Spring 5-12-2017

Strain, Depression, and Reentry: Effects of Incarceration on Depression and Reentry

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Effects of Incarceration on Depression and Reentry

INTRODUCTION

Despite the fact that violent crime rates in America are at an all-time low, the United States now holds the highest incarceration rate in the world: 458 incarcerated individuals per 100,000 people (Carson and Anderson 2016). According to the U.S. Bureau of Justice Statistics (Carson and Anderson 2016), the U.S. had an estimated 1,526,800 individuals under the jurisdiction of state and federal correctional authorities at yearend 2015. These numbers indicate that it has become commonplace to serve time under the supervision of the American Criminal Justice System (Schnittker, Massoglia and Uggen 2012). The rapid growth in prison populations has led to largescale release (Malik-Kane and Visher 2008; Petersilia 2001; Seiter and Kadela 2003; Visher and Travis 2011). In 2015, approximately 641,100 individuals were released from prison back into society (Carson and Anderson 2016). Upon release, individuals face the challenges that come along with finding a place in society that will not lead to re-incarceration. This timeframe following release is termed "reentry" (Visher and Travis 2003). Countless factors make reentry extremely challenging and, overwhelmingly, those released from prison will face re-arrest (Malik-Kane and Visher 2008). This is why it has become increasingly important to study and understand obstacles and effective approaches to successful reentry.

Existing research has outlined factors that contribute to the successful reentry process, which include family support (Bahr, Harris, Fisher and Armstrong 2010; Berg and Huebner 2011; Eckland-Olson, Supancic, Campbell, and Lenihan 1983), peer support (Visher and Travis 2011; 2011), stable employment opportunities (Seiter and Kadela 2003), and access to treatment programs (Begun, Early and Hodge 2016). Although, even with aid, there are still unavoidable

obstacles for those labeled "criminal". Among these challenges are stigmatization in the

workplace and everyday life, strict parole agreements (Seiter and Kadela 2003), and social and

financial hardships (Bahr et al. 2010; Berg and Huebner 2011; Petersilia 2001; Seiter and Kadela

2003). According to research by Petersilia, (2001) most individuals leave prison with no money

saved, no employment opportunities, no support system, and no immediate entitlement to

unemployment benefits. Research also indicates that persons exiting prisons are regularly lacking

sufficient education along with literacy and vocational skills (Baillergeon, Penn, Knight, Harzke,

Baillargeon and Becker 2010; Petersilia 2001). For those who struggle with some form of mental

or co-occurring disorder, meaning that they struggle simultaneously with mental disorders and

substance abuse (Baillergeon et al. 2010), these challenges are exacerbated.

A disproportionate number of those under correctional supervision in America struggle with

some form of mental illness (Baillargeon, Binswanger, Penn, Williams and Murray 2009;

Baillargeon et al. 2010; Fazel and Danesh 2002; James and Glaze 2006; Lamb, Weinberger, and

Gross 2004; Schnittker et al. 2012; Swartz and Lurigio, 2007). Therefore, a disproportionate

number of individuals experiencing reentry also suffer from mental disorders. Those with mental

disorders have been found to be more likely to be arrested and imprisoned (Baillargeon et al.

2010), serve longer prison sentences than those without mental illness (Baillargeon et al. 2009;

James and Glaze 2006), and experience higher rates of victimization while incarcerated (Carson

and Anderson 2016). To further complicate the issue, those with mental illnesses frequently

struggle with a co-occurring disorder, commonly substance addiction (Baillargeon et al. 2010;

Carson and Anderson 2016; James and Glaze 2006; Schnittker et al. 2012; Swartz and Lurigio

2007). Research indicates that many persons with co-occurring disorders are not receiving the

necessary treatment during incarceration or reentry that will allow them successful reintegration into their communities (James and Glaze, 2006).

This body of research uses general strain theory (GST; Agnew 1992) to assert that incarceration is worsening feelings of depression, which is leading to negative coping strategies upon release. General strain theory asserts that negative and stressful experiences create or exacerbate already-present negative states like anger and depression (Agnew 1992;2006). Then, GST suggests that these negative affective states produce negative coping strategies such as substance use and criminal behavior. Because those going to prison often struggle with some form of mental health issue, it is important to consider that the stressful experiences of incarceration and reentry are exacerbating their disorders. As supported by GST, those experiencing reentry may turn to anti-social coping mechanisms such as substance use and criminality. If supported, this research will reveal that the criminal justice system and society are unwittingly creating higher recidivism and arrest among those with mental illness. This makes it nearly impossible for those with mental disorders to escape the "revolving door" of prison (Baillargeon et al. 2009; Fuller 1993).

While extensive literature has examined the relationship between mental health and incarceration, little has been done to determine whether mental illness is worsened by conditions of imprisonment. Furthermore, few studies have questioned how incarceration is affecting coping mechanisms of individuals with mental illness during the reentry process. This research seeks to fill the literature gap, asking how prison sentences affect mental health, and how changes in mental health during incarceration affect coping mechanisms such as substance abuse during reentry. This research has clear policy implications given the role of mental health issues in successful reentry, and furthermore, if prison is intensifying mental disorders and negatively

affecting coping mechanisms upon release.

LITERATURE REVIEW

Strain During Reentry

With the world's highest incarceration rate, the United States faces releasing hundreds of thousands of people from prison each year (Bahr et al. 2010; Scnittker et al. 2012). According to a study conducted by Bahr et al. (2010), 95% of those incarcerated will be released back into their community. This translates to approximately 700,000 people going through this process each year. Unfortunately, many are unsuccessful and return to prison on new charges or probationary violations (Malik-Kane and Visher 2008). Because the reentry process is riddled with a multitude of complex challenges, and such a large percentage of the population experiences reentry each year, determining how to effectively reintegrate individuals back into their communities is increasingly important.

Employment Obstacles

Obtaining stable employment is an important factor contributing to a successful reintegration process (Petersilia 2001). Unfortunately, with increased stigmatization it has become a challenging task for those with a criminal record to find an employer willing to hire them (Petersilia 2001). Laws regarding professional licensure to ex-convicts vary from state to state, but often bar those with criminal history from health care and public sector positions (Petersilia 2001). Stigmatization becomes a massive hindrance to employment in fields where laws do not restrict hiring ex-convicts. This poses a daunting obstacle to those looking for work post-release. Intensifying this challenge, the decrease of industrial work in America has led to urban parolees struggling to find work (Petersilia 2001). This stigmatization, which occurs in

both the search for employment and many other aspects of life, can lead to feelings of frustration and hopelessness.

Because of such intense challenges involved with finding employment, financial stability is a common struggle among those seeking successful reentry. Those recently released often do not have enough money to afford living expenses, or even food. For instance, Visher and Travis (2011) state that in Illinois, individuals are given only $50, clothing, and a bus ticket. For those with no support and no source of income, the additional challenge of homelessness presents itself (Baillargeon et al. 2010). From the perspective of strain theory, this adverse circumstance is likely a stark contrast to expectations of life after release, which can lead to coping through substance use.

Lack of Family Support

Another barrier to successful reentry is lack of family support (Bahr et al. 2010; Berg and Huebner 2011; Eckland-Olson et al. 1983). Multiple research studies have shown that family support is extremely important in accomplishing successful reintegration (Bahr et al. 2010; Berg and Huebner 2011). Those who receive support from family and friends have more self-efficacy and therefore are less likely to use drugs or interact with drug users (Bahr et al. 2010; Colvin, Cullen, and Vander Ven 2002). Additionally, individuals released from incarceration often initially reside with family and rely on them for financial support (Seiter and Kadela 2003; Western, Braga, Davis, and Sirois 2015). Without this support, those released from prison may have no living arrangement, no financial assistance, and feelings of isolation (Seiter et al. 2003). Again, these feelings are often met with substance use and crime as coping mechanisms (Agnew 1992;2006).

Peer Association/Support

Much like family connections, positive support from friends and peers is linked to successful reentry. However, delinquent peers can have a negative effect (Visher and Travis 2011). According to Bahr et al. (2010), if those experiencing reentry associate with peers not involved in criminal activity, they will likely receive support for desisting from criminal behaviors. Conversely, those who socialize themselves with individuals engaging in illegal behaviors such as crime and substance use, they will likely be influenced to partake (Visher and Travis 2011). Avoiding delinquent peers, however, is challenging. This is because the default policy for release is to return the individual to the county in which they resided prior to conviction (Bahr et al. 2010). Delinquent networks established prior to incarceration are sometimes the only support available, which forces individuals to choose between delinquent peers for support or no support at all.

Policy Changes

Over the last three decades, sentencing laws and policy shifts have changed the face of reentry. First, the correctional system has moved from a former "medical model" to a "tough on crime" model (Seiter and Kadela 2003). This means that rather than treating those under supervision as "sick" and requiring treatment, they are viewed as autonomous individuals who made conscious choices to commit crime (Seiter and Kadela 2003).

Additionally, law changes have resulted in sentencing policies hindering successful reentry. Truth-in-Sentencing laws, which have become widely popular, limit the amount of good time an individual can earn (Seiter and Kadela 2003). The term "good time" is used to refer to the amount of time taken off a sentence as a reward for an individual's good behavior. These laws have caused a majority of cases to result in determinate sentences (Seiter and Kadela 2003). A determinate sentence is one in which the individual must be released upon serving the allotted

sentence, regardless of readiness. In translation, those serving determinate sentences are released with no correctional supervision. This immediate total freedom and lack of support increases the difficulty of reentry as well as reduces likelihood of success (Seiter and Kadela 2003). Another effect of the shift to determinate sentencing is there is now a marginally reduced number of parole board hearings. The purpose of the parole board is to ensure that an individual has gone through sufficient rehabilitation and has taken steps to prepare for successful reentry (Seiter and Kadela 2003). To make an informed decision on whether to release, the parole board holds a hearing where they review information such as program and treatment completion, along with established employment and housing opportunities available upon release. Now, individuals regularly receive parole without a parole board hearing, resulting in release with no preparation for reintegration (Seiter and Kadela 2003).

Furthermore, the role of parole officers has shifted from a position of rehabilitation and helping, to a role of surveillance and punishment (Seiter and Kadela 2003). During this shift, parole agreements have adopted low tolerance, and in many circumstances, zero-tolerance policies for violation of parole terms (Seiter and Kadela 2003). In many cases, violation is the cause of re-arrest (Seiter and Kadela 2003). In response to all of these policy changes, society has become increasingly intolerant of criminal behavior, leading to higher stigmatization of those with a criminal record (Petersilia 2001; Seiter and Kadela 2003). This stigmatization is yet another factor cited by strain theory leading to substance use and criminal behavior (Agnew 1992;2006).

Prevalence of Mental Health Issues in the Criminal Justice System

The percentage of individuals diagnosed with some form of mental disorder within the American criminal justice system is so high, some scholars have deemed correctional facilities

"America's new mental hospitals" (Fuller 1995). Research has shown that approximately 56% of those in State prisons and 45% of those in Federal prisons had some form of mental illness in 2005 (James and Glaze 2006). In comparison, the National Institute of Mental Health (2015) reports approximately 18.5% of the American population struggle with some form of mental disorder. The percentages of mental disorders among those under criminal justice supervision is alarming considering the number of individuals currently incarcerated.

Although there is extensive literature on the implications of mental illness on criminality (Baillargeon et al. 2009;2010: Fazel and Danesh 2002; James and Glaze 2006; Lamb et al. 2004; Malik-Kane and Visher 2008; Schnittker et al. 2012; Swartz and Lurigio 2007), until recently, little has been done to determine the effects of incarceration on mental health. This is because research in this area commonly seeks to determine social and economic implications of incarceration, and little is done to determine consequences for mental health (Schnittker et al. 2012). Only in recent years has research begun to shed light on the effects incarceration has on the health of individuals (Schnittker et al. 2012; Swartz and Lurigio 2007). In order to understand this phenomenon, one must begin at the root of the problem, which begs the question: Why is the rate of mental illness so disproportionately high among those incarcerated?

Criminalization of the Mentally Ill

Countless studies have identified the overrepresentation of those with mental disorders under correctional supervision in the United States (Baillargeon et al. 2009;2010; Fazel and Danesh 2002; James and Glaze 2006; Lamb et al. 2004; Malik-Kane and Visher 2008; Schnittker et al. 2012; Swartz and Lurigio 2007). Accordingly, research literature has sought to determine the nature and causality of this relationship. The criminalization of those with mental health issues can be attributed to various causes including but not limited to deinstitutionalization,

restrictive civil commitment criteria and lack of adequate community support systems (Lamb et al. 2004).

Deinstitutionalization

The drastic reduction of mental institutions and state hospital beds for those with mental illness is referred to as deinstitutionalization. There is a widely held theory among the psychiatric and criminal justice communities, with moderate support, that deinstitutionalization has been a cause of disproportional rates of mentally ill persons under correctional supervision (Lamb et al. 2004). Room in state institutions for those with mental illnesses has steadily decreased over time resulting in widespread lack of treatment (Lamb et al. 2004). Leaders in the psychiatric community fought for the closure of state hospitals, arguing, "moving patients out of state hospitals and into community-based outpatient settings represented a humane alternative to overcrowded and understaffed institutions" (Baillargeon et al. 2009:103). However, the closure of state hospitals was not followed by the expected or promised number of halfway houses and clinics necessary for those with mental illnesses. This left many individuals struggling with mental disorders and with no place to go for treatment or support. According to Lamb et al. (2004), in 45 years, the average number of occupied state hospital beds has dropped from 339 per 100,000 to a mere 20 per 100,000. Eventually, the mass closure of mental institutions led to the criminal justice system's inheritance of the burden that is the American population with psychiatric disorders.

National Law Changes

Deinstitutionalization also led to widespread law-changes embodying rigid rules for civil commitment. The new laws resulted in determinate and brief periods of commitment rather than extended care options. These laws also increased difficulty to commit those with mental illnesses

not deemed serious or dangerous (Lamb et al. 2004). By 1979, almost every state had adopted

some form of California's civil commitment law, the Landerman-Petris-Short Act (Lamb et al.

2004). Essentially, these laws established three things nation-wide. First, they require that those

being committed need be unable to care for themselves, or diagnosed as dangerous. Second,

commitment length guidelines shifted from indeterminate to determinate. As a result, many

commitments became far shorter than they had formerly been. Third, these laws gave those

persons being civilly committed extensive access to courts and legal representation (Lamb et al.

2004). Soon thereafter, health insurers restricted mental health coverage, escalating costs of

commitment, and limiting private hospitals acceptance of psychotic patients (Lamb et al. 2004).

Combined, these changes increased difficulty of civil commitment, decreased access to

treatment, and therefore, more people with mental illnesses began living within the community.

Lack of Community Support for the Mentally Ill

With more mentally ill individuals integrating into society, and with fewer treatment

options for them, stigmatization drastically increased. Research has shown that those with mental

illness are more likely to experience homelessness and unemployment than those who do not

(Baillargeon et al. 2009; Malik-Kane and Visher 2008). This increased visibility of those with

mental disorders paired with higher rates of unemployment and homelessness has led to negative

public perceptions. As cited by Lamb et al. (2004), increased stigmatization and criminalization

of persons with mental illness can be attributed to a general lack of community support. "An

essential part of support systems for these persons is the availability of community treatment

resources" (Lamb et al. 2004:110). Inadequate case management and mental health treatment,

along with limited housing and rehabilitation resources for the high numbers of mentally ill

citizens contributes to the high rates of arrest among this population.

Prison Programs for Those with Mental Illnesses

Of the over 1 million incarcerated, at least half struggle with some form of mental illness (Baillargeon et al. 2009; James and Glaze 2006). One challenge of providing treatment to those incarcerated with psychological disorders is that they commonly go undiagnosed (Malik-Kane and Visher 2008). Although there are community outpatient treatment programs within the criminal justice system (Lamb et al. 2004), this is not beneficial to those who do not receive a diagnosis. Furthermore, within the criminal justice system, treatment must meet legal requirements such as regular attendance and progress reports (Lamb et al. 2004). This can be a challenge due to push-back from those with mental disorders who cannot or will not accept that they have committed a criminal offense (Lamb et al. 2004). Another challenge of community outpatient treatment is determining the dangerousness of the individual in question. Threats to public safety come before individual treatment, meaning that this type of treatment is not an option in some cases (Lamb et al. 2004). Medication is another option for treatment of those with mental illness, however not all psychological disorders can be treated in this way. Regardless, the Bureau of Justice Statistics indicates that taking a prescribed medication for mental health issues is the most common type of treatment given to individuals in prisons and jails (James and Glaze 2006).

Mental Health and Reentry

In addition to general challenges of reentry, those with mental disorders struggle with challenges unique to their conditions. Research reveals that those within the criminal justice system with mental illness have lower rates of successful reentry than those who do not (Malik-Kane and Visher 2008). For individuals with mental disorders, finding appropriate treatment is more challenging and difficulties regarding community integration are multiplied due to

previously discussed stigmatization and lack of community support. According to a retrospective cohort study conducted by Baillargeon et al. (2009), there is a substantially heightened risk of recidivism among the mentally ill who are released. Research also indicates that those with mental illnesses serve longer sentences than those without (James and Glaze 2006; Petersilia 2001).

Strain and Co-Occurring Disorders

Further complicating the issues, mental disorders are overwhelmingly correlated with substance abuse disorders. According to the Bureau of Justice statistics (2006) in 2005 approximately 74% of those within State prisons who had some form of mental disorder also met criteria for substance dependence or abuse. Just as those with mental illness face greater challenges during reintegration, those with substance abuse issues face issues of their own. These cause them to struggle during reentry and result in lower likelihood to experience successful reintegration (James and Glaze 2006; Baillargeon et al. 2010; Schnittker et al. 2012). These additional difficulties include ability to find specialized treatment programs and socioeconomic barriers. Those with co-occurring disorders and criminal history also face increased stigmatization, deemed the "triple stigma". (Baillargeon et al. 2010:368). A retrospective cohort study conducted by Baillargeon et al. (2010) found that those within the criminal justice system experiencing both substance abuse disorders and serious mental illness have increased vulnerability to homelessness, suicide and violence (Baillargeon et al. 2010). As I have established, these are all factors causing strain and leading to illegitimate stress-management and anti-social coping strategies.

CURRENT STUDY

This study aims to explore how changes in depression during incarceration affects changes in substance abuse during the reentry process. My objective is to use general strain theory (GST) to explain coping strategies among those with mental illness during reintegration. The importance of this research lies in the cyclical nature of arrest among the mentally ill population within the United States, along with high rates of co-occurring disorders among those experiencing reentry. Specific consideration was given to the effects of family support, peer influence, employment, and prior substance use. Considering aforementioned research literature as well as general strain theory (Agnew 1992;2006), I assert two hypotheses. First, I expect that incarceration is exacerbating existing mental health issues among those under correctional supervision. Second, I believe that depression is worsening over the course of imprisonment, causing higher substance abuse post-release than prior to arrest and conviction.

METHODS

For this study, I used data from the Serious and Violent Offender Reentry Initiative (SVORI), which includes 1,697 men across 14 different states within the United States (Lattimore and Steffey 2010). Survey data was collected between 2004 and 2005 to determine whether enhanced reentry services effected reentry outcomes. SVORI researchers included a multitude of items concerning substance use, mental health, family and peer relationships, and participation in treatment programs. There were four waves of data, but for the purposes of this study, I only focused on the first two. The first wave of data was collected from participants approximately 30 days prior to their scheduled release, and the second wave was collected approximately 3 months post-release.

Dependent Variable

This study focuses on one dependent variable: substance use during reentry. The SVORI dataset separates alcohol use and other substance use, but because I am interested in encompassing all substance use, I used items regarding alcohol use and substance use at wave two to create a composite measure of "substance use". For wave two, respondents were asked if they had used alcohol since the previous wave of data collection. Respondents could answer 'yes', which I coded 1, or 'no' which I coded 0. Additionally, at wave two, respondents were asked if they had used any of the following without the direction of a physician since the prior interview: marijuana, tranquilizers, stimulants, steroids, cocaine, heroin, hallucinogens, methamphetamine, inhalants, sedatives, amphetamines, or prescription pain medication. Again, respondents could answer 'yes" which I coded 1, or 'no' which I coded 0. This composite measure had an overall mean of 1.063 with a standard deviation of 1.339, and a range of 0 (respondent used 0 substances) to 10 (respondent used 10 substances).

Table 1 About Here

Independent Variables

I use five independent variables in the current analysis, including three measures of negative affect (change in depression, delinquent peers, and prior substance use) and two measures of support mechanisms (family support and employment). I used a five-item scale included in the SVORI dataset to determine changes in depression. Respondents were able to respond on a Likert scale (1 = not at all, 2 = a little bit, 3 = moderately, 4 = quite a bit, 5 = extremely) to the following questions: "How often do you feel lonely?", "How often do you feel blue?", "How often do you feel like you have no interest in things?", "How often do you feel hopeless?", and "How often do you feel worthless?". For this scale, responses were coded so that higher values indicate higher levels of depression. These responses were compared between

wave one and wave two data to determine changes in depression. This measure had an overall

mean of 7.138, with a standard deviation of 3.664. The range is from 2.1 (very little change in

depression) to 23.1 (large change in depression).

The second negative affect is delinquent peers. To measure association with delinquent

peers, respondents were asked (0 = none of them, 1 = some of them, 2 = most of them, 3 = all of

them) how many close friends are currently employed, how many close friends could they hang

out with and know that they will not get in trouble, how many close friends have been

incarcerated at some point in their life, how many close friends assaulted someone in their life,

how many close friends committed a theft at some point in their life, and how many close friends

have sold illegal drugs at some point in their life. This measure had an overall mean of 1.98 with

a standard deviation of 1.182.

The third negative affect is prior substance use. Again, I used a composite substance use

scale of both alcohol and other substances, this time from wave one data. This time, respondents

were asked if they had used alcohol prior to conviction. Respondents could answer 'yes', which I

coded 1, or 'no' which I coded 0. Additionally respondents were asked if they had ever used any

of the following without the direction of a physician: marijuana, tranquilizers, stimulants,

steroids, cocaine, heroin, hallucinogens, methamphetamine, inhalants, sedatives, amphetamines,

or prescription pain medication. Again, respondents could answer 'yes" which I coded 1, or 'no'

which I coded 0. Overall, the mean of this measure is 4.339 with a standard deviation of 2.686

and a range from 0 (respondent used 0 substances) to 11 (respondent used 11 substances).

For the first measure of support, family support, I created a composite measure including

three items. These asked respondents to what degree they agreed (0 = strongly disagree, 1 =

disagree, 2 = agree, 3 = strongly agree) with the statements "I feel close to my family", "I want

my family involved in my life" and "I consider myself a source of support for my family".

Higher values indicate higher family support. The mean of this measure is 7.112 with a standard

deviation of 1.667 and a range from 0 (very low family support) to 9 (very high family support).

The second support mechanism which was employment, was measured as a binary, with

0 indicating unemployment, and 1 indicating employment. Overall, 61.9% of the sample

indicated being employed, with a standard deviation of 0.468.

Control Variables

For this research I control for age, race, and relationship status. Because there are various

racial differences within criminological research, I include a variable indicating that the

respondent is black (53.3% of the sample), or other race (12.7 % of the sample), with my

contrast population being white (34.1% of the sample). I also controlled for age, as there are

various differences in criminality across different age groups. The mean age of the respondents

in the sample is 29.203, ranging from 18-73 with a standard deviation of 7.289.

I also controlled for relationship status. Divorced and single relationship status were both

binary measures, with approximately 16.8% of the sample indicating being divorced and 73.6%

of the sample indicating a single status.

Missing Data

Because the SVORI data set is both longitudinal and on reentry, there are missing data.

There were 1,697 respondents at wave one. My sample consists of 770 individuals, which is

approximately 45.37 percent of the original sample. This attrition rate is high, but SVORI

analysts have indicated that the rate of attrition is random. The sample was not stratified for

those incarcerated for mental health issues or substance use charges. Those who were rearrested,

either for parole violations or otherwise, were not included in this sample because the wave three

and four data would be skewed due to their imprisonment.

Analytical Strategy

In this study, I used an ordinary least-squares (OLS) regression model to analyze the link

between changes in mental health and substance use post-release. This model is suitable for this

data analysis because the dependent variable is a ratio level variable. The dependent variable

represents a change in substance use, therefore a significant negative coefficient reveals a

decrease in substance use and a significant positive coefficient reveals an increase in substance

use. A null result shows no significant change in substance abuse from wave one to wave two.

The first hypothesis asserts that incarceration is exacerbating existing mental health

issues among incarcerated individuals, and is evaluated through the depression change variable.

The second hypothesis asserts that depression is worsening over the course of imprisonment,

causing higher substance abuse post-release than prior to arrest and conviction. To analyze this, I

examine the effects of the independent variable "change in depression" on substance use at wave

two.

RESULTS

Results of the OLS regression model assessing substance use at wave two are shown in

Table 2. This model reveals that for every one unit increase in the change in depression scale,

odds of respondent substance use increases by 0.048. Not surprisingly, increases on the

substance use scale at wave one correspond to a 0.186 increase in the odds of substance use at

wave two. Association with delinquent peers is associated with a 0.097 increase in odds of

substance use. Conversely, increases in family support result in a negative 0.265 decrease in the

odds of substance abuse. Employment is associated with a negative 0.113 decrease in substance use upon release.

Table 2 About Here

As for the control variables, for each year of age increase, respondents scored negative .016 points lower on the substance abuse scale. Blacks scored .222 points higher than whites on the substance abuse scale at wave two, which reveals that whites are using fewer substances than blacks. Other races scored .134 points higher than whites, indicating that whites are using the fewest substances. Finally, being single or divorced is not significantly related to substance use at wave two.

DISCUSSION AND CONCLUSION

The goal of this study was to investigate and analyze the effects of incarceration on those with depression and their coping mechanisms during reentry. Drawing from general strain theory (Agnew, 2006) and existing literature, this body of research aims to establish a causal relationship between increased depression during time in prison and increased substance use during the reentry process. Hypothesis one, which states that incarceration exacerbates existing mental health issues, is partially supported in spite of the fact that this research did not examine all measures of mental health. The mean of the depression change measure was 7.138, indicating that the average respondent experienced an increase in depression from wave one to wave two. The range, which is 2.1 to 23.1 indicates that in the most extreme circumstance, incarceration is worsening depression by 23.1 points. Hypothesis two asserts that depression is worsening over the course of imprisonment, causing higher substance abuse post-release than prior to arrest and conviction, is not supported. Changes in depression in this model (see Table 2) are highly significantly correlated, with a coefficient of 0.048 indicating higher substance use at wave two

(upon reentry). However, measures regarding substance use prior to incarceration were not available in this data set.

This research finds that general strain theory as described by Agnew (1992;2006) supports the concept that increased strain during the reentry process impacts coping mechanisms. Because established literature has shown that challenges associated with reentry are compounded by mental disorders, we can assume that increases in depression among the sample during incarceration led to a more challenging reentry process. This in addition to increased substance use among those who experienced changes in depression support strain theory's assertion that negative and stressful experiences create or exacerbate already-present negative states like anger and depression and that these negative affective states produce negative coping strategies such as substance use and criminal behavior.

The contributions and significant findings aside, there are various limitations to this body of research. First, the SVORI data (although similar in composition to American prison populations as a whole) only includes serious and violent individuals. Therefore, respondents may not be representative of the entire population in corrections, hindering generalizability. Second, the SVORI data set includes only on males. Third, rates of mental illness and substance abuse tend to vary across sex, so this study fails to address effects of mental health on reentry and substance use among females. A fourth limitation is that because mental health is so broadly defined, the focus of this project was depression. This research may not have the ability to be applied to other mental disorders. Fifth, many participants were rearrested prior to completion and their data was excluded for that reason. These respondents may have been re-incarcerated due to substance use or criminal behavior, and therefore this study is missing information on those individuals' reentry processes. Finally, despite research indicating that a majority of

individuals experience strain upon reentry (Visher and Travis 2003), and general strain theory

positing a relationship between strain and substance use (Agnew 1992;2006), a causal

relationship between reentry strain and substance use cannot be determined because no items in

the SVORI dataset sought to answer that question.

Regardless of limitations, this research study contributes to existing literature by bringing

together various concepts and findings to close a gap in scholarship. These findings will provide

for a more comprehensive picture of challenges faced by those with mental health issues re-

entering society post-incarceration. It is my hope that this study will bring attention to the

additional challenges faced by those with mental health during the reentry process. Additionally,

I hope that the application of general strain theory to the phenomenon of mental health

recidivism will lead to increased efforts by correctional authorities to reduce strain when

possible.

The findings did not support this body's hypothesis that worsening depression while

incarcerated leads to higher substance use pose-release than prior to incarceration. Although

incarceration was shown to effect levels of depression, no measures were available to determine

substance use prior to arrest. Furthermore, the hypothesis that incarceration negatively affects

mental health and aggravates feelings of depression was partially supported. Clearly shown

through rates of failed reentry, the correctional system in America is doing a poor job of

treatment and preparation for inevitable release. Additionally, this research indicates that there is

evidence of incarceration worsening mental disorders, which have been shown to reduce

likelihood of successful reentry.

From a standpoint of policy implications, I argue that the criminal justice system is

amplifying recidivism rates through providing insufficient treatment as well as exacerbating

existing conditions. This is not only wasting funds, it is giving the criminal justice system a

generally negative reputation in society. There are high financial costs associated not only with

recidivism, but also treatment of mentally ill individuals. Thus, I assert that availability of

substance use and mental health treatment options, both within prison and within the community,

would be beneficial to the community as a whole.

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TABLES

<p align="center">**Table 1.** SVORI Sample Descriptive Statistics (n = 770)</p>

Variable	Mean	Std. Dev.	Range
Dependent Variables			
Substance Use (W2)	1.063	1.339	0-10
Independent Variables			
Depress. Change	7.138	3.664	2.1-23.1
Family Support (W2)	7.112	1.667	0-9
Employment (W2)	0.619	0.486	0,1
Delinquent Peers (W2)	1.984	1.182	0-3
Substance Use (W1)	4.399	2.686	0-11
Control Variables			
Race			
White	0.341	0.474	0,1
Black	0.533	0.499	0,1
Other	0.127	0.333	0,1
Age	29.203	7.289	18-73
Divorced (W2)	0.168	0.374	0,1
Single (W2	0.736	0.441	0,1

Table 2. Regression Analysis Assessing Substance Use Post-Release ($n = 770$)

Variable	Coef.	S.E.
Independent Variables		
Depression Change	0.048	0.011***
Family Support (W2)	-0.113	0.026***
Employment (W2)	-0.265	0.091***
Delinquent Peers (W2)	0.097	0.015***
Substance Use (W1)	0.186	0.018***
Control Variables		
Race		
Black	0.222	0.110*
Other	0.134	0.144
Age	-0.016	0.006**
Divorced (W2)	0.152	0.198
Single (W2)	0.112	0.145

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$