

**To what extent does the duration of incarceration affect depressive symptoms among  
incarcerated individuals?**

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## **To what extent does the duration of incarceration affect depressive symptoms among incarcerated individuals?**

### **Literature Review**

The United States has one of the highest incarceration rates. As of 2019, nearly 1.5 million individuals were incarcerated in the United States prison system (Vera Institute of Justice, 2020). This statistic represents a slight decline of just over two percent compared to 2018 (Vera Institute of Justice, 2020). Even with a recent decline in the number of individuals held in prisons and jails, the United States continues to incarcerate a significantly higher proportion of its population than other nations (Pettit & Gutierrez, 2018). People residing in the United States are more than ten times as likely to be imprisoned as those living in other countries, such as Denmark, Sweden, or the Netherlands, and about four times as likely as residents of the United Kingdom (Pettit & Gutierrez, 2018). In terms of racial demographics, black individuals accounted for nearly 33% of the total prison population, followed by whites, who represent nearly 30% and Hispanics make up approximately 23% (Vera Institute of Justice, 2020). Estimates suggest that nearly 20 million people in the United States have a felony conviction, and around 70 million Americans, slightly more than one-third of adults, have a criminal record (Pettit & Gutierrez, 2018).

### **Prevalence of Depression and Mental Health Disorders Among Incarcerated Individuals**

Depression is among the most prevalent mental health issues among incarcerated individuals (Reingle Gonzalez & Connell, 2014). The correctional environment often involves isolation, loss of autonomy, restricted social contact, and exposure to violence and strict correctional control (Mazher & Arai, 2025). Co-morbidities are widespread among incarcerated people, with roughly 20% experiencing both mental health and substance use disorders (Solbakken et al., 2024). This population faces elevated risks of all-cause mortality, self-harm,

violence, and victimization; suicide rates among incarcerated men are approximately 3-6 times higher than those of men in the general population (Solbakken et al.,2024). Adverse life events and socioeconomic disadvantage, and environmental stressors contribute to the accumulation of mental health problems seen across prison populations (Solbakken et al.,2024). The development of mental health disorders often reflects an interaction between genetic vulnerability and environmental stressors; many individuals entering prison also experience low educational attainment, limited income, and unstable housing, and these preexisting disadvantages, combined with prison specific stressor such as as loss of autonomy, social isolation, bullying and violence further exacerbate mental health difficulties (Solbakken et al.,2024). Depression affects approximately 19.2% of the state prisoners and 10.9% of those in federal facilities (Reingle Gonzalez & Connell, 2014). Approximately 26% of inmates reported a lifetime diagnosis of a mental health disorder, yet only nearly 20% were taking medication for their mental health at the time of their admission. Notably, more than half of those who were on medication upon entry did not receive pharmacotherapy while incarcerated (Reingle Gonzalez & Connell, 2014). Incarcerated individuals diagnosed with schizophrenia are more than twice as likely as those with depression to maintain continuity of medication while incarcerated (Lanciano et al., 2022). Prisons can worsen a person's physical and mental health, reduce their lifespan and cognitive abilities, and expose them to drugs or increase their access to them (Mazher & Arai, 2025).

### **Environmental Stressors and Increased Vulnerability**

Individuals entering prison with histories of trauma, social marginalization, and poverty are already at an elevated risk for developing mental health challenges. Once incarcerated, however, these vulnerabilities are often intensified and, in some cases, newly formed by the prison

environment itself (Mazher & Arai, 2025). Various aspects of prison life, such as overcrowding, exposure to violence or threats, separation from family, uncertainty about work and relationships, inadequate healthcare, and limited privacy, compound psychological stress and worsen mental health concerns (Mazher & Arai, 2025). The conditions of confinement can directly contribute to the onset of mental illness; additionally, routine practices intended to reduce environmental stress, such as placing individuals with serious mental health issues in solitary confinement, may have the opposite effect; prolonged isolation is strongly associated with significant psychological harm (Mazher & Arai, 2025). Self-harm and mental health issues within the correctional populations have been widely studied, which has highlighted the relationship between environmental stressors, psychiatric disorders, and institutional practices (Kaba et al., 2014). Inmates in detention facilities often arrive with preexisting mental health issues, including serious mental health illnesses (SMI), which places them at increased risk of self-injurious behaviors (Kaba et al., 2014). Research indicates a strong correlation between self-harm and the placement of inmates in solitary confinement (Kaba et al., 2014). Inmates held in solitary confinement were nearly 6.9 times more likely to engage in self-harming behaviors even after taking into account factors such as length of incarceration, SMI, age, race, and ethnicity (Kaba et al., 2014).

### **Comorbidity and Limited Mental Health Resources**

High comorbidity exacerbated the mental health challenges faced by incarcerated individuals; nearly half of those diagnosed with psychotic disorders or depression also present with co-occurring substance use disorders (Favril et al., 2024). This not only complicates diagnosis and treatment plans but also influences poorer overall outcomes and increased risk of self-harm. Correctional facilities often lack resources, staffing infrastructure necessary to provide

comprehensive and continuous care for both chronic physical and mental health conditions (Schnyder et al., 2025). Numerous reports highlight significant gaps in the provision of mental healthcare within prisons, where mental health conditions among incarcerated individuals often go unrecognized and insufficiently treated (Solbakken et al., 2024).

### **Adjustment Over Time and Its Relevance to Incarceration Duration**

Mental health symptoms often worsen at the onset of incarceration due to the abrupt loss of freedom, exposure to violence, and separation from family and community support (Al-Rousan et al., 2017). However, over time, these symptoms may stabilize as individuals adjust to the correctional environment. Pre-trial detainees are susceptible to heightened anxiety, depression, and feelings of hopelessness that often roots from the uncertainty about their legal status, often experiencing greater stress than those inmates who have been sentenced (Schnyder et al., 2025). Incarcerations effects can also differ based on factors such as how long an individual is imprisoned and when they enter or leave custody (Mazher & Arai, 2025). Research shows that both the early weeks of imprisonment and the period following release are times of heightened suicide risk (Mazher & Arai, 2025). Moreover, longer prison terms tend to increase individuals' need for healthcare services (Mazher & Arai, 2025). The high prevalence of violence within correctional facilities is another significant factor that negatively influences inmates' mental well-being (Mazher & Arai, 2025).

### **Mental Health Trends in the Incarcerated Population**

In 2017, nearly half of the incarcerated population was diagnosed with a mental health disorder (Al-Rousan et al., 2017). Nearly 30% of these individuals were diagnosed with severe mental health issues such as schizophrenia (Al-Rousan et al., 2017). Women present with higher rates of mental illness than men, with about 60% reporting a diagnosed condition (Al-Rousan et

al., 2017). Depression was reported in nearly 28% of inmates, while half of those diagnosed with mental health conditions also had comorbidity of substance use disorder (Al-Rousan et al., 2017). These statistics highlight a growing concern about the mental health crisis within the incarcerated population.

### **Purpose of the Study: Research Questions and Hypotheses**

The literature has shown the studies when working with incarcerated individuals and the importance of incorporating depression screenings for this demographic when working with incarcerated individuals. However, this research still needs to be further explored to examine the impact of duration on incarcerated individuals' depression rates. To investigate this question, this proposal seeks to answer the question: To what extent does the duration of incarceration affect depressive symptoms among incarcerated individuals? This proposal, therefore, hypothesizes the following null hypothesis (H0): There is no significant difference in the depression symptoms of incarcerated individuals over a long duration of imprisonment; alternative hypothesis (H1): There is a significant difference in the depression symptoms of incarcerated individuals over a long duration of imprisonment.

### **Methods**

#### **Data**

This study will employ a quantitative design to investigate the extent to which the incarceration duration affects the depressive symptoms of individuals in prison. This data will be collected using depressive symptom assessments, such as the Beck Depression Inventory (BDI-II) and the Center for Epidemiologic Studies Depression Scale (CES-D). These scales are commonly used assessments for depression screenings and will be used before the incarceration period, and thereafter to measure the differences in depressive symptoms.

## **Participants**

Participants for this study will be 100 incarcerated individuals in a correctional facility setting. Participants will be recruited from Fishkill Correctional Facility in Beacon, New York State, via in-person outreach by facility staff. The inclusion criteria for this study will include participants who are 18 years or older and currently serving a sentence of at least 8 weeks to ensure variability in the primary independent variable.

## **Instruments**

### ***The Beck Depression Inventory II (BDI-II)***

The Beck Depression Inventory-II (BDI-II) was developed by Beck et al. (1996) using a 21-item self-report to measure the severity of depressive symptoms over the past week. Each item on the scale is rated on a 4-point scale (0 to 3), reflecting the intensity of the depressive symptoms. The outcomes ranged from 0 to 63, indicating symptom severity. According to a review by Garcia et al. (2018), the BDI-II is a commonly used inventory for depression. It has been tested for reliability and validity for use with adolescent and adult populations.

### ***The Center for Epidemiological Studies Depression Scale (CES-D)***

The Center for Epidemiological Studies Depression Scale (CES-D) is a 20-item self-report scale that measures the frequency of depressive symptoms in the past week. This assessment uses a 4-point scale to rate symptom frequency, with 0 indicating rarely or none, and 3 indicating most of the time or all the time. This scale helps clarify the frequency relative to the intensity on the BDI-II.

Both assessments will be conducted at the beginning of the study and at the end of a three-month period to determine the duration incarceration variable in this study.

## **Procedure**

The research proposal will be submitted to the New York Institute of Technology Institutional Review Board (IRB) for approval. Once approved, recruitment will begin in the facility for 100 participants over 3 months. Participants will provide informed consent, outlining the risks of participation, ethical considerations, and compensation, as necessary.

### **Data Analysis**

A Multiple Linear Regression Analysis will be conducted to interpret each depression measure. This will allow for the assessment of the predictive value of the independent variables for depressive symptoms. The primary independent variable (duration of incarceration) will be measured in months. Depressive symptoms will be measured using the assessment, and the statistical significance criterion will be  $p < 0.005$ . The linearity, homoscedasticity, and normality of the residuals will be assessed prior to analysis to ensure the assumptions of the multiple regression analysis are met.

### **Possible Results**

The possible results of this study may indicate that there are higher depression rates in incarcerated individuals over a longer duration of imprisonment, as outlined by previous research (Al-Rousan et al., 2017). The outcomes of this study might indicate higher depressive symptoms and frequency outlined by the depression scales, with the probability,  $p < 0.005$ , being higher than anticipated. With this result, we may reject the null hypothesis that there is no significant difference in the depression symptoms of incarcerated individuals over a long duration of imprisonment.

### **Discussion**

The purpose of this study was to measure the extent to which the duration of incarceration affects depressive symptoms among incarcerated individuals. The anticipated

results may allow researchers to reject the null hypothesis and indeed see a difference in the depressive symptoms over 3 months in incarcerated individuals. Previous research has indicated that depressive symptoms among incarcerated individuals worsen during incarceration (Mazher & Arai, 2025). Incarceration's effects can also differ based on factors such as how long an individual is imprisoned and when they enter or leave custody (Mazher & Arai, 2025). However, the research is limited to the incarcerated individuals' depressive symptoms during imprisonment.

### **Limitations**

The limitations of this proposal include the small population size measured and the scope of participants. While the duration of incarceration may be related to depressive symptoms, other factors may contribute to the depressive symptoms of individuals that are not accounted for, such as personal and familial stressors. Also, the self-report measures may yield biases in completion that can affect the outcomes of this proposal. It would be interesting to examine incarceration rates over a longer period to improve generalizability and to include more facilities in the analysis.

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