Linking the Dosage of Mental-Health Services Received to Outcomes for the Criminally Involved

Evaluating The Impact of Crisis Intervention Team Training on Reducing Recidivism in the US Criminal Justice System

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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 has one of the highest incarceration rates in the world, with a rate of 531 prisoners per 100,000 people (Fair and Walmsley, 2024, p. 2). This is closely linked to the prevalence of mental illness within the criminal justice system. A lack of integration of mental health services within the criminal justice system leads to the criminalization of individuals facing mental health challenges. This perpetuates recidivism, which is the pattern of prisoners reoffending once released. To address this from a technical perspective, my team will use integrated data from multiple agencies to identify characteristics of high utilizers of the criminal justice system and explore what they need to break the cycle of recidivism. Examining the common factors among them will help us understand what support this population is missing that contributes to their repeated incarceration. To explore this issue from a sociotechnical perspective, I will investigate Crisis Intervention Team (CIT) training for law enforcement officers, which is one solution that accounts for mental health within the criminal justice system. By evaluating the potential benefits of widespread CIT training and its effect on reducing arrests, I aim to contribute to the broader efforts that address the complex intersection of the criminal justice and mental health systems.

Technical Topic

According to two US Department of Justice Statisticians, 43% of offenders released from state prisons were reconvicted at least once within one year of release (Antenangeli and Durose, 2021, p. 1). This constant cycle of recidivism is perpetuated by high utilizers of the criminal justice system. In the peer-reviewed journal of Criminal Justice and Behavior, Harding and Roman define high utilizers as a "group of individuals in the United States [that] cycle in and out of jails, prisons, mental health hospitals, homeless shelters, and other expensive public

institutions over time." (Harding and Roman, 2016, p. 511). High utilizers tend to experience mental health issues and have unmet needs and inadequate services offered to them which causes their continuous cycle through the criminal justice system. Considering they are repeatedly rearrested; this system must be missing resources that support this group reintegrating into society.

After a discussion with Col. Kumer, the Superintendent of the Albemarle-Charlottesville Regional Jail (ACRJ), he informed my team that high utilizers are disproportionately using available resources of the criminal justice system compared to the general population (Kumer, 2024). He explained that while they make up less than 10% of the jail population, they use over 90% of the available resources. These resources include the time and effort law enforcement officers take to arrest and rebook the same people repeatedly. An offender getting arrested and booked once does not take as much time, space, effort, or personnel as an offender constantly being rebooked. In agreement with Col. Kumer, a study in Sonoma County, California found that "...[H]igh utilizers in Sonoma County represent approximately 1% of the county population, [yet] they account for an average of 26% of jail time, 28% of annual costs for behavioral health services, and 52% of nights in housing or shelters provided to the homeless" (Augustine and White, 2020, p. 6). My team plans to investigate the overlap between high utilizers, homelessness, and mental health issues, whether law enforcement officers are seeking out or simply coming across this group, how frequently high utilizers interact with law enforcement officers, what causes these interactions, and how often they lead to a jail stay. Last year's capstone project focused on the effects of Home Electronic Incarceration (HEI) in reducing recidivism rates in central Virginia. (Banino et al., 2024, p. 508). This year, my team will take a different direction and examine data on offenders and their arrests provided by the ACRJ. We intend to identify these high utilizers, determine how frequently they interact with law

enforcement officers, what leads to these interactions, and if they always result in a jail stay. We may also obtain data from the Offender Aid and Restoration (OAR), the Region Ten Community Services Board, and the Blue Ridge Area Coalition for the Homeless. Using this data, we will investigate what portion of the general inmate population compared to high utilizers are involved in chronic homelessness and have "screened in" on the Brief Jail Mental Health Screener (BJMHS). Understanding what resources are currently provided to high utilizers will contribute to determining what resources they still need. The aim is to better understand the situation of high utilizers to help them reintegrate back into society, which will in turn reduce the large number of resources that go into sustaining that population. Additionally, a reduction in high utilizers cycling through the criminal justice system may reduce the recidivism rates across the nation, leading to lower incarceration rates overall.

STS Topic

In 2023, SAMHSA, an agency within the US Department of Health and Human Services, reported that 22.8% of adults met the criteria for the presence of a mental, behavioral, or emotional disorder in the past year (SAMHSA, 2023, p. 10). Given that there is a persistent stigma around this topic, it may be surprising that nearly one in four adults have suffered from a mental health issue in the past year. During a discussion with Thomas von Hemert, the CIT Team Coordinator and past Criminal Justice Training Consultant, he put the intersection between the criminal justice and mental health systems into perspective. When there is a fire, you call the fire department, when someone is physically hurt you call an ambulance, and when someone breaks a law, you call law enforcement. Who do you call when someone is suffering from a mental health crisis? Law enforcement officers are called, yet they carry no expertise or training

in mental health topics (von Hemert, 2024). Despite mental health being such a common issue in the United States, there is not a separate system in place to support this population.

The clear overlap between the mental health and criminal justice systems causes those with mental health issues to be arrested rather than directed to resources that are built to support them. One attempt to address this intersection that has been implemented around Virginia is Crisis Intervention Team (CIT) training. CIT training is described as "[Being] designed to teach [law enforcement] officers about mental illness and effective strategies and techniques for engaging and de-escalating potentially volatile interactions and encounters" (Hassell, 2020, p. 159). CIT training is not mandatory for law enforcement nationwide, although it has had a positive impact on reducing arrest rates in the communities it has been implemented. These programs have only been implemented in 2,700 cities and towns (NAMI, 2024, n.p.). The United States Census Bureau, an official US government agency, reported a total of 19,490 cities and towns in the United States (US Census Bureau, 2024, n.p.). This means less than 14% of the country have implemented CIT programs regardless of their positive impact. The National Alliance on Mental Illness (NAMI), which collaborates with mental health professionals and policymakers to provide accurate and up-to-date information, determined that CIT programs reduce arrests of people with mental illness, increase their likelihood of receiving mental health services, aide police officers in doing their job safer and more effectively, reduce the time spent on mental health calls, and lead to cost savings (NAMI, 2024, n.p.).

Given that individuals with worse mental health are more likely to recidivate, as stated by Wallace and Wang in the peer-reviewed Journal of Social Science & Medicine, I would hypothesize that the implementation of CIT training programs nationwide would reduce the number of arrests of those with mental health issues (Wallace and Wang, 2020, p. 9). De-escalation training of law enforcement officers could lead to less recidivism since individuals

with mental health issues would be less likely to be taken into custody. Instead, those with mental health issues could be redirected to the help they need during an initial police interaction without violence occurring. One way I will approach understanding the effects of CIT training programs and how they support separating the mental health system from the criminal justice system will be through a discussion with Thomas von Hemert on the Executive Committee of the Virginia CIT State Coalition who has been a Criminal Justice Training Consultant. Considering his long-term involvement with the training, I will be able to gain insight from him regarding how he saw the criminal justice and mental health systems impacted by the implementation of CIT. After this, I will research the effectiveness of CIT training programs in other areas of the country by analyzing a case study from 2014 written by Horace A. Ellis titled "Effects of a Crisis Intervention Team (CIT) Training Program Upon Police Officers Before and After Crisis Intervention Team Training" (Ellis, 2014, p. 10). This case study is published in the Archives of Psychiatric Nursing, which is a peer reviewed journal, and is about an experimental study used to evaluate the effectiveness of CIT training using a sample of 28 police officers who were employed by three of Miami-Dade County's police municipalities in Florida.

The theoretical framework I intend to use is Utilitarianism vs. Deontology to understand how those with mental health issues are being treated by the criminal justice system currently, and how they would be with the nationwide implementation of CIT training. In the peer-reviewed Journal of Personality and Social Psychology, Conway and Gawronski describe the utilitarian view of actions as "[T]he morality of an action is determined by its consequences (e.g., harming others is acceptable if it increases the well-being of a greater number of people)" (Conway and Gawronski, 2013, p. 216). Individuals suffering from mental health issues should be sent to jail after breaking the law to keep them separate from the rest of the population. On the other side, they describe the deontological view of actions as "[T]he morality of an action

depends on the intrinsic nature of the action (e.g., harming others is wrong regardless of its consequences)" (Conway and Gawronski, 2013, p. 216). Individuals suffering from mental health issues should be redirected to mental health resources after interactions with law enforcement, so they no longer suffer.

Conclusion

Overall, the issue of high incarceration rates in the United States, specifically among those with mental health issues, shows the need for systematic reform. The absence of widespread crisis intervention training and understanding of the unmet needs of high utilizers of the criminal justice system adds to the cycle of recidivism. By analyzing integrated data from the Albemarle-Charlottesville Regional Jail and other criminal justice agencies, my team aims to identify the common factors between high utilizers to address the cycle of recidivism. Additionally, exploring the effectiveness of Crisis Intervention Team training will provide insight into how law enforcement can respond more effectively to mental health crises and reduce initial arrests. Ultimately, this research aspires to contribute to a more integrated and supportive system that addresses the needs of the people caught in the intersection of mental health and criminal justice systems.

References

Antenangeli, L., & Durose, M. (2021). Recidivism of Prisoners Released in 24 States in 2008: A

    10-Year Follow-Up Period (2008–2018). *Recidivism of Prisoners Released.*

    https://bjs.ojp.gov/library/publications/recidivism-prisoners-released-24-states-2008-10-

    year-follow-period-2008-2018

Augustine, E., & White, E. B. (2020). High Utilizers of Multiple Systems in Sonoma County.

    California Policy Lab. https://escholarship.org/uc/item/3k1926v3

Banino, S., Boulos, G., Craft, C., Phillips, L., Sydnor, S., Alonzi, L. P., Smith, M., Preston

    White, K., & Vitale, M. (2024). Analyzing Candidates for Home Electronic Incarceration

    on Return-to-Custody Rates for Inmates. *2024 Systems and Information Engineering*

    Design Symposium (SIEDS), 505–510.

    https://doi.org/10.1109/SIEDS61124.2024.10534739

Conway, P., & Gawronski, B. (2013). Deontological and utilitarian inclinations in moral decision

    making: A process dissociation approach. *Journal of Personality and Social Psychology*,

    104(2), 216–235. https://doi.org/10.1037/a0031021

Crisis Intervention Team (CIT) Programs. (2024). *NAMI.*

    https://www.nami.org/advocacy/crisis-intervention/crisis-intervention-team-cit-programs/

Ellis, H. A. (2014). Effects of a Crisis Intervention Team (CIT) Training Program Upon Police

    Officers Before and After Crisis Intervention Team Training. *Archives of Psychiatric*

    Nursing, *28*(1), 10–16. https://doi.org/10.1016/j.apnu.2013.10.003

Fair, H., & Walmsley, R. (2024). World Prison Population List (14th edition). *World Prison*

    Brief. https://www.prisonstudies.org/resources/world-prison-population-list-14th-edition

Harding, C. S., & Roman, C. G. (2017). Identifying Discrete Subgroups of Chronically

    Homeless Frequent Utilizers of Jail and Public Mental Health Services. *Criminal Justice*

    and Behavior, *44*(4), 511–530. https://doi.org/10.1177/0093854816680838

Hassell, K. D. (2020). The impact of Crisis Intervention Team Training for police. *International Journal of Police Science & Management*, 22(2), 159–170. https://doi.org/10.1177/1461355720909404

Kumer, Martin. (Sept. 2024). Albemarle-Charlottesville Regional Jail Superintendent. Personal Communication.

SAMHSA. (2023). *2022 National Survey on Drug Use and Health (NSDUH) Releases*. (n.d.). https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases

SAMHSA. (2024). *2023 Companion Infographic Report: Results from the 2021, 2022, and 2023 National Surveys on Drug Use and Health*. https://www.samhsa.gov/data/sites/default/files/reports/rpt47096/2023-nsduh-companion-report.pdf

US Census Bureau (2024). *City and Town Population Totals: 2020-2023*. https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-cities-and-towns.html

von Hemert, Thomas. (Sept. 2024). Crisis Intervention Specialist. Personal Communication.

Wallace, D., & Wang, X. (2020). Does in-prison physical and mental health impact recidivism? *SSM - Population Health*, *11*, 100569. https://doi.org/10.1016/j.ssmph.2020.100569