#### **Thesis Project Portfolio**

# Evaluating Administered Differences of Brief Jail Mental Health Screener and Impacts of Diagnoses & Treatment of Linked Inmates with Severe Mental Illness

(Technical Report)

## The Effects of Solitary Confinement on the Mental Health of Prisoners

(STS Research Paper)

## An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science

University of Virginia • Charlottesville, Virginia

In Fulfillment of the Requirements for the Degree

Bachelor of Science, School of Engineering

#### **Emma Wilt**

Spring, 2022

Department of Engineering Systems and Environment

# **Table of Contents**

	Socio	techi	nical	Sy	nthe	esis
--	-------	-------	-------	----	------	------

Evaluating Administered Differences of Brief Jail Mental Health Screener and Impacts of Diagnoses & Treatment of Linked Inmates with Severe Mental Illness

The Effects of Solitary Confinement on the Mental Health of Prisoners

Prospectus

#### **Sociotechnical Synthesis**

The technical portion of this project is focused on mental health within prison and jails, and more specifically the screening process used to evaluate an inmate's need for mental health services while incarcerated and upon release. The STS research completed for this project assesses the use of solitary confinement as a risk management tool and its subsequent severe effects on the physical and psychological health of inmates subjected to this practice. These research topics work in tandem to explore the deficiencies regarding mental health care within the prison system, what factors motivate this behavior and these systems remaining in place, and the potential for reform in relation to statistics such as recidivism rates.

The United States leads the world in incarceration. American citizens constitute 5 percent of the global population, but 20 percent of the world's inmates (Wagner & Bertram, 2020). Those suffering from mental illnesses are disproportionately affected. According to a 2017 study by the Department of Justice, 64 percent of inmates in local jails have a history of mental health problems, and 60 percent are actively experiencing symptoms (Bronson & Berzofsky, 2017). To lower the number of Americans behind bars, former inmates need to be provided with effective mental health treatment. This capstone project, sponsored by the Jefferson Area Community Criminal Justice board, is the continuation of a decade of research into the link between mental illness and incarceration in the Albemarle-Charlottesville Regional Jail (ARCJ). The primary goal was to evaluate the effectiveness of the Brief Jail Mental Health Screener (BJMHS) used by the region's prisons to determine whether an inmate needs mental health treatment following their release. Data was obtained from two jails, the ACRJ and the Central Virginia Regional Jail (CVRJ), and two community programs that provide services for former inmates, The Offender's Aid and Restoration Program (OAR) and Region 10 Community Services (R10). Individual and merged datasets were used to assess the effect of the personnel giving the screener (i.e. therapist

vs. police officer) and the point in the incarceration process it was given on the percentage of people who "screened-in." For those who took the screener multiple times, the consistency of their responses was measured against changes in these variables. Additionally, sensitivity analysis was performed to determine which questions on the screener most commonly drove a screened-in response. Moreover, individuals with a negative screener can be screened-in anyway at the provider's discretion. The frequency of this occurrence as well as the demographics of this population were analyzed and compared to those of individuals screening-in via the traditional route. The findings of this paper will be used to improve the screener process and ideally increase its ability to correctly identify those who require mental health services.

The use of solitary confinement has been linked to significant changes in the mental health of inmates, affecting them negatively both physically and psychologically. Despite these studied effects, solitary confinement is still commonplace in the prison system, used both as a form of punishment and harm reduction. This research investigates what socio-technical factors impact the mental health of the prisoners who are placed in solitary confinement, and in particular those with pre-existing mental illness. In order to complete this investigation, two Science, Technology, and Society (STS) frameworks were used. The elements of Risk Analysis, and more specifically the concept of a risk society, can be seen when examining the correctional system and the use of solitary confinement as the practice is based in risk and harm reduction. Actor-Network Theory (ANT) is used to examine the motivations of those involved in the use of solitary confinement and the existing networks which influence these institutions. This analysis identifies how solitary confinement affects incarcerated individuals and their mental health while in prison and after release and illuminates flaws within the system.

By completing these projects at the same time, a better understanding of the intricacies of these systems was gained. The STS based research completed on solitary confinement and its many impacts enhanced comprehension of what specifically some of the factors are which lead to the high mental illness rates seen and examined within the capstone project. In turn, by researching the way the screener is used to determine those who need mental health services, and the many deficiencies in regards to the current methods of administration of the screener, the lack of understanding of mental health within the prison system was given further context. Both elements of this project highlight the inequities faced by inmates, and the need for mental health to become a priority in the decision making of the key stakeholders. The completion of these projects together ultimately aided in understanding the way that the Brief Jail Mental Health Screener influences and impacts assessment and understanding of mental health in prisons, and how the risks of solitary confinement need to be more thoroughly considered.

# **Works Cited**

- Wagner, P. & Bertram, W. (2020, January 16). What percent of the U.S. is incarcerated?" Prison Policy Initiative. https://www.prisonpolicy.org/blog/2020/01/16/percent-incarcerated/
- Bronson, J., Berzofsky, M. (2017). Indicators of mental health problems reported by prisoners and jail inmates, 2011-2012. (Report No. NCJ 250612). Bureau of Justice Statistics.

  Bit.ly/3jdvLVk