Measuring the Effects of Access to Mental Health Services Following Release from Custody

**Analyzing the Lack of Success of the Brief Jail Mental Health Screener within the
Albemarle-Charlottesville Regional Jail**

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On my honor as a University student, I have neither given nor received unauthorized aid
on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

The United States is the leading country in incarceration rates across the entire globe. American citizens constitute five percent of the global population yet 20% of the world's inmates, which is especially troublesome when considering the mental health crisis in the United States (Wagner & Bertram, 2020; Wagner, 2022). Individuals suffering from mental illnesses in the American prison system are disproportionately affected and incarcerated more than those without mental illnesses because of policies that do not permit police officers to force arrested individuals to check into a hospital. Therefore, according to a 2017 study by the Department of Justice, 64% of inmates in local prisons have a history of mental health problems, and 60% are actively experiencing symptoms (Bronson & Berzofsky, 2017). This statistic demonstrates the widespread issue that America's largest mental hospitals are jails and prisons (Ford, 2021). The Charlottesville and Albemarle Regions of Virginia are no exception.

Adequate mental health resources must be available to those suffering in the criminal justice system to lower the number of incarcerated Americans. The first way to alleviate this national problem is at the local level. Thus, this project, supported by the Jefferson Area Community Criminal Justice Board, analyzes the intersection between mental illness and incarceration in the Albemarle-Charlottesville Regional Jail (ACRJ). Within the Charlottesville community, over 60% of released inmates with serious mental illness experience recidivism (Donkoh-Moore et al., 2021). To understand the population of individuals with mental illnesses in the criminal justice system and the effects of mental health services on those individuals, I will use R to analyze the technical information and data provided by stakeholders within the criminal justice system to identify areas of improvement within currently available services. The main objective will be finding tangible ways to support inmates' time in jail and community transition

given the findings of our analysis, while also tailoring future technical mental health initiatives effectively.

Although technical improvements to the efficacy and support of mental health support systems must remain a priority within the Albemarle-Charlottesville Regional Jail, significant social, ethical, and specifically gender and racial factors must be considered as well. These factors shape the outcomes and biases surrounding mental health screening and resource implementation, within both this case and nationally as well. Non-technical factors include gender-based discrimination, poor training resources, external federal financial pressures, and a stigma within the prison system (Donkoh-Moore et al., 2021). A lack of understanding regarding these social factors will invariably hinder the technical implementation and the success of mental health resources, causing stagnation in the effort towards ending the mental health crisis within the prison system. In addition, the national incarceration rate has seen a 500% increase over the last 40 years. Over the last decade, one in four jail inmates has reported experiences meeting the threshold for severe psychological distress (Bronson & Berzofsky, 2017). From the intersection of these two considerations, it is necessary to pursue an effort toward a complete understanding of this crisis's technical and social influences now more than ever before.

To begin effectively improving mental health resources within the prison system in the ACRJ, the technical and social aspects of the issue must be addressed simultaneously. Through analyzing inmate incarceration and mental health data, I will address the issue by developing tangible implementations within the ACRJ system to bring awareness to mental health of inmates and improve quality of life with a main goal of lowering reincarceration rates. Furthermore, I will apply Actor-Network theory to a current failed criminal justice system that ignores the effects of mental illnesses and mental health resources on inmates to determine what

human and non-human actors impede the success of improved inmate mental health and thus lowered incarceration and recidivism rates.

Technical Project Proposal

In 2014, it was found that "up to 20 percent of inmates in jails and 15 percent of inmates in prisons suffer from a serious mental illness, bringing the total number of affected individuals to approximately ten times greater in jails or prisons than in state hospitals" (Torrey et al., 2014). This crisis is begging to be solved; and, up until June 2008, the ACRJ had done nothing to solve it. Mental health awareness had been very low within the criminal justice system, inmates' resources to counselors and drug abuse therapy were close to none and recidivism rates were sky high. However, in 2008, the National Institute of Corrections selected ACRJ to be a site for their Evidence Based Decision Making Initiative (EBDM), forming a board to reduce criminal justice costs and recidivism, and increase community trust in the justice system (CEPP, 2015). Since then, this EBDM board, alongside other criminal justice organizations, has worked to bring awareness to inmate mental health services through data collection and analysis of the Brief Jail Mental Health Screener (BJMHS). The UVA Capstone team has been a part of this network for the last decade.

At the local level, the ACRJ has taken a statistical-based approach to address both the lack of mental health resources and the high recidivism rates of inmates with serious mental illnesses such as schizophrenia, bipolar disorder, and depression. This capstone project consists of a present analysis of the resources in place to aid inmates with regards to their mental health, and identify areas for continued improvement. Data analysis is done through provided statistics from stakeholders including the Region 10 Community Services (R10),

Offender Aid and Restoration (OAR), and the Charlottesville Police Department (CPD) as part of a capstone project. Through measuring and analyzing impacts of factors such as race, gender, mental health resources, drug use, and time at ACRJ, the likelihood of recidivism can be hypothesized. The primary goal of this is to identify flaws within a mentally ill inmate's incarceration process, his/her experience at the ACRJ, and the provided opportunities in place when he/she is released from jail.

In addition, the Brief Jail Mental Health Screener's efficacy and impact on recidivism and overall data on mental health support will be analyzed. Despite continued support through the EBDM board, the BJMHS has been a controversial technology over the last decade. It is a tool used to screen-in inmates whose mental health requires further evaluation. Despite this resource, data has shown that there are extensive inherent issues with the technology, specifically due to racial and gender biases and inmate inability to proceed with treatment that are flagged for it. For example, black inmates are 10 percent less likely to screen in than white inmates (Boland et al., 2019). The consequences of this bias leave certain groups marginalized within the system, diminishing availability and encouragement to seek resources for mental health. This could be due to cost, ethical or social issues, travel limitations, and more (Mental Health Foundation, 2021). This analysis will be performed through utilizing R and Python to de-identify the data in order to comply with regulations for the analysis. I will then sort independent variables to analyze, and draw conclusions on correlations between background, gender, drug use, use of provided mental health resources, responses to the BJMHS, and more.

The technical project aims to do three things. First, it will begin a continuation of a technical analysis of the BJMHS and identify the various factors that cause the biased complications with the technology. It will also develop methods to improve the process and

ideally increase its ability to correctly identify those who require mental health services. Next, it will use data analysis, stakeholder meetings, and research to identify actionable ways to strengthen the relationships between correctional facilities and local mental health organizations and services. Lastly, on a broader level, it will ultimately lead to enough analysis to be able to create and propose recommendations to senior members of the involved stakeholders on how to improve the general network's resources to reduce the number of mentally ill inmates and provide better support for those that need help, while still keeping the criminal justice system community's financial and social considerations in mind. This project will be completed as a team of six students over the course of two semesters in SYS 4053 and SYS 4054. The work on the computational and data analysis, stakeholder interviews, and recommendation proposals will be divided equally among the team members.
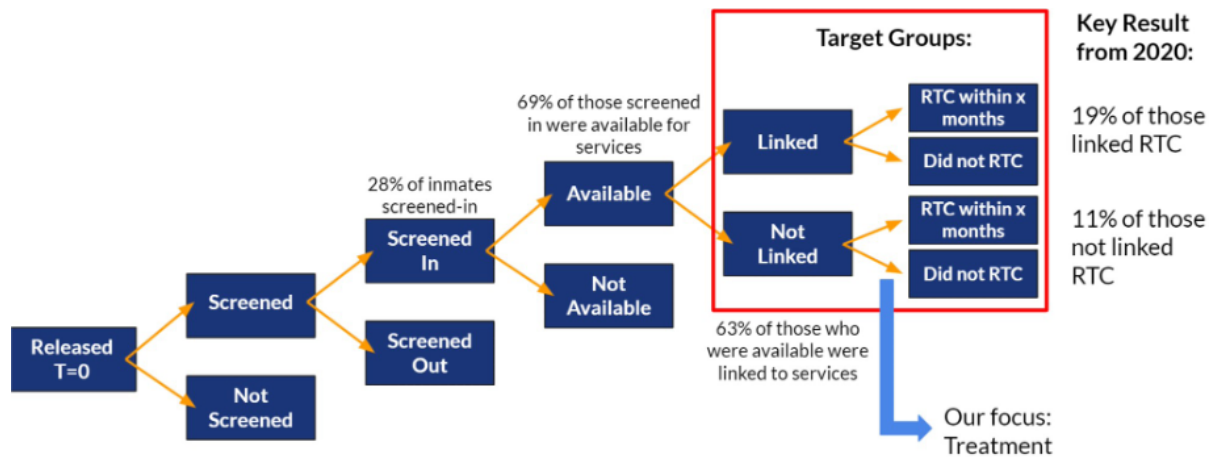
STS Project Proposal

Given the jarring mental health crisis across jails and prisons within the United States, these institutions have a substantial legal obligation to provide physical and mental care for inmates. In 2006, it was estimated that 67 percent of jail inmates had a mental health problem, translating to over 705,600 inmates in state prisons (Department of Justice, n.d.). Therefore, over the last decade, there have been several mental health screening procedures initiated. Despite this, screening procedures across American jails are highly variable (Cohen & Dvoskin, 1992). The Brief Jail Mental Health Screener is one of these tools, utilized nation-wide across state, reginal, and local jail systems. As previously stated, within the ACRJ, the BJMHS has been used for over the last decade. This screening process consists of eight yes or no questions, in which the offender is asked in person, administered by a police officer, with little to no privacy or discretion, to identify those in need of psychiatric support.

Once finalized, the tool recommends specific resources that the offender can decide if he/she wants to utilize.

Because of the social, ethical, and technical short-comings within this technology, there have been numerous problems with this usage. In short, the technology is not effective in accurately identifying inmates, especially female inmates, that are in need of mental health resources and support. In one validation project of the technology, it was found that the experimental screening "referred 11.3 percent of all detainees for follow-up assessment… 73.5 percent of the men were correctly classified, and there was a false-negative rate of 14.6 percent. Among women, 61.6 percent were correctly classified; however, there was a false-negative rate of 34.7 percent" (Steadman et al., 2005; Zottola et al., 2019). In another case study within a regional jail in Illinois, it was found that "the BJMHS had an overall false-negative rate of 63 percent" (Teplin, 1990). These alarmingly high false negatives indicate that the screening system is inaccurate and insensitive to the characteristics needed to identify a true mental illness within the inmate population, especially women.

Through these studies, the inaccuracy and insensitivity of the BJMHS is attributed to both the lack of necessary identification content and the minimal information achieved through the 8 questions in the screener. However, at a case specific level within the Albemarle County Regional Jail, this fails to account for the mounting social and ethical pressures that influence the way the screener is administered and the subsequent results. The path below (Figure 1) analyzes the current BJMHS tree upon arrest; however, in reality, this screening process is non-linear. This model does not take into account the ethical and social factors that would skew this linearity.

Target Groups:

Key Result from 2020:

69% of those screened in were available for services

28% of inmates screened-in

RTC within x months

Did not RTC

Linked

19% of those linked RTC

Available

Not Linked

RTC within x months

Did not RTC

11% of those not linked RTC

Screened In

Screened

Not Available

Released T=0

Screened Out

63% of those who were available were linked to services

Not Screened

Our focus: Treatment

Figure 1: "Effects of Access to Mental Health Services Following Release from Custody." (Donkoh-Moore, McNult, Boland, Leonard, Coolm Goodloe, Alonzi, White, 2021)

This underscores the importance of the role played by organizational actors such as the roles of the nurses, officers within the ACRJ, government officials, R10 Services, Jefferson Area Community Corrections, and Virginia District 9 Probation Office. If we continue to base root cause analyses on the technical and content shortcomings of the BJMHS, we will fail to gain an understanding of how these non-technical factors can influence screening outcomes, and thus, will not be able to ultimately accomplish an accurate, sensitive, and reliable mental health screening technology, which could be entirely unrelated to the feasibility of the technology itself.

I argue that poor systemic design of the Brief Jail Mental Health Screener utilized in the Albemarle-Charlottesville Regional Jail (ACRJ) in conjunction with external federal financial pressures, gender-based bias, labor shortages within the jail, poor training resources, internal conflict among stakeholders such as OAR and Region 10, and an overall stigma within the prison system are leading to a statistical failure within ACRJ, fueling the mental health crisis. Actor-Network theory seeks to identify and characterize a network builder who recruits both

non-human and human actors to accomplish a specific goal. The process by which these actors are assembled to form and stabilize a network is known as translation (Cresswell et al., 2010, p. 03). Applying this concept, I will describe the entire analysis process used through the BJMHS at the ACRJ and the current down-falls of the sociotechnical system that are leading to an overwhelming lack of mental health support system. In order to prove this, I will utilize evidence from the last decade of data analysis of the BJMHS, done by previous capstone groups, my own capstone group, and other stakeholders within the criminal justice system. I will also analyze the BJMHS effects on inmates and offenders, and analyze the past and current data surrounding mental health diagnoses and incarceration/recidivism rates.

Conclusion

The objective and final outcome for the technical problem discussed in this paper will be a complete analysis of the social, ethical, and technical factors that have been impacting and plaguing the criminal justice system, specifically focusing on a case study within the general Charlottesville area. The socio-ethical analysis will also focus on the Brief Jail Mental Health Screener (BJMHS). This analysis will be broken down into a conversation on the technical shortcomings, driven by the analysis and research into the provided data from the Albemarle-Charlottesville criminal justice organizations, as well as the racial, gender, ethical, and financial influences and pressures that must be considered in a technology like the BJMHS. The STS research paper will strive to determine a specific rationale on why the screening technique can have false positive rates as 63%, marginalizes those of different races and genders, and overall is currently inaccurate and unreliable to diagnose inmates with mental illness and give them the support they need (Teplin, 1990). This will be accomplished by applying Actor-Network theory to characterize how relevant human and non-human actors play

a role in shaping the development of mental health screening technology like the BJMHS. The combined results of the technical and STS projects pursued will serve to address and improve the ongoing, nation-wide mental health crisis that is plaguing our criminal justice systems, especially in the general Albemarle-Charlottesville region.

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