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The Relationship between Recidivism and Inpatient Treatment for Co-occurring Disorders among African American Male Ex-offenders

Henshaw D. Mbosowo
Walden University

Walden University

College of Counselor Education & Supervision

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Henshaw D. Mbosowo

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Walden University
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by

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MA, Argosy University Dallas, 2013

MS, Middle Tennessee State University, 1997

BBA, Delta State University, 1994

Dissertation Submitted in Partial Fulfilment

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Abstract

Recidivism continues to be a major problem in the United States criminal justice system and yet, there is minimal research that addresses recidivism among African American male ex-offenders with co-occurring disorders who are on probation and or parole under community supervision and trying to gain access or reentry into the community. This quantitative study was to examine the relationship between co-occurring disorders and incidence of recidivism among African American male ex-offenders who have been hospitalized and treated for mental illness at some point in their lives. Also, considering that the inpatient treatment or hospitalization of offenders and ex-offenders with serious mental illness and substance use disorder should be of utmost important in the local, state, and federal correctional facilities; quantitative cross-sectional design was chosen to examine whether there is a relationship between age, prior criminal history, mental illness, substance use disorder, inpatient treatment, gainful employment, education, family support, differentiation of self, and community/social support and the likelihood of recidivism. The Bowen family systems theory was the lens that provided the theoretical framework for this study for examining the archival data that was obtained from Texas Department of Criminal Justice. The multiple regression analysis (MRA) revealed that hospitalization/treatment, gainful employment, family support, age of offender at released, and differentiation of self decreased the likelihood to recidivate. MRA also showed that substance use disorder did have a significant relationship with recidivism while the presence of mental illness and education level showed no relationship. Findings from this study will positively effect positive social change by ensuring that any program and policy development must address treatment, promote public safety, and consider the economic structure, or the economic community of the African American male offenders and ex-offenders for positive outcome.

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Dedication

I am dedicating this accomplishment to the Almighty God who makes all things beautiful in His own time. For with God all things are possible. There were moments when ideas could not manifest and my writing seemed to stall, and moments of discouragement, and frustration set in. But God in His infinite wisdom showed up, gave me ideas, wisdom, and knowledge to write and continue in this journey. Therefore, I return all the glory and honor to Him for seeing me through and I will continue to worship and praise Him daily. Thank you, Prince of peace, for giving me peace and seeing me through.

For my wife, Inemesit: you have been an inspiration to me throughout this journey. When I seemed discouraged and less productive at times, you will always encourage me to finish this Ph.D. and give it to you. You often said, "I am missing my husband and I need to have my husband back." This famous saying of yours always encouraged me to gain strength and aim towards the finish line so that I could spend quality time with you. God knitted our hearts together before we were formed in our mothers' wombs. That is why our love for each other will never run dry because it is rooted in the love of God who is the stream of life. Therefore, I love you and I thank you sincerely from the depth of my heart for always being there for me.

For my children, Enobong, Edidiong, Otobong 'Princess', and Ubong: I love you all dearly and I thank you my beloved children for being there for me. I thank you for understanding when I could not make it to many of your events and school meetings. As my Princess always says, "is daddy coming" and my wife will reply "daddy has schoolwork." You all have been an inspiration to me, and I love you all dearly. For my parents, Dr. Donald Mbosowo and Dr. Mary Mbosowo: I thank you for being there for me as an example and encouraging me to stay the course when I seemed discouraged.

Acknowledgements

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Chapter 1: Introduction

Introduction to the Study

According to the National Institute of Justice (NIJ, 2014), recidivism is an act of reoffending, and it is one of the most important theories or concepts in criminal justice. NIJ (2014) posited that recidivism occurs when an ex-offender returns to criminal behavior despite receiving interventions and sanctions for prior crimes. Recidivism can be measured by criminal acts committed by ex-offenders that result in being rearrested, reconvicted, or returned to prison after 3 years of released from prison. Ex-offenders could return to prison with or without a new sentence after 3 years of release (NIJ, 2014). The Bureau of Justice Statistics (BJS) reported high rates of recidivism among released ex-offenders (NIJ, 2014). BJS noted a study that tracked 404,638 prisoners in 30 states after they were released from prison in 2005 (NIJ, 2014). The study revealed that about two-thirds (67.8%) of ex-offenders were rearrested within 3 years of release, about three-quarters (76.6%) of the ex-offenders were rearrested within 5 years of release, and more than half (56.7%) of the ex-offenders were rearrested within 1 year of release (NIJ, 2014). In a recent study by James (2015), a substantial number of offenders have problems with serious mental illness (SMI). The author maintained that these problems have the propensity to co-occur with a substance abuse or a physical health problem resulting in the likelihood of recidivism (James, 2015). Several studies have also shown that offenders or ex-offenders with SMI and substance use disorder are arrested, tried, and incarcerated at higher rates than offenders or ex-offenders without SMI, substance use disorder, or both (Baillargeon, Binswanger, Penn, Williams, & Murray, 2009c; Matejkowski & Ostermann, 2015; Vogel, Stephens, & Siebels, 2014; Fisher et al., 2011).

Other researchers indicated that offenders who have been diagnosed with co-occurring disorders account for 10% to 30% of the population in jails and prisons (Linz & Sturm, 2012; Hatcher, 2010).

Ex-offenders recidivate for several reasons, such as, not finding gainful employment, the ineffectiveness of the post-release interventions, and substance abuse (Peck & Theodore, 2008; Lockwood, Nally, & Ho, 2016). Lockwood et al. (2016) observed that most of the ex-offenders who do not have the necessary skills for employment due to lack of secondary or vocational training are likely to fall back into the life of crime. According to Lockwood et al., African American male ex-offenders do have a higher recidivism rate because they would likely return to communities plagued by unemployment, poverty, and crime (2016). Poremski, Whitley, and Latimer (2014) asserted that, for most ex-offenders finding employment is almost impossible due to prior criminal records, current substance abuse, and the difficulties in getting adequate psychiatric care. Ex-offenders who are homeless with diagnosis of SMI and/ or substance use disorder will certainly have difficulties securing gainful employment (Poremski et al., 2014). According to James (2015), in comparison with the average American, ex-offenders are least educated, least expected to be gainfully employed, and most likely to have a history of mental illness or substance abuse. BJS (2006) asserted that ex-offenders with mental illness and substance use disorder have the likelihood of perpetuating criminal behavior. Other authors found that ex-offenders with mental illness and substance use disorder who were released to the community had more criminal offenses than ex-offenders with no mental illness and or substance use disorders (Matejkowski, Draine, Solomon, & Mark, 2011).

This study examined the relationship between recidivism and inpatient treatment for co-occurring disorders among African American male ex-offenders with a history of hospitalization and prior treatment. The gap in the literature was that research has not addressed African American male ex-offenders who have been hospitalized or treated for mental illness and substance use disorder at some point in their lives and how that related to the likelihood of recidivism. Given the risk factors associated with mental illness, substance use disorder, hospitalization, and the implications of race, this study sought to address the lack of awareness of the risk factors of recidivism that are unique to African American male ex-offenders' population with prior treatment for mental illness and substance abuse at various points in their lives. By addressing this gap, this study was expected to give counselors, counselor educators, and other professionals who are aware of these factors, the necessary steps to work with ex-offenders to minimize the likelihood of recidivism. Since recidivism will continue to occur among ex-offenders unless a particular intervention is found to be effective in reducing it, a joint venture between the prison system, the government, and the employers may be needed in order to come up with an effective intervention to reduce recidivism.

Background

According to Pinta (2015), offenders have a constitutional right to treatment for serious mental disorders and where jails and prisons fail to provide this treatment, they are liable for civil legal action. Despite this right, ex-offenders with co-occurring disorders of mental illness and substance use disorder are at greater risks to recidivate for lack of complete treatment for success and recovery (Bergly, Grawe, & Hagen, 2014). To this end, Matejkowski and Ostermann (2015) conducted a quantitative study to attempt to

disentangle the complex relationships among mental illness, criminal risk, recidivism, and parole release status. The researchers conducted a conditional process analysis of data that reflected on the recidivistic patterns of offenders with and without SMI that were released from prison with and without parole supervision. The findings revealed that SMI did show a significant relationship with recidivism when taking into consideration their relationships with actuarially assessed risk. Furthermore, the findings indicated that ex-offenders with SMI had a significantly higher risk of being rearrested or violating parole within 2 years of being released from prison when compared to ex-offenders without SMI. The results also showed that the indirect effect of SMI on recidivism was not because the ex-offenders were released to parole but because of the risk level and the release status that did not moderate the relationship between risk and recidivism.

In support of these findings, Wood (2011) conducted a quantitative study that provided information for co-occurring psychiatric and substance dependence disorders as predictors for parolees to be rearrested from their time of release from jail. The study used cross-sectional and self-report data from 1,121 participants to examine the relationships between rearrests time, SMI, and substance dependency. With the use of regression analyses and controlling for demographic and criminal justice variables, the study reported that parolees with serious mental illness and substance dependency were rearrested faster than those with no serious mental illness and substance dependency. Furthermore, the study explained that the parolees with dual diagnosis are quickly detected and rearrested because they are closely supervised by their parole supervisors when compared with parolees that do not have dual diagnosis.

Walters and Crawford (2014) conducted a quantitative study to determine whether major mental illness (MMI) and violence history (VH) had any interaction in their effect on institutional misconduct and recidivism. A Cox regression equation was used to measure the level of interaction between the variables. The regression analyses of age, prior substance abuse, MMI, VH, and interaction of MMI and VH predicted a general and aggressive recidivism among a group of 1, 163 male inmates who were previously released from custody. The findings also indicated that age and VH main effect analysis constantly achieved significance whereas MMI main effect alone failed to achieve significance. Furthermore, the study findings demonstrated that there was some level of significance when MMI and VH were regressed together but nonetheless, violent behavior was a constant predictor of recidivism.

Spjeldnes, Jung, Maguire, and Yamatani (2012) also conducted a quantitative study to examine how positive family social support could counter the negative effects of mental illness and substance abuse in helping to reduce jail ex-offenders' recidivism rates. To help determine the factors that predict recidivism, the study used the existing data from the longitudinal study of Allegheny county that concluded in 2008. The qualified participants in this study were 301 adult men who were 30 days from release from jail and were registered for jail collaborative services during recruitment. With the use of multinomial regression methods, their findings indicated that positive family social support was found to reduce the effect of factors such as substance abuse, black race, and younger age, factors that are known to predict higher recidivism rates. In addition, positive family social support was found to counteract the negative environmental factors of the helpfulness and support of the community-based services.

Peck and Theodore (2008) provided research information on the ex-offender employability crisis through a case study in Chicago. This qualitative study explored the consequences of large-scale incarceration in the urban labor market. The study posited that large-scale incarceration was a policy that had massive detrimental implications for African American communities. Furthermore, the findings revealed that the prison system has come to assume the role of a significant urban labor market institution. The findings also revealed that the regulatory outcomes of this assumed role have resulted in the social production of systemic unemployability among the criminalized class of African American males. It has also led to the long-term erosion of employment opportunities within the growing African American ex-offender population. The study accentuated that social stigma, institutional marginalization, and economic disenfranchisement have also served as an extended form of incarceration for this population. In addition, Malott and Fromader (2010) conducted a quantitative research study to access the needs for post-incarcerated individuals. This nonrandom pilot study surveyed 102 male inmates at three Midwestern jails and provided information on some of the unmet post-incarceration needs that could reduce the risks of reoffending. The study hypothesized that the male inmates agreed that accessible resources, support services, treatment, and post-incarceration would help reduce their recidivism. With the use of frequencies, means, and a reliability analysis, the findings revealed that the majority of results supported the hypothesis.

Problem Statement

According to Jung, Spjeldnes, and Yamatani (2010), recidivism is a major problem among African American male ex-offenders in the United States. Most

incarcerated men are recidivists and are disproportionately African American males (Jung et al., 2010; Sabol, Mititon, & Harrison, 2007). Wang, Aminawung, Wilderman, Ross, and Krumholz (2014) posited that African American males experience a high cumulative risk of incarceration when compared to estimated impact of incarceration among White men, African American women, and White women which was far less. The United States Department of Justice (DOJ) reported that the state and federal correctional facilities held 1,574,700 prisoners on December 31, 2013, an increase of 4,300 prisoners over yearend 2012 (2014). In addition, the DOJ (2014) reported that the number of persons admitted to state or federal prison during 2013 rose by 4%, from 608,400 in 2012 to 631,200 in 2013. Furthermore, the DOJ (2014) reported that almost 3% of Black male U.S. residents of all ages were imprisoned on December 31, 2013, compared to 0.5% of White males.

Spjeldnes, Jung, Maguire, and Yamatani, (2012) asserted that incarceration and recidivism rates are marked by high mental health and substance abuse problems. Spjeldnes et al. and Wood noted that parolees with mental illness and substance use disorder were rearrested more often than parolees with no mental illness and substance use disorder (Spjeldnes et al., 2012; Wood, 2011). These authors also noted that African American men recidivate at a higher rate than White men (Spjeldnes et al., 2012; Wood, 2011). Baillargeon, Penn, Knight, Harzke, Baillargeon, and Becker (2009) noted that inmates with mental illness and substance use disorder have a significant increase risks of multiple incarcerations and higher rates of recidivism than inmates that do not have co-occurring disorders. Hiday and Wales (2009) noted that African American men with prior incarceration were found to commit criminal acts to support their substance use disorder.

While focusing on positive family support to counteract negative effect of mental illness and substance abuse to reduce ex-offender recidivism rates, Spjeldnes et al. (2012) noted a key limitation in their survey. Their survey questions that related to mental health were minimal (Spjeldnes et al., 2012). Because of the minimal nature of the survey questions, the results only revealed male ex-offenders who had serious mental illness and were not able to reveal male ex-offenders who had been hospitalized or treated for mental illness at various points in their lives (Spjeldnes et al., 2012). Thus, the gap in the literature is that research has not addressed African American male ex-offenders who have been hospitalized or treated for mental illness and substance use disorder at various points in their lives and how these factors relate to the likelihood of recidivism. This research was designed to address this gap and other events associated with mental illness and substance use disorder and to note any interaction with race across other variables such as gainful employment, education, family support, and community support on recidivism. Therefore, the problem this study sought to address was the lack of awareness of the risk factors of recidivism that are unique to African American male ex-offenders with prior treatment for mental illness and substance abuse at various points in their lives.

Purpose

The purpose of this quantitative study was to examine the relationship between recidivism and inpatient treatment for co-occurring disorders among African American male ex-offenders who have been hospitalized or treated for mental illness at some point in their lives. The independent variables included race, age, prior criminal history, mental illness, substance use disorder, inpatient/hospitalization, gainful employment, education, family support, and community/social support. The dependent variable was recidivism as

manifested in rearrests, reconviction, and revocation. By examining this relationship, it will be determined if there is a significant difference in the recidivism rates among African American male ex-offenders who have been hospitalized or treated for mental illness at some point in their lives and those who have not been hospitalized or treated for mental illness at some point in their lives. Although researchers have addressed recidivism in connection with mental illness and substance use disorder, there is limited research on how risk factors differ as a function of race (Spjeldnes et al., 2012). The family systems theory served as the theoretical foundation for examining whether family and community support play a significant role in the likelihood of recidivism among African American male ex-offenders with mental illness and hospitalization who have been treated for mental illness at some point in their lives. This study also explored other conditions that could influence recidivism: education, gainful employment, family, and community support. This study used archival data from the Texas Department of Criminal Justice (TDCJ).

<div align="center">

Research Questions/Hypotheses

</div>

This study addressed four research questions and hypotheses.

Research Question 1: Is there a relationship between mental illness and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (HO1): There is no statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (HA1): There is statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Research Question 2: Is there a relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*2): There is no statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*2): There is statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Research Question 3: Is there a relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*3): There is no statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*3): There is statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Research Question 4: Is there a relationship between differentiation of self from family history of mental illness, lack of education, substance use, unemployment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*4): There is no statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of

education, unemployment and recidivism among African American male ex-offenders in

Texas.

Alternative Hypothesis (*HA*4): There is statistical significant relationship between

differentiation of self from family history of mental illness, substance use, lack of

education, unemployment and recidivism among African American male ex-offenders in

Texas.

<div align="center">**Theoretical Framework**</div>

The theoretical framework that guided this quantitative study was the family

systems theory (Bowen, 1978). Family systems theory covers family psychiatric history,

substance use history, and family roles/support, and community roles/support which were

used to examine recidivism rates (Bowen, 1978; Kerr & Bowen, 1988; Helm, 2014;

Sanders, 2014; Haefner, 2014). Family systems theory was informative about family

psychiatric history, family and community roles/support because family members are

emotionally interdependent and function in reciprocal relationships with one another

(Bowen, 1978; Kerr & Bowen, 1988; Helm, 2014; Sanders, 2014; Haefner, 2014).

Bowen (1978) was known as the developer of family systems theory. Bowen

believes that the cause of an individual's problem(s) could only be understood by

observing or viewing the role of the family as an emotional unit or an emotional system

(Corey, 2012; Ivey, D'Andrea, & Ivey, 2012). Bowen emphasizes the importance of

understanding an individual's recurrent patterns of emotional forces or problems

operating within the individual's family system over time and the differentiation of self

(Bowen, 1978; Kerr & Bowen, 1988). In addition, Bowen believes that an individual's

emotional adjustment or problems are transmitted through generations (Bowen, 1978;

Kerr & Bowen, 1988). Bowen posited that the differentiation of self at the interpersonal level stems from the ability to achieve emotional autonomy from the family of origin while maintaining a degree of connectedness with family members (Bowen, 1978; Kerr & Bowen, 1988; Ross & Murdock, 2014). Using this theory, the family roles of the African American male ex-offenders were examined in relation to family psychiatric history and substance use history, and how the family and ex-offenders relate, communicate, and show support for each other. Using this theory, I assessed the recurrent patterns of emotional forces or problems, mental illness, and the greater likelihood of recidivism among African American male ex-offenders (Bowen, 1978; Kerr & Bowen, 1988). I assessed (a) any possibility of emotional adjustments or problems, substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) transmitted generationally, (b) the ability to differentiate self, (c) and the greater likelihood of recidivism among African American male ex-offenders (Bowen, 1978; Kerr & Bowen, 1988). Green and McDermott (2010) posited that family systems theory is made of various systems and these systems interact together with a driving force. Higgins and Severson (2009) emphasized that family systems theory affords the researcher the opportunity to view the various systems in an individual's life in order to best meet the needs of ex-offenders and to conceptualize the environment, the challenges, and the opportunities in one's life.

Datchi and Sexton (2013) conducted a study on the effect of family therapy on adult criminal conduct and investigated the effect of evidence-based family focused intervention. This study was based on family theory. Datchi and Sexton's theory was "that clear family organization and leadership together with strong familial relationships

high in cohesion and low in conflict would increase the likelihood of adult offenders'

participation in the family's prosocial activities as well as their prosocial involvement in

the community" (p. 282). The authors discovered that adult offenders with mental illness,

family relationships, and the risk of reoffending who completed family therapy,

experienced significant improvement in individual and relational functioning (Datchi &

Sexton, 2013). These participants also reported fewer symptoms of distress, less family

conflict, and higher levels of family cohesion and organization (Datchi & Sexton, 2013).

Those in the group that completed the functional family therapy had significantly lower

levels of criminogenic risk when compared to offenders who completed the traditional

probation services (Datchi & Sexton, 2013). Therefore, the use of family systems theory

in this study could provide counselors and other professionals/entities awareness of some

information about the overall picture of recidivism. Since this study made use of existing

data, African American male ex-offenders who may have had experience with effective

family therapy were selected during the data analysis.

Nature of Study

The study was a quantitative cross-sectional study that afforded the researcher the

opportunity to clarify the extent of the relationship between two or more of the variables

(Houser, 2009). Frankfort-Nachmias and Nachmias (2008) stated that the choice of cross-

sectional design with survey research would give a researcher the ability to collect and

use data to examine relationships between properties and dispositions. To examine a

high-risk population of African American male ex-offenders, the study primarily used

archival data from TDCJ for analysis.

After obtaining permission from the TDCJ ("Offender Information," n.d.), this study used an electronic TDCJ database to identify African American male ex-offenders who had been incarcerated in a TDCJ facility in the last 5 years (i.e. between January 1, 2011, and December 31, 2016). This study used this database to obtain information on recidivism. According to National Institute of Justice (NIJ, 2008), this would include rearrests, reconvictions, supervision violations and commitments to jail or prison. The dependent variable for this study was recidivism as manifested in rearrests, reconvictions, and revocation of probation. The independent variables for this study included mental illness, substance use disorder, inpatient treatment or hospitalization, race, age, employment, education, prior criminal history, family support, and community support. I also got permission to use the TDCJ medical record database to obtain the demographics characteristics such as age, race, and gender from this population. This medical record database made it possible to identify those who were diagnosed with a mental illness and a substance use disorder with prior hospitalization or inpatient treatment.

Definitions

Anxiety: "anticipation of future threat" (American Psychiatric Association, 2013, p.189).

Anxiety disorders: "disorders that share features of excessive fear and anxiety and related behavioral disturbances" (American Psychiatric Association, 2013, p.189).

Bipolar disorders: "brain disorders that cause changes in a person's mood, energy, and ability to function" (American Psychiatric Association, 2017).

Community reentry: Ex-offenders returning back to the communities or being linked back to the community-based public programs after being released from jail or prison (Potter, Lin, Maze, & Bjoring, 2012).

Inpatient/hospitalization: "the act of placing an individual with mental disorder in the hospital to be assessed and treated with respect to their mental disorder" (Lei-Yee Fok, Stewart, Hayes, & Moran, 2014, p. 1633).

Major depressive order: "depressed mood most of the day, nearly every day, as indicated by either subjective report and marked by diminished interest or pleasure in all, or almost all activities most of the day" (American Psychiatric Association, 2013, p. 160).

Mental illness/serious mental illness: "is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental function" (American Psychiatric Association, 2013, p. 20).

Probation: "Individuals who are found guilty of committing a crime that is deemed not serious enough for imprisonment can be sentenced to serve their sentences under community supervision" (James, 2015, p.4).

Parole: "Individuals who have served most of their sentences in a correctional facility are sometimes eligible to complete their sentences in the community under conditional supervision" (James, 2015, p.4).

Recidivism: "the rearrest, reconviction, or reincarceration of an ex-offender within a given time frame" (James, 2015, p.5).

Schizophrenia: "a range of cognitive, behavioral, and emotional dysfunctions, but no single symptom is pathognomonic of the disorder and its diagnosis requires the presence of delusions or hallucinations in the absence of mood episodes" (American Psychiatric Association, 2013, p. 100-101).

Substance use disorder: "based upon the pathological pattern of behaviors related to the use of substance. These behaviors fall into four main categories of impaired control, social impairment, risky use, and pharmacological indicators (i.e. tolerance and withdrawal)." (American Psychiatric Association, 2013, p. 483)

Assumptions

This study was based on some assumptions. The first assumption was that the archival data contained accurately recorded mental health issues and substance use disorder from the TDCJ. The rationale for this assumption was that studies have shown underreporting of mental illness among offenders and ex-offenders. Stacer (2012) asserted that when individuals or offenders were known to have mental illness or shown any behavioral symptoms of mental disorders, other people avoided having any contact with them. In addition, the author emphasized that culturally, African American offenders or inmates are less likely to have visitation from family members when they are known to have mental disorders (Stacer, 2012). The second assumption was that all ex-offenders' positive drug tests and history of hospitalization and inpatient treatment were accurately recorded. The rationale for this assumption was that studies have shown that there are more SMI inmates/offenders with substance use disorder in jails and in prisons than there are in mental health hospitals as a result of over-diagnosing and mass incarceration (Vogel, Stephens, & Siebels, 2014; Torrey et al., 2010; Torrey et al., 2012). Thirdly, this

study assumed that the sample was an accurate representation of the cultural group being studied. The rationale for this assumption was that the findings of Jung, Spjeldnes, and Yamatani (2010) revealed that African American male ex-offenders recidivated at a much higher rate and over a shorter time period than White male ex-offenders.

Scope and Delimitations

The scope of this study was to examine a high-risk population of African American male ex-offenders with co-occurring disorders with a history of inpatient treatment, who have been incarcerated previously in a TDCJ facility within a 5-year range (i.e. between January 1, 2011, and December 31, 2016). This study chose to focus on this population as previous studies have shown that they are more susceptible to recidivate than White male ex-offenders (Spjeldnes et al., 2012, McKinnon & Bennett, 2005). This study also chose to focus on this population with co-occurring disorders as previous studies have also shown that inmates with co-occurring disorders were much more likely to have multiple incarcerations than those with only mental illness or substance use disorder (Baillargeon et al. 2009; & Hartwell, 2004). This scope limited this study because it did not cover the broader scope of male ex-offenders in other states beside Texas. According to Baillargeon (2009c), Texas has the largest state prison in the United States. Hence, access to the archival data was less costly and more timely.

This study examined African American male ex-offenders with confirmed *DSM-5* American Psychiatric Association, 2013) diagnoses for co-occurring disorders of SMI and substance use disorder and did not consider individuals' self-reported history of mental illness or substance use disorder. Due to the scope of this study, the ability of the researcher to generalize the findings of this study to other racial or social groups in other

states could be limited (Creswell, 2009). This study focused only on SMIs such as major depression, bipolar disorder, generalized anxiety disorder, schizophrenia, and schizoaffective disorder, and substance use disorder, which may have been evaluated during the screening/clinical assessment as defined in the *DSM-5* (American Psychiatric Association, 2013). Although this study was limited to African American male ex-offenders under community supervision in the state of Texas, an assumption was that the results could be generalized to other ex-offenders under community supervision in other states.

Limitations

This study made use of archival data and as a result, there were some limitations that impacted the research, the researcher, and likely the outcomes of the research. The archival data was not a fully representative of accurate mental health, substance use disorder, hospitalization, and inpatient treatment history. This could have happened because an ex-offender may not have truthfully answered clinical assessment questions regarding mental illness or substance use disorder or family history of mental illness or demographic questions. In addition, studies have shown that mental health stigma is the primary factor that prevents discussions about mental health concerns among individuals from many minority communities and leads to reluctance to seek treatment (Kreps, 2017; Robinson, 2013, 2012; Thoits, 2011). Other studies noted that mental health stigma discourages individuals from disclosing their concerns about mental illness, seeking treatment, and leads them to be fearful of being labelled as dangerous, evil, weak, or uncooperative (Kreps, 2017; Robinson, 2013, 2012; Hatzenbuehler, Phelan, & Link, 2013; Parcesepe & Cabassa, 2013; Pescosolido, Boyer, & Medina, 2013). Hence, this

study made use of archival data for its data analysis and Murphy and Schlaerth (2010) posited that archival data or secondary data is data that has been collected and stored by someone or an institution other than the researcher. Additionally, there could exist unidentified constructs that might have accounted for variances in the archival data that resulted in recidivism (i.e. violation of probation due to inability to pay mandatory fines or inability to secure employment). Methodologically, this study used quantitative design. Creswell (2009) asserted that quantitative design is a research method that will afford the researcher the ability to examine the relationship among variables by using the statistical procedures to analyze the collected or numbered data. This study also used SPSS 25 for its data analysis because it is a valid and reliable tool for analyzing numerical data (Bronstad & Hemmesch, 2010). Furthermore, the use of quantitative designs afforded the researcher the ability to conduct data analysis in a calculated and systematic manner, so as to limit biases (Creswell, 2009; Leedy & Ormrod, 2010; Shamblen & Dwivedi, 2010).

Significance

The examination of the relationship of the risk factors among African American male ex-offenders with mental illness and substance use disorder with a history of inpatient treatment/hospitalization and recidivism from the time of release to rearrests, reconviction, and detention in the state of Texas will assist mental health professionals who work with the ex-offender population to identify individuals who need mental health services and make referrals for other specialized services as needed. The findings will increase accountability, public safety, and the cost savings or financial aspects of jails and prisons by suggesting strategies and interventions for effective treatment of African American male ex-offenders and other ex-offenders with co-occurring disorders, thereby

reducing recidivism rates and governmental jail/prison expenses. Grohs (2013) posited

that mental health programs that are poorly staffed and managed could be expensive as a

result of the overuse of expensive psychotropic medications and not focusing on behavior

modification of the mentally ill, which could lead to a reduction in recidivism rates and in

hospitalization. The results of this study will help African American families with

mentally ill ex-offenders to understand how to view the importance of mental illness and

substance use disorder treatment (Baillargeon et al., 2009, Lamb, Weinberger, & Gross,

2004). The findings will also enhance the ability of the public and African American

families with mentally ill ex-offenders to understand the need to be supportive.

　　　　The findings from this study will give the public and African American families

with ex-offenders with co-occurring disorders the awareness of the presence or absence

of the relationship between the social justice system and its ability to address mental

health and substance use disorder among this population. Some researchers contended

that the failure to properly address mental illness is as a result of crime being typified by

the system as normal behavior for African Americans (Thompson, 2010; Chiricos,

Welch, Gertz, 2004; Steen, Engen, & Gainey, 2005). Other researchers (Albonetti, 2002;

Steen et al., 2005; Thompson, 2010) asserted that all actions by African Americans are

interpreted as influenced by the perceptivity of dangerousness and advanced levels of

criminal responsibility. Hence, the behaviors of African Americans have a high

propensity to be interpreted as criminal rather than symptomatic of mental illness or

substance use disorder (Thompson, 2010). Furthermore, given the risk factors associated

with mental illness, substance use disorder, hospitalization, and the implication of race,

this study will give counselors, counselor educators, and other professionals a unique

piece of information about the overall picture of recidivism. Additionally, since Alexander (2012) posited that the vast majority of offenders and ex-offenders are African American males with limited education, job skills, and employment, the results of this study could emphasize the importance of overcoming stigma and seeking treatment, vocational training, job skills, and gaining employment in order to be successful during re-entry or reintegration into the communities.

Summary

Recidivism continues to be a major problem among African American male ex-offenders. Researches have demonstrated that African American male ex-offenders continue to recidivate at a higher rate than White ex-offenders (Spjeldnes et al., 2012; McKinnon & Bennett, 2005). The Department of Justice (DOJ, 2014) stated that by the yearend of 2013, nearly 3% of Black male United States' residents of all ages were imprisoned; this is compared to 0.5% of White males. In addition, researches have shown that ex-offenders with mental illness or substance use disorder have a higher propensity to recidivate when compared to ex-offenders with no mental illness or substance use disorder (Baillargeon et al., 2009; Lamb, Weinberger, & Gross, 2004).

African American male ex-offenders also face challenges when making attempts to reintegrate into their various communities. These challenges include but are not limited to obtaining gainful employment, education, family support, and community support (Cobbina, Huebner, & Berg, 2012; Watkins, 2011; Yamatani & Spjeldnes, 2011; Spjeldnes, Jung, Maguire, & Yamatani, 2012). As a result of these challenges, most ex-offenders resolved to committing criminal acts to support their substance use behavior and reoffend in the process (Hiday & Wales, 2009). Therefore, to date, no research has

succinctly examined the relationship between recidivism and African American male ex-offenders with co-occurring disorders with a history of hospitalization and inpatient treatment.

Chapter 2 of this study is a literature review that covers co-occurring disorders, history of hospitalization, inpatient treatment, and the consequences of the risk factors for recidivism. Additionally, the details of the theoretical framework are discussed

Chapter 2: Literature Review

Introduction

The following literature review is a synthesized review of relevant studies on the relationship between offenders or ex-offenders with serious mental illness and substance use disorder or with a history of treatment for co-occurring disorders and the likelihood of recidivism because of the risk factors. Several studies have documented or explained the growing number of offenders or ex-offenders with serious mental illness and a history of substance use disorder in the criminal justice system among various communities (Skeem, Manchak, & Peterson, 2011; Derry, & Batson, 2008; Lamb, Weinberger, & Gross, 2004; Becker, Andel, Boaz, & Contantine, 2011). According to the BJS (2006; 2009), these factors have a high propensity for increasing the likelihood of recidivism among offenders. Some researchers have addressed the important factor that race continues to play in regard to recidivism as manifested in rearrests, revocations, and reconvictions of offenders or ex-offenders with serious mental illness and substance use disorder that are unemployed, underemployed and have little or no education. Hence, there is a need to study and have a better understanding of African American male offenders or ex-offenders who have a history of serious mental illness and substance use disorder treatment and have been rearrested and disproportionately incarcerated after release (Skeem, Kennealy, Winter, Louden, & Tatar, 2014).

The literature review begins with search strategy and then moves onto the discussion of the theoretical framework that guided this study. The second section outlines the risk factors of recidivism, which include race, age, prior criminal history, serious mental illness, substance use disorder, hospitalization, gainful employment,

education, family support, and community support. The last section of this literature review explains the descriptive data for recidivism among male offenders or ex-offenders with a history of treatment for co-occurring disorders. This discussion highlights the need for identification of the risk factors that influence the likelihood of recidivism among the African American male ex-offenders with a history of treatment for co-occurring disorders.

Literature Search Strategy

This study embarked on the use of internet to conduct its literature search on topics of mental illness, mental health, serious mental illness, substance dependency, substance abuse, substance use disorders, race, Blacks, African American, jail, prison, arrest, rearrests, and recidivism. The following databases were used: ProQuest Central, PsycARTICLES, SAGE Full Text, Criminal Justice Periodicals, PsycINFO, EBSCOhost, ERIC (Educational Resource Information Center, Psychology), SocINDEX, Thoreau Multi-Database, and Google Scholar. This study utilized the current DSM-5 (American Psychiatric Association, 2013) for proper definition of all mental health disorders. This study also searched BJS reports for pertinent information. The following keywords were used: *mental illness, mental health, serious mental illness, major mental illness, substance dependency, substance abuse, substance use disorders, inpatient treatment, hospitalization, race, men, Whites, Blacks, African-American, jail, prison, criminal justice, criminal history, violence history, employment, gainful employment, unemployment, education, revocation, arrest, rearrests, and recidivism.*

Theoretical Foundation

The literature search thus far demonstrates that the current theories lack a comprehensive approach on the likelihood of recidivism among the African American male ex-offenders with a history of inpatient treatment for mental illness and substance use disorders and how these men exhibit the propensity to perpetually engage in criminal behaviors. For instance, studies found that African American men make up 42% of the overall prison population and 62% of the total incarcerated male prison population. In addition, African American men are eight times more likely to be incarcerated than White men (Hattery & Smith, 2007; Western & Wildeman, 2009). Hence, this study attempted to identify the risk factors of the likelihood of recidivism among African American male ex-offenders with mental health disorders and substance use disorders and how these risk factors vary as they relate to race. Therefore, this study used family systems theory as the best lens to answer the research questions and the hypotheses because it afforded the researcher the opportunity to explore both the recidivism risk factors and how recidivism differs as a function of race from the African American family system perspective.

Family Systems Theory

Bowen's family systems theory is a theory that assumes that all parts are connected to one another and that it is impossible to truly understand each part when considered separately (Bowen, 1978; Kerr & Bowen, 1988). The authors maintained that this theory focuses on the interactions that take place among members of the system and that the entire family should be subject to analysis (Bowen, 1978; Kerr & Bowen, 1988; Karakurt & Silver, 2014). Additionally, the authors posited that problems are viewed as a result of what happens during the interactions among members of the systems (Bowen,

1978; Kerr & Bowen, 1988; Karakurt & Silver, 2014). Furthermore, the authors

accentuated that all behaviors of the members in a system affect the environment as the

environment also affects all the members of the system. As such, Davidson (1983)

posited that all behaviors must be viewed or considered within a larger system context.

By viewing all behaviors within a larger system context, the family systems theory could

inform the researcher about family and community roles and support which the

researcher can apply to or use to examine recidivism rates (Helm, 2014, Sanders, 2014).

The authors also maintained that family systems theory could inform the researcher about

the family and community roles and support because family members are emotionally

interdependent and functional in reciprocal relationships with one another (Helm, 2014,

Sanders, 2014).

Focusing on the emotional interdependent and functional in reciprocal

relationships, Bowen asserted that "it is the reciprocal functioning of all the members of

the family which contributes to the emotional intensity of the patient" (Bowen, 1978;

Haefner, 2014, p. 835). The author accentuated that the emotional symptoms of a

member are an expression of the emotional symptoms of the family, which are often

entrenched in the patterns of behaviors from past generations (Bowen, 1978; Kerr &

Bowen, 1988; Haefner, 2014). On the other hand, the author also asserted that the

emotional dysfunction of any member disturbs all of that member's relationship system,

specifically the family system (Haefner, 2014; Bowen, 1978). Therefore, to reduce

emotional dysfunction among members of the systems, Bowen (1978), as the developer

of the family systems theory focused on the main goal of reducing chronic anxiety among

members by a) promoting awareness of how the emotional system works and b) by

increasing the levels of differentiation, in which the focus is on making changes on oneself rather than trying to change others (Kerr & Bowen, 1988; Brown, 1999). By differentiation of self and emotional fusion, Bowen (1978) as cited in (Haefner, 2014) refers to the ability of a member to function autonomously by making self-directed choices and yet remains emotionally connected to the important relationships in the family systems. The inability to succinctly make the self-directed choices or completely differentiate oneself could lead to or perpetuate the family or household dysfunctions such as family violence, family substance abuse, family mental illness, separation/divorce, and family incarceration (Bowen, 1978; Kerr & Bowen, 1988; Baglivio & Epps, 2016). Therefore, the family systems theory promotes the goal of effective therapy to afford the family members greater opportunity for differentiation, less blaming, decreased reactivity, and increased responsibility for member/self in the emotional system (Brown, 1999; Bowen, 1978; Kerr & Bowen, 1988). For example, Datchi and Sexton (2013) conducted a study on the effect of family therapy on adult criminal conduct and investigated the effect of evidence-based family focused intervention. Their findings revealed that adult offenders with mental illness, family relationships, and the risk of reoffending who completed the family therapy experienced significant improvement in individual and relational functioning (Datchi & Sexton, 2013).

Hall and Sandberg (2012) conducted a phenomenological exploratory study of the experiences of African Americans who overcame barriers to engage in family therapy. The findings showed that the common barrier was the stigma that was attached to therapy. The findings also indicated that the family therapists work with African

Americans on the premise of building a trusting healing relationship is the key component to therapy (Hall & Sandberg, 2012). Therefore, the use of family systems theory in this research afforded the researcher the opportunity to understand the human behavior as an emotional unit and the use of systems thinking to describe the complex interactions in the unit (Kerr, 2000) and at the same time gather and analyze pertinent information that influenced the rate of recidivism among African American male ex-offenders with mental illness and substance used disorders.

Literature Review Related to Key Variables

Several studies have consistently indicated that ex-offenders with serious mental illness and substance use disorders recidivate at a higher rate when compared to those without and have been arrested, tried, and convicted at a higher rate as well (Matejkowski & Ostermann, 2015; Vogel, Stephens, & Siebels, 2014; Fisher et al., 2011). The criminal justice system has also indicated a growing concern about serious mental illness and substance use disorders among individuals as shown with the increasing prison or criminal justice population (BJS, 2006). With respect to this growing population and concern, some studies posited that most incarcerated men are recidivists and are disproportionately African American males (Jung et al., 2010; Sabol, Mititon, & Harrison, 2007). Additionally, Wang, Aminawung, Wilderman, Ross, and Krumholz (2014) asserted that the African American males experience a high cumulative risk of incarceration when compared to an estimated impact of incarceration among white men, African American women, and white women that was far less. Other studies also indicated that these individuals who recidivate at high rates have serious mental illness and substance use disorders and most go untreated (Rihmer, Gonda, Rihmer, &

Fountoulakis, 2010; Wood, 2011; Swanson et al., 1997). Although the researchers have addressed recidivism in connection with mental illness and substance use disorders, limited existing research has examined how risk factors differ as a function of race (Spjeldnes et al., 2012). Nonetheless, few researchers have ventured to explore if any differences exist among the risk factors that are prevalent among African American male ex-offenders with the history of treatment for mental illness and substance use disorders and likelihood to recidivate. The findings from this study may offer African American families the benefits of gaining the awareness and understanding of the need to advocate for effective treatment of mental illness and substance use disorders for family members who are ex-offenders with a history of treatment for mental illness and substance use disorders at some point in their lives. Additionally, the findings from this study could offer benefits with implications for social change with better understanding of the ever-increasing needs for effective services for African American male ex-offenders with a history of treatment for mental illness and substance use disorders at some point in their lives.

Social Change

Similarly, Walden University defines positive social change as "a deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies. Positive social change results in the improvement of human and social conditions" (Walden University, 2018, "Social change"). Findings from this study could effect social change with significant changes in behavior patterns and cultural norms towards public perception of mental illness over time. Discoveries could

demonstrate positive gains in mental health and substance use disorder and bring about decline in mental illness and substance use/substance abuse (Keyes, Dhingra, Simoes, 2010). In addition, the findings that demonstrate losses in mental health and substance use disorders could predict increase in mental illness and substance use disorders, necessitating public support for positive social change (Keyes, et al., 2010). Findings could be used to promote the worth and dignity of individuals with severe mental illness and minimize the self-stigma that impact the overall health of these individuals (Corrigan & Rao, 2012). The findings could also be used to promote the development and the awareness of the African American communities and cultures regarding mental health treatment (Corrigan & Rao, 2012). Findings from this study could promote positive programs that empower individuals with mental illness to reduce self-stigma (Corrigan & Rao, 2012).

Furthermore, studies continue to affirm that ex-offenders with no education and gainful employment constitute significant barriers to successful reintegration into the community and eventual lead to recidivism (Makarios, Steiner, & Travis, 2010; Lockwood, Nally, Ho, & Knutson, 2012). Lockwood, Nally, and Ho (2016) found that post-release employment was the most influential factor on recidivism, regardless of the offender's ethnicity. The study also found that unemployment was the most influential factor to recidivism, regardless of offender's race and education (Lockwood et al., 2016). The failure of the researchers to include variables that considered the economic structure, or the economic community of the offenders would have influenced the findings or the outcome.

Synthesized Studies Related to Key Independent Variables

Several studies have indicated that there are numerous risk factors that are associated with increased recidivism. The numerous risk factors include decreased social support, impoverished neighborhoods, substance use disorders, race/ethnicity, age, gender, socioeconomic status, and traumatic life losses (Matejkowski & Ostermann, 2015; Spjeldnes & Goodkind, 2009; Silver, Felson, & Veneseltine, 2008). Other risk factors such as insufficient or lack of family tie, lack of gainful employment, little or no education, poor socialization or lack of social skills, isolation from family and peers, and substance abuse were found to influence recidivism (Matejkowski, Drine, Solomon, & Salzer, 2011). Watkins (2011) also conducted a study with 11,051 offenders and used the utility of level of service inventory-Revised (LSI-R) to identify offenders' risks and needs with regards to recidivism. Watkins' findings revealed that criminal history, gainful employment, education, financial, family/marital status, accommodation, emotional, companions, recreational, alcohol/drug problems enhance the prediction of recidivism (Watkins, 2011).

In an attempt to explain some of the risk factors that enhance the prediction of recidivism among high-risk offenders participating in a court-supervised substance abuse treatment, Evans, Huang, and Hser (2011) examined high-risk offenders that were being treated by California's proposition 36 court-supervised drug treatment program. Evans et al. found that the number of re-arrests was increased by high-risk classification, but decreased by prolonged and more treatment services. Evans et al. also found that when the number of treatments was shorter, the number of re-arrests was higher among the high-risk offenders and was similar to that among the low-risk offenders when the

treatment length was longer. In addition, Evans et al. found that the high-risk offenders were younger than the low-risk offenders (33.4 vs. 37.3 years old), were more male than female (28.9% vs. 14.1%), were more on psychiatric medication (17.8% vs. 10.2%), and more had received mental health services (47.4% vs. 26.2%).

Race

Race seems to play a major role in the influence of recidivism rates. According to The Pew Center on the States, 2008 (as cited in Spjeldnes & Goodkind, 2009), in 2006, 1 in 15 African American men that were 18 and older were incarcerated, while Hispanic men and White men were 1 in 36 and 1 in 106 respectively were incarcerated. Similarly, 1 in 203 African American women, 1 in 436 Hispanic women, and 1 in 859 White women were incarcerated. Additionally, according to the midyear 2007 BJS estimates (as cited in Spjeldnes & Goodkind, 2009), African American men were the most incarcerated (35.4%) while White men (32.9%) and Hispanic men (17.9%) were incarcerated second and third respectively.

These findings were also consistent with Jung, Spjeldnes, and Yamatani (2010) who carried out a study to examine the recidivism rates and survival time from release period to rearrests period among 12,545 men ex-offenders that were released from Allegheny County Jail during 2003. These ex-offenders were tracked for a period of three years (2003 to 2006). Jung et al. found that the overall recidivism rate was 55.9% for the three-year period. The findings also revealed that African American men ex-offenders recidivated at much higher rate and shorter time period than White men. Jung et al. findings further revealed that within 1 year of released, African American men ex-offenders recidivated at the rate of 43%, while White men ex-offenders recidivated at the

rate of 31.1%. Also, within 2 years of released, the African American men ex-offenders recidivated at the rate of 57.6%, while White men ex-offenders recidivated at the rate of 41.9%. Furthermore, Jung et al. found that within 3 years of released, the African American men ex-offenders recidivated at the rate of 65.2%, while the White men ex-offenders recidivated at the rate of 47.6% (Jung et al., 2010). In support of these findings, the Pew Center with the States (2009) posited that 1 in 11 African American men are incarcerated, while 1 in 27 Hispanic men, and 1 in 45 White men are incarcerated. Furthermore, BJS (2006) (as cited in Verro, 2010) asserted that racially, 4,919 in 100,000 of African American men are incarcerated, while 1,717 in 100,000 Hispanics and 717 in 100,000 White men are incarcerated respectively. Verro (2010) also noted that between 45% and 64% of those incarcerated suffer from some form of mental illness and substance use disorders. The author additionally posited that of this statistics, blacks are more likely than whites to be incarcerated (Verro, 2010).

Different cultures and ethnicities view mental illness differently and this could certainly influence the recidivism rates. According to Stacer (2012), African Americans and other minority groups with mental illness suffer racial discrimination and prejudice as well as stigma that is associated with mental illness. Stacer accentuates that ethnic minority groups are less inclined than Whites to believe that mental illness is due to emotional and behavioral problems. Stacer also asserted that African Americans tend to believe that mental illness is a result of the individual's bad character than Whites who may believe that mental illness is also genetically induced and are more likely to offer social support. As a result of this belief among the African Americans, they are less inclined to offer the needed social support to the incarcerated and mentally ill (Staacer,

2012). Stacer also posited that among the Hispanics, there is a high level of family unity and social support and hence, they are very likely to provide the needed social support to the mentally ill and incarcerated family members, thereby resulting in the reduction of the recidivists or recidivism rates (Stacer, 2012).

Age

The age of an offender or ex-offender has been shown to influence the recidivism rates as a risk factor. According to Hall (2015), when the offenders or ex-offenders increase in age, the likelihood for them to recidivate and return to jail or prison after six months of post-release reduces from 38.6% to 25.9% among the age group of 21 to 30 years old. Consistent with these findings, Spjeldnes and Goodkind (2009) posited that age is an important risk factor in the likelihood of recidivism and African American men ages 20-24 with 7% of the total population in custody is the largest cohort. For the White men, Spjeldnes and Goodkind (2009) asserted that the largest cohorts were ages 25-29 with 4% of the total population in custody. Maschi, Suftin, and O'Connell (2012) asserted that the older adult inmates with mental health issues were becoming a significant concern in the criminal justice system. Maschi et al. conducted a content analysis study that reviewed 31 empirical studies that were conducted between 1988 and 2012 in secure prisons and forensic psychiatric hospitals. The findings revealed that schizophrenia, major depressive disorder, dementia, and substance use disorder were the most diagnosed mental illness among the older adult inmates (Maschi et al., 2012). The results also revealed that all forms of mental illness, including serious mental illness should be addressed at every stage of the criminal justice process in every age group to minimize the rate of recidivism (Maschi et al., 2012). Consistent with these findings, Maschi, Morgen, Zgoba, Courtney,

and Ristow (2011) examined 334 offenders that were 55 years and older and incarcerated in the New Jersey Department of Corrections, as of September 2010. Maschi et al used Life Stressors Checklist-Revised to measure objective and subjective trauma, and used the Civilian Version of the Posttraumatic Stress scale to measure the Posttraumatic stress symptoms. The findings revealed that age had a significant relationship to subjective traumatic and stressful life events, which could influence the recidivism rates for this population (Maschi et al., 2011). The implication of the findings is that they are significance for interprofessional practice and appropriate community care, which includes reentry planning for the older population in the criminal justice systems (Maschi et al., 2011).

Prior Criminal History

Several studies have found prior criminal history or prior criminal record as a strong predictor of recidivism (BJS, 2015, BJS, 2008, Jung et al., 2010, Tsai & Rosenheck, 2016). The Bureau of Justice Statistics (BJS, 2015) posited that 56% of the jail offenders were on probation and 13% were on parole, or pretrial release at the time of arrest for repeated offenses. The report also noted that regardless of the offender's conviction status, about 68% of the offenders were held for felony offenses and 32% of the offenders were held for misdemeanor or other offenses (BJS, 2015). In support of these findings, Matejkowski, Lee, and Han (2013) conducted a study to examine the extend with which criminal history was associated with mental health service use and other related services among ex-offenders with serious mental illness. The study examined 1,588 ex-offenders with serious mental illness that included 1,398 ex-offenders with major depressive disorder and 190 ex-offenders with bipolar disorder (Matejkowski

et al., 2013). The study showed that 30% of the participants had a lifetime criminal history or criminal records with serious mental illness and 28.7% received some form of mental health services in the past. The study further showed that ex-offenders who were male, single, younger, and less educated were more likely to have a criminal history than male, married, and more educated. With regards to needs, the study showed that ex-offenders with bipolar disorder were more likely to have criminal records than ex-offenders with major depressive disorder (Matejkowski et al., 2013).

Kurlychek, Brame, and Bushway (2006) posited that it has been accepted in a variety of fields that past behavior is one of the best predictors of future behavior. Kurlychek et al. conducted a study to explore whether at a given period of time, the risk of reoffending or recidivism for ex-offenders with criminal past record is ever distinguishable from offenders with no past arrest. Kurlychek et al. hypothesized that offenders who offended in the past are more likely to offend in the future. The authors also hypothesized that the risk of reoffending or recidivism decreases as the time for the last offense or criminal act increases (Kurlychek et al., 2006). The findings revealed that as soon as an ex-offender is re-arrested, the information of the offender's criminal record or prior record significantly distinguishes this offender from the population of offenders with no prior criminal record (Kurlychek et al., 2006). As was hypothesized, the findings also revealed that the risk of reoffending among ex-offenders who last offended six or seven years ago decreased when compared to new offenders with no criminal record (Kurlychek et al., 2006).

Previous criminal record is also revealed to have a negative effect on ex-offenders seeking employment and the recidivism rates. Poremski, Whitley, and Latimer (2014)

conducted a study to explore the self-reported barriers to employment by ex-offenders with severe mental illness and homelessness. The findings showed that risk factors like having a criminal record, substance abuse, and self-stigmatizing beliefs hindered securing gainful employment. Additionally, the findings revealed that criminal history or criminal record hindered ex-offenders from obtaining adequate psychiatric care (Poremski et al., 2014).

Mental Illness

Mental illness can play a pivotal role in the rearrests and reconviction of ex-offenders. According to the American Psychiatric Association (APA, 2013), the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* defines mental illness or mental disorder as "a syndrome characterized by clinical significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning" (p. 20). The DSM-5 is used to diagnose mental disorders like major depressive disorder, bipolar, schizophrenia, schizoaffective, anxiety, dementia, substance use disorder, personality disorders, etc. (Vogel et al., 2014). The United States Department of Health and Human Services in a national survey on drug use and health (NSDUH, 2016) estimated that in 2015, 43.4 million adults aged 18 or older (17.9%) in the general population had any mental illness (AMI). The survey also estimated 9.8 million adults in the general population as having serious mental illness in 2015 (NSDUH, 2016). The survey noted that of the 9.8 million adults with serious mental illness, about 65.3% received mental health services in the past year (NSDUH, 2016). Supporting this survey, Steadman, Osher, Robbins, Case, and Samuels (2009) conducted a longitudinal study

from (2002 – 2006) to determine the prevalence of serious mental illness among those who were incarcerated. Steadman et al. examined 822 offenders with serious mental illness such as major depressive disorder, bipolar disorder, schizophrenia, schizoaffective disorder, and psychotic disorders. The findings revealed that serious mental illness was very common across detention centers and by treating it alone may not reduce the recidivism rates (Steadman et al., 2009). The authors suggested that in addition to treating the serious mental illness, diversion programs such as problem-solving mental health courts and specialized probation models that aim at reducing these disorders are required to help offenders and ex-offenders with the propensity to recidivate (Steadman et al., 2009).

Comparable to the findings of Steadman et al., Baillargeon, Binswanger, Penn, Williams, and Murray (2009c) conducted a study that examined 79,211 inmates in a state-wide prison system. Baillargeon et al. indicated that out of the total number of inmates examined, 7,878 inmates were diagnosed with major psychiatric disorders (major depressive disorder, a bipolar disorder, schizophrenia, or a nonschizophrenia psychotic disorder). The findings revealed that inmates with major psychiatric disorders had a higher or a substantially increased risks of multiple incarcerations or higher recidivism rates than those inmates without major psychiatric disorders (Baillargeon et al., 2009c). Additional findings revealed that the greatest increase in recidivism rates or risk was among inmates with bipolar disorder. The inmates with bipolar disorder were also found to be 3.3 times likely to have had four or more previous incarcerations in comparison with inmates without psychiatric disorders or mental illness (Baillargeon et al., 2009c).

Several studies also revealed that serious mental illness with the diagnoses of schizophrenia, bipolar, and depression among offenders and ex-offenders constitutes important risk factor that affect recidivism rates (Skeem et al., 2014; Kubiak, Essenmacher, Hanna, & Zeoli, 2011; Golenkov, Large, & Nielson, 2013; Skeem, Manchak, & Peterson, 2011). Hiday, Ray, and Wales (2014) conducted a study that examined 408 offenders with serious mental illness who participated in the mental health courts program. The findings revealed that offenders who voluntarily participated in the program and graduated led to the reduction in the recidivism rates (Hiday et al., 2014). Alternatively, offenders who were non-compliant with the mental health courts program as a result of testing positive for illicit drug use or failure to comply with the mental health courts hearing recidivated at higher rates (Hiday et al., 2014; McNiel & Binder, 2007). The researchers analyzed a 12-month data for 139 mental health court participants and 6,606 individuals in the treatment as usual group. The results indicated that the median time the participants spent in the mental health court program was 8.3 months. The findings also showed that 81 (48%) of the participants who enrolled in the mental health court program graduated at the end of the follow-up period, 45 (26%) were still enrolled, 44 (26%) left the court program for other reasons, 11 (0.06%) left the court program voluntarily, 5 (0.03%) were removed from the court program due rearrest for new charges, and 11 (0.06%) were removed from the court program for noncompliance (McNiel & Binder, 2007).

Substance Use Disorders

Several studies have shown that substance abuse or substance use disorders among offenders and ex-offenders with co-occurring disorders is a major risk factor that

contribute to higher rates or likelihood of recidivism (Degiorgio & DiDonato, 2014; Proctor & Hoffman, 2012; Baillargeon et al., 2009; Wood, 2011; Castillo & Alarid, 2011). According to the United States Department of Health and Human Services in a national survey on drug use and health (NSDUH, 2016), in 2015 20.8 million people aged 12 or older from the general population had a substance use disorder related to the use of alcohol or illicit drugs. The survey also noted that out of 20.8 million people with substance use disorder, only 10.8% (2.3 million people) received treatment from a specialty facility (NSDUH, 2016). Also, focusing on substance use among mentally ill offenders' population, Burca, Miles, and Vasquez (2013) conducted a study to examine the prevalence of substance use and the relationship to the offending behavior. The findings revealed significant correlations between heavy past use of alcohol and other illicit drugs and the use of alcohol at the time of offending (Burca et al., 2013). Despite the significant correlations, this study had a few implications that stemmed from the fact that the small sample from one small area limited the generalization of its findings because substance use demographics vary and retrospective recall biases may influence past perceptions of substance use (Burca et al., 2013).

Lee, Bank, Cause, McBeath, and Newell (2015) conducted a study to examine how race and gender moderate the predictive power of substance use in accounting for incarcerations or corrections involvement. The findings revealed that men displayed a higher rate of substance use and incarcerations than women (Lee et al., 2015). Furthermore, the findings revealed that African American men offenders displayed higher rates of substance use and incarcerations than White men and Hispanic men offenders (Lee et al., 2015). Additional findings showed that all men offenders consumed

more alcohol than women offenders, but more African American men offenders get convicted more often for alcohol related offenses (Lee et al., 2015).

The *DSM-5* (2013) posited that substance use disorder occurs when the continuous use of alcohol or illicit drug causes clinically and functionally significant impairment in the life of individuals resulting in health problems, disability, and failure to meet work, school, or home responsibilities (American Psychiatric Association, 2013; Substance Abuse and Mental Health Services Administration (SAMHSA), 2015). According to BJS (2006), 53% of state offenders and 45% of federal offenders met the definition and the criteria for substance use disorder of DSM-5 in 2004. The report also revealed that 17% of state and 18% of federal offenders committed their crime to obtain money for drugs (BJS, 2006). The violent state offenders were 50% less likely to use drugs a month prior to arrest (BJS, 2006). Additionally, the report revealed that 40% of state and 49% federal offenders participated in the drug treatment programs since their admission into prison (BJS, 2006). Also, the report showed that among state and federal offenders, White offenders are 20 times more likely than African American offenders to report recent methamphetamine use (BJS, 2006). Other studies revealed that the risk of reoffending in general and/or committing violent crimes by offenders and ex-offenders increases when there is evidence of substance use disorder (Wood, 2011; Elbogen & Johnson, 2009; Bergman & Andershed, 2009).

Inpatient/Hospitalization

The inpatient treatment and or hospitalization of offenders and ex-offenders with serious mental illness and substance use disorder should be of utmost important in the local, state, and federal correctional facilities. According to the survey conducted by

National Survey of Prison Health Care (NSPHC, 2016), only 27 states out of the

participating 45 states in the survey provided exclusive on-site inpatient mental health

care for inmates or offenders in 2011. The survey also maintained that 3 states delivered

inpatient mental health care exclusively off-site (NSPHC, 2016). The survey findings

also revealed that 3 of the 27 states that exclusively delivered inpatient treatment might

seldom provide off-site inpatient treatment to offenders with serious mental issue

(NSPHC, 2016). Another national comprehensive survey that was conducted by the

Treatment Advocacy Center (2016) in more than 20 years revealed that most county jails

are unequipped and overwhelmed with inmates or offenders who suffer from mental

illness. The survey also revealed that about 96% (vast majority) of the jails reported that

some of their inmates or offenders have serious mental illness (Treatment Advocacy

Center, 2016). In addition, the survey revealed that three-quarters of the jails reported

seeing far more inmates or offenders with serious mental illness when compared to 5 to

10 years ago, and the recidivism rate for these inmates or offenders far much higher than

the general inmate population (Treatment Advocacy Center, 2016). The survey also

revealed that many of these inmates or offenders with serious mental illness receive no or

inadequate mental health treatment, leading to the worsening of their conditions, and in

turn predisposes them to committing other crimes (Treatment Advocacy Center. 2016).

Felthous (2016) conducted a study to examine the medical ethics of hospitalizing

inmates or offenders with severe mental illness. Felthous (2016) stated that "the medical

ethics principles of beneficence towards patients, including primacy of patient welfare

and promoting access to medical care, favor the hospitalization of severely mentally ill

inmates whose condition would require such level and quality of treatment were they not

incarcerated" (p. 128). The findings revealed that despite the principles of beneficence, more fiscal concerns than for liberty interests for inmates or offenders led to the removal of hospitalization for the severely mentally ill inmates behind bars (Felthous, 2016). The findings also revealed that barriers such as the need for accusatorial hearing and legal transfer of the inmate/offender; shortage of hospital beds even with legal approval; administrative decisions that deny hospital admission for inmates/offenders who have not been adjudicated incompetent to stand trial; and mental health professional relinquishing the effort to hospitalize inmates that are in need of intensive psychiatric care (Felthous, 2016).

Several studies have also revealed that there are more seriously mentally ill inmates/offenders in jails and in prisons than there are in mental health hospitals (Vogel, Stephens, & Siebels, 2014; Torrey et al., 2010; Torrey et al., 2012; Cunningham 2009; Metzner, & Fellner, 2010). Many of the inmates/offenders who are in jails and prisons with serious mental illness are subjected to isolation and solitary confinement, resulting into their conditions being exacerbated or provoking recurrence (Metzner & Fellner, 2010). Torrey et al. (as cited in Vogel et al., 2014) posited that in 2010, the total number of psychiatric beds was at 28% of the total number considered to be minimally adequate to provide inpatient services to the severely mentally ill offenders or ex-offenders. As a result, offenders and ex-offenders who would have benefited from long-term care are left with very few options, and many are homeless (Vogel et al., 2014; Torrey et al., 2012). Given the state of homelessness for the ex-offenders and the lack adequate care for the severely mentally ill, many gravitate towards hospital emergency rooms and jails or prisons (Cunningham 2009; Vogel et al., 2014).

Gainful Employment

After released from jail or prison, gainful employment could serve a deterrent for ex-offenders from being rearrested and returned to jail or prison. Latessa (2012) accentuated the importance of gainful employment by stating that "supporting one's self and others, developing the self-worth that comes from work and a job well done, having stakes in society and conformity, and building prosocial relationships and a sense of community are all things that employment can bring" (p. 87-88). Several researchers (Steurer, Linton, Nally, & Lockwood, 2010; Pager, Western, & Sugie, 2009; Monnery, 2014; Ramakers et al., 2014) have also emphasized the importance of employment and their findings revealed that gainful employment demonstrates positive effect on reducing recidivism rates when ex-offenders reenter the community. Skardhamar and Telle (2012) conducted a study to examine ex-offenders' transition from prison to gainful employment and also examine the relationship post-release gainful employment and recidivism. The study examined 7,476 ex-offenders that were released between 2003 and 2006 (Skardhamar & Telle, 2012). The findings revealed that 30% of the ex-offenders were employed in approximately 30 months of released from prison and the hazard of recidivism is significantly lower because of employment when compared with ex-offenders who were unemployed (Skardhamar & Telle, 2012).

Additionally, Nally, Lockwood, Ho, and Knutson (2014) conducted a 5-year (2005-2009) follow-up study of different types of ex-offenders to examine the recidivism rates and gainful employment among them. The study examined 6,561 ex-offenders who were released from the Indiana Department of Correction during the 5-year period. The findings revealed that 37% of violent ex-offenders, 38.2% of non-violent ex-offenders,

36.3% of sex ex-offenders, and 36.9% of drug ex-offenders were never offered gainful

employment since release from prison (Nally et al., 2014). The findings also revealed that

among the violent ex-offenders, the recidivism rate was 46.6%, 48.6% among the non-

violent ex-offenders, 54.7% among the sex ex-offenders, and 45.8% among drug ex-

offenders (Nally et al., 2014). Most significantly, the results also revealed that

unemployment rate was high among ex-offenders during their first year of release from

prison and nearly half of the ex-offenders were rearrested and reincarcerated within 12

months of their initial release (Nally et al., 2014). Lockwood, Nally, and Ho (2016) also

conducted another 5-year follow-up study that examined 3,869 ex-offenders to determine

the effect of post-release employment on recidivism. Although the results revealed that

African American ex-offenders tend to have higher recidivism rate because of returning

to communities with poverty, unemployment, and crime, unemployment was the most

significant factor regardless of the ex-offender's ethnicity (Lockwood et al., 2016).

These findings are further supported by other researchers (Harley, 2014; Feist-

Price, Lavergne, & Davis, 2014; Harley, Cabe, Woolums, & Turner-Whittaker, 2014),

who posited that adult ex-offenders with serious mental illness or any form of disability

are the most vulnerable population that is often marginalized who encounters major

community and employment barriers when trying to reintegrate into the community. The

researchers accentuated that securing gainful employment significantly diminishes

recidivism rates (Harley, 2014; Feist-Price et al., 2014; Harley et al., 2014). For instance,

ex-offenders that were diagnosed with serious mental illness of schizophrenia have

difficulties finding any gainful employment. Wagner, Torres-González, Geidel, and King

(2011) conducted a study to examine existential questions in the daily life of ex-offenders

with schizophrenia. Wagner et al. found that these individuals are highly discriminated against, stigmatized, and have difficulty finding gainful employment due to their mental illness. The findings also revealed that these individuals like to be treated with respect but they are often characterized as lazy, nonmotivational or potentially violent, and with life without meaning or purpose (Wagner et al., 2011). Similarly, African American male ex-offenders with violent criminal records, a history of mental illness, and substance use disorder experience strong reluctance from employers when applying for gainful employment (Pager et al., 2009).

Education

Education could serve as an important tool or gateway to gainful employment, ease of community reentry, and even reduction in reoffending for ex-offenders. According to Steurer, Linton, Nally, and Lockwood (2010), correctional education programs support employment, security, public safety, and rehabilitation for the ex-offenders. Steurer et al. accentuated that correctional education serves as one of the most important reentry service and 94% of state and federal ex-offenders of serious and violent crimes consistently viewed education as personal reentry need. Steurer et al. also noted that correctional education has shown to reduce recidivism and support for employability for ex-offenders after release. In terms of costs comparison with education and building prisons, Steurer et al. revealed that education has shown to be twice as effective as prison building in reducing reoffending or future crimes by ex-offenders (Steurer et al., 2010).

Nally, Lockwood, Knutson, and Ho (2012) conducted a study that used the established study group (1,077 offenders) and the comparison group (1,078 offenders) by the Education Division of Indiana Department of Correction (IDOC) to examine the

effectiveness of correctional education on post-employment and recidivism. Nally et al.

noted all the offenders in the study group attended different types of correctional

education programs during incarceration at IDOC facilities, while the offenders in the

comparison group attended no correctional education programs. The findings revealed

that an offender who did not participate in any correctional education program is 3.7

times more likely to reoffend after release from IDOC custody when compared to an

offender who participated in a series of correctional education programs during

incarceration (Nally et al., 2012). The findings also revealed that the recidivism rate is

29.7% for offenders who participated in a series of correctional education programs when

compared to 67.8% recidivism rate of offenders who did not participate in any

correctional education program (Nally et al., 2012). The findings concluded that

correctional education programs for offenders could serve as an important mechanism to

reduce recidivism and also significantly reduce incarceration expenses that are associated

with reoffenders (Nally et al., 2012).

Several researchers (Hall, 2015; Lockwood et al., 2016; Mastrorilli, 2016; &

Rogers, 2014) have also supported these findings about the effectiveness of correctional

education program as an important mechanism in reducing recidivism rate. Furthermore,

Rogers (2014) accentuated that lack of knowledge, skills, and training has always

resulted in a revolving door of recidivism for the 2 million adults that are incarcerated

every year in US prisons. Rogers also posited that on the average, offenders who attended

correctional education programs had 43% lower likelihoods of recidivating than

offenders who did not (Rogers, 2014). Despite the rate of effectiveness for correctional

education programs in reducing recidivism rate, Mastrorilli (2016) asserted that

correctional education is used more as an offender control mechanism, and not as much of a tool for successful community reintegration post release.

Family Support

Strong family support can serve an important role in helping offenders transition from state and federal prisons to home and also serve as a strong mechanism in reducing the likelihood of recidivism for ex-offenders (Visher, 2013). Visher used data from a longitudinal study to examine fathers returning to the communities after a long period of being incarcerated. Visher examined how the relationship between released fathers and their children could enhance successful reentry of their lives in the areas of employment, abstinence from substance abuse, and mental health (Visher, 2013). The findings revealed that fathers who had regular contact or visitation from their children and family members before release are more likely to be attached or have close relationship with their children after release (Visher, 2013). Additionally, the findings revealed that fathers who were strongly attached to their children and family members maintained better work hours per week, have better mental health, have less likelihood to get rearrested, recidivate, or violate the terms of their parole or supervision (Visher, 2013).

The importance of family support for a successful reentry of offenders/ex-offenders into the family and the community has also been supported by other researchers (Martinez, 2006; Stacer, 2012; Duwe & Clark, 2012; Berg & Huebner, 2011; Spjeldnes et al., 2012; & Taylor, 2015). Spjeldnes et al. conducted a longitudinal study to examine factors that predicted incarceration and recidivism rates. The researchers used data from Allegheny County jail adult men offenders ($N = 301$) who participated in collaborative services and were 30 days from release. The eligible offenders participated in a

longitudinal study that concluded in 2008 (Spjeldnes et al., 2012). The results revealed

that positive family social support was found to reduce the effect of factors such as

substance abuse, black race, and younger age, known to predict higher recidivism rates

(Spjeldnes et al., 2012). The results also revealed that positive family social support

refuted negative perceptions of the helpfulness and support of community-based services

for ex-offenders (Spjeldnes et al., 2012). Furthermore, Nelson, Deess, and Allen (1999;

2011) (as cited in Martinez, 2006) stated that "offenders with strong supportive families

are more likely to succeed than those with weak or no family support, and that self-

defined family support was the strongest predictor of individual success" (p. 28).

Community/Social Support

According to Stacer (2012), incarceration is inimitable in the ways in which it

influences offenders and ex-offenders' social relationship. Stacer accentuated that

incarceration comes with a social stigma that may affect offenders' family members and

friends to reduce or cut ties with the offenders (Stacer, 2012). Family ties or bonds and

social support are essential to the ultimate survival of the ex-offenders in the community

and could also reduce the propensity to reoffend or commit crime after release. Duwe and

Clark (2012) postulated that family bonds and social support help minimize the stresses

related to reentry, making offenders or ex-offenders less likely to involve in subsequent

criminal behavior. Duwe and Clark accentuated that social support is extremely important

for the reentry of ex-offenders into the communities because communities are mostly

reluctant to accept ex-offenders with felony background, and released ex-offenders are

not qualified for many forms of public assistance (Duwe & Clark, 2012). Furthermore.

Duwe and Clark maintained that the more sources of social support an ex-offender or

offender has, the lower the likelihood of reoffending or the risk of recidivism (Duwe &

Clark, 2012). In supporting these findings, Berg and Huebner (2011) posited that good

quality ties and or community support is particularly important to male offenders and

male ex-offenders who have histories of unemployment.

Several researchers have also accentuated the importance of social support for ex-

offenders with mental illness and substance use disorder making reentry into the

communities (Berg & Huebner, 2011; Baer & Schmitz, 2007; Breese, Ra'el, & Grant,

2000; Spjeldnes et al., 2012). In addition, Stacer (2012) asserted that it is important to

consider the connections offenders and ex-offenders have with their families and

communities because of the beneficial effects of the social support on their mental

wellbeing. Stacer posited that these connections with the offenders are maintained

through visitations during incarceration (Stacer, 2012). For instance, Hispanic families

are widely documented to have good characteristics of high levels of family unity and

social support for ex-offenders (Baer & Schmitz, 2007; Stacer, 2012). Berg and Huebner

also added that family ties and social support serve an influential function in the reentry

environment, especially as a gateway to the job market (Berg & Huebner, 2011).

Furthermore, after reviewing a program from the Ohio State prison system, intended to

reduce recidivism after release of ex-offenders, Mohr (2013) concluded that it is

important to ensure that the use of community partners and strong family ties or pro-

social family members are in place before the release of offenders into the communities.

Mohr maintained that this is a critical element to ensure support and the success of

reentry for ex-offenders (Mohr, 2013).

Differentiation of Self

Several studies indicated that differentiation of self is positively associated with well-being and negatively associated with catalogues of distress (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). These studies also asserted that individuals with higher differentiation of self, demonstrated increased interpersonal and psychological well-being (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). Additionally, individuals with low or lower differentiation of self were found to demonstrate higher levels of psychological distress and lower levels of well-being (Ross & Murdock, 2014; Murdock & Gore, 2004; Krycak, Murdock, & Marszalek, 2012).

For instance, Skowron (2004) conducted a study to examine the cross-cultural validity of Bowen family systems theory (Bowen, 1978) focusing on the differentiation of self for African Americans. The findings indicated that African Americans with higher levels of differentiation of self demonstrated higher levels of psychological adjustments, social problem-solving skills, and greater ethnic group belonging or greater community association (Skowron, 2004). In addition, greater differentiation of self allows African Americans to take "I" positions, maintain autonomy in relationships, and acknowledge individual ownership in thoughts, feelings, and actions (Skowron, 2004; Tuason & Friedlander, 2000). Conversely, African Americans who reported lower levels of differentiation of self demonstrated stronger ties with family members or family origin and stronger emotional connections in their relationships with family members and significant others (Skowron, 2004). This study could not truly be generalized among the

African American ethnic group given the limitations such as the modest sample size and the heterogeneity of participants' cultural membership (Skowron, 2004).

Other studies cautioned that one criticism or limitation of differentiation of self is that it is an individualist construct that could be less applicable for individuals living in collectivist or communalistic cultures (Ross & Murdock, 2014; Chung, & Gale, 2006, 2009; Gushue, & Constantine, 2003). The studies also cautioned that differentiation of self construct should not just be tested from sample population that is largely White/Caucasian or European American cultural group but rather majority African American and other minority cultural groups (Ross & Murdock, 2014; Chung, & Gale, 2006, 2009; Gushue, & Constantine, 2003). It is recommended that participants for differentiation of self construct should be based on other cultural and ethnicity concepts such as acculturation and ethnic identity development (Ross & Murdock, 2014; Chung, & Gale, 2006, 2009; Gushue, & Constantine, 2003).

Dependent Variables as Descriptive Data for Recidivism

Over the years, most offenders with mental illness and or substance use disorder are often released from jail or prison system after serving partial or full sentence into the community. Some offenders who often serve partial sentence are usually released to the community under supervision with parole or probation officers to complete their sentences. As a result, most often violate the terms of their probation or parole through the use of illicit drugs or substance abuse and recommitting other crimes or reoffending. Given that reoffending does lead to reincarceration, therefore, this study operationalized reoffending as dependent variable recidivism as manifested in rearrests, reconviction, and revocation.

According to Sung, Mellow, and Mahoney (2010), co-occurring disorder among offenders and ex-offenders constituted a risk factor that increased recidivism. Sung et al. accentuated that one third of the population offenders in local jails met the criteria for co-occurring disorder and 64% of the offenders did not receive any mental health treatment during the period of incarceration (Sung et al., 2010). Baillargeon et al. (2009) also posited that offenders with mental illness and substance use disorder have a significant increase risks of multiple incarceration and higher rates of recidivism than offenders that do not have co-occurring disorders. Baillargeon et al. findings also revealed that offenders that have either serious mental illness or substance use disorder and not co-occurring disorders were less likely to reoffend or violate the terms of their probation or parole when compared to offenders or ex-offenders with co-occurring disorders (Baillargeon, 2009). On violating the terms of their parole and probation, Matejkowski and Ostermann (2015) examined whether parole and probation supervision can ameliorate the effects of serious mental illness and substance use disorder on recidivism. The findings revealed that serious mental illness and substance use disorder did show a significant indirect effect with recidivism when considering it relationship with statistically assessed risk (Matejkowski & Ostermann, 2015). The findings also revealed that paroling and probation authorities ought to find more effective ways to reduce criminal risk among their supervisees, that will reduce subsequent reoffending or recidivism (Matejkowski & Ostermann, 2015).

The report on probation and parole in the US by BJS (2016) indicated that by yearend 2015, approximately 4,650,900 adult ex-offenders were under community supervision. This approximation showed a decreased of 62,300 offenders from yearend

2014 (BJS, 2016). The report also showed that 1 in 53 adults in the US was under community supervision by yearend 2015. In addition, the reported indicated that probation decreased from an estimated 2,065,800 entries in 2014 to 1,966,100 in 2015; and parole entries increased from estimated 461,100 in 2014 to 475,200 entries in 2015 (BJS, 2016).

Rearrests

As reported by BJS (2016) that as of 2015, that there is an approximation of 1,966,100 adults on probation and 475,200 adults on parole, many with serious co-occurring psychiatric and substance use disorders. Wood (2011) used cross sectional, self-reported data of 1, 121 to examine the relationships between parolee time to rearrests, serious mental illness, and substance use disorders. The findings revealed that after controlling for demographic and criminal justice variables, parolees that had serious mental illness and substance use disorders were rearrested faster than parolees with no co-occurring disorders (Wood, 2011). In supporting these findings, Reich, Picard-Fritsche, Lebron, and Hahn (2015) conducted a study 654 participants in mental health court program from 2002 to 2010 and graduated. Reich et al. posited that most participants were on jail sanctions who had a prior history of rearrest or incarceration, property charges, and currently unemployed. The findings revealed that participants who were homeless and those with prior history of incarceration had a higher failure rates (Reich et al., 2015). The findings also revealed that participants who were younger with prior history of arrest and co-occurring substance use disorders were rearrested within two years (Reich et al., 2015).

Linhorst, Kondrat, and Dirks-Linhorst (2015) also conducted a study to examine the rearrests rates of 811 participants with mental health disorders who participated in mental health court supervision. The findings showed that 23.2% of the participants were rearrested during the court supervision (Linhorst et al., 2015). The findings also revealed that being younger, being diagnosed with schizophrenia, having a history of substance use disorders, and being on psychiatric medication increased the chances of being rearrested (Linhorst et al., 2015). The authors accentuated that participants who were rearrested during supervision had higher rates (47.3%) of being rearrested within 1 year of supervision completion when compared to participants who were not rearrested at the rate of 22.6% during supervision (Linhorst et al., 2015). Other studies also affirmed the findings that offenders and ex-offenders with co-occurring disorders of drug use and mental health problems were more likely to be rearrested for criminal offenses after release than those without mental health and substance use disorders. In addition, the diagnoses of bipolar, depression, and schizophrenia can play a significant role in offenders and ex-offenders being rearrested (Woodhouse et al., 2016; Skeem et al., 2011; & Steadman et al., 2009).

Reconviction

Reisig, Bales, Hay, and Wang (2007) conducted a study to examine the effect of racial inequality on reconviction rates of African American male ex-offenders. Reisig et al. posited that African American male ex-offenders who reenter communities with high level of inequality are more likely to recidivate or commit new crimes. The study examined 34,868 ex-offenders who were released in the state of Florida to 62 counties over a 2-year period (Reisig et al., 2007). The findings revealed that racial inequality

amplifies the person-level risk factors on reconviction rates for African American male ex-offenders. The results also showed that racial inequality amplifies the risk factors on recidivism for African American male ex-offenders (Reisig et al., 2007). Furthermore, the results revealed that the African American male ex-offenders in comparison to their White counterparts, the effect of inequality on reconviction rates or recidivism is far less meaningful (Reisig et al., 2007). This study is also consistent with other researchers who have reported that communities with drug problems and other social constraints such as high levels of poverty and inequality may greatly influence other crimes and reconviction rates (Kubrin & Stewart, 2006; Rose & Clear, 2003). Reisig et al. also accentuated that reconviction rates are highest for African American male ex-offenders in counties where negative economic conditions such as low income, joblessness, and poverty disproportionately affect African American families (Reisig et al., 2007).

Revocation

Oftentimes, most ex-offenders violate the terms of their community program supervision and this behavior usually result in parole or probation revocation. Degiorgio and DiDonato (2014) conducted a study to examine the risk factors that predict the probationer's rates of reincarceration through dynamic factors from the substance abuse questionnaires. Degiorgio and DiDonato posited that a large portion of US prison population is made up of incarcerated ex-offenders who violated the terms of their probation. The study examined dynamic factors as the predictors of probation revocation using the sample size of 8,310 adult probationers (Degiorgio & DiDonato, 2014). The findings revealed that three dynamic factors of violence, antisocial behavior, and stress

risk had positive influence on the number of lifetime probation revocations (Degiorgio & DiDonato, 2014).

Baillargeon et al. (2009b) conducted a retrospective cohort study to examine the relationship between co-occurring serious mental illness and substance use disorders and parole revocation among ex-offenders from the TDCJ. This study examined 8,149 ex-offenders who were released under community supervision between September 1, 2006 and November 1, 2006. The findings revealed that ex-offenders or parolees with co-occurring disorders of bipolar, schizophrenia, major depressive disorder, or other psychiatric disorder and a substance use disorder had a significantly increased risk of having their parole revoked as a result of violation of terms of parole or reoffending of new crime within 12 months of release (Baillargeon et al., 2009b). The findings also revealed that ex-offenders who had either a major psychiatric disorder or substance use disorders only did not pose an increased risk of having their parole revoked (Baillargeon et al., 2009b).

Steen, Opsal, Lovegrove, and McKinzey (2013) conducted a qualitative interview of 35 parole officers and quantitatively examined 300 ex-offenders who were on parole in Colorado between 2006 and 2007. Through this study, Steen et al. followed these parolees for 18 months. The findings revealed that parolees who were diagnosed with mental illness and substance use disorders committed significantly more technical violations or violated the terms of their parole than parolees who had no mental illness or substance use disorders (Steen et al., 2013). Other researchers have also confirmed the findings of Steen et al. (2013) that ex-offenders/parolees who have been diagnosed with mental illness and substance use disorders are at high risk of violating the terms of their

parole or probation or indulging in criminal behavior/reoffending (Wood, 2011; Castillo & Alarid, 2010; Matejkowski & Ostermann, 2015; Skeem & Louden, 2006).

Summary

The literature review has shown that recidivism continues to be a major problem in the US criminal justice system and yet, there is minimal research that addresses recidivism among African American male ex-offenders with co-occurring disorders who are on probation and parole under community supervision and whether risk factors of recidivism differ as a function of race. The literature review also revealed that African American male ex-offenders with mental illness and substance use disorders and those who may not have co-occurring disorders are faced with the propensity or high risks to recidivate or reoffend. The obvious challenges that African American male ex-offenders and other offenders face as they reenter into their various communities are serious mental illness and substance use disorders or co-occurring disorders (Vogel et al., 2014; NSDUH, 2016; Steadman et al., 2009; Baillargeon et al., 2009c; Skeem et al., 2014; Degiorgio & DiDonato, 2014; Wood, 2011; BJS, 2006). Other stronger risk factors that influence the likelihood of reoffending by African American male ex-offenders and other offenders are the level of education (Steurer et al., 2010; Nally et al., 2012; Hall, 2015; Lockwood et al., 2016), ability to secure and maintain gainful employment (Latessa, 2012; Steurer et al., 2010; Pager et al., 2009; Ramakers et al., 2014), strong family support (Visher, 2013; Stacer, 2012; Duwe & Clark, 2012; Spjeldnes et al., 2012), and strong community/social support (Stacer, 2012; Duwe & Clark, 2012; Berg & Huebner, 2011; Mohr, 2013). Furthermore, the literature review revealed how the different races or ethnicities perceive mental illness and the scuffles or challenges different races face as

pertaining to incarceration (Stacer, 2012; Alvarez-Rivera, Nobles, & Lersch, 2014).

Additionally, the literature revealed that the mental illness diagnoses of African

American male ex-offenders and other offenders are important factors when determining

the recidivism rates or the propensity to recommit criminal acts, especially the diagnoses

of depression, bipolar, and schizophrenia (Skeem et al., 2014; Skeem, Manchak, &

Peterson, 2011; Kubiak et al., 2011; Golenkov et al., 2013).

African American males are incarcerated at a greater rate than their White male

counterparts in the United States criminal justice system. Further research examining the

role race might play may present further insight into the influence of co-occurring

disorders as major risk factors, increase success in community programs and supervision,

and generally offer increase in public safety through crime reduction. The family systems

theory argues that family members are emotionally interdependent and functional in

reciprocal relationships with one another (Helm, 2014, Sanders, 2014). The theory may

best explain the family and society roles of the African American male ex-offenders with

co-occurring disorders in relation to how they relate, communicate, and show support to

each other when it comes to reoffending or reinvolvement in criminal behaviors. Chapter

3 is an outline of the methodology and how the archival data was used in the data

analysis.

Chapter 3: Research Methodology

Introduction

The adult male ex-offenders and other offenders with serious mental illness and substance use disorders have a higher propensity to be rearrested and reconvicted than those without co-occurring disorders (Burns, Hiday & Ray, 2013; Matejowski & Osterman, 2015; Skeem, Kennealy, Winter, Louden, & Tatar, 2014; Wood, 2011; Vogel, Stephens, Siebels, 2014). Of this population, African American male ex-offenders/offenders displayed higher rates of substance use and incarcerations than White and Hispanic male offenders (Lee, Bank, Cause, McBeath, & Newell, 2015). The purpose of this quantitative study was to examine the relationship between co-occurring disorders and the incidence of recidivism among African American male ex-offenders who have been hospitalized or treated for mental illness at some point in their lives. Floyd, Scheyett, and Vaughn (2010) posited that offenders and ex-offenders with SMI do not undergo appropriate treatment while incarcerated, as these programs are rarely available, which means that they receive only their medications/medication management, spend more time in jail, and are unable to communicate or even understand their rights.

The results from this study could create awareness and understanding among African American families of the need to advocate for effective treatment of serious mental illness and substance use disorders for family members who are ex-offenders with co-occurring disorders. This chapter explains how this was achieved, the research design, and the rationale for the design. This chapter also discusses the selection of the sample population, sample size, and how the participants were selected from the archival data. The instrumentation and the operationalization of constructs are discussed. In addition,

data collection and data analysis of the archival data, threats to validity, and ethical

procedures are discussed.

Research Design and Rationale

The independent variables for this study included race, age, prior criminal history,

mental illness, substance use disorders, inpatient/hospitalization, gainful employment,

education, family support, and community/social support. The dependent variable was

recidivism as manifested in rearrests, reconviction, and revocation. According to

Creswell (2009), research designs constitute plans and procedures for a study that extend

the decisions from wide-ranging assumptions to detailed methods of data collection and

analysis. Creswell emphasized that research designs allow the interactions of

philosophical expectations, plans of inquiry, and specific methods (Creswell, 2009).

Leedy and Ormrod (2010) stated that a research design is a guide that affords the

researcher the ability to analyze the collected data in a logical way. In this study, a

quantitative cross-sectional design was chosen because it afforded the researcher the

ability to measure or facilitate an inquiry about the relationships between the variables

(Creswell, 2009; Houser, 2009). Additionally, a quantitative cross-sectional design

aligned with the focus of the study and allowed the researcher to focus on clarifying the

extent of the relationship between two or more of the variables (Houser, 2009). Other

researchers concurred that the quantitative research approach allows the researcher to ask

predictive or concrete descriptive questions in order to test the study theory or

relationship that correlates cause and effect (Campbell & Stanley, 1963; Creswell, 2009;

Trochim, 2006). Through the research questions and hypotheses, this study was able to

investigate any relationship among the variables with respect to how these variables

could affect the likelihood of recidivism among African American male ex-offenders with a history of treatment for co-occurring disorders.

Variables

In this study, there was one dependent variable (recidivism) as manifested in rearrests, reconviction, and revocation and ten independent variables (race, age, prior criminal history, mental illness, substance use disorders, inpatient/hospitalization, gainful employment, education, family support, and community/social support) that were analyzed to determine the likelihood of the relationship with recidivism using the archival data from the TDCJ. The four research questions and hypotheses that used the independent variables and the dependent variable are stated below.

Research Questions/Hypotheses

This study addressed four research questions and hypotheses.

Research Question 1: Is there a relationship between mental illness and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*1): There is no statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*1): There is statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Research Question 2: Is there a relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*2): There is no statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*2): There is statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Research Question 3: Is there a relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*3): There is no statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*3): There is statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Research Question 4: Is there a relationship between differentiation of self from family history of mental illness, lack of education, substance use, unemployment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*4): There is no statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of education, unemployment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*4): There is statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of education, unemployment and recidivism among African American male ex-offenders in Texas.

Methodology

Population

After obtaining permission from the (TDCJ, "Offender Information", n.d.), this study used an electronic TDCJ database to identify African American male ex-offenders who had been incarcerated previously in a TDCJ facility in the last five years (i.e. between January 1, 2011, and December 31, 2016). This study used this database to obtain information on recidivism (rearrests, reconvictions, supervision violations and commitments to jail or prison, National Institute of Justice (NIJ,2008). This study also obtained permission to use TDCJ medical record database. This medical record database was used to obtain the demographics characteristics such as age, race, and gender from this population. This medical record database allowed the study to identify those who were diagnosed with a psychiatric disorder and a substance use disorder. This medical record database also allowed this study to identify those who were hospitalized and received treatment for their diagnoses. Hence, for this study, 169,218 African American male ex-offenders' records were randomly selected for data collection. Sampling selection were based on participants' records that consist of the age range of 18 to 60 years old, with between 6 to 17 years of education. These records also consisted of participants who indicated their marital status, employment status, and family members, for example, having children or no children. The participants' records also included those

who indicated their crime or offenses, for example robbery, drugs, sexual assault, fraud, etc. In addition, these participants' records also indicated the length of time the participant recidivated from their release. Therefore, using Cohen's recommendation for finding a medium-sized effect size, assuming statistical power of .80 (80%), alpha of .05 (5%), and using Cohen's *d*, the effect size was estimated (Doolan & Froelicher, 2009).

Sampling and Sampling Procedures

Since this study researched a high-risk population of ex-offenders, it made use of archival data. According to (Creswell, 2009; Jacobson, Hamilton, & Galloway, 1993; Mainous & Hueston, 1997), using existing data for a new research includes advantages like answering the research questions in less time and using low cost to achieve the findings. The authors also asserted that any study that involves high risk could also benefit from the use of existing data so that the participants are not exposed to high risks (Creswell, 2009; Jacobson et al., 1993; Mainous & Hueston, 1997). Doolan and Froelicher (2009) posited that any study using archival data does not need to calculate the sample size because it is already predetermined. However, the authors accentuated that the study still needs to consider the available number of subjects by considering the sample to ensure that it has enough power to answer the research questions (Doolan & Froelicher, 2009). Furthermore, Doolan and Froelicher (2009) posited that to calculate the power, the study needs to have the value of the alpha level, the effect size, the variability, and the number of subjects.

Instrumentation

The Statistical Package for Social Sciences (SPSS) was used to analyze each research question. According to Logio, Dowdall, Babbie, and Halley (2008), SPSS is

regularly used to explore relationships between variables in research by performing the

necessary statistical analysis. Bronstad and Hemmesch (2010) asserted that SPSS was

developed in 1968 and has been validated for data analysis in research. An archival data

was collected from the TDCJ which included race, age, prior criminal history, mental

illness diagnosis, substance use disorders diagnosis, inpatient/hospitalization, gainful

employment, education, family support, and community/social support. According to

Baillargeon et al. (2009) and Baillargeon et al. (2009b), every TDCJ inmate undergoes a

standardized medical evaluation and the inmate is also screened for mental illness and

substance use disorders during the intake into the prison system. The authors posited that

the medical evaluation entails a detailed medical history, physical examinations, and

numerous laboratory tests (Baillargeon et al., 2009; Baillargeon et al., 2009b). The

authors also asserted that the mental health screening is carried out in a standardized

manner across all prison sites by mental health nurses and other mental health

professionals (Baillargeon et al., 2009; Baillargeon et al., 2009b). Every inmate

undergoes a diagnostic interview that includes the assessment of any displayed symptoms

of psychiatric disease, history of mental health treatment, current suicidal ideation, prior

suicidal signs, display of unusual behaviors, emotional distress, and unusual nature of the

criminal offense (Baillargeon et al., 2009; Baillargeon et al., 2009b).

According to Baillargeon et al. (2009) and Baillargeon et al. (2009b), if this

baseline assessment/screening indicated the presence of mental illness, the inmate will be

referred for a formal mental health evaluation, conducted by a master's level licensed

mental health professional. The presence of a mental health diagnostic disorder during

the formal evaluation is based on an unstructured DSM-IV now DSM-V guided interview

(Baillargeon et al., 2009; Baillargeon et al., 2009b). The TDCJ also conducts an intake screening for substance use disorders for every inmate by using the Texas Christian University Drug Screening II (TCUDS) (Baillargeon et al., 2009; Baillargeon et al., 2009b). According to the authors, the TCUDS is based on DSM criteria and includes 19 items that represent key clinical and diagnostic criteria for substance use disorders (Baillargeon et al., 2009; Baillargeon et al., 2009b). A composite screening score of 3 or higher on TCUDS is an indication of severe drug-related problem and inmates whose TCUDS score indicated little or no drug use are reevaluated with Addiction Severity Index (ASI). In addition, the authors asserted that the ASI uses structured interview to assess inmates' numerous areas of functioning that are regularly affected by substance use disorders (Baillargeon et al., 2009; Baillargeon et al., 2009b). The authors concluded that in comparison with other drug screening instruments, TCUDS and ASI have been found to have high reliability over time, high positive values and sensitivity, and highly accurate in identifying substance-dependent inmates and in excluding non-dependent inmates (Baillargeon et al., 2009; Baillargeon et al., 2009b).

Data Collection and Analysis of Archival Data

After receiving approval from IRB, permission was sought and received from the (TDCJ, "Offender Information", n.d.) to obtain the archival data. This study used archival electronic TDCJ database to identify African American male ex-offenders who had been incarcerated previously in a TDCJ facility in the last five years (i.e. between January 1, 2011, and December 31, 2016) with a history of mental illness, substance use disorders, and inpatient treatment. This study used this database to obtain information on recidivism (rearrests, reconvictions, supervision violations and commitments to jail or prison,

National Institute of Justice (NIJ,2008). This study randomly selected 169,218 African American male ex-offenders with mental illness, substance use disorder, and history of inpatient treatment from the TDCJ database. The sampling selection was based on ex-offenders' records that consisted of the age range of 18 to 60 years old, with between 6 to 17 years of education. These records also consisted of ex-offenders that indicated employment status, education status, number of visitations, etc. The ex-offenders' records also included those that indicated their crime or offenses, for example, robbery, drugs, fraud, etc. Additionally, these records also indicated the length of time the participants' recidivated from their first release. Therefore, using Cohen's recommendation for finding a medium-sized effect size, assuming statistical power of .80 (80%), alpha of .05 (5%), and using Cohen's *d*, the effect size was estimated (Doolan & Froelicher, 2009).

Data Analysis/Analytical Strategies

This study used SPSS 25 for its data analysis because it is a valid and reliable tool for analyzing numerical data (Bronstad & Hemmesch, 2010). This study made use of multiple regression analysis (MRA). Rudestam and Newton (2015) posited that MRA is a multivariate statistical technique that examines the relationship between two or more continuously distributed independent variables and one continuously distributed dependent variable. Rudestam and Newton also claimed that the MRA will allow the researcher to examine the degree of relationship between the independent variables of education, gainful employment, race, family roles, family support, substance use disorder (cannabis, alcohol, opioids, hallucinogens, etc.) and mental illness (major depression, anxiety, bipolar, schizoaffective, etc.), and dependent variable of recidivism (Rudestam & Newton, 2015).

Independent Variables

In this study, mental illness was measured as one variable with two categories. One category identified ex-offenders/participants with severe mental illness with treatment/hospitalization history and the second category identified ex-offenders/participants with no mental illness. Therefore, each was operationalized or coded as a dichotomous variable, which meant that ex-offenders/participants who had severe mental illness with treatment/hospitalization history were coded as "1" and those with no mental illness were coded as "0." The substance use disorder/chemical dependent were operationalized or coded as a dichotomous variable. The ex-offenders/participants who tested positive for drugs (e.g. cocaine, methamphetamine, heroine, cannabis, opiates, alcohol, etc.) or failed the drug test up to 5 times or more in the last 12 months since their released were coded as "1." The ex-offenders/participants who tested positive for drugs or failed drug test less than 5 times or tested negative for drugs in the last 12 months since their released were coded as "0". The inpatient/hospitalization was also be operationalized as a dichotomous variable. The ex-offenders/participants were hospitalized 5 times or more for mental illness in the last 5 years since their released was coded as "1" and those that were hospitalized less than 5 times in the last 5 years since their released or received no treatment were coded as "0." Race was operationalized as "1" for African American male ex-offenders and "0" for White male ex-offenders. Age was operationalized as "1" for ex-offenders that are 18 years and old and "0" for ex-offenders that are over 60 years old. Gainful employment was operationalized as "1" for having been employed and "0" for never been gainfully employed. Education was operationalized as "1" for ex-offenders who completed 12$^{\text{th}}$ grade (high school diploma

or GED) and has some college education, "2" for ex-offenders who completed 11th grade education, "3" for ex-offenders who completed 10th grade education, and "4' for ex-offenders whom completed 9th grade and below. Prior criminal history was operationalized and coded as "1" for ex-offenders who had prior incarceration before the last 5 years of incarceration and "0" for ex-offenders/participants who had no prior incarceration before the last 5 years of incarceration. The family support was operationalized and coded as "1" for ex-offenders who 1 or more contacts with family members (i.e. spouse, children, parents, siblings, etc.) per month and "0" was coded for ex-offenders who no contact with family members per month. The community/social support was operationalized and coded as "1" for ex-offenders who had 1 or more contacts with their peers or associates per month and "0" for ex-offenders who had no contact with peers or associates per month. The differentiation of self was operationalized as "1" for ex-offenders who were able to maintain gainful employment, successful education (i.e. graduated from high school or earned higher diploma like associate degree or college degree), less contact with family of origin, no family history of substance use disorder, and no family history of mental illness. The differentiation of self was also operationally defined as "0" for ex-offenders who were not able to maintain gainful employment, incomplete education (i.e. high school dropout), more contacts with family of origin, has family history of substance use disorder, and family history of mental illness.

Dependent Variables

The dependent variable in this study is recidivism. Recidivism in this study was measured as manifested in rearrests, reconviction, and revocation. Rearrest in this study

was operationalized as "1" or "0." The "1" was coded for ex-offenders who have had 1 or

more rearrests since their released in the past 5 years. The "0" was coded for ex-offenders

who did not have any rearrest since their released in the past 5 years. The reconviction

was operationalized as "1" or "0." The "1" was coded for the ex-offenders who were

rearrested for 1 or more new crimes committed and sentenced to jail or prison after their

released in the past 5 years. The "0" was coded for ex-offenders who were rearrested for

new crimes or one violation or the other but not reconvicted or sentenced to prison. The

revocation was operationalized as "1" or "0" for ex-offenders. The "1" was coded for ex-

offenders who were under supervision in the community but violated the terms of their

probation or parole (e.g. testing positive for drug test or violating their curfew, etc.) and

were resentenced back to prison. The "0" was coded for ex-offenders who were under

supervision in the community and were in compliance with the terms of their probation,

parole, or supervision. Hence, recidivism was operationalized in this study as rearrests,

reconviction, and revocation. This meant that the ex-offenders/participants in this study

who were noncompliance after their released and were rearrested, reconvicted, and

revocated were operationalized as "1." The ex-offenders who were in compliance after

their released in the past 5 years were operationalized as "0."

Threats to Validity

According to researchers, the selection and the experiences of the participants

could threaten the researcher's ability to draw correct inferences from the data about the

population in the study (Seekins & White, 2013; Creswell, 2009; White, Suchowierska,

Campbell, 2004). The researchers also asserted that the selection of participants could

threaten or predispose them to have certain outcomes (Seekins & White, 2013; Creswell,

2009; White, Suchowierska, Campbell, 2004). Despite the threat to validity and since this study made use of archival data, the researcher ensured random selection of ex-offenders' records so that all characteristics or African American male ex-offenders with mental illness, substance use disorders, and of history inpatient treatment in the TDCJ database have the probability of being equally selected from the archival data (Seekins & White, 2013; Creswell, 2009; White, Suchowierska, Campbell, 2004).

Ethical Procedures

According to researchers, ethical and legal issues must be addressed in quantitative research to ensure that potential harm to participants is minimized (Creswell, 2009; Cozby, 2009). The researcher ensured that all ethical principles, federal and state, and institutional regulations were followed during the study. Since this study used archival data from the TDCJ, the researcher secured the Walden University's Institutional Review Board (IRB) approval (02-01-18-0484546) and the approval from TDCJ before gaining access to the data. In addition, Leedy and Ormrod (2010) accentuated that participants in a research study should be protected from physical and psychological harm. Hence, the researcher used encrypted password protection to ensure that ex-offenders' personal or protected health information (PHI) is protected and health insurance portability and accountability act (HIPAA) laws were not violated.

Summary

This study employed a quantitative approach by making use of the archival data from the TDCJ for its data analysis. The archival data that was used in this study covered a period of the last 5 years (i.e. between January 1, 2011, and December 31, 2016). The ex-offenders/participants' confidential PHI and identity were protected by the use of

encrypted password. The researcher of this study ensured that HIPAA, federal laws, state laws, and other research guidelines were not violated by obtaining IRB approval. The methodology for this study was designed to examine the relationship between co-occurring disorders and incidence of recidivism among African American male ex-offenders who have been hospitalized or treated for mental illness at various points in their lives. This design afforded the researcher the ability to make inquiry as to whether there was a relationship between race, age, prior criminal history, mental illness, substance use disorders, inpatient/hospitalization, gainful employment, education, family support, and community/social support, and the likelihood of recidivism among the African American male ex-offenders with co-occurring disorders and history of inpatient treatment.

Chapter 4 will provide detail descriptions of the study, data collection, data analysis, discussions, and the results of the study.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to examine the relationship between co-occurring disorders and incidence of recidivism among African American male ex-offenders who have been hospitalized or treated for mental illness at some point in their lives. A quantitative cross-sectional design was used to examine the relationship between race, age, prior criminal history, mental illness, substance use disorders, inpatient/hospitalization, gainful employment, education, family support, and community/social support and the likelihood of recidivism as manifested in rearrests, reconviction, and revocation. This chapter commences with a discussion of the data collection, starting with the description of the sampled archival data. The next section focuses on the data analysis and presents the results. The final section summarizes the chapter. Family systems theory served as the theoretical foundation or as the best lens to answer the research questions and the hypotheses when examining the relationship between co-occurring disorders and incidence of recidivism among African American ex-offenders.

This study addressed four research questions and hypotheses.

Research Question 1: Is there a relationship between mental illness and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (HO1): There is no statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (HA1): There is statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Research Question 2: Is there a relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*2): There is no statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*2): There is statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Research Question 3: Is there a relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*3): There is no statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*3): There is statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Research Question 4: Is there a relationship between differentiation of self from family history of mental illness, lack of education, substance use, unemployment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*4): There is no statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of

education, unemployment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*4): There is statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of education, unemployment and recidivism among African American male ex-offenders in Texas.

Description of the Sampled Archival Data

The participants from the archival data included 558,806 ex-offenders from the TDCJ during fiscal years (October 1, 2011 through September 30, 2018). The total number of participants was reduced to 169,218 due to specific inclusion criteria in this study (i.e., presence of mental illness and substance use disorder, history of hospitalization/treatment, African American ex-offenders only). Identification of the sample was achieved by connecting the ex-offender to state identification number (State_ID) to the criteria (arrest, rearrest, revocation, duel diagnoses) of this study sample. The data for this study was obtained from the TDCJ.

This study made use of the covariate demographic variables of age because it displayed a moderate relationship with the outcome variable as was determined in other studies to influence recidivism associated with male criminality (Hall, 2015; Maschi et al., 2011; Matejkowski et al., 2011). Tabachnick and Fidell (2012) posited that for a variable to be used as covariate variable, it needs to display a moderate relationship with the outcome variable. Hence, chi square analyses were conducted for age. The chi square for age was significant at $X2(3) = 291.553$, $p < .001$. Given that this variable was

significantly related to the outcome variable of recidivism, it was controlled for other analyses.

Results

Frequencies and Percentages

The archival data included participants of ex-offenders that represented various ranges and did not display common trend. The frequencies and percentages showed that each of the independent variable or the predictor variable of the archival data were a majority for all the African American male ex-offender participants. The recidivism rate showed that 25.4% recidivated and the rest were first time in prison, indicating that they did not recidivate (126,194, 74.6%). On the gainful employment, 19.7% were employed while (135,927, 80.3%) were unemployed. About 5% of the participants had a high school or higher education and the majority had 9th grade and below educational achievement (147,896, 87.4%). The frequencies and percentages also showed that 17.7% of the participants had mental illness while the rest were categorized as not having mental illness (139,293, 82.3%). On substance use disorder (SUD), the results showed that 45.8% had SUD and the remaining participants were categorized as not having SUD (91,668, 54.2%). The results also showed that 10% of the participants were hospitalized and or treated for co-occurring disorder and the rest of the participants were not hospitalized and or received treatment for co-occurring disorder (152,343, 90.0%). Regarding prior criminal history, 25.4% of the participants had prior criminal history and (126,194, 74.6%) had no prior criminal history. The participants did have family support (124,055, 73.3%) as shown from the results and 0.4% were able to differentiate self from family history and (152,343, 99.6%) were not able to differentiate self from family

history. Lastly, most participants were categorized as not having social support (157,863, 93.3%). These frequencies and percentages for ordinal and nominal variables are presented in Table 1.

Table 1

*Frequencies and Percentages for Nominal and Ordinal Variables (*n *= 169,218)*

Variables	n	%
Recidivism		
First Time in Prison	126,194	74.6
Not First Time in Prison (Recidivated)	43,024	25.4
Age		
18 years Thru 60 years	165,379	97.7
61 years Thru 65 years	3,839	2.3
Employment		
No	135,927	80.3
Yes	33,291	19.7
Education		
12th Grade and Above Diploma	8,519	5.0
11th Grade Education	6,924	4.1
10th Grade Education	5,879	3.5
9th Grade and Below Education	147,896	87.4
Mental Illness		
No	139,293	82.3
Yes	29,925	17.7
Substance Use Disorder		
No	91,668	54.2
Yes	77,550	45.8
Hospitalization/Treatment		
No	152,343	90.0
Yes	16,875	10.0
Prior Criminal History		
No	43,024	25.4
Yes	126,194	74.6
Family Support		
No	45,163	26.7
Yes	124,055	73.3
Differentiation of Self		
No	152,343	99.6
Yes	16,875	0.4
Social Support		
No	157,863	93.3
Yes	11,355	6.7
Mental Illness and SUD Interaction		
No	152,343	90.0
Yes	16,875	10.0

Preliminary Bivariate Correlations

For this study, preliminary bivariate correlations were conducted to determine and to reduce the number of independent variables to those that were related to recidivism. The results of the preliminary bivariate correlations showed that mental health, substance use disorder, hospitalization/treatment, and mental illness and substance use disorder interaction were each positively associated with recidivism. The results of the preliminary bivariate correlations also showed that education, employment, differentiation of self, prior criminal history were each relatively associated with recidivism. The results of the preliminary bivariate correlations also showed that family support, social support, and age each had relative association with recidivism. Table 2 presents all the results of the preliminary bivariate correlations.

Table 2

Preliminary Bivariate Correlations between Independent Variables and Recidivism

Variables	Recidivism
Mental Illness	$.034^{**}$
Substance Use Disorder	$.077^{**}$
Hospitalization/Treatment	$.006^{**}$
Mental Illness and SUD	$.006^{**}$
Education	$-.007^{**}$
Employment	$-.086^{**}$
Differentiation of Self	$-.024^{**}$
Prior Criminal History	$-.032^{**}$
Family Support	$.025^{**}$
Social Support	$.006^{*}$
Age	$.014^{**}$

**Correlation is significant at the 0.05 level (2-tailed)*
***Correlation is significant at the 0.01 level (2-tailed)*

The Model Equation

The proposed model equation for this study:

Recidivism = function (Age + Mental Illness + Substance Use + Treatment + Employment + Education + Family Support + Differentiation of Self) + Error

Differentiation of self is derived from whether the African American male ex-offender was able to maintain gainful employment, had a high school certificate or higher diploma, no mental health issues, and no substance use issues.

The logic of the proposed model equation is that the probability of an African American male ex-offender with co-occurring disorder with a history of hospitalization and or treatment returning or recidivating back to state prison can be determined by analyzing the relationship between dependent variable (Recidivism) and the independent variables (age, mental illness, substance use disorder, treatment, employment, education, family support, differentiation of self) in the equation. Before using this equation, a diagnostic check for multicollinearity between the independent variables was conducted to ensure that there are no high levels of interdependence among predictors in the model equation (Thompson, Kim, Aloe, & Becker, 2017). The results of the diagnostic check for multicollinearity are displayed in Table 3. The results revealed no evidence of high levels of interdependence among the independent variables. In addition, Table 4 shows the coefficients among the independent variables. The tolerance levels are all greater than .20 and the values of the variance inflation factor (VIF) are not high enough to quantify correlation among the independent variables and to demonstrate any presence of multicollinearity between the independent variables.

Table 3

Correlations

	Recidivism	Age Group	Mental Health	Chemical Dependent	Treatment	Employment	Education	Differentiation Of Self	Family Support
Recidivism									
Pearson Correlation	1.000	.014	.034	-.077	-.006	.086	.007	.024	-.025
Sig. (1-Tailed)	--	.000	.000	.000	.004	.000	.002	.000	.000
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Age Group									
Pearson Correlation	.014	1.000	-.007	.001	-.002	.037	-.027	.007	.082
Sig. (1-Tailed)	.000	--	.002	.343	.161	.000	.000	.001	.000
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Mental Health									
Pearson Correlation	.034	-.007	1.000	.098	.718	-.037	.033	-.031	-.038
Sig. (1-Tailed)	.000	.002	--	.000	.000	.000	.000	.000	.000
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Chemical Dependent									
Pearson Correlation	-.077	.001	.098	1.000	.362	-.035	.004	-.062	-.006
Sig. (1-Tailed)	.000	.343	.000	--	.000	.000	.056	.000	.005
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Treatment									
Pearson Correlation	-.006	-.002	.718	.362	1.000	-.040	.027	-.022	-.022
Sig. (1-Tailed)	.004	.161	.000	.000	--	.000	.000	.000	.000
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Employment									
Pearson Correlation	.086	.037	-.037	-.035	-.040	1.000	.003	.135	.001
Sig. (1-Tailed)	.000	.000	.000	.000	.000	--	.089	.000	.390
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Education									
Pearson Correlation	.007	-.027	.033	.004	.027	.003	1.000	-.241	-.004
Sig. (1-Tailed)	.002	.000	.000	.056	.000	.089	--	.000	.059
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Differentiation of self									
Pearson Correlation	.024	.007	-.031	-.062	-.022	.135	-.241	1.000	.001
Sig. (1-Tailed)	.000	.001	.000	.000	.000	.000	.000	--	.370
N	169218	169218	169218	169218	169218	169218	169218	169218	169218
Family Support									
Pearson Correlation	-.025	.082	-.038	-.006	-.022	.001	-.004	.001	1.000
Sig. (1-Tailed)	.000	.000	.000	.005	.000	.390	.059	.370	--
N	169218	169218	169218	169218	169218	169218	169218	169218	169218

Table 4

Coefficients[a]

| | 95.0% Confidence Interval for B | | Collinearity Statistics | |
Model	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	-.801	-.765		
Age Group	.026	.054	.991	1.009
Mental Health	.056	.072	.453	2.207
Chemical Dependent	-.068	-.059	.811	1.233
Employment	.086	.096	.977	1.023
Education Level	.002	.008	.939	1.065
Differentiation of self	.042	.106	.919	1.088
Family Support	-.029	-.020	.992	1.008
Treatment	-.036	-.015	.398	2.511

a. *Dependent Variable: Recidivism*

Multiple Regression Model

Multiple regression analysis was performed to examine the relationship between recidivism and inpatient treatment for co-occurring disorders among African American male ex-offenders who have been hospitalized or treated for mental illness at various points in their lives by using the independent variables of race, age, prior criminal history, mental illness, substance use disorders, hospitalization/treatment, gainful employment, education, family support, and social support. However, due to focusing on one race, the variable race was removed from the model. Additionally, due to the preliminary correlations, only age, mental illness, substance use disorder, hospitalization/treatment, education, employment, differentiation of self, and family support were entered into the model. The variable education was recoded into a dummy variable of 1 for graduating from high school and 0 for not graduating from high school before entering the independent variables into the model.

The results of the full analysis indicated a significant model as shown on Table 5 below. The results of the multiple regression indicated that the predictors explained 2% of the variance among variables ($R^2 = .02$, $F(8,169209) = 343.929$, $p < .01$). Together as shown on Table 6, all the predictors explained 2% of the variance in the likelihood of recidivism in the African American male ex-offender population ($R^2 = 2\%$, Adjusted $R^2 = 2\%$). The explained variance in the population is not likely to be 0 ($p < .01$) as shown on Table 5 below.

Table 5

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	513.373	8	64.172	343.929	.000[b]
Residual	31571.692	169209	.187		
Total	32085.066	169217			

a. *Dependent Variable: Recidivism*
b. *Predictors (Constant), Education Recoded2, Family Support, Employment, Chemical dependent, Age Group, Mental Health, Differentiation of Self, Treatment*

Table 6

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.126	.016	.016	.432

a. *Predictors (Constant), Education Recoded2, Family Support, Employment, Chemical dependent, Age Group, Mental Health, Differentiation of Self, Treatment*
b. *Dependent Variable: Recidivism*

The table below presents the full results of the multiple regression model for individual predictors.

Table 7

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Lower Bound*	*Upper Bound*
(Constant)	.763	.007		106.337	.000	.749	.777
Age Group	-.040	.007	-.014	-5.607	.000	-.054	-.026
Mental Health	-.064	.004	-.056	-15.658	.251	-.072	-.056
Chemical Dependent	.064	.002	.073	27.196	.000	.059	.068
Employment	-.091	.003	-.083	-34.021	.002	-.096	-.086
Differentiation of self	-.080	.017	-.012	-4.780	.000	-.112	-.047
Family Support	.025	.002	.025	10.432	.000	.020	.030
Treatment	.026	.006	.018	4.606	.000	.015	.036
Education Recoded2	.020	.005	.010	4.036	.362	.010	.030

    c.   *Dependent Variable: Recidivism Recoded*

Research Question 1: Is there a relationship between mental illness and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*1): There is no statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*1): There is statistical significant relationship between mental illness and recidivism among African American male ex-offenders in Texas. With respect to Research Question 1, the results of the coefficients of the multiple regression model indicated that mental illness was not likely to influence recidivism, β = -.06, *p* = .25. In this case, the null hypothesis was not rejected. This explained that having mental illness did not influence or increase the likelihood for the ex-offenders to recidivate.

Research Question 2: Is there a relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*2): There is no statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*2): There is statistical significant relationship between prior hospitalization/treatment and recidivism among African American male ex-offenders in Texas.

With respect to Research Question 2, the results of the coefficients of the multiple regression model indicated that being hospitalized and or receiving treatment for co-occurring disorder indicated as a positive influence on recidivism, ($\beta = .02$, $p = .001$). The $p = .001$ means that it was statistically significant at 95% confidence interval, which means that the null hypothesis is rejected, and the alternate hypothesis is retained. This result explained that as treatment increases for the co-occurring disorder, it leads to a reduction in the likelihood for the ex-offenders to recidivate.

Research Question 3: Is there a relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*3): There is no statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*3): There is statistical significant relationship between substance use (heroin, cocaine, marijuana, alcohol, methamphetamine, and opiates) and recidivism among African American male ex-offenders in Texas.

With respect to Research Question 3, the results of the coefficients of the multiple regression model indicated that chemical dependent or substance use disorder has a positive influence on recidivism, ($\beta = .07$, $p = .001$). The $p = .001$ means that it was statistically significant at 95% confidence interval, which means that the null hypothesis is rejected, and the alternate hypothesis is retained. The result explained that as substance use disorder increases, it leads to increase in the likelihood for the ex-offenders to recidivate.

Research Question 4: Is there a relationship between differentiation of self from family history of mental illness, lack of education, substance use, unemployment and recidivism among African American male ex-offenders in Texas?

Null Hypothesis (*HO*4): There is no statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of education, unemployment and recidivism among African American male ex-offenders in Texas.

Alternative Hypothesis (*HA*4): There is statistical significant relationship between differentiation of self from family history of mental illness, substance use, lack of education, unemployment and recidivism among African American male ex-offenders in Texas.

With respect to Research Question 4, the results of the coefficients of the multiple regression model indicated that differentiation of self from family history of mental

illness, lack of education, substance use, unemployment has a negative significant influence on recidivism, (β = -.01, p = .001). The *p* = .001 means that it was statistically significant at 95% confidence interval, which means that the null hypothesis was rejected, and the alternate hypothesis was retained. This result explained that as differentiation of self increases, it leads to the decrease in the likelihood for the ex-offenders not to recidivate.

Summary

The archival data included participants of ex-offenders that represented various ranges and did not display common trend. The frequencies and percentages showed that each of the independent variable or the predictor variable of the archival data were a majority for all the African American male ex-offender participants. The recidivism rate showed that 25.4% recidivated and the rest were first time in prison, indicating that they did not recidivate (126,194, 74.6%). On the gainful employment, 19.7% were employed while (135,927, 80.3%) were unemployed. About 5% of the participants had a high school or higher education and the majority had 9th grade and below educational achievement (147,896, 87.4%). The frequencies and percentages also showed that 17.7% of the participants had mental illness while the rest were categorized as not having mental illness (139,293, 82.3%). On substance use disorder (SUD), the results showed that 45.8% had SUD and the remaining participants were categorized as not having SUD (91,668, 54.2%). The results also showed that 10% of the participants were hospitalized and or treated for co-occurring disorder and the rest of the participants were not hospitalized and or received treatment for co-occurring disorder (152,343, 90.0%). Regarding prior criminal history, 25.4% of the participants had prior criminal history and

(126,194, 74.6%) had no prior criminal history. The participants did have family support

(124,055, 73.3%) as shown from the results and 0.4% were able to differentiate self from

family history and (152,343, 99.6%) were not able to differentiate self from family

history. Lastly, most participants were categorized as not having social support (157,863,

93.3%).

   This study found that having mental illness did not influence or increase the

likelihood for the ex-offenders to recidivate. It also found that as treatment increases for

the co-occurring disorder, it leads to a reduction in the likelihood for the ex-offenders to

recidivate. The study also found that as substance use disorder increases, it leads to

increase in the likelihood for the ex-offenders to recidivate. It also found that

differentiation of self increases, it leads to the decrease in the likelihood for the ex-

offenders not to recidivate. This study also found that the age of the participant increases,

they are less likely to recidivate ($\beta = -.01$, $p = .001$). It means that the older ex-offender

participants were less likely to recidivate than the younger ex-offender participants when

they are released.

   Chapter 5 provides summary of the results, a discussion of the possible

implications, limitations of the study, recommendations for further research, and

suggestions for possible impact for positive change.

Chapter 5: Discussion, Implications, and Recommendations

Introduction

A quantitative study was conducted to examine the relationship between co-occurring disorders and incidence of recidivism among African American male ex-offenders who have been hospitalized or treated for co-occurring disorder at some point in their lives. Family systems theory served as the theoretical foundation, or as the best lens, to help in answering the research questions and the hypotheses in examining the relationship between co-occurring disorders and incidence of recidivism among African American male ex-offenders. The quantitative study used a cross-sectional design with archival data from TDCJ to examine the relationship among race, age, prior criminal history, mental illness, substance use disorders, inpatient/hospitalization, gainful employment, education, family support, and community/social support and the likelihood of recidivism as manifested in rearrests, reconviction, and revocation. Multiple regression analysis was used to analyze the study data. The six key findings in this study were as follows: (a) As treatment increases for the co-occurring disorder, it leads to a reduction in the probability of ex-offenders to recidivate, (b) As substance use disorder increases, it leads to an increase in the probability of ex-offenders to recidivate, (c) As the ability to find and maintain gainful employment increases, it leads to a decrease in the probability to recidivate, (d) As family support increases, it leads to a reduction in the probability to recidivate, (e) The ability to differentiate self from family history of mental illness, substance use, lack of education, and unemployment decreases the probability to recidivate, and (f) As the age of the participants/ex-offenders increases, less likely they are to recidivate.

This study did not find that the presence of mental illness increases the probability to recidivate. In addition, the results indicated no significant relationship between recidivism and completing or not completing a high school or higher education.

Chapter 5 provides an interpretation of results, a discussion of the implications, the limitations of the study, and the recommendations for further research, and implications for positive social change.

Discussion and Interpretations of the Results

Through this study, some findings were confirmed by other researchers, while others were not confirmed. For instance, the study results showed that ex-offender participants from the archival data who did have a mental illness were no more likely to recidivate than participants who did not have mental illness. This suggested no statistically significant relationship between mental illness and recidivism. Contrary to the finding from this study, Baillargeon, Binswanger, Penn, Williams, and Murray (2009c) conducted a study that examined 79,211 inmates in a state-wide prison system. Baillargeon et al. indicated that out of the total number of inmates examined, 7,878 inmates were diagnosed with major psychiatric disorders (major depressive disorder, a bipolar disorder, schizophrenia, or a nonschizophrenia psychotic disorder). Their findings revealed that inmates with major psychiatric disorders had a higher or a substantially increased risk of multiple incarcerations or higher recidivism rates than those inmates without major psychiatric disorders (Baillargeon et al., 2009c). Their additional findings revealed that the greatest increase in recidivism rates or risk was among inmates with bipolar disorder. The inmates with bipolar disorder were also found to be 3.3 times likely to have had four or more previous incarcerations in comparison with inmates without

psychiatric disorders or mental illness (Baillargeon et al., 2009c). Although the results of this study did not confirm what the current researchers state about statistically significant relationship between mental illness and recidivism, this could have been possible because TDCJ seems to offer treatment to offenders than other department of criminal justice in the United States (Greenblatt, 2018).

This study found that hospitalization/treatment has a positive influence on recidivism. This is an indication that as hospitalization/treatment increases for the participants with co-occurring disorder, it leads to a reduction in the likelihood for the ex-offenders to recidivate. The findings in this study showed that for every unit of increase in the treatment for ex-offenders with co-occurring disorder, there is 2.6% reduction in the likelihood to recidivate. In addition, the findings from this study demonstrated that if treatment can be provided to offenders and ex-offenders that are severely mentally ill and are in prison rather than the psychiatric hospitals, there could be a reduction in the recidivism rate. Several other studies have also revealed that there are more seriously mentally ill inmates/offenders in jails and in prisons than there are in mental health hospitals receiving treatment (Vogel, Stephens, & Siebels, 2014; Torrey et al., 2010; Torrey et al., 2012; Cunningham 2009; Metzner, & Fellner, 2010). Many of the inmates/offenders who are in jails and prisons with serious mental illness are subjected to isolation and solitary confinement, resulting into their conditions being exacerbated or provoking recurrence (Metzner & Fellner, 2010). Additionally, Torrey et al. (as cited in Vogel et al., 2014) posited that in 2010, the total number of psychiatric beds was at 28% of the total number considered to be minimally adequate to provide inpatient services to the severely mentally ill offenders or ex-offenders. As a result, offenders and ex-

offenders who would have benefited from long-term care are left with very few options, and many are homeless and recidivists for lack of treatment (Vogel et al., 2014; Torrey et al., 2012).

The findings from this study is also supported by Abracen, Gallo, Looman, and Goodwill (2016) who conducted a study to explore the effectiveness of psychological intervention for reducing the risk of recidivism among high-risk and high-need offenders incarcerated at a Community Correctional Center (CCC) in Canada. Abracen et al. (2016) reviewed files for 136 male federal offenders at the CCC and discovered that majority of them met the criteria for mental illness and other psychiatric conditions. Their study revealed that the offenders who received moderate doses of treatment were 7.7 times less likely to recidivate, and those who received high doses of treatment were 11.6 times less likely to recidivate in comparison to offenders who received no treatment (Abracen et al., 2016). This study also revealed that only 10% of the ex-offender participants from the archival data had access to treatment. The findings confirmed the previous study by Ray, Grommon, Buchanan, Brown, and Watson (2017) that investigated how former prison inmates gain access to recovery and recidivism. Ray et al. discovered that less than 10% of ex-offenders were able to gain access to any form of substance abuse treatment services (Ray et al., 2017).

This study found that chemical dependent or substance use disorder (SUD) has a significant influence on the likelihood of recidivism. The findings suggested that for every unit increase in SUD by the ex-offenders from the archival data, there is a 6.4% increase in the likelihood of recidivism. This study also showed that 45.8% of the ex-offenders from the archival data used illicit drugs. According to the DSM-5 (2013),

substance use disorder occurs when the continuous use of alcohol or illicit drug causes clinically and functionally significant impairment in the life of individuals resulting in health problems, disability, and failure to meet work, school, or home responsibilities (American Psychiatric Association, 2013; SAMHSA, 2015). The findings from this study align with the BJS (2006) which stated that 53% of state offenders and 45% of federal offenders met the definition and the criteria for substance use disorder of DSM-5 in 2004. The findings from this study also confirms the findings from previous studies that showed that substance abuse or substance use disorders among offenders and ex-offenders with co-occurring disorders is a major risk factor that contribute to higher rates or likelihood of recidivism (Degiorgio & DiDonato, 2014; Proctor & Hoffman, 2012; Baillargeon et al., 2009; Wood, 2011; Castillo & Alarid, 2011).

The findings from this study demonstrated a significant relationship between differentiation of self and recidivism. The results showed that as differentiation of self increases, it leads to the decrease in the likelihood for the ex-offenders to recidivate. The differentiation of self is derived from whether the African American ex-offender was able to maintain gainful employment, had a high school or higher diploma, no mental health issues, and no substance use issues. This study showed that any unit increase in the differentiation of self, leads to an 8% decrease in the likelihood of recidivism. The findings from this study confirmed the findings from previous studies that indicated that differentiation of self is positively associated with well-being and negatively associated with catalogues of distress (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). The findings from the previous studies also revealed that individuals with higher differentiation of self,

demonstrated increased interpersonal and psychological well-being (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). Bowen family systems theory posited that differentiation of self at the interpersonal level stems from the ability to achieve emotional autonomy from the family of origin while maintaining a degree of connectedness with family members (Bowen, 1978; Kerr & Bowen, 1988; Ross & Murdock, 2014).

The findings from this study also parallels a previous study that was conducted by Skowron (2004) to examine the cross-cultural validity of Bowen family systems theory (Bowen, 1978) focusing on the differentiation of self for African Americans. Skowron's findings revealed that African Americans with higher levels of differentiation of self demonstrated higher levels of psychological adjustments, social problem-solving skills, and greater ethnic group belonging or greater community association (Skowron, 2004). It could be deduced from the results of the current study that, as differentiation of self increases, the African American ex-offenders will be less likely to recidivate; able to achieve higher levels of psychological adjustment and social problem-solving skills by acquiring higher education, maintaining gainful employment, and being disconnected from illicit substance uses and mental health issues.

Regarding education, the current study findings did not confirm other studies (Steurer, Linton, Nally, & Lockwood, 2010; Nally, Lockwood, Knutson, & Ho, 2012) that revealed that educated offenders and ex-offenders were less likely to recidivate. The failure of the current study to find a significant relationship between education and recidivism could stem from how education was measured. The African American ex-offender participants from the archival data who completed 9th grade through to 11th

grade consisted of 95% of the total sample. While other participants who completed 12th grade and above consisted of 5%. This 5% consisted of participants who may have achieved a high school diploma, General Education Development (GED), an associate degree, bachelor's degree, master's degree, and or doctorate degree.

The findings from the current study on gainful employment showed a positive relationship with the likelihood of the African American male ex-offender participants to recidivate. The current findings revealed that for every unit increase in gainful employment, there is a 9.1% decrease in the likelihood for the ex-offenders to recidivate. The current finding is consistent with the findings from other researchers (Steurer, Linton, Nally, & Lockwood, 2010; Pager, Western, & Sugie, 2009; Monnery, 2014; Ramakers et al., 2014) that revealed that gainful employment demonstrated a positive effect on reducing recidivism rates when ex-offenders reenter the community. In addition, the current findings are also consistent with Skardhamar and Telle (2012), who conducted a study that examined ex-offenders' transitions from prison to gainful employment and also examined the relationship between post-release gainful employment and recidivism. The study examined 7,476 ex-offenders that were released between 2003 and 2006 (Skardhamar & Telle, 2012). Their results revealed that 30% of the ex-offenders were employed in approximately 30 months of released from prison and the hazard of recidivism was significantly lower because of employment when compared with ex-offenders who were unemployed (Skardhamar & Telle, 2012).

Family support from this study findings demonstrated a significant relationship with recidivism. The findings revealed that as family support increases, it leads to a reduction in the probability to recidivate for the ex-offender participants. For every unit

of increase in family support, there was 2.5% likelihood of decrease in recidivism for the

African American male ex-offender participants in this study. This study also

demonstrated that 73.3% of the ex-offender participants had family support if the

criminal offense was not sexual assault in nature with a child or minor. The significant

findings with family support affirm the Bowen family system theory that asserts that

family members support each other because family members are emotionally

interdependent and functional in reciprocal relationships with one another (Bowen, 1978;

Kerr & Bowen, 1988; Helm, 2014; Sanders, 2014; Haefner, 2014). The findings in this

study are consistent with previous researchers on the importance of family support for a

successful reentry of offenders/ex-offenders into the family and the community

(Martinez, 2006; Stacer, 2012; Duwe & Clark, 2012; Berg & Huebner, 2011; Spjeldnes et

al., 2012; & Taylor, 2015). In addition, the findings from this study is consistent with

Spjeldnes et al. who conducted a longitudinal study to examine factors that predicted

incarceration and recidivism rates. The researchers used data from Allegheny County jail

adult men offenders (N = 301) who participated in collaborative services and were 30

days from release. The eligible offenders participated in a longitudinal study that

concluded in 2008 (Spjeldnes et al., 2012). The results revealed that positive family

social support was found to reduce the effect of factors such as substance abuse, black

race, and younger age, known to predict higher recidivism rates (Spjeldnes et al., 2012).

Their results also revealed that positive family social support refuted negative perceptions

of the helpfulness and support of community-based services for ex-offenders (Spjeldnes

et al., 2012).

Lastly, the findings from the current study revealed that the older ex-offender participants were less likely to recidivate than the younger ex-offender participants when they are released. The current findings indicated that for every unit increase in the ex-offenders' age, there is a 4% decrease in the likelihood to recidivate. The current findings is also consistent with Hall (2015)'s findings that showed that when the offenders or ex-offenders increase in age, the likelihood for them to recidivate and return to prison after six months of post-release reduces from 38.6% to 25.9% among the age group of 21 to 30 years old. The current findings also affirm the findings from the study conducted by Spjeldnes and Goodkind (2009) which showed that age is an important risk factor in the likelihood of recidivism and African American men ages 20-24.

Limitations of the Study

Several limitations were encountered during this study as a result of the use of archival data for the analysis and Murphy and Schlaerth (2010) posited that archival data or secondary data is data that has been collected and stored by someone or an institution other than the researcher. The archival data was not fully representative of accurate mental health, substance use disorder, hospitalization, and inpatient treatment history. This happened because the African American male ex-offender participants may not have truthfully answered clinical assessment questions regarding mental illness or substance use disorders or family history of mental illness or demographic questions. Additionally, previous studies have shown that mental health stigma is the primary factor that prevents discussions about mental health concerns among individuals from many minority communities and also leads to reluctance to seek treatment (Kreps, 2017; Robinson, 2013, 2012; Thoits, 2011). Given the limitations of the archival data with mental illness,

this study was not able to clearly categorize mental illness or include measures of mental illness as defined in DSM-5 (APA, 2013) to specifically include major depressive disorder, generalized anxiety disorder, bipolar disorder, schizophrenia, schizoaffective, substance use disorder, etc. The ability to include measures of mental illness could have affected the findings for mental illness and recidivism as previous studies have shown that ex-offenders with serve mental illness have higher or a substantially increased risks of multiple incarcerations or higher recidivism rates than those ex-offenders without major psychiatric disorders (Baillargeon et al., 2009c).

This study also encountered limitations with the archival data regarding the substance use disorder data. Given these limitations, this study was not able to categorize or include measures of illicit substances as defined in DSM-5 (APA, 2013) to specifically include heroin, cocaine, cannabis/marijuana, alcohol, methamphetamine, opiates, etc. This study had to generalize the use of substance use disorder (SUD) variable when it examined its relationship with recidivism. Lastly, as a limitation, this study focused on African American male ex-offenders that resided within the communities in the state of Texas. Given this limitation, it makes it difficult to generalize the findings of these study to African American male ex-offenders that reside in other communities in other states.

Recommendations for Future Research

There has not been a demonstrated focus on policy making or policy development on direct costs of recidivism and offenders/ex-offenders with co-occurring disorders. Other researchers have shown that there have been very little response from the federal, state, and local level when it comes to developing wide-ranging cost-effective policies and supporting evidence-based programs to treat offenders/ex-offenders with mental

illness and substance use disorder to reduce recidivism (Kim, Baker-Cohen, & Serakos, 2015; Grohs, 2014). In addition, DeSilva, Samele, Saxena, Patel, and Darzi (2014) posited that majority of offenders and ex-offenders with mental health issues do not receive evidence-based treatments that can change their lives. Therefore, future studies are recommended to examine ways that comprehensive and cost-effective policies can be developed to support mandatory evidence-based effective programs to treat offenders and ex-offenders from federal, state, and local levels.

Regarding the Second Chance Act of 2007 in reducing recidivism among ex-offenders, studies have revealed that imprisoned black and Hispanic males and median household income are significant predictors of recidivism (Amasa-Annang & Scutelnicu, 2016; Mitchell-Miller, J., Barnes, J., & Miller, H., 2017). In addition to household income, employment assistance that include subsidized employment for the hard-to-employ have been shown to be effective at reducing recidivism (Clark, 2015). Hence, future studies are recommended to examine ways the federal, state, and local government can incentivize employers such as giving tax breaks to be able to provide employment to the ex-offenders that are hard-to-employ.

For final recommendation, this study only focused on African American male ex-offenders that resided in the state of Texas. Future studies are recommended to examine African American male ex-offenders that reside in other states so as to make the findings more generalizable.

Suggestions/Implications for Social Change

Walden University defines positive social change as "a deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and

development of individuals, communities, organizations, institutions, cultures, and societies. Positive social change results in the improvement of human and social conditions" (Walden University, 2018, "Social change"). Given the definition of social change, the findings from this study may effect social change with significant changes in behavior patterns and cultural norms towards the public perception of individuals with co-occurring disorder over time. The findings may also demonstrate positive gains in co-occurring disorder and bring about decline in illicit substance use and mental illness, leading to a reduction in recidivism (Keyes, Dhingra, & Simoes, 2010). The findings from this study may be used to promote the worth and dignity of individuals with co-occurring disorder and minimize the self-stigma that impact the overall health of these individuals (Corrigan & Rao, 2012). The findings from this study may also be used to promote the development and the awareness of the African American communities and cultures regarding treatment for co-occurring disorders (Corrigan & Rao, 2012). The findings from this study may promote positive programs that empower individuals with co-occurring disorders to reduce self-stigma (Corrigan & Rao, 2012).

Furthermore, studies continue to affirm that ex-offenders with no education and gainful employment constitute significant barriers to successful reintegration into the community and eventually lead to recidivism (Makarios, Steiner, & Travis, 2010; Lockwood, Nally, Ho, & Knutson, 2012). Lockwood, Nally, and Ho (2016) found that post-release employment was the most influential factor on recidivism, regardless of the offender's ethnicity. Lockwood et al. maintained that unemployment was the most influential factor to recidivism, regardless of offender's race and education (Lockwood et al., 2016). Hence, to positively effect social change, any program development must

consider the economic structure, or the economic community of the offenders and ex-offenders for positive outcome.

Bowen family systems theory posited that differentiation of self at the interpersonal level stems from the ability to achieve emotional autonomy from the family of origin while maintaining a degree of connectedness with family members (Bowen, 1978; Kerr & Bowen, 1988; Ross & Murdock, 2014). The findings from this study demonstrated a significant relationship between differentiation of self and recidivism. The results showed that as differentiation of self increases, it leads to the decrease in the likelihood for the ex-offenders to recidivate. The findings from this study confirmed the findings from previous studies that indicated that differentiation of self is positively associated with well-being and negatively associated with catalogues of distress (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). The findings from the previous studies also revealed that individuals with higher differentiation of self, demonstrated increased interpersonal and psychological well-being (Ross & Murdock, 2014; Gubbins, Perosa, & Bartle-Haring, 2010; Peleg, & Yitzhak, 2011; Skowron, Stanley, & Shapiro, 2009). Therefore, to promote positive social change that will increase differentiation of self, encourage the worth, dignity, and development of ex-offenders, and promote communities and public safety, the federal, state, and local governments must come together to create policies that incentivize employers to mediate the hard-to-employ problems among the ex-offenders and implement effective community-based programs to reduce co-occurring disorders and recidivism rates.

By continuing to promote positive social change, the findings from the current study will afford the counselors and counselor educators, and other professionals the awareness and the factors necessary to work with ex-offenders with co-occurring disorders from the African American communities to minimize self-stigmatization and the likelihood of recidivism. These findings will not just promote awareness among the counselors and counselor educators, supervisors, and researchers, they will enhance the lack of counseling and professional identity in the African American communities. Kern (2014) accentuated that professional identity serves as a unifying force that connect the counselors, counselor educators, supervisors, and researchers in their quest to maintain professional responsibilities and personal values. With the awareness from the findings in this study, counselors, counselor educators, supervisors, and researchers will have honest communication about their cultural biases and find ways to minimize stigma and advocate for African American male ex-offenders in their attempt to reintegrate into their communities. Hence, to promote authentic positive change through professional identity, counselors, and counselor educations, and other professionals must become great advocates for ex-offenders with co-occurring disorders with great difficulties getting proper treatment, securing gainful employment, and with little or no education.

Conclusion

The findings from this study highlight the importance for future examination of ways comprehensive cost-effective policies can be developed to support mandatory evidence-based effective programs to treat offenders and ex-offenders with co-occurring disorders from federal, state, and local levels to promote public safety and positive social change. The findings also highlight the need for future studies to examine ways the federal, state, and local governments can incentivize employers, such as giving tax breaks, to be able to provide employment to the ex-offenders that are hard-to-employ.

According to the *Diagnostic and Statistical Manual of Mental Disorders*, DSM-5 (2013), substance use disorder occurs when the continuous use of alcohol or illicit drug causes clinically and functionally significant impairment in the life of individuals resulting in health problems, disability, and failure to meet work, school, or home responsibilities (APA, 2013; SAMHSA, 2015). The DSM-5 also defined mental illness as "a syndrome characterized by clinical significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning" (p. 20). Several studies have shown that there have been a consistent increase in the number of offenders and ex-offenders in the criminal justice system that meet this diagnostic criteria for substance use disorders and mental illness, hence the need for increase in treatment (BJS, 2006; Wood, 2011; Elbogen & Johnson, 2009; Bergman & Andershed, 2009; Baillargeon, 2009). The findings from the current study revealed that as treatment increases for ex-offenders with co-occurring disorder, it leads to a decrease in the likelihood of recidivism.

Like previous studies, the current study revealed that finding and maintaining gainful employment decreases the likelihood of recidivism and as the age of the ex-offenders increases when released, they are less likely to recidivate. Unlike previous studies, the current study did not confirm that ex-offenders with mental illness were more likely to recidivate than ex-offenders with no mental illness. Also, the current study did not confirm that ex-offenders with high school diploma or General Education Development (GED) or higher educational levels were less likely to recidivate. However, the current study was able to confirm that as family support increases, the likelihood to recidivate decreases and as differentiation of self increases, the likelihood to recidivate also decreases.

Studies continue to affirm that ex-offenders with substance use disorder (SUD), no education, and no gainful employment constitute significant barriers to successful reintegration into the community and eventual lead to recidivism (Makarios, Steiner, & Travis, 2010; Lockwood, Nally, Ho, & Knutson, 2012). Until there are succinct governmental criminal justice reforms that ensures policy development and implementation to incentivize employers for the hard-to-employ ex-offenders, to afford effective treatment for SUD, and subsidizes education, ex-offenders may never gain their dignity and become productive and law abiding members of their various communities, especially the African American male ex-offenders.

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