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QAC Capstone Proposal

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Identifying the Association Between Demographic Factors, Pre-Assessed Risk Levels, Traumatic Experiences, and Outcomes for Individuals at The Connection

**Introduction**

The Connection is a Connecticut-based non-profit organization that provides support services to individuals experiencing homelessness, struggling with mental illness and/or substance use. One of their important services is providing support in social justice rehabilitation for prisoners and those under probation to assist them in reentering their communities. Utilizing trauma-informed and person-centric care methods, The Connection works to balance ensuring the safety of a larger community and meeting the needs of the individuals they support. As part of their work, they hope to understand the factors that lead to individuals successfully exiting these programs and re-entering their communities. For my capstone project, I will be working with data provided by The Connection to assist them in identifying relationships between risk levels of recidivism—as assessed by the Ohio Risk Assessment Tool—demographic variables, the presence of past traumatic experiences, and the actual outcomes achieved by individuals in these programs.

**Literature Review**

Risk assessment tools are often used to identify the most the at-risk offenders, allowing correctional facilities to provide more support and higher levels of intervention to these offenders (Frisch-Scott & Nakamura, 2022). Risk assessments built with this goal in mind are based on the risk-need-responsivity (RNR) model developed by Andrews, Bonta, and Hodge in 1990. These assessments aim to understand three main things: 1) risk levels, to accurate match offenders with more intensive treatments, 2) any needs that are related to criminal behavior and need to be met, and 3) the offender’s learning style and abilities, to accurately align treatment with a style that the offender can learn from (Andrews et al., 1990, 2011). A large body of historical research supports the success of RNR models in identifying offenders most at-risk of recidivism, especially male offenders, despite some gaps present in this framework and potential issues with some of the studies (Andrews et al., 2011; Fazel et al., 2024; Frisch-Scott & Nakamura, 2022; Vitopoulos et al., 2012). However, minimal research has been conducted on how risk assessment tools are connected to successful outcomes after prison or for those under probation, a topic this capstone will cover.

Studies have been conducted on the difficulties faced by individuals who attempt to re-enter their communities after serving prison sentences, identifying unemployment, low education, and substance abuse as risk factors for recidivism (Gill & Wilson, 2017). Reintegration into the community has been studied specifically for male offenders, identifying multiple factors that influence successful outcomes, including the utilization of RNR models (Mathlin et al., 2024). RNR models are useful especially as they work to meet the needs of each offender, and many individuals who have their needs unmet are likely to recidivate, especially among prisoners that are considered high-risk (Gill & Wilson, 2017; Polaschek et al., 2018). However, most literature on this topic focuses on either identifying successful or unsuccessful outcomes, often with narrow definitions of both types of outcomes. This capstone will close that gap by providing more information on factors that influence the various outcomes achieved by offenders, both after prison and after probation.

Outcomes for probationers have different predictive factors, and studies are more often focused on demographic variables. Literature suggests that probation outcomes are influenced by race and gender. White women are the most statistically likely to complete probation, and Black men are most statistically likely to fail probation (Boppre et al., 2024; Phelps, 2016; Steinmetz & Henderson, 2016). Those on probation with mental health issues are also more likely to fail probation, and this relationship is moderated by gender (Brooker et al., 2022; Prost et al., 2019). Age is often used as a covariate in predicting successful outcomes, especially with young adults, but evidence is mixed on whether it is a statistically significant predictor (Barnes-Lee et al., 2023; Clark et al., 2024). To complement this research, my capstone project will utilize a variety of demographic covariates, including race, gender, age, ethnicity, and mental health problems.

Demographic variables are also of interest when identifying outcomes for prisoners. A large body of literature that supports a relationship between mental health problems and/or a history of traumatic experience and the probability of recidivism, identifying another predictor of unsuccessful outcomes (Houser et al., 2019; Ryan et al., 2013; Sadeh & McNiel, 2015). The impact of gender on post-prison outcomes, with specific focus on women, has been researched extensively, especially as many of the risk measurement tools and treatment plans used on offenders have been developed exclusively for men (Scanlan et al., 2020). Women experience higher rates of sexual assault, which has been linked with criminal behavior, receive different sentencing lengths (even after controlling for race and ethnicity), and tend to recidivate less than men, implying the presence of gender as a moderating factor throughout the prison process (Lehmann & Gomez, 2021; Messina et al., 2006; Richner et al., 2023; Saxena et al., 2014). An additional moderating factor is race and ethnicity, with Black and Hispanic offenders consistently receiving harsher sentencing than white offenders (Camplian et al., 2020; Lehmann & Gomez, 2021). Beyond sentencing, race and ethnicity have an impact on unsuccessful outcomes such as unemployment after leaving prison, with white offenders having the most success in the job market and Black and Hispanic offenders the least (Harding et al., 2018; Kolbeck et al., 2022). This capstone will build off of this literature by including all of these demographic variables and working to understand the moderating relationships they have when examining outcomes after completing prison sentences.

**Research Questions**

To guide this research, there is one main research question, which involves two sub research questions:

1. What factors influence successful, neutral, and unsuccessful outcomes for people in rehabilitation programs at the Connection?
   1. What is the relationship between risk of recidivism, as measured through the Ohio Risk Assessment Survey, and successful, neutral, and unsuccessful outcomes?
   2. How do experiences with traumatic events, suicide and homicide risk, and demographic variables relate to successful or unsuccessful outcomes?

**Data**

All datasets for this project are taken from The Connection’s internal data on individuals who participate in their rehabilitation programs. These individuals have either previously spent time in prison (N=2309) or under supervision while in their communities (N=222). Altogether, there are 2531 individuals who have taken part in the pre-assessment surveys provided by The Connection. However, some of these participants took the surveys multiple times, or even took part or more than one survey, as they may have had repeat visits to these rehabilitation programs. Individuals in the data were part of these rehabilitation programs between 2018 and 2024. For the purposes of my capstone project, I have decided to utilize seven different datasets from The Connection.

1. *SRT, RT, and CST Assessment Scores*

Three datasets in this project look at recidivism risks based on the Ohio Risk Assessment Tool (ORAT), each with a modified set of questions designed to fit a certain population of offenders. The three that will be used in this capstone project are the Reentry Tool (RT), used for clients that have been in prison for four or more years, the Supplemental Reentry Tool (SRT), used for clients that have been in prison for less than four years, and the Community Supervision Tool (CST), designed to measure risk of recidivism in individuals that are not in halfway houses, have been in the community for more than a year, and require supervision. The CST was used on 222 participants, the RT on 607, and the SRT on 1702.

These tools were developed using the RNR model for risk assessment, and all three of the risk assessments cover various categories of questions that are each scored and utilized to create an overall risk score. The CST includes questions on criminal history; education, employment, and financial situation; family and social support; neighborhood problems; substance use; peer association; and criminal attitudes and behavioral problems. The RT and SRT each cover criminal history; education, employment, and social support; and criminal attitudes and behavioral problems, but the SRT also asks about substance abuse and mental health problems. Across all three of the assessment tools, 557 (~19%) individuals are considered high risk, 1333 (~49%) moderate risk, and 1019 (~35%) low risk, though these numbers may count certain individuals multiple times as their risk levels can change over time.

1. *Episode Trauma Data*

1024 individuals were provided with additional questions relating to any past trauma they have experienced. However, most of this data is incomplete as the values default to no trauma, so missing data cannot be imputed. This dataset is difficult to examine because of the lack of valid data—only 147 participants reported physical abuse, 234 reported a history of domestic violence, 109 a history of sexual violence, 289 a history of PTSD, 170 other trauma, and 169 chronic pain problems. Including this data can create a more complete picture of the factors that influence outcomes, but it will be part of a separate subset to account for its small sample size. Results will be interpreted with that context in mind.

1. *Client Data*

This dataset includes demographic information on the individuals in programs at The Connection. These variables include birth year, biological sex, gender identity, sexuality, race, marital status, religion, primary language, veteran status, and ethnicity. This dataset includes information on 3280 study participants.

1. *Risk Data*

This dataset includes self-reported information on scores for questions identifying suicide and homicide risk among individuals at The Connection. 1912 participants answered these questions. Scores correspond to high, moderate, and no risk for both suicidality and homicidal tendencies.

1. *Incident Data*

This dataset includes information on incidents that individuals were a part of while they were in one of The Connection’s rehabilitation programs, including involvement with drugs, aggravated assault, sexual assault, and other criminal incidents. Only 311 individuals could be linked to incidents, and those cases are reported in this dataset.

**Methodology**

Current ideas for this section:

* Running survival analysis on these variables to see how long people are remaining in the program and how long it takes for them to achieve a successful outcome
* Multinominal regressions to understand how successful, unsuccessful, and neutral outcomes relate to demographic, risk, and mental health factors
* Cluster analysis? Might be helpful to create groups because there are so many factors and see how all of them relate to each other

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