, 2022. Multi-Level Barriers To Prison Mental Health And Physical Health Care For Individuals With Mental Illnesses. *Frontiers In Psychiatry*, 13, 777124. Doi: 10.3389/fpsyt.2022.777124.
- [5]. CDC, 2023. Mental Health. [https://www.cdc.gov/mentalhealth/learn/index.htm#:~:Text=More%20than%201%20in%205,A%20seriously%20debilitating%20mental%20illness.&Text=About%201%20in%2025%20U.S.,Bipolar%20disorder%2C%20or%20major%20depression](https://www.cdc.gov/mentalhealth/learn/index.htm#:~:Text=More%20than%201%20in%205,A%20seriously%20debilitating%20mental%20illness.&Text=About%201%20in%2025%20U.S.,Bipolar%20disorder%2C%20or%20major%20depression.).
- [6]. Christopher Zoukis JD, MBA 2016. Mental Health Programs For Inmates. [https://federalcriminaldefenseattorney.com/Prison-Life/Health-Wellness/Mental-Health-Inmates/#:~:Text=Access%20to%20Specialized%20Programs,Therapy%20programs%20in%20federal%20prisons](https://federalcriminaldefenseattorney.com/Prison-Life/Health-Wellness/Mental-Health-Inmates/#:~:Text=Access%20to%20Specialized%20Programs,Therapy%20programs%20in%20federal%20prisons.).
- [7]. COPS, 2022. Mental And Reentry: How Court Services Offender Agency Meets The Challenge Of Mental Health Community Supervision. Volume 15; Issue 5. [https://cops.usdoj.gov/html/dispatch/05-2022/Mental_Health_Reentry.html#:~:Text=For%20incarcerated%20people%2C%20those%20rates,Have%20reported%20mental%20health%20concerns](https://cops.usdoj.gov/html/dispatch/05-2022/Mental_Health_Reentry.html#:~:Text=For%20incarcerated%20people%2C%20those%20rates,Have%20reported%20mental%20health%20concerns.).
- [8]. Doris J. James, Lauren E. Glaze, 2006. Mental Health Problems Of Prison And Jail Inmates. Bureau Of Justice Statistics Special Report. <https://bjs.ojp.gov/content/pub/pdf/mhppji.pdf>.
- [9]. E. Ann Carson, Rich Klukow, 2023. Correctional Populations In The United States, 2021- Statistical Tables. https://bjs.ojp.gov/sites/g/files/xyckuh236/files/media/document/cpus21st_Sum.Pdf.
- [10]. E. Ann Carson, 2022. Prisoners In 2021- Statistical Tables. [https://bjs.ojp.gov/library/publications/prisoners-2021-statistical-tables#:~:Text=The%20report%20describes%20demographic%20and,Decrease%20from%202011%20\(1%2C599%2C000\)](https://bjs.ojp.gov/library/publications/prisoners-2021-statistical-tables#:~:Text=The%20report%20describes%20demographic%20and,Decrease%20from%202011%20(1%2C599%2C000).).
- [11]. Farabee D, Hall E, Zaheer A, Joshi V. 2019. The Impact Of Perceived Stigma On Psychiatric Care And Outcomes For Correctional Mental Health Patients. *Psychiatry Res*, 276, 191-195. Doi: 10.1016/J.Psychres.2019.05.018.

- [12]. Greenberg, G. A., And Rosenheck, R. A. 2008. Jail Incarceration, Homelessness, And Mental Health: A National Study. *Psychiatr. Serv.* 59, 170–177.
- [13]. Giles J. Science In The Web Age: Start Your Engines. *Nature*. 2005; 438(7068):554–5.
- [14]. Johnson, J. E., & Zlotnick, C. (2012). Pilot Study Of Treatment For Major Depression Among Women Prisoners With Substance Use Disorder. *Journal Of Psychiatric Research*, 46(9), 1174–1183. <https://doi.org/10.1016/j.jpsychires.2012.05.007>
- [15]. Kaiser Foundation Health Plan, 2023. Types Of Care. <https://healthy.kaiserpermanente.org/washington/health-wellness/mental-health/types-of-care>.
- [16]. Kowalski, M.A. 2020. Mental Health Recovery: The Effectiveness Of Peer Services In The Community. *Community Ment Health J*, 56, 568–580.
- [17]. Laura M. Maruschak, Jennifer Bronson, Ph.D., Mariel Alper, Ph.D. (2021). Alcohol And Drug Use And Treatment Reported By Prisoners: Survey Of Prisons Inmates. Bureau Of Justice Statistics. <https://bjs.ojp.gov/library/publications/alcohol-and-drug-use-and-treatment-reported-prisoners-survey-prison-inmates>