Context, Culture, and Power: How Systemic Discrimination Effects The Ability For Certain Incarcerated Groups To Be Eligible To Receive Mental Health Treatment

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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

You've always found it hard to get out of bed in the morning, consumed by thoughts of self loathing, but since the pandemic's struck, the self isolation and subsequent alone time with your thoughts has been agony. You're worthless. You're useless. You'd be better off dead. Instagram promises that people are benefiting from COVID, they're learning how to bake, educating themselves on the stock market, reinvesting themselves into reading. You take your drinking too far one night, you're somewhere you shouldn't be with something you shouldn't have.

You're arrested.

Once you get to jail, you start the intake process. The Corrections Officer starts off with questions you'd expect: name, address, SSN, etc. About halfway through, though, he pivots to asking you about yourself. You hear the words that keep you in bed, "worthless," "useless," he's asking how you feel. He's screening you for any indications of mental illness. Why does he care? You say yes to a couple of the questions, and think that's that. You finish the rest of the process without a problem, not giving the middle portion of the questionnaire another thought.

You're in a cell for a night, and the next morning you're approached by the jail's nurse, apparently some of the answers you'd given the last day are troubling. She asks you more questions, and then talks to you about depression and addiction. You're shocked, depressed? Addicted? What do you have to be depressed about? You didn't lose any family or income to COVID, your parents are still together and still love you (maybe less now that you have a record), she must be wrong. And addicted? Everyone's been drinking more since the pandemic started. She continues with her spiel, though, and connects you to an organization that provides

mental health, and substance use services. She sets up the connection between you and them, gives you a phone number to call and a meeting to go to in a week.

You feel like you can finally breathe. You've been seeing the therapist you linked with for a couple months now, and have started taking medication. Your drinking is down, and you feel like a new person. You realize that getting arrested was rock bottom, but you just needed a surface to kick off of, the system got you right, you were actually rehabilitated.

The progression outlined above is the one that's supposed to be followed by regional jails in Virginia after arrest: initial mental health screener, in-jail follow up by a medical professional within a day if applicable, and linkage to professional services in the community after release. I am a part of the latest iteration of an undergraduate systems engineering capstone team supported by the Jefferson Area Community Criminal Justice Board that continues more than a decade of research (ex: Boland, G et. al, 2021) into this intersection between mental illness and incarceration in the Central Virginia area. The capstone group analyzes data from two local jails (Central Virginia Regional Jail, Albemarle County Regional Jail), and an agency that provides pretrial investigation/supervision, community correction, specialty Courts and dockets, and reentry services (The Office of Offender Aid and Restitution.) These three agencies all use the same tool for initial mental health screening, so the capstone team is looking to see if groups of people are more or less likely to screen-in based on their personal demographics (race or gender) or physical location.

Bridging from that experience, I was inspired to look into answering personal questions that arose for the reasoning behind how the process and outcome an inmate is subjected to can

differ substantially based on more outside factors: where you and your family is from, what traits you have in common with the people administering the screener, demographics, etc.

I consider these factors to be instrumental in a person's ability to receive rehabilitation and escape an often repetitive incarceration process. My analysis reviews scholarly literature that studies the Brief Jail Mental Health Screener used by Central Virginia jails (both published finds and ones from my ongoing personal capstone team), the efficacy of mental health screening processes in and outside of jails, and the influential characteristics of those most likely to be able to receive and stick with services in and outside of jail.

I am deploying the framework of inductive analysis proposed by three of the seven principles Catherine D'Ignazio and Lauren F. Klein. (2020) point out in the first, 5th, and 6th chapters of their book (Data Feminism). Specifically, their thoughts on data feminism broadly, and the necesity of examining power, embracing pluralism, and considering context. This data feminism framework is imperitive because it outlines how intersectionality and direct experience are required when aiming to create an appropriate diagnostic tool.

Capturing Inmates suffering from Mental Illness with a Questionnaire

Categorizing people during routine incarceration procedures within a system that is already wrought with bias is complicated and challenging. Central Virginia jails use a tool called the Brief Jail Mental Health Screener (hereafter: BJMHS) to initiate the process of referral for diagnosis and treatment of inmates with severe mental illness, specifically in the category of bipolar disorder, schizophrenia, and major depression. The tool's success is critically important; an estimated 64 percent of jail inmates suffer from mental illness, with a third of them in the

category of severe (Aufderheide, 2014.) Missing the notation of these groups as they enter jail means missing a critical step in the rehabilitation process.

The BJMHS is conducted during intake and is meant to be brief, taking 3 minutes or less. The tool consists of 8 yes or no questions and is split into two sections: a behavioral and a therapeutic. The first 6 questions are the behavioral portion and aim to identify if someone is currently experiencing any symptoms of the mentioned mental illnesses (experiencing visual and auditory hallucinations, bouts of self loathing, drastic and noticeable behavior changes, etc.) If you answer yes to any **two** questions between questions one and six, you're "screened-in" to being part of a pool that's referred for further mental health evaluation.

Questions 7 and 8 comprise the therapeutic section. Question 7 asks if a person is **currently** taking prescribed medication for emotional or mental health issues. Question 8 asks if they've ever been hospitalized for emotional or mental health problems. If you answer yes to **either** question 7 or 8, you're automatically screened-in. This logic employed by the BJMHS means that a person's previous treatment/diagnosis carries a much larger weight than their symptoms at the time of screener.

In its creation, the screener is notably NOT able to guarantee that the inmate has a mental illness, identify every inmate with a need for mental health services, or identify the specific mental illness a detainee may have. (Policy Research Associates: Brief Jail Mental Health Screen 2021)

Proven Trends in Demographic Differences in the BJMHS's Referal abilities

Despite its intended versatility, the BJMHS has different outcomes and success rates for different demographics. The screener has proved to mis-classify women more often than men, and under refer inmates of color more often than it does their White counterparts.

Steadman et al. (2005) found that in comparisons between more than 10,000 inmates' BJMHS recommendations and subsequent clinicians' DMS5 based diagnosis the BJMHS correctly classified about 73.5% of male inmates, and 61.6% of female inmates. Furthermore, comparisons showed a higher false negative rate, i.e. detainees not screening-in by the BJMHS despite actually having a severe mental illness, for women than for men (34.7% vs.14.6%.)

A second study, Prins et al. (2012), found that Black and Latino detainees had lower odds of screening-in than White detainees did (again, screening-in meaning taking the BJMHS and having responses that lead to further mental health screening and action.) Specifically, the study found that Black detainees had less than half the odds of screening-in than White detainees, and Latino detainees had about one third the odds. Furthermore, Prins et al. (2012) also found that Black and Latino detainees were far less likely than their White counterparts to answer yes to either therapeutic question on the screener (question 7: had previously been hospitalized for mental health treatment, or question 8: currently taking mental health medication.)

My capstone group's preliminary work showed that between 2013 and 2021, at the Central Virginia jails we partnered with, a person was more than twice as likely to screen-in for therapeutic reasons than for behavioral reasons. This suggests that therapeutic questions driving an inmate's chance to continue to receive treatment creates a cyclical outcome in terms of needing/not needing treatment, and receiving/not receiving services. In other words, the screener

is seemingly more accurate in identifying those who are already receiving services than those who are not receiving services and displaying new symptoms.

Implications of Screener Bias: Context

You're arrested. Once you get to jail, you start the intake process. In this scenario, though, English isn't your first language. You hear some words you recognize, but don't think apply to you. You're given the same set of questions as everyone else, but a lot of the time, the translation or culture behind them isn't the same. You've taken the screener with the same eventual diagnosis as the first example, but this time you're not screened in. Why?

According to a 2010 study on the understandings of mental illness and responses to mental health services among different ethno-racial groups, Overall Euro-American participants were most aligned with professional disease-oriented perspectives on severe mental illness and sought the advice and counsel of mental health professionals. African-American and Latino participants emphasized non-biomedical interpretations of behavioral, emotional, and cognitive problems and were critical of mental health services. (Carpenter-Song, et al., 2010) This emotional separation of medical services from mental health services doesn't just dispel an individual from receiving therapeutic treatment for their suffering, but even from just discussing it.

2014 research on cultural concepts of distress and psychiatric disorders points out how Spanish speaking Americans commonly describe symptoms of depression as "nervios" (Kohrt, et al., 2014) In these communities, the term is generally one that's more socially accepted to talk about amongst family, but has its own scale of acceptance. Again from Kohrt,

> The spectrum of nervios follows a gradient of behavioral control. One end of the spectrum begins with socially acceptable nervousness: ser una persona nerviosa (being a nervous person). Padecer de los nervios (suffering from nerves) is more serious. Ataques de nervios (attacks of nerves) have greater severity and are characterized by social stressors triggering loss of behavioral control, dissociation, violent acts toward oneself or others, anger and somatic distress. (p. 367)

Despite the potential severity of symptoms associated with nervios, because of the word's similarity to the English word "nervous," depression is often under-diagnosed when English medical professionals treat Spanish speaking patients. This is especially harmful, because the symptoms of nervousness are similar to depression, so the discussion ends with a patient who feels like they're not being taken seriously.

These serious contextual differences surrounding a person's mental health and their access to diagnosis is not considered when creating the BJMHS. "Data feminism asserts that data are not neutral or objective. They are the products of unequal social relations, and this context is essential for conducting accurate, ethical analysis." (D'Ignazio & Klein, 2020). As illustrated above, someone could have symptoms of severe mental illness and still miss out on a diagnosis because the system designed to catch them wasn't built for them.

Implications of Screener Bias: Power

Another scenario: Once you get to jail, you start the intake process. The Corrections Officer starts off with questions you'd expect: name, address, SSN, etc. About halfway through, though, he pivots to asking you about yourself. Your symptoms have been at bay recently, so you're not severe enough to say yes to any of them. The corrections officer gets to the question

about if you're currently taking any medications for mental health. You should be. You're previously diagnosed with depression, but you're new in town so you're having a time finding a doctor to take you seriously and fill your prescription. You try explaining to the correctional officer the situation, but he points out that it's a yes or no question. No it is, then, and you're screened-out.

Race doesn't matter for the prevalence of severe mental illness, but it severely impacts one's ability to be treated, and their ability to be treated well. Even after controlling for characteristics like class, health, behaviors, comorbidities and access to health insurance and health care services, an American Bar Association Study proved that medical providers are less likely to deliver effective treatments to patients of color when compared to their White counterparts. In a study of 400 hospitals in the United States, Black patients were more likely to receive less desirable treatments than their White counterparts suffering from the same health problems. For instance, Black patients suffering from bipolar disorder are more likely to be treated with antipsychotics despite evidence that those medications have long-term negative effects and are not effective in treatment. (Bridges, 2022)

Practices like this then have an even further negative effect, because they can lead Black patients to less frequently trust or seek out mental health services. The Substance Abuse and Mental Health Services (2016) estimated from a nationally represented survey of adults over the age of 18 that 16.6% of White adults used mental health services in the year prior to the study, compared to 8.6% of Black adults and 7.3% of Hispanic adults. Additionally, they found that in the year prior to the study prescription psychiatric medication was used by 14.4% of White adults, 6.5% of Black adults, and 5.7% of Hispanic adults.

There's built in, unavoidable power imbalances when it comes to both criminal justice and mental health treatment. In both cases, one side has the power to strip the other of their rights and their health, and the other side is left to trust that they'll be treated fairly and properly. In the first chapter of their book, D'Ignazi and Klein reference a much more nuanced type of power, though. They say:

The term power describe(s) the current configuration of structural privilege and structural oppression, in which some groups experience unearned advantages—because various systems have been designed by people like them and work for people them—and other groups experience systematic disadvantages—because those same systems were not designed by them or with people like them in mind.

This type of power is shown when comparing the groups of people receiving treatment to the groups of people that are doing the treating. The BJMHS is often administered by the correctional officer in charge of the booking. The Federal Bureau of Prisons (2021) accounts that nationally, jail staffing is currently 61% White. Additionally, according to the American Psychological Association Center for Workforce Studies, in 2016, only 16% of American psychologists are racial minorities (Lin et al., 2018). Data feminism shows that when the detainee is in the minority demographic compared to the officer or clinician working with them, the power imbalances increase and confound the underlying factors that make acknowledging symptomology and medical history already so much harder.

Implications of Screener Bias: Culture

A final scenario: Once you get to jail, you start the intake process. The Corrections Officer starts off with questions you'd expect: name, address, SSN, etc. About halfway through,

though, he pivots to asking you about yourself. You hear the words that keep you in bed, “worthless,” “useless,” he’s asking how you feel. You’re hesitant to give accurate answers, or acknowledge symptoms or past services. Maybe you don’t want to be treated any differently than any other inmates. Maybe you don’t trust the badged officer giving you the questionnaire. You’ve taken the screener with the same psychological state as the first example, but this time you’re not screened in.

There is no singular Black or Hispanic culture, so assumptions made and referencing broader culture differences aren’t ubiquitous. That being said, though, research by the National Alliance on Mental Illness (NAMI) has shown that Hispanic individuals often do not seek out treatment for mental illness because the topic is seen as taboo. Many people in Spanish speaking communities might recognize and use the phrase to loved ones reaching out about “la ropa sucia se lava en casa.” Translating to “the laundry is washed at home” is similar to the English expression about not airing your own dirty laundry. It’s often used while talking about mental health concerns, because they’re seen as something you have to overcome individually. Additionally, from the Carpenter-Song, et al. (2010) study mentioned earlier,

> Although Euro-Americans were aware of the risk of social rejection because of mental illness, psychiatric stigma did not form a core focus of their narrative accounts. By contrast, stigma was a prominent theme in the narrative accounts of African Americans, for whom severe mental illness was considered to constitute private "family business." For Latino participants, the cultural category of nervios appeared to hold little stigma, whereas psychiatric clinical labels were potentially very socially damaging.

Non-White inmates suffering from mental illness deserve to be able to talk about and be treated for mental illness just as easily as their White counterparts, but cultural and medical practices norms leave them to be unable to. Chapter 5 of Data Feminism insists that the most complete knowledge comes from synthesizing multiple perspectives, with priority given to local, Indigenous, and experiential ways of knowing. (D'Ignazio & Klein, 2020) If data feminism can be introduced to the way the BJMHS is administered and created, future inmate referrals to mental health services could move away from being a tool to recapture those already receiving therapies, and focus on asking broader questions to capture those needing, and never receiving them.

References

Boland, G., Cool, C., Donkoh-Moore, N., Leonard, N. P., McNult, M., Goodloe, N., Alonzi, L.P., III, Smith, M.C., White, K. P., Jr. (2021) “Effects of Access to Mental Health Services Following Release from Custody”, Proceedings of the 2021 IEEE Systems Engineering and Information Engineering Design Symposium, Charlottesville, VA, April

Clear, T. (2009). Imprisoning communities: How mass incarceration makes disadvantaged communities worse. Oxford University Press. Pager, D. (2007). Marked: Race, crime, and finding work in an era of mass incarceration. University of Chicago Press;

Western, B. (2007). Punishment and inequality in America. Russell Sage Foundation.;

Wildman, C., Goldman, A. W., & Turney, K., (2018). Parental incarceration and child health in the United States. Epidemiologic Reviews, 40(1), 146-158.

Sawyer, W. (2019, October 09). How race impacts who is detained pretrial. Retrieved from https://www.prisonpolicy.org/blog/2019/10/09/pretrial_race/

Brief jail mental health screen. Policy Research Associates. (2021, July 28). Retrieved November 4, 2021, from https://www.prainc.com/product/brief-jail-mental-health-screen/.

Osher, F., Scott, J. E., Steadman, H. J., & Robbins, P. C. (2004). Validating a brief jail mental health screen: Final technical report. PsycEXTRA Dataset. https://doi.org/10.1037/e504162009-001

Prins, S. J., Osher, F. C., Steadman, H. J., Robbins, P. C., & Case, B. (2012). Exploring racial disparities in the brief jail Mental Health Screen. Criminal Justice and Behavior, 39(5), 635–645. https://doi.org/10.1177/0093854811435776

Substance Abuse and Mental Health Services Administration. (2016). Summary of the Effects of the 2015 National Survey on Drug Use and Health Questionnaire Redesign: Implications for Data Users. CBHSQ Methodology Report. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD.

Martin, M.S., Colman, I., Simpson, A.I. et al. Mental health screening tools in correctional institutions: a systematic review. BMC Psychiatry 13, 275 (2013). https://doi.org/10.1186/1471-244X-13-275

Bridges, K., 2022. Implicit Bias and Racial Disparities in Health Care. [online] Americanbar.org. Available at: <https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/the-state-of-healthcare-in-the-united-states/racial-disparities-in-health-care/>

D'Ignazio C, Klein, F. L. Data Feminism. July 2020. doi:10.1177/2053951720942544

Nami.org. 2022. Hispanic/Latinx | NAMI: National Alliance on Mental Illness. [online] Available at: <https://www.nami.org/Your-Journey/Identity-and-Cultural-Dimensions/Hispanic-Latinx#:~:text=Hispanic%2FLatinx%20individuals%20may%20not,publicly%20about%20challenges%20at%20home.> [Accessed 17 March 2022].

Carpenter-Song, E., Chu, E., Drake, R. E., Ritsema, M., Smith, B., & Alverson, H. (2010). Ethno-cultural variations in the experience and meaning of mental illness and treatment: implications for access and utilization. Transcultural psychiatry, 47(2), 224–251. https://doi.org/10.1177/1363461510368906

Kohrt, B., Rasmussen, A., Kaiser, N. B., Haroz, E. E., Maharjan, S. J., Mutamba, B., de Jong, G, Hinton, D. E. (2014). Cultural concepts of distress and psychiatric disorders: literature review and research recommendations for global mental health epidemiology, International Journal of Epidemiology, Volume 43, Issue 2, Pages 365–406, https://doi.org/10.1093/ije/dyt227

Lin, L., Stamm, K., & Christidis, P. (2018, May). Demographics of the U.S. Psychology Workforce: Findings from the 2007-16 American Community Survey. Retrieved April 27, 2022, from https://nces.ed.gov/FCSM/pdf/F3_Lin_2018FCSM.pdf