

Effects of Access to Mental Health Services Following Release from Custody
(Technical Paper)

Accessibility and Availability of Mental Health Resources to Treat Mental Health Disorders Among University of Virginia (UVA) Engineering Students
(STS Paper)

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Nathaniel Donkoh-Moore
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Technical Project Team Members

Patrick Leonard

Grace Boland

Colin Cool

Madeline McNult

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

Introduction of STS and Technical Project

According to the research published by the American Psychological Association, more than one of every three college freshmen across the globe show symptoms of one of the common mental-health disorders (Searing, 2018). Of the common mental-health disorders anxiety, has become one of the most prevalent among college-aged students in the United States, with approximately 11.9% of students suffering from the disorder (Pedrelli et al., 2014). For many of those students, their anxiety disorders begin even before they get to college. High expectations and pressure to succeed, social media, and the increasing dread from real or perceived threats like school shootings, global climate change, and terrorism constantly fuel their anxiety. These stressors have been increasing since 1985 when the Higher Education Research Institute at University of California, Los Angeles (UCLA) first started asking incoming college freshmen if they “felt overwhelmed” by all the college requirements like classes. In 1985, the first year, 18% of the students replied yes to feeling overwhelmed. By 2000, that number climbed to 28%. By 2016, it has reached nearly 41% (Nutt, 2018). These trends are a result of various stressors like social media. They also show the ever-increasing stress college students feel from the start of their college journey.

Stressors such as high expectations and pressure to succeed have led to other mental health disorders like stress, depression, and difficulty sleeping. In Spring 2017, nearly 40% of college students said they had felt so depressed in the prior year that it was difficult for them to function (Reilly, 2018). In that same year, 61% of students said they had “felt overwhelming anxiety” in the same period, according to an American College Health Association survey of more than 63,000 students at 92 schools (Reilly, 2018). All those feeling of inability to function often results in low performance in classes, incompleteness of school, and sometimes suicide. To

better understand the issues of mental health disorder on college campuses, this document proposes an STS project with the topic, *Accessibility and Availability of Mental Health Resources to Treat Mental Health Disorders Among University of Virginia Engineering Students*. The project will use the Actor-Network Theory (ANT) to map the network around a college student's mental health, utilizing students at the University of Virginia's School of Engineering and Applied Science as a case study. The goals of the proposed STS project are to examine the primary causes of mental health disorders, resources college students receive through their schools, and the effectiveness of the delivery system used by various schools to provide the resources.

The proposed Technical Research builds on previous work over the past ten years to examine the current mental health services available to inmates released from the Albemarle-Charlottesville Regional Jail. One of the desired outcomes for the two proposed projects in this document, the STS project and the Technical Research, is to identify some of the resources provided to university students that will be beneficial to inmates in the Albemarle-Charlottesville Regional Jail. Another desired outcome for the two projects proposed is to examine the effectiveness of mental health resources available to UVA engineering students and Albemarle-Charlottesville Regional Jail and draw attention to anything that is lacking as of now.

Introduction to the Technical Project

The technical project, *Effects of Access to Mental Health Services Following Release from Custody*, focuses on the mental health of individuals released from the Albemarle-Charlottesville Regional Jail. The project is a continuation of over a decade of work done by students, faculty, and staff from the University of Virginia in partnership with the Albemarle-Charlottesville community. The goals of this project are to develop and apply measures for

assessing the effectiveness of mental health services as they apply to individuals released from custody as they relate to subsequent interactions with the criminal justice system. Additionally, the project will identify factors, including access to mental health services and the level of treatment for serious mental illness, (e.g., “dosage”) as well as other social and economic factors that contribute to or detract from successful outcomes.

This project builds on previous work to examine the current mental health services available to inmates released from the Albemarle-Charlottesville Regional Jail. This project builds on previous work to examine the current mental health services available to ex-felons released from the Albemarle-Charlottesville Regional Jail. The project is broken-down into three main questions. The first question is how effective the local jails are at linking inmates with mental illness to treatment programs. The second question is whether implemented community mental health programs have yielded desired outcomes, and the third is what the optimal “dosage” of mental health service is. The objective questions include: have implemented programs yielded desired outcomes? Are jails more successful at linking people to services now than they were? Do services have an impact on “time-to-failure”? What is the optimal “dosage” of services?

The initial step to answering the questions is to learn about the field of mental health within the criminal justice system. Part of the systems criminal justice is embedded in has to do with the process that inmates go through and circumstances surrounding their imprisonment and their time in jail. Supplemental readings and seminars about criminal justice, mental health resources, behavioral health diversions will aid the team in becoming proficient and experts in this topic. Following the learning period, the team will then research to gain a better understanding of the current mental health services available in the Albemarle-Charlottesville

area. By reading the Systems and Information Engineering Design Symposium (SIEDS) papers from the previous capstone projects and surveying related studies and reports, necessary background knowledge will be obtained to continue research on the relationship between mental health and the jail system. Next, the team will work with the clients to determine how to define the success and failure of mental health services. Once these terms are defined, the collection of data from Region 10, the Albemarle-Charlottesville Regional Jail, and other relevant resources to this project will begin. As the necessary data are acquired, the team will analyze it using various tools like Tableau, R Code, and Java to seek answers to the technical projects' questions. Finally, the findings will be documented in a SIEDS paper, presented at the conference, and briefed to the Charlottesville Community Criminal Justice Board (CCJB) and the local Evidence-Based Decision Making (EBDM) Policy Team. The technical project team's deliverable during the presentations will be a culmination of all the work, including key findings and data-driven answers to the client's primary questions that pertain to the linkage of people to services, those services success levels, and the optimal service dosage or frequency, and length.

Exploring the STS Topic

A national sampling of students in the United States has determined that 39% of college students struggle with anxiety, depression, eating disorders, self-injury, or suicidality (Bischof et al., n.d.). The struggles for most students come from the rise of information technology, the increasingly global economy, and pressures to complete higher education on campuses swept with low levels of emotional health (Iarovici, 2014). These low levels of emotional health like high-stress levels are due to the pressure to succeed or perfectionism (Iarovici, 2014), bullying (Vasu Balaguru, 2013), loneliness and relationships on campus (Iarovici, 2014), alcohol on campus, and sleep problems (Alemu, 2013).

Since most students who experience struggles like depression are often on college campuses, the issue of treating them rests upon the shoulders of the colleges they attend. To that end, the goal of this project is to examine the causes of mental health issues at the University of Virginia's Engineering School of Applied Science, the delivery system and the effectiveness of the resources that are available to the students. Students, their families, professors, university faculties, and staff are all stakeholders since they are affected one way or the other by the mental health problems that students face. Other stakeholders for this project are school psychologists, counselors, mentors, and those who promote mental health stigma across college campuses.

To connect the various stakeholders in the project, the STS Theory, Actor-Network Theory (ANT) will be used to build and explore the connections in a network with the various stakeholders as actors. The ANT was developed by Bruno Latour and his collaborators in the then-new social constructionist analyses of scientific knowledge (Robert & Dufresne, 2016). Early ANT scholars were concerned to trace how laboratory practices and the sorts of materials that circulated through the space of the laboratory served in the accreditation of scientific knowledge as 'objective' (Michael, 2017). Now, ANT has developed to help map shifting networks of relationships in the social and natural worlds. This connection between scientific knowledge as objective and the relationship between social and natural worlds have led to the ability to use ANT to explore topics like mental health. For this project, the scientific knowledge of how mental health issues affect the brain and statistical data on social impacts of mental health on college students will be part of the background knowledge acquired.

The key features of ANT in this project are the actors who communicate through intermediaries to form a network (Braga & Suarez, 2018). Actors are the source or elements that interact with one another regardless of their status as a human or non-human (Cresswell et al.,

2010). Actors interact with one another to form the network, which is the connections, associations, or relationships between the elements in the system (Rydin & Tate, 2016). For example, in this project, the students, the individual mental health causes, and resources are all actors that communicate together to form what I call the “Mental Health Network at UVA Engineering”.

One of the major critiques of ANT is the fact that it gives humans and non-living actors, including technologies same respect (Hanseth et al., 2004). The criticism arises from everything in a network being identified as an actor, whether it is a living thing or not. While this criticism may hold for some areas of study, this does not affect the project described in this paper. The reason the presented criticism does not apply to this project is that all the stakeholders naturally have different weights that they give to the causes and resources provided to treat mental health issues. For example, the pressure of meeting a deadline for an assignment has a different impact than social relationships on the mental health of a student. Meeting the deadline might cause stress, while social relationships might cause happiness. Therefore, in this case, the ability to connect everything associated with the mental health of a college student in a network is one of the best approaches for this project.

Methods for Answering the Research Question

Three questions form the basis for the STS project. The first question is what available resources to treat mental health on grounds have been most effective and why. The second question is what contributes the most to low mental health among UVA engineering students and what times during the school year do students experience the most mental health disorders. The third question is what improvements have been made to the delivery system for mental health services provided to students at the university and what led to those changes. Articles, research,

and books will be used to identify the causes of mental health disorders among college students in general. These resources will include public data released by UVA's Counseling & Psychological Services (CAPS). An interview with Elizabeth Ramirez-Weaver, the CAPS Embedded Therapist at the School of Engineering, will be conducted. The interviewee is bilingual in English and Spanish and is a Licensed Clinical Social Worker (LCSW). She specializes in helping students find effective ways to cope with personal, academic, and developmental concerns, among other problems students may encounter. Questions during the interview with the interviewee will gain insight into UVA CAP's outreach, seasons with the most demand for CAPs professionals like herself, UVA's mental health resources, and the identification of actors that lead to increased mental health disorders among college students. A graphic will be made to illustrate the relationship between the actors and the network they create, using the acquired information. Generating the connection between actors will lead to the examination of how these actors work to accomplish the task of promoting positive mental health on college campuses. If resources identified are not being provided to current students at UVA, there will be recommendations made to introduce those resources to the students.

The Expectation for the Projects

Overall, there are two projects described in this proposal. The first is the technical project, which builds on previous work to examine the current mental health services available to those released from the Charlottesville area regional jail. This project will help the criminal justice system agencies and community mental health service providers understand how best to serve individuals suffering from severe mental illnesses. The technical project team's deliverable will be a culmination of all the work, including key findings and data-driven answers to the

client's primary questions that pertain to the linkage of people to services, those services success levels, and the optimal service dosage or frequency, and length.

The second is the STS project proposal that is to combat the causes of high mental health illnesses across college campuses by examining the mental health resources provided. Due to the wide variations between colleges, the School of Engineering and Applied Science at the University of Virginia will be used as a case study to identify the primary resources that schools should seek to provide to their students.

The desired outcomes for the two projects proposed are to identify the resources provided to university students that will be beneficial to those in the Charlottesville jail, and the examination of the effectiveness of mental health resources at the UVA and Charlottesville Jail, to draw attention to anything that is lacking as of now.

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