

2020

The Predictive Ability of Self-Efficacy on Recidivism Among Adult Male Offenders

Marianne Kelly
Walden University

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Walden University

College of Social and Behavioral Sciences

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Marianne Kelly

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Walden University
2020

Abstract

The Predictive Ability of Self-Efficacy on Recidivism Among Adult Male Offenders

by

Marianne Kelly

MA, Argosy University, 2013

BA, University of Illinois at Chicago, 1996

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

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Abstract

With crime rates high and increasing numbers of offenders receiving community-based corrections sentences, factors related to risk of recidivism should be a high priority for researchers. The impact of crime on offenders, victims, and communities is costly. Traditional punishment has done little to reduce crime, particularly among repeat offenders. The purpose of this study was to examine the predictive ability of self-efficacy on recidivism, based on social cognitive theory. The research design was quantitative and nonexperimental, using regression analyses. The nonrandomized sample consisted of adult males incarcerated on felony charges at a large urban jail in the Midwest of the United States. The archival data were generated between May 2017 and the end of October 2017. Total scores on the Index of Sense of Self-Efficacy Scale was used as the independent variable data, while incidents of reincarceration were collected as dependent variable data. The findings suggest that there is a significant relationship between the two variables, in which participants' ISSES scores significantly predicted recidivism when self-efficacy was measured in total score and recidivism was measured as time. Potential for positive social change lies in the reduction in victimization, decreased financial and emotional cost of recidivism, and increased public safety through the development of interventions aimed at decreasing recidivism by increasing self-efficacy.

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Dedication

First and foremost, I dedicate this work to all my family, friends, and colleagues who supported me along the way. Specifically, I dedicate this dissertation to Veronica, Sarina, and Caleb. I hope to be an example to the three of you that hard work, commitment, and enthusiasm can rocket you to the stars. Never let anyone make you doubt your potential. Caleb, I tried my hardest to work the word “napkin” into this study, but I just could not make it happen...Sorry buddy. Lastly, I dedicate this study to the memory of my uncle, CPD Patrolman Thomas J. Kelly, end of watch March 3, 1970. Although we never got to meet, your presence has been with me always and I know I would not be here if it were not for you. Uncle Tom your personal sacrifice for the people of Chicago, more than anything, has driven my desire to help all of those who have been impacted by the criminal justice system.

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I especially want to thank my parents, John and Julie Kelly, for their dedication to family, education, and personal values which made me the person I am today. You provided me with unconditional love and every resource I could possibly need to be successful in all areas of my life. Your unwavering support, guidance, and love, even in the face of obstacles, taught me to be unwavering in my own belief that I could be successful. Without your belief in me, I never would have developed the level of academic self-efficacy necessary to complete this study. Specifically, to my mom, although I lost you to the evil disease of Multiple Sclerosis during this process, I know you are with me always and so so so proud of all I have accomplished. I also must acknowledge and thank my sister and best friend, Sandra Smith and my brothers, Thomas Kelly and Richard Smith. I would be nothing without Sandra's love and "life coaching" skills, Tommy's strength and perseverance, and Rick's compassion and tolerance. Finally, I want to humbly thank my amazing Chairperson Dr. Jessica Hart and Second Committee member, Dr. Barbara Palomino de Velasco, your encouragement is the reason this journey has been life-changing, gratifying, and rewarding. Thank you for your guidance and positive reinforcement. I can hardly believe that at the end of this journey my reward is that I get to be considered a colleague of two such phenomenal and supportive women.

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Chapter 1: Introduction

Background

According to the National Institute of Justice (NIJ, 2014) 68% of released prisoners are rearrested within 3 years of being released and 77% are rearrested within 5 years. Factors associated with recidivism have long been a focus of the justice system research (NIJ, 2014). Community reentry programs, prison-based treatment programs, community corrections, supportive release initiatives, and outreach programs all play a role in giving the offender the tools needed to become an ex-offender, but offenders must decide for themselves to change (NIJ, 2014). Offenders must believe they can change (Bandura, 1977a; Bandura, 1997). The justice system has a stake in addressing offending and recidivism because crime affects even those not directly affected by criminal acts (Illinois Criminal Justice Information Authority, 2016).

Historically, researchers have examined offending and offenders in an effort to develop and analyze interventions aimed at decreasing criminal conduct (Morris, 1998; Rothman, 1998; Rotman, 1998). Barnett and Fitzalan Howard (2018) researched recidivism along with treatment interventions that have been identified as possible antidotes. Examples included behavioral, pharmacological, educational, psychoeducational, impact incarceration, substance use analysis, vocational, and court-ordered limitations, or sanctions. Barnett and Fitzalan Howard found that out of 21 types of treatment interventions, 14 failed to have any effect on recidivism and three were harmful, in that they increased risk of offending. These findings echoed those of

MacKenzie and Farrington (2015) who found that skill-building interventions were more effective at reducing recidivism than surveillance and control. Another area of study focused on offenders' beliefs about their ability to change. Researchers examined criminal self-efficacy and whether offenders who had high levels of self-efficacy regarding their criminal conduct, believed they possessed the ability to change their behaviors (Laferrière, and Morselli, 2015; Malouf et al., 2014; Martin, & Stermac, 2010). However, research has not examined the predictive strength of general self-efficacy on recidivism.

Researchers have long examined criminal behavior and the capacity of an individual to abstain from criminal conduct. Kroner and Yessine (2013) concluded that research has provided insight into *what* can change criminal behavior, but they found little to explain how offenders change their criminal behavior. In the 1790s, offender behavior was believed to be caused by poor moral values, and atonement was the remedy (Iarussi, Vest, Booker, & Powers, 2016). Criminal conduct in the 1800s continued to be viewed as a moral corruption, but rehabilitation shifted from penitence to punishment, causing the prison system to become overcrowded and conditions to become deplorable (Rothman, 1998). The 1900s ushered in the belief that offenders could be rehabilitated, and treatment programs were needed to reduce recidivism. Prisoners gained rights regarding access to medical care, behavioral health treatment, privileges, and services, while prison conditions improved, and community corrections emerged as an alternative to prison (Rotman, 1998). Today, the use of evidence-based treatment programs for the

offender and research on recidivism dominate the scholarly efforts of forensic psychology researchers (Bartol & Bartol, 2008; Iarussi et al., 2016; Morris, 1998).

The current literature on the role of strength-based characteristics in determining recidivism has focused on traits such as hope, optimism, and criminal self-efficacy (Forrest & Hay, 2011; Laferrière & Morselli, 2015; Malouf et al., 2014; Martin & Stermac, 2010; Serin et al., 2013). Martin and Stermac (2010) examined the effects of hope on reducing the risk of recidivism and found that high levels of hope led to less reoffending. Friestad and Hansen (2010) also analyzed hope and unrealistic optimism and found that unrealistic optimism led to higher rates of recidivism. Forrest and Hay (2011) examined self-control as a catalyst for criminal desistance, using social learning theory, and concluded that self-control led to criminal desistance. Serin, Lloyd, Helmus, Derkzen, and Luong (2013) found that self-control, changes in substance use, and management of negative emotions reduced recidivism.

Scholarly studies have examined self-efficacy as a factor in behavioral change. These studies explored the relationships between criminal conduct, self-efficacy, abstinence, and recidivism or desistance. Laferrière and Morselli (2015) addressed self-efficacy as a contributing factor in criminal conduct and found that a high level of criminal self-efficacy was related to increased recidivism (Laferrière & Morselli, 2015). In relationship to self-efficacy and abstinence among offenders, Wilson, Sheehan, Palk, and Watson (2016) found that (a) high task self-efficacy, or planned abstinence, was related to low anticipation of future DUI activity, (b) task self-efficacy was higher among

females, and (c) high maintenance self-efficacy, or maintaining abstinence, was related to high levels of coping and or action planning to avoid future DUI incidents (Wilson et al., 2016).

Law and Guo's (2015b) study, which was the inspiration for the current study, examined reality therapy as a vehicle to increase abstinence self-efficacy among female Taiwanese prisoners with substance use disorder. The researchers found that abstinence self-efficacy, or an increase in decision making skills, coping skills, social skills, and planning ability, was improved by the therapeutic intervention. As a means to assess self-efficacy for their study, the authors created and validated a self-efficacy measure, the Index of Sense of Self-Efficacy Scale (ISSES). This measure was used in the current study to measure the independent variable, self-efficacy.

This chapter provides an overview of the current study. The chapter includes the problem statement, purpose statement, nature of the study, identification of the variables, the research questions and hypotheses, the theoretical framework, definitions of key terms, assumptions, limitations, and the significance of the study. Chapter 2 content will be introduced at the conclusion of this chapter.

Problem Statement

According to the NIJ (2014), only 23% of released offenders managed to remain free of any criminal convictions at the 5-year postrelease mark. Thus, recidivism and factors contributing to reoffending, are major concerns. Those affected by criminal conduct are not simply the offenders and their victims, but the loved ones of both groups

and their communities. The cost of criminal offending is steep, not only from a financial standpoint, but also in terms of the emotional, psychological, and public safety costs (Allard, 2012; Illinois Criminal Justice Information Authority, 2016; Truman & Morgan, 2016). In 2015, 10 million households were the victims of property crimes and 2.7 million people were violently victimized (Truman & Morgan, 2016). In fiscal terms, the cost of maintaining the prison system in Illinois was approximately \$1.3 billion in 2014, while the cost of recidivism in Illinois was expected to be \$5.7 billion (Illinois Criminal Justice Information Authority, 2016). In 2013, the cost in terms of loss of freedom for adult male offenders incarcerated for Class 1–4 felonies, in Illinois, was approximately 2.5 years (Illinois Criminal Justice Information Authority, 2016). Furthermore, 69% of the U.S. correctional population were fulfilling criminal sentences on probation or parole (Carson & Anderson, 2016), placing many offenders back in their communities working to turn their lives around. With an increasing number of offenders in the community completing their criminal sentences or returning to communities following a term of incarceration, the question becomes: What can be done to improve their chances of successful criminal desistance and in doing so, increase public safety and the lives of all involved?

Purpose Statement

The purpose of this study was to investigate the relationship between self-efficacy and rates of recidivism among adult males who were previously incarcerated on felony charges in a large urban county jail in the Midwest. The independent variable was

defined by a score on a standardized measure of self-efficacy (Law & Guo, 2015a). The dependent variable was defined as reincarceration within a 1-year period postrelease. Conviction rates were tracked via two county criminal case databases. The study was quantitative, and the design was nonexperimental.

Nature of the Study

This nonexperimental study was used to examine the predictive relationship between scores on a self-efficacy measure and rates of recidivism. A quantitative approach was selected based on the quantifiable examination of the relationship between two numeric variables, level of self-efficacy and incidents of recidivism; and the use of reliable and valid instruments for data collection, analysis, and interpretation (Creswell, 2014).

Variables

The independent variable, self-efficacy, followed Bandura's definition of self-efficacy as a person's belief in his or her ability to master a task or skill (Bandura, 1977a; Bandura, 1997). Self-efficacy was measured as a score on a standardized measure of self-efficacy. The ISSSES was selected as the measure for this study based on its respected value in measuring self-efficacy among offenders housed in a correctional setting (Law & Guo, 2015a).

The dependent variable, recidivism, was defined as incarceration of a new crime. Only those with one year or more time from release to date of analysis were included. Recidivism was tracked and calculated based on data gathered from both the county

Department of Corrections (DOC) jail management system and the county clerk's online public database. These databases provided information on criminal arrests and court dispositions associated with criminal cases heard within the county's court system. Regression analyses were used to analyze the data. Justification of the analytic strategy can be found in Chapter 3.

Research Questions and Hypothesis

RQ1: Does self-efficacy predict the likelihood of recidivism in an adult male ex-offender?

H_{01} - Self-efficacy does not predict the likelihood of recidivism in an adult male ex-offender.

H_{11} - Self-efficacy does predict the likelihood of recidivism in an adult male ex-offender.

RQ2 Among those who did recidivate, does self-efficacy predict time from institutional release to recidivism?

H_{02} - Among those who did recidivate, self-efficacy does not predict time from institutional release to recidivism.

H_{12} - Among those who did recidivate, self-efficacy does predict time from institutional release to recidivism.

Theoretical Framework

The theoretical framework for the inquiry was social cognitive theory. Bandura's (1986) social cognitive theory (SCT) is based in social learning theory. The theory

suggests that people learn, and change based on a bidirectional relationship between three factors or determinants. Bandura refers to this as *triadic reciprocal causation* or *determinism*. These three determinants are *interpersonal* or *personal factors*, *environmental factors*, and *behavioral factors* (Bandura, 1997). Personal factors are the beliefs, traits, insight, mood, and temperament people possess along with their biological make up. Environmental factor examples are social interactions and/or observation and vicarious learning. Behavioral factors include the actions and responses of the individual (Bandura, 1997).

Self-efficacy, the independent variable, is a core construct of social cognitive theory. According to Bandura (1997), perceived self-efficacy is the “belief in one’s capacity to organize and execute the courses of action required to produce given attainment” (p. 3). Based on this premise, in terms of attempting to disengage from criminal conduct, belief in one’s ability to execute this change in criminal conduct will influence one’s chances of success. The research supports the application of social learning theory, as the theoretical framework, for the current study (Forrest & Hay, 2011; Jonesa, Mangerb, Eikeland, & Asbjørnsen, 2013; Walters, 2014; Walters, 2015; Walters & Urban, 2014).

Definitions of Key Terms

Desistance: The act of refraining from criminal conduct by a person who had previously engaged in criminal conduct (Farrington, 2013).

Community corrections: The term for a supervised community-based sentence which serves as an alternative to incarceration, examples include probation, home-based electronic monitoring, court ordered halfway or recovery homes, mandated reentry programs, and parole (Bartol & Bartol, 2008).

Criminogenic needs: Static and dynamic factors or traits which may indicate the likelihood of whether or not an offender will offend or reoffend. The eight criminogenic needs are antisocial personality patterns, criminal history, pro-criminal attitudes/beliefs, antisocial peers, substance use, family or relationship concerns, education and/or employment deficits, and lack of prosocial leisure/recreational activities (Andrews & Bonta, 1994; Bonta & Andrews, 2017).

Ex-offender: A person who desists from criminal conduct following a period of having engaged in criminal conduct (Farrington, 2013).

Incarceration: The confinement of an offender to a correctional facility, and removal from society, following a criminal conviction or failure on the part of the offender to pay a bond amount for the purpose of pretrial release (Spurr & Bailey, 2013).

Offender: A person who has engaged in criminal conduct (Farrington, 2013).

Recidivism: The act of engaging in criminal conduct or becoming reincarcerated following a conviction for prior criminal acts (Bartol & Bartol, 2008).

Self-Efficacy: One's own belief in his or her ability to master a skill, task, or behavior (Bandura, 1977a; Bandura 1997).

Social cognitive theory: Albert Bandura's learning theory which is based in social learning theory. The theory assumes that people learn new skills and change thoughts and or behaviors based on a bidirectional relationship between interpersonal, environmental, and behavioral factors (Bandura, 1986; Bandura, 1989).

Strength-based traits: A broad term to describe personality traits which may be considered to represent resilience within a client when taking a strength-based therapeutic approach to offender's treatment (Bartol & Bartol, 2008; Miller & Rollnick, 2013).

Assumptions

The current study is based on several assumptions given the use of archival data.

1. The ISSES is a valid measure of general self-efficacy.
2. The county clerk's online database and DOC's jail management system are reliable sources of data for demographic and recidivism data.
3. Archival, ISSES, data were collected inside DOC while participants were in good standing, within a program designed to address criminogenic needs.
4. The ISSES was administered properly and without administrators' influence or interference with participants' completion of the survey.
5. Participants understood the meaning of each question on the ISSES.
6. All archival self-efficacy data, which was collected by clinical graduate level interns of the DOC program, are assumed to have been collected with integrity and stored securely.

7. Participants' data were used regardless of program compliance and or successful program discharge.
8. Reincarceration by participants, following discharge, from study-related incarceration, was considered recidivism.
9. Although data were collected from males between the ages of 18 and 24– years, based on program admission criteria, they may have been older when the data were analyzed.

Limitations

Using archival data presented procedural and validity concerns. By using archival data, I was at the mercy of the data collectors' experience, the chosen environment, the selected participants, the approach to administering the measure, the purpose for collecting the data, integrity of data storage, and access to the data (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). However, these limitations have been addressed: the original data collection was monitored by program clinical staff, the data were stored by clinical staff, and the data were unexamined since the survey was administered. Given that participants were enrolled in a program aimed at addressing the needs of the offender population and reentry success, one limitation of the study was that of the programming could affect the outcomes. An additional limitation was that incidents of recidivism were tracked by a database that represented only criminal convictions within the boundaries of the county. This limitation left instances of reoffending by participants in jurisdictions outside of the county unknown to me, and thus, uncalculated.

The treatment program was a voluntary program, which could be a limitation, given that individuals who accepted admission into the program may have represented a group of participants with a greater willingness to change their criminal behavior than those who met admission criteria but refused admission. The program criteria included male county residents, age 18–24, who were classified by intake staff as a minimum to medium security risk and who were incarcerated on medium–level felony charges. Exclusionary criteria included participation in another DOC program, medical and/or mental health patients of the jail’s hospital, those with serious institutional conduct violations, misdemeanor level cases, Class X–level felony cases, those with a “no bond” hold, a criminal history of sexual offenses, or a criminal history of having injured or taken advantage of a person defined as vulnerable. Given the inclusionary and exclusionary criteria for program participation, a limitation of the current study was that all in custody male detainees were not eligible for the DOC treatment program and therefore not included in this study, thus limiting the generalizability of the findings (Stangor, 2013).

Issues of Internal Validity

The design of the current study presents threats to validity. Threats to validity are factors that may cause a researcher to draw the wrong conclusions from the findings (Stangor, 2013). Regarding internal validity, the programming or treatment received by the participant while participating in the program could have influenced the data (Stangor, 2013). Working with an incarcerated population presents challenges to trust and

transparency. Although participants were reassured of the confidentiality of their answers, the often-present mistrust of some among this population may have caused them to answer questions in a way to please the administrator. The administrators of the measure were master's level clinical interns, and had previous experience working with this population. Yet, the naïve nature of an intern and the potential bias of an unseasoned clinician could have had an impact on administration of the measure and as a result, threatened internal validity (Allen & Bosta, 1981; Bartol & Bartol, 2008; Hanser & Mire, 2011; Stangor, 2013; Voorhis & Salisbury, 2016). The limited access to information on criminal convictions in municipalities outside of the county could result in an incorrect rejection of the null hypothesis; indicating that self-efficacy does predict the likelihood of recidivism when, in fact, it does not (Stangor, 2013). The study did not control for variables related to criminogenic needs, which could influence participants' risk of recidivism. For example, if a participant scored high on the ISSES, and had a strong drive to stop offending, but did not address his substance use, he would have been at risk of reoffending by engaging in criminal conduct as a consequence of intoxication (Andrews & Bonta, 1994; Bonta & Andrews, 2017).

An additional threat to internal validity was the result of the modification of the ISSES survey on the part of the interns. The ISSES was developed to examine self-efficacy, recidivism, and substance use (Law & Guo, 2015b). One question on the ISSES was adapted by administrators to improve the participants' ability to relate the survey to their criminal conduct. The adjustment was made to Question 8. The original wording

“using drugs”, was changed to “my criminal behaviors.” Further related to the survey, although the ISSES was found to be a valid and reliable measure of self-efficacy for adult offenders (Law & Guo, 2015b) it was not validated on American males, but rather Taiwanese females, presenting a threat to internal validity (Stangor, 2013).

Issues of External Validity

1. All the participants came from the same DOC behavior modification program. Based on the program criteria for eligibility, the generalizability of the findings to the broader scope of offender types may be diminished.
2. All participants were 18–24–year–old adult males at the time of the independent variable data collections and lived in a zip code within the county. The limits of the sample demographic may have reduced the generalizability of the findings (Stangor, 2013).
3. The use of a nonexperimental design, archival data, and a convenience sample—with its lack of randomization—may have limited the generalizability of the findings (Stangor, 2013).

Significance of the Study

Sixty-eight percent of released prisoners are rearrested within 3 years of being released from custody (NIJ, 2014). Research on recidivism has examined how criminals develop criminal self-efficacy and whether offenders believe they possess the ability to change (Laferrière and Morselli, 2015; Malouf et al., 2014; Martin, & Stermac, 2010). Several studies looked at the role of traits similar to self-efficacy on recidivism or

desistance (Forrest & Hay, 2011; Friestad & Hansen, 2010; Laferrière & Morselli, 2015; Malouf, Schaefer, Witt, Moore, Stuewig, & Tangney, 2014; Martin & Stermac, 2010; Serin et al., 2013; Yarbrough, Jones, Sullivan, Sellers, & Cochran, 2012). Nevertheless, little research has explored the relationship between general self-efficacy and recidivism. As such, the examination of self-efficacy as a potential influence on recidivism was viewed, by me, as a priority for research investigation. The implications of this study are that it may lead to greater understanding of the factors related to treatment planning and as a predictor of recidivism for all types of offenders. The aim of this research was to explore the utility of measuring self-efficacy as a predictor of recidivism. The current study is expected to add to the research by identifying a predictive relationship that could be used in the assessment and treatment of offenders to reduce recidivism. Further, these findings are expected to create positive social change by reducing victimization, decreasing the financial and emotional cost of recidivism, and increasing public safety.

Summary

Crime affects the whole community and research focused on all aspects of criminal rehabilitation or desistance has done much to advance the field of corrections' forensic treatment programming (Bartol & Bartol, 2008; Hanser & Mire, 2011). However, interventions aimed at discouraging a person from engaging in criminal conduct may do little, if offenders do not believe that they can successfully abstain from criminal activities (NIJ, 2014). According to NIJ (2014), there has been an increase in the number of offenders who have been returned to their communities by way of community

corrections sentencing. With the increased number of community corrections participants, there has been a move to focus on criminogenic needs, or factors that contribute to recidivism (Andrews & Bonta, 1994; Bonta & Andrews, 2017). Nevertheless, without an individual's own belief in his or her ability to tackle these criminogenic needs, a change may be unlikely (Andrews & Bonta, 1994; Bandura, 1997a; Bandura, 1997; Bonta & Andrews, 2017). Thus, additional person-centered, strength-based, research aimed at exploring personal traits related to criminal desistance remains necessary.

Chapter 2 will include the literature review of Bandura's social cognitive theory, self-efficacy, the utility of applying self-efficacy as a strength-based trait in behavioral change, and recidivism in relationship to self-efficacy and alone as an autonomous factor.

Chapter 3 will define the research method. The chapter will include the design and approach, justification, setting and sample, instrumentation, data collection and analysis, threats to validity, and protection of participants rights.

Chapter 4 will cover the results of the study. Chapter details will include the data collection, sample demographics, testing assumptions, and results.

Chapter 5 will provide an interpretation of the findings and will discuss the limitations, recommendations, implications, and positive social change.

Chapter 2: Literature Review

Introduction

The purpose of this study was to investigate the relationship between self-efficacy and recidivism among adult males who were previously incarcerated on midlevel felony charges. This chapter will provide an overview of the current literature on the theoretical framework, a history on corrections-based approaches and philosophy for reducing recidivism, the role of self-efficacy in behavior change, race and gender differences in relationship to the variables, the value of studying strength-based traits in relationship to the variables, and the potential for positive social change. The purpose of the chapter is to describe the variables and support the use of the theoretical framework through empirical research; while identifying a gap in the research as justification for the study.

Description of Literature Search

A search of the peer-reviewed literature, from 2013–2018, was conducted in the following online databases: CINAHL Plus, SocINDEX, MEDLINE, SAGE Journals, PsycINFO, PsycARTICLES, and PsycTESTS. Keyword searches across databases included the terms *self-efficacy*, *recidivism*, *desistance*, *reentry*, *criminogenic needs*, *corrections*, *social cognitive theory*, *strength-based traits*, *Bandura*, *offend**, and *prison**. (The asterisk indicates that other letters were used to create variations on the word to broaden the search criteria.)

Social Cognitive Theory (SCT)

The theoretical framework, Bandura's (1986) SCT, provides a foundation for the study. The assumption of the theory is that behavioral change occurs through observation, recall, replicating, finding motivation, and reinforcement of the new behaviors. Self-efficacy, which serves as the independent variable, is a key concept in SCT and, as such, provides further justification for the use of the framework (Bandura, 1986).

Bandura's (1986) SCT is based in social learning theory; it built upon social learning theory by including cognitive processes. SCT postulates that people learn, develop, maintain, and change thoughts and behaviors based on a bidirectional relationship among three factors or determinants, which Bandura refers to as triadic reciprocal causation or determinism (Bandura, 1986). These three determinants are interpersonal or personal factors, environmental factors, and behavioral factors, all of which interact and result in an action or outcome. Personal factors include cognitive processes, affect, self-beliefs, and biological functions. Environmental factors include the external influences of social interactions and/or observation and vicarious learning. Behavioral factors are the actions and responses of the individual. Behaviors are influenced by ability, observational learning (or the observation of successful/unsuccessful execution of the behavior by another), internal and external reinforcements, and expected outcome (Bandura, 1977b; Bandura, 1986). Commutatively, these three determinants— interpersonal, environment, and behavioral—

impact an individual's perceived success for learning, developing, or maintaining a task, which is known as self-efficacy (Bandura, 1986; Bandura, 1997),

Several scholarly works support the utility of applying social learning theory, as the theoretical framework for studies that examine offender's behavioral change, achievement, strength-based traits, and relationship to other high-risk behaviors (Forrest & Hay, 2011; Jonesa, Mangerb, Eikeland, & Asbjørnsen, 2013; Walters, 2014; Walters, 2015; Walters & Urban, 2014). The Yarbrough, Jones, Sullivan, Sellers, and Cochran (2012) study applied social learning theory to self-control as a factor in assessing criminal behaviors. The study was conducted on 1,674 middle and high school students in Florida. The aim was to evaluate whether criminal peer associations, positive reinforcement of criminal conduct, and self-justification of criminal conduct can be moderated by self-control (Yarbrough et al., 2012). The participants were given antisocial behavior, social learning, and self-control measures at school. They found that individuals who reported positive justifications for criminal conduct also had a greater number of criminal peers and were more likely to commit crimes than those who reported less justification for criminal conduct (Yarbrough et al., 2012). Regarding self-control as a moderating factor in criminal conduct, the researchers found that the higher the level of self-control the less likely an individual is to engage in criminal conduct. The researchers' application of SCT, to examine behavioral changes and strength-based traits among offenders, supports the use of SCT as a theoretical framework for the current study (Yarbrough et al., 2012).

Self-Efficacy

Self-efficacy is a core construct of social cognitive theory. As defined by Bandura (1997), self-efficacy is the belief that one has the ability to master a task, situation, or skill. Further, the presence or lack of self-efficacy has an impact on achievement. For example, a person with self-efficacy to master a task is more likely to master that task than someone lacking self-efficacy to master the same task (Bandura, 1997). Self-efficacy is developed from four primary sources, all of which have their roots in the concepts associated with triadic reciprocal determinism (Bandura, 1986). These four sources are enactive mastery experience (prior mastery experiences), vicarious experience (observation of said task mastery by others), social/verbal persuasion (encouragement by others), physiological and affective states (physical and emotional responses to thinking about mastering said task). These sources individually, or in some combination, impact the level and strength of self-efficacy a person has for achieving a task or mastering a skill. Self-efficacy is viewed, in the theory, to be part of the foundation of human motivation and action, asserting that self-efficacy is a more valid predictor of achievement than actually possessing the skills necessary to master the skill (Bandura, 1997). Therefore, self-efficacy, which supports change regardless of skill level, proves to be a reasonable variable for this inquiry which explored the likelihood that an individual will or will not make a change (Bandura, 1977a; Bandura, 1989; Bandura, 1997).

History of Sentencing and Criminal Rehabilitation

According to Pingaro (2015), the United States detains 25% of the world's prisoners yet is made up of only 5% of the world population. The solution to this problem has been to build more prisons. In an effort to deter criminal conduct, the justice systems' approach has ranged from punishment to rehabilitation (Gertner, 2010). In recent years there has been a push to use new approaches and technologies to combat incarceration (Pingaro, 2015). The prison systems' approach to addressing recidivism has long been influenced by societal beliefs about whether offenders possess the ability and/or have a desire to change their criminal conduct (Iarussi, Vest, Booker, & Powers, 2016). Mandatory minimum sentence for repeat offenders, 3 strikes acts, sentences for violations of probation and parole, and civil commitment of sexual predators are all examples of the justice system attempting to regulate recidivism punitively (Gertner, 2010).

In the 1790s, at the time the first U.S. prison was erected, criminal conduct was believed to be the result of moral corruption (Iarussi, Vest, Booker, & Powers, 2016). Atonement and solitude were seen as the means to desistance. As prison systems evolved, inmate activities moved from the spiritually reflective to physical, with a focus on prisoners as a labor force (Iarussi, Vest, Booker, & Powers, 2016). Nevertheless, these activities were still meant to be more punitive than rehabilitative.

In the first 5 decades of the 1800s, society placed a significant focus on freedom and strict discipline, continuing the trend of punishment over rehabilitation (Iarussi et al., 2016; Rothman, 1998). States were beginning to build statewide petitionary systems.

Punishable conduct included crimes against person and property, as well as, crimes of moral conduct. Individuals were convicted for crimes of idol worship, taking God's name in vain, and witchcraft (Iarussi et al., 2016; Rothman, 1998). Incarceration emerged as a central component of the justice system and was marked by isolation, as a means of quarantining criminal conduct from general society, along with blind obedience, extreme discipline, and hard labor (Rothman, 1998).

The second half of 1800s saw U.S. prison overcrowding, ruthless conduct, chaotic conditions, and an increase in the number of immigrant prisoners (Rothman, 1998). The federal prison system was emerging with the first federal prison built in Leavenworth, Kentucky. Wardens were given the power to deliver harsh punishments and abuses were rampant. Out of these concerns emerged recognition that a new means to rehabilitate inmates needed to be developed. Yet the path to overhaul the prison system was still several decades away (Rothman, 1998).

The early 1900s philosophy was that criminals were ill and could be cured. This philosophy supported the growth of the psychiatric approach to criminal desistance and fed the increase in psychiatrist and psychologist roles in prisons (Rotman, 1998). Incentives, as well as punishments, were used inside the prison walls. Social learning theory was beginning to be applied as an explanation for criminal conduct. With criminal conduct viewed as a learned behavior, prison rehabilitation programs began focusing on socialization. According to Rotman (1998), probation and parole initiatives, community supervision of a convicted offender with rehabilitative and vocational components, were

being used to supplement sentencing options and reduce overcrowding. The 1950s saw an increase in prisoner riots, due to overcrowding and mismanagement, highlighting the need for prison reform, prisoner rights, and effective rehabilitative efforts (Rotman, 1998). The 1955 United Nations Standard Minimum Rules for the Treatment of Prisoners was enacted, and prison environments began to take on treatment community principles (Rotman, 1998).

In the 1970s there was a push to educate prisoners as a means to reduce recidivism. However, the prison population was beginning to double and many of the therapeutic initiatives were rampant with abuse (Iarussi, Vest, Booker, & Powers, 2016; Morris, 1998; Rotman, 1998). The system was beginning to be influenced by attempts to discredit the prisoner rehabilitation movement, leading the way for the “nothing works” approach to criminal rehabilitation which grew out of a report by Robert Martinson (1974).

In 1966, Martinson (1974) and his colleagues, at the request of the New York State Governor’s Special Committee on Criminal Offenders, conducted a survey of the literature on prison rehabilitation programs. The researchers examined 231 English language studies, conducted between 1945 and 1967, from around the world. The studies they examined were focused on the effectiveness of prison rehabilitative efforts on recidivism. The various prison rehabilitation programs included, education, life skills, job training, medical interventions, individual and/or group therapy, probation and parole, and other community-based programs (Martinson, 1974). In analyzing the studies,

Martinson (1974) noted that many of the studies did not prove the effectiveness of the rehabilitative effort because the findings could not be generalized to other offender types, the studies had not been replicated, or there were not enough studies on a specific intervention to validate the hypothesis that the intervention was effective. Martinson (1974) acknowledged the scientific limitations of his study, and the studies he and his team analyzed; and he cautioned against making sweeping conclusions about the findings. Nonetheless, he ultimately determined that treatment programs aimed at the rehabilitation of offenders were ineffective at reducing recidivism and the media named the findings, “nothing works” (Hanser & Mire, 2011; Martinson, 1974).

With crime rates, recidivism, and prison populations continuing to increase in the 1980, corrections stakeholders viewed criminal desistance as a hopeless cause, buying into the “nothing works” philosophy, resulting in strict punishment as the answer (Bartol & Bartol, 2008; Martinson, 1974; Morris, 1998). Assessment of criminal rehabilitation approaches found that the problem with corrections rehabilitation efforts was the type of programming. Additional studies supported the notion that offenders cannot be rehabilitated (Iarussi, Vest, Booker, & Powers, 2016; Morris, 1998).

The next several decades saw the implementation of correctional boot camps, scared straight programs, electronic monitoring, and an increase to the number of individuals participating in community corrections efforts to reduce recidivism (Bartol & Bartol, 2008; MacKenzie & Farrington, 2015). Even with these attempts at rehabilitation, according to Iarussi, Vest, Booker, and Powers (2016), the current corrections system is

in crisis with crime rates, prison populations, and recidivism rates on the rise, putting a financial burden and community safety concerns on policy makers and community members alike. In an effort to reduce these burdens, attention has moved to prevention, education, vocational, and treatment efforts. As such, current scholarly efforts are moving towards rehabilitation efforts, and the factors that influence recidivism (Iarussi, Vest, Booker, & Powers, 2016; Morris, 1998).

Recidivism

The NIJ has indicated that factors which impact recidivism should be the chief subject of inquiry for those involved in criminal justice policy, research, and interventions. Recidivism, as defined by the NIJ, is the relapse of criminal offending by a previously convicted offender (NIJ, 2014). Recidivism is defined by Bartol and Bartol (2008) as, the propensity of a criminal offender to reoffend.

Over the last several decades recidivism rates have risen. Based on a comparison of the Bureau of Justice Statistic report by Beck and Shipley (1989) and the NIJ report by Durose, Copper, and Snyder (2014) national recidivism rate rose among offenders released from prison. Rearrests among offenders released from prison in 1983 was 62.5% which rose to 67.5% among offenders released from prison in 2015, at 3-year post release date. Beck and Shipley (1989) further found that of the prisoner released in 1983, 47% were reconvicted and 41% of those individuals returned to prison or jail (Beck & Shipley, 1989). According to a 2005-2010 study of the recidivism across 30 states, the researchers found that 56.7% of offenders were rearrested within one year of prison release, 67.8% of

state prisoners were rearrested within 3 years of release, and 76.6% of were rearrested in within in 5 years (Durose, Cooper, & Snyder, 2014).

The supposition of the current study was that individuals' belief in their own ability to practice criminal desistance, self-efficacy, can be used to predict risk of recidivism. The high rates of recidivism could leave one wondering whether or not Martinson's (1975) supposition that "nothing works" is accurate. MacKenzie and Farrington (2015), examined what does work to address recidivism. The researchers conducted systemic reviews and meta-analysis. They found that evidence-based corrections interventions were most effective (MacKenzie & Farrington, 2015). Additionally, programs aimed at offenders, based on rehabilitation efforts, such as substance abuse treatment, and cognitive skills training were more effective at reducing recidivism than traditional surveillance/control, punitive approaches, and discipline focused interventions. The study supports the examination of self-efficacy as a variable in the current study and discredits the legitimacy of the punitive approach (MacKenzie & Farrington, 2015).

Research on recidivism has shown that criminogenic needs are associated with criminal desistance (Andrews & Bonta, 1994). These criminogenic needs, which influence risk of recidivism are generally dynamic, changeable traits, rather than static, unchangeable. The eight criminogenic needs are criminal history (static), criminal thinking, antisocial peers, family and martial support, employment, leisure and recreation, and substance use. To address these needs, successful treatment approaches

should match the intensity of treatment to the offender's level of risk (Andrews & Bonta, 1994, Bonta & Andrews, 2017; Makarios, Sperber, & Latessa, 2014). Wooditch, Tang, and Taxman (2014) studied 251 probationers in Maryland to identify which criminogenic needs are most important in promoting desistance. The researchers found that with treatment the most significant reduction in criminal conduct occurred for offenders who decreased substance use, gained employment, and decreased associations with antisocial relatives. These results further highlighting the importance of examining the needs and traits that influence recidivism (Andrews & Bonta, 1994, Bonta & Andrews, 2017; Makarios et al., 2014; Wooditch et al., 2014).

In an examination of criminogenic needs, and in particular the criminal history as a factor on adult recidivism, it is important to note the work of Moffitt (1993). Moffitt's work on life-course offending resulted in a distinction between types of juvenile offenders noting that some criminal conduct is temporary and situational while other types of criminal conduct is stable and persistent. These distinctions are adolescence-only offenders and life-course-persistent juveniles. Adolescence-only offenders commit minor criminal acts as part of a normal act of adolescence development, in an effort to appear mature, brave, independent, and to impress others. This type of offender requires little legal and/or clinical interventions and the criminal conduct ends prior to adulthood. Life-course-persistent offenders, conversely, maintain antisocial conduct through adulthood with their criminal conduct having been influenced by psycho-social, environmental, and genetic influences. The two taxonomies are differentiated by the age at which the

criminal conduct concludes, the tendency towards aggressiveness, the presence of neuropsychological deficits, generational inadequate parenting, and the likelihood of an abuse or trauma history. This study is important to the current study, in that the participants are likely to be considered life-course-persistent offenders; and as such, the theory provides a framework from which the participants criminal histories may have emerged creating a better understanding of the participants and the factors which influence their conduct.

Similar to the work of the work of Moffitt (1993), Johnson and Menard (2012) explored the life-course pattern of offending from adolescence to adulthood. The researchers found that prior research was limited in theoretical explanations and assessments of criminal abstinence. The purpose of the study was to define delinquency abstinence, develop a theoretical model for explaining delinquency abstinence, and to test the model. It was noted that only a small percentage of the total population, 6% to 15%, can be defined as delinquency abstainers and no single agreed upon theory existed to define the concept. The National Youth Survey Family Study (NYSFS) was used to collect data from nine waves of data collection. The NYSFS surveyed youth from across the United States beginning in 1976. Of the original sample of 1,725, data on 513 participants were examined by the researchers. The dependent variable of delinquency abstinence was defined as having not engaged in delinquency acts during any of the nine waves. The researchers found that delinquency abstainers had fewer antisocial peers, participated prosocial activities, spent more time with family, maintained involvement in

schoolwork and school activities, and had high moral beliefs. The exposure to antisocial peers was found to be the most significant predictor of delinquency abstinence (Johnson & Menard, 2012). The strength of the study was the attempt at defining characteristics of delinquency abstainers. Although the traits of an abstainer seem obvious, there was importance in identifying which of the traits was the most significant predictor of abstinence. The value of the findings of this study on the current study was in understanding the characteristics of delinquency abstinence. Without an understanding of how or why individuals avoid criminal offending there is little bases for understanding desistance or recidivism (Johnson & Menard, 2012).

Zettler, Morris, Piquero, and Cardwell (2015) explored the relationship between time of offense and arrest on recidivism. The researchers studied archival data from 20,369 arrest cases, collected from the Texas Department of Public Safety. They found that the individuals who had law enforcement contact and/or were arrested between zero and seven days from the time the crime was committed were less likely to recidivate at the 36-month follow up than those with a seven day or more time lapse between crime and arrest. The study highlights the importance of examining external reinforcements on criminal conduct and time as a factor in criminal desistance (Zettler et al., 2015).

Serin, Lloyd, Helmus, Derkzen, and Luong (2013) conducted a meta-analysis of the empirical literature on intra-individual changes (traits within the individual, such as criminal thinking) that indicate recidivism. The purpose was to critique corrections-based studies on intra-individual change and behavior. Literature selection criteria included

research that examined cognition, violence, and substance misuse with offender and non-offender comparison groups while looking at change and recidivism or change having a relationship to recidivism. They reviewed and analyzed 161 studies. The researchers found that self-control decreased aggression and decreased offending in 17–32-year-old offenders (Serin et al., 2013). Additionally, change in substance use behaviors and increases in management of negative emotions and similar treatment gains reduce recidivism risk. Recidivism was not found to be influenced by increased knowledge, empathy, and cognitive styles. Increases in self-esteem were found to increase risk of recidivism (Serin et al., 2013). Similar to Serin et al. (2013), as it relates to the perpetuation of offending based on personality traits, Walters (2015) found that possessing physically hedonistic values or antisocial cognitions perpetuates future recidivism among those with criminal histories. The benefit of the findings of these studies is that they examine traits which influence rates of recidivism (Serin et al., 2013; Walters, 2015).

Research shows that attempts at combating recidivism through therapeutic interventions, as in the case of short-term drug treatment for jail detainees has proven success (Bahr, Harris, Strobell, & Taylor, 2013). Bahr et al. (2013) studied the effectiveness of a 30-day Utah County Jail at reducing recidivism. The on-unit treatment (OUT) program was a cognitive behavioral therapy-based substance abuse program for incarcerated adults. The aim of the study was to examine rates of recidivism between the treatment group and the matched control group with 70 participants in each group.

Recidivism was measure 14 months following discharge from the Utah County Jail. The researchers found that 27% treatment group had returned to jail for more than 30 days and 47% of the control group returning for more than 30 days (Bahr et al., 2013). The study not only demonstrated the value of using data gathered from jail participants, as in the current study, but also the importance of examining successful approaches to addressing recidivism (Bahr et al., 2013).

Self-Efficacy and Recidivism

According to Bandura (1997), perceived self-efficacy is the “belief in one’s capacity to organize and execute the courses of action required to produce given attainment” (p. 3). Based on this premise, in terms of attempting to disengage from criminal conduct, one’s belief in his or her ability to execute this change in criminal conduct will influence his or her chance of success. Current literature reveals an interest on the part of researchers in the relationship between self-efficacy and criminal conduct (Davis, Bahr, & Ward, 2013; Morash, Kashy, Smith, & Cobbina, 2015; Roberts & Fillmore, 2016; Smith, Cornacchione, Morash, Kashy, & Cobbina, 2016).

Morash, Kashy, Smith, and Cobbina (2015) looked at the influence of probation and parole agents’ relationship style on female offenders’ crime avoidance or desistance self-efficacy. The researchers found that the agent’s level of supportiveness versus punitiveness influenced the participants level of crime avoidance self-efficacy. Specifically, punitiveness was negatively correlated with crime avoidance self-efficacy and supportiveness was positively related to criminal avoidance self-efficacy (Morash et

al., 2015). Smith, Cornacchione, Morash, Kashy, and Cobbina (2016) also examined parole and probation agents' communication style as a factor in drug and alcohol avoidance self-efficacy among female offenders. The researchers found that agent's conformity communication style was negatively associated with drug and alcohol avoidance self-efficacy while conversational communication style was positively associated with self-efficacy to avoid drugs and alcohol. Although these studies looked at self-efficacy among female offenders, and the current study will have a male population, these studies support the value of self-efficacy as a component of recidivism (Morash et al., 2015; Smith et al., 2016).

Davis, Bahr, and Ward (2013) found that criminal desistance and reentry success was associated with having a support system and having a support system was associated with higher perceived self-efficacy for success reentry. A study by Roberts and Fillmore (2016) found that DUI offenders who believe themselves to be less intoxicated than they actually were had higher rates of alcohol related recidivism yet reducing their level of self-efficacy for being able to drive while intoxicated could decrease their inclination to drink and drive. Carroll, Gordon, Haynes, and Houghton (2013) examined the relationship between self-efficacy and academic success and goal setting among delinquent, at-risk, and non-at-risk juveniles. They found that incarcerated youth have the lowest level self-efficacy. Cuevas, Wolff, and Baglivio (2017) also examined self-efficacy as a variable in recidivism and residential treatment completion. The researchers tackled a gap in the literature by examining these variables among juvenile offenders in

Florida. The sample included 12,955 adjudicated, primarily minority males, juveniles; the average age at discharge was 16.5 years old. All participants had completed a placement in a residential placement. The analyses revealed that participants with higher levels of prosocial self-efficacy spent shorter lengths of time in the residential program, reported higher hopes for a positive future, and were less likely to recidivate (Cueva et al., 2017). Despite the focus of these studies on juvenile offenders, and substance users, these studies further support the value of examining the relationship between self-efficacy and recidivism (Carroll et al., 2013; Cueva et al., 2017; Davis et al., 2013).

Behavioral Change

Several studies support the utility of self-efficacy in behavioral change among justice-involved individuals (Majer, Olson, Komer, & Jason 2015; Taylor & Williams-Salisbury, 2015; Wilson, Sheehan, Palk, & Watson, 2016). Taylor and Williams-Salisbury (2015) examined whether there was a relationship between self-efficacy and coping skills. They compared substance using to non-substance using Black women under social and financial pressure. Thirty women from each group were recruited from the Baltimore Department of Social Services. The brief COPE Inventory and General Self-Efficacy Scale were administered to each group and used to measure the variables. Taylor and Williams-Salisbury (2015) confirmed that there was a statistical difference in levels of self-efficacy and coping skills for the substance using participants as compared to non-substance using women. The research found that among substance users, strong self-efficacy and coping skills increase the chance of sobriety while poor self-efficacy

and coping skills place substance users at greater risk of relapse. Although the current study sample was male and the Taylor and Williams-Salisbury (2015) study focused on female participants, the researchers made a case for targeting research and interventions aimed at addressing self-efficacy and coping skills (Taylor & Williams-Salisbury, 2015).

Majer, Olson, Komer, and Jason, (2015) examined the relationships between motivation to change, treatment readiness, and abstinence self-efficacy. They looked at 270 substance using adult male and female recidivist ex-offenders in inpatient substance abuse treatment. The Circumstances, Motivation, and Readiness Scales–Intake Version (CMRS) was given to calculate motivation and treatment readiness while the Drug-Taking Confidence Questionnaire (DTCQ) was used to measure abstinence self-efficacy. The researchers found that high motivation for change was significantly and positively associated with treatment readiness and that abstinence self-efficacy was significantly and negatively related to motivation (Majer et al., 2015). However, treatment readiness was not related to abstinence self-efficacy among substance using ex-offenders. The findings indicate that a person’s self-efficacy for practicing substance use abstinence is not dependent upon participation in a treatment program; again, displaying the important role of self-efficacy in behavioral change (Majer et al., 2015).

In another study, the research demonstrated that the high rates of self-efficacy were associated with high rates of planning to avoid reoffending (Wilson, Sheehan, Palk, & Watson, 2016). Wilson et al. (2016) focused on the relationship between self-efficacy, offender type, and abstinence. The researchers specifically studied offenders convicted of

driving under the influence (DUI) and their path to recovery based on self-efficacy. The approach focused on self-efficacy as it relates to behaviors, creating an action plan and creating a coping plan to avoid repeated incidents of drinking and driving (Wilson et al., 2016). The study was divided into two stages and the variables motivation and volitional. The first stage looked at task self-efficacy, outcome expectancy, risk perception, and behavioral expectation. Volitional variables included action planning, coping planning, planning, maintenance self-efficacy, recovery self-efficacy, and self-reported drinking and driving avoidance (Wilson et al., 2016). Task self-efficacy and maintenance self-efficacy were found to have a significant relationship to positive outcome expectancy and planning. These findings support the exploration into self-efficacy as a variable in criminal desistence (Wilson et al., 2016).

Law and Guo's (2015b) study assessed the effectiveness of reality therapy techniques to increase self-efficacy of substance abuse abstinence among female Taiwanese prisoners. Although the focus of the study was to examine the effectiveness of the therapeutic intervention, the researchers also created and validated a self-efficacy measure, the ISSSES. The researchers found that self-efficacy for abstinence, as defined by an increase in decision making skills, coping skills, social skills, and planning ability, was improved by participation in reality therapy programming (Law & Guo, 2015b). The study highlighted the relationship between self-efficacy and behavioral change while providing an assessment tool for this current study on recidivism. In a similar study, Lee, Shin, and Park, (2014) found that the therapeutic community (TC) approach to substance

abuse treatment increased abstinence self-efficacy and problem-solving skills among a sample of 48 male South Korean prisoners. Although, the Law and Guo (2015b) study ties directly to the current study, collectively, all of the studies on self-efficacy and behavioral change represent value and applicability of examining the concept of self-efficacy as a factor in the cessation of problematic or criminal behavior.

Strength-Based Traits

The current literature on the role of strength-based characteristics in determining recidivism has focused on traits such as, hope, optimism, and criminal self-efficacy (Forrest & Hay, 2011; Laferrière & Morselli, 2015; Malouf et al., 2014; Martin & Stermac, 2010; Serin et al., 2013; Slater, Lambie, & McDowell, 2015; Woldgabreal, Day, & Ward, 2016). Slater, Lambie, and McDowell (2015) conducted a qualitative study to examine the effectiveness of a youth program for justice-involved individuals and their families in New Zealand. The researchers collected data from focus groups and interviews with staff. They found that young offenders benefit significantly from the application of a personalized strengths-based treatment plan yet those offenders who had a history of previous offenses or were at high risk for recidivism did not benefit (Slater et al., 2015). The study sheds light on the need to examine the specific traits and/or intervention unique to the offender in an effort to reduce recidivism (Slater et al., 2016).

Martin and Stermac (2010) examined the effects of strength-based characteristics, such as hope, on reducing the risk of recidivism among 100 inmates, both male and female. They focused on strength-based traits to explore which, if any, were catalysts for

reducing risk of recidivism. The researchers compared the traits to incidents of recidivism and found a relationship between hope, as a predicative factor, and recidivism. The researchers found that high levels of hope led to less reoffending (Martin & Stermac, 2010). Friestad & Hansen (2010) also analyzed hope and optimism and found that optimism, particularly unrealistic optimism, led to higher rates of recidivism. Woldgabreal, Day, and Ward (2016) explored the links between positive psychology constructs, such as self-efficacy, and parolee and probationers' outcomes. The four constructs examined were psychological flexibility, general self-efficacy, optimism, and hope. A sample of 287 offenders completed four questionnaires related to these positive psychology constructs. The researchers found that participants with high levels of each of the positive psychology constructs examined had better community corrections offender outcomes (Woldgabreal et al., 2016). Specifically, high levels of psychological flexibility, general self-efficacy, hope, and optimism was related to lower levels of technical violations, new charges, new convictions, and reincarceration (Woldgabreal et al., 2016). Collectively, these studies make a strong case for furthering research related to strength-based traits and recidivism (Friestad & Hansen, 2010; Martin & Stermac, 2010; Woldgabreal et al., 2016).

The study by Forrest and Hay (2011) examined the relationship between life-course transitions, self-control, and desistance. The researchers placed an emphasis on the event of marriage as a life-course transition as a factor in the increase of self-control; which they argue would lead to desistance from crime. Social control and social learning

theories were used to frame the readers understanding of delinquency, self-control, and desistance. Forrest and Hay (2011), examined findings from a 1979 longitudinal study of 14 to 21-year-old males and females. The original study included 12,000 participants and was identified as the Child and Young Adult Supplement of the National Longitudinal Study of Youth (NLSY79). Follow-up interviews were conducted every other year following the original data collection process. The researchers collected data on self-control from six related items on the NLSY79. Additionally, the researchers examined the data on marijuana use, marriage, and other control variables, such as changes in career, education, and community. Forrest and Hay's (2011) data analysis showed that marriage was associated with self-control, which contributed to desistance. The researchers suggested that future studies incorporate concepts of self-control into research and the study of criminology theories. Although the current study will not look at self-control, this study highlights the need for exploration into strength-based traits and desistance or recidivism (Forrest & Hay, 2011).

Martin and Stermac (2010) sought to advance the research on criminology to include the concept of hope in improving criminal desistance. Based on the approach and theory of the Good Lives Model (GLM), and the framework of the hope theory, the researchers theorize that the positive and humanistic principle of instilling hope in an offender's ability to change is an important catalyst to reduce recidivism (Martin & Stermac, 2010). The study was conducted on 100 adult jail detainees, equally divided between males and females, in Canada. The participants were primarily repeat offenders.

Three measures were used to assess for hope, life orientation, and problem solving. The instruments included the Level of Service Inventory, Ontario Revision, Life Orientation Test - Revised, Social Problem-Solving Inventory - Revised, Means-End Problem Solving, and Hope Scale. The researchers found that high levels of hope and sense of agency decreased the risk of recidivism (Martin & Stermac, 2010). Women were found to have lower hope scores and lower hope scores were linked to higher risk for drug and alcohol use. The researchers believed that the research provides justification for supporting research into hope as a protective factor leading to reduced recidivism (Martin & Stermac, 2010). A criticism of the study is the small sample and the fact that the sample was selected from only the best-behaved detainees (Creswell, 2014). Also, as with most studies of an incarcerated population the possibility of malingering and or minimizing existed and was not controlled (Hanser & Mire, 2011). Together the studies in this section represent critically important findings, which support the further examination of the relationship between recidivism and strength-based traits, such as self-efficacy.

Diversity

A few studies focused on concerns associated with self-efficacy and recidivism specifically as they relate to racial and gender differences (Friestad & Hansen, 2010; Walters, 2014). Walters (2014) compared variations in education, criminal thinking, and recidivism across three races from a SCT framework. A moderator and mediator variable relationship was used to guide the comparison. The participants were made up of White,

Black, and Hispanic male postrelease federal prison inmates. The researcher found that education attainment moderated the relationship between criminal thinking and recidivism while criminal thinking mediated the relationship between race and recidivism (Walters, 2014). General criminal thinking scores were only able to predict recidivism among participants who had completed 12 or more years of education. This study highlights the need to consider the role of diversity among the population in order to produce the most generalizable results (Creswell, 2014; Walters, 2014).

Miller, Miller, and Barnes (2016) conducted a mixed-methods study of a reentry program for dually diagnosed female offenders impacted by opiate use in Ohio at the Delaware County Jail. The program Delaware County Transition (DCT) program adapted programming developed for male offenders to evaluate the validity of use with females. Data from male participants and female participant found that the program was as valid for use with female offenders as males. However, they found that perceived self-efficacy was not consistent among participants. The findings indicate that perceived self-efficacy may not be a variable of treatment success for some segments of the population (Miller, Miller, & Barnes, 2016).

The study of Norwegian prisoners by Friestad and Hansen (2010), looked at factors that effected desistance among male and female offenders and the self-identified predictions of criminal abstinence or anticipated desistance by participants. Friestad and Hansen (2010) also found that previous research focused on hope and optimism as important to desistance, but that the concept of unrealistic optimism was ignored. The

aim of the study was to examine how social disadvantage (welfare status) and personal resources (social status, self-efficacy, and socioeconomic status) impacted criminal desistance and to what extent those factors were consistent across male and female participants. The Standard of Living survey was given to 260 adult male and female Norwegian prisoners in 2003. A randomly sample of the surveys were used for data collection. Male and female participants scored similarly on perceived self-efficacy, rates of social disadvantage or welfare problems, and had similar rates of substance abuse disorders (Friestad & Hansen, 2010). However, more females reported being unemployed and having mental health concerns than males. Yet both groups had high rates, 80% of anticipated successful criminal desistance upon release despite previous attempts at criminal abstinence; which points to the concept of unrealistic optimism (Friestad & Hansen, 2010). In addition to the revelation of gender similarities and differences between offenders, the researchers found that unrealistic optimism may lead to a lack of planning and preparation. Lack of planning and preparation on the part of offenders, due to their unrealistic optimism, led the researchers to conclude that optimism could increase recidivism. Given the identification of perceived self-efficacy scores being similar among male and female participants, the study provided a basis for generalizability of the current study's findings (Creswell, 2014; Friestad & Hansen, 2010).

Overview of Self-Efficacy Measures

Bosscher and Smit (1998), Law and Guo (2015a), Taxman, Rhodes, and Dumenci, (2011), and Malouf et al. (2014) provided valuable information on the validity

and reliability of measures of self-efficacy. In order to assess level of self-efficacy, in the current study, a valid and reliable measure needed to be used. Bosscher and Smit (1998) examined the General Self-Efficacy Scale (GSES) and the three scale indicators of self-efficacy, initiative, effort, and persistence. The study was designed to replicate earlier studies on the scale with a sample of adults 55 years-old and over individuals in the Netherlands. The researchers found the scales valid for use with the target population for identifying expectations of self-efficacy (Bosscher & Smit, 1998). Law and Guo (2015a, 2015b), in their study of the effectiveness of reality therapy techniques to increase abstinence among female Taiwanese inmates, validated the Sense of Self-Efficacy Scale (ISSES). Malouf et al. (2014) used the Brief Self-Control Scale (BSCS) to predict recidivism. The researchers conducted a mixed-methods longitudinal study of 553 jail detainees at an urban county jail. The study examined the utility of the Brief Self-Control Scale (BSCS) to predict recidivism, substance use, and reentry adjustment. The purpose of the study was to assess the validity and reliability of the BSCS for use with detainees. Additionally, the researchers aimed to look self-control from preincarceration to postrelease. The BSCS was assessed against the Personality Assessment Inventory (PAI), Hare's Psychopathy Checklist: Screening Version (PCL: SV), the Correctional Residential Treatment Form, an HIV/AIDS risk assessment, jail discipline reports, and Federal Bureau of Investigation crime reports. Positive correlations were found between the BCSC and the PAI in preincarceration and postrelease self-control (Malouf et al., 2014). The BSCS correlated with the PCL: SV in prediction of self-control as a factor in

high-risk offenders. The BSCS was not found to be a predictor in high risk behaviors relate to safe sex or jail misconduct. Taxman, Rhodes, and Dumenci (2011) examined data at a six-month treatment follow up from 250 substance using offenders to validate the Criminal Thinking Scale (CTS). Participants were randomly assigned probation and substance abuse treatment or only substance abuse treatment. As it relates to measuring variables associated with criminal thinking among drug involved offenders, the researchers found the CTS to be a valid predictor of both treatment readiness and self-efficacy (Taxman et al., 2011). These studies are useful as they provide valuable validity and reliability data on self-efficacy and strength-based trait measures.

Positive Social Change

In 2015, 10 million households were the victims of property crimes and 2.7 million people were violently victimized (Truman & Morgan, 2016). The cost of maintaining the prison system in Illinois was approximately \$1.3 billion in 2014, while the cost of recidivism in Illinois was expected to be \$5.7 billion (Illinois Criminal Justice Information Authority, 2016). The cost in terms of loss of freedom for adult male offenders incarcerated for Class 1–4 felonies, in Illinois, was approximately 2.5 years in 2013 (Illinois Criminal Justice Information Authority, 2016). With crime rates in Chicago having risen in every category from 2015 to 2016 according to the Federal Bureau of Investigations' (FBI) Uniform Crime Report (UCR), and in an effort to reduce crime, and to address the needs of offenders, victims, and communities, an examination of what influences offender repeated criminal conduct is justified (Department of Justice, 2016).

In an interview with G. Martin, a reentry specialist, journalist Lee (2012) wrote that offenders often leave prison with hope and a plan to end their criminal conduct, but that hope turns to relapse when they are faced with the consequences of their past criminal conduct. Fear of failure and others' lack of belief in the offenders' rehabilitation can lead them back to criminal conduct (as cited in Lee, 2012). According to the NIJ (2014), two-thirds of released offenders are rearrested within 3 years of release and 77% are rearrested within 5 years of release. As such, recidivism and factors associated with reoffending demand attention from the research community. The cost of criminal offending is steep, public safety costs, the emotional toll, and the psychological price of criminal conduct can devastate an individual as well as a community (Allard, 2012; Illinois Criminal Justice Information Authority, 2016; Truman & Morgan, 2016). Given that 69% of the U.S. correctional population are fulfilling criminal sentences on probation or parole (Carson & Anderson, 2016); placing many offenders back in their communities, working to turn their lives around, the potential impact of these findings will serve to create positive social change by reducing victimization, decreasing financial and emotional cost of recidivism, and increasing public safety.

Summary

With an increasing number of offenders in the community completing their criminal sentences or returning to communities following a term of incarceration, the question becomes what can be done to improve their chances of successful criminal desistance and reduce the cost of crime? With the expense of recidivism noted above, the

benefit of desistance was increased public safety and reduced financial and emotional costs. The implications of the study may lead to greater understanding of the factors related to treatment planning and as a predictor of recidivism for all types of offenders. The aim of this research was to explore the utility of measuring self-efficacy as a predictor of recidivism and will add to the research by identifying a predictive relationship, which can be used to inform policies and clinical interventions aimed at reducing recidivism.

Chapter 3 will outline and support the use of the selected research method, design, sample size and setting, independent and dependent variable instruments, data collection, data analysis, and protection of the participant's rights.

Chapter 3: Research Method

Introduction

This chapter will outline the research design and approach, sample size, setting, variable instruments' data collection, data analysis, potential threats to the validity, protection of the participant's rights, and will close with a summary.

The objective of this quantitative, nonexperimental research was to explore the value of measuring self-efficacy level as a predictor of recidivism. The purpose of the study was to guide the research towards a greater understanding of the factors related to recidivism to improve offender/ex-offender assessment, treatment planning, treatment delivery, and discharge planning, and thus reduce recidivism. The current study is expected to add to the body of forensic psychology research by addressing the gaps in the literature on this relationship. The study has implications for positive social change through increased quality of life for offenders. By decreasing reoffending behaviors, an individual can create increased opportunities for employment, education, and/or social-emotional growth; further leading to decreased victimization of people and property within communities.

Research Design and Approach

This quantitative, nonexperimental study used a convenience sample and analyzed secondary data. The quantitative design was best for this study given the use of standardized assessment measures for data collection, analysis, and interpretation (Creswell, 2014). The ability of self-efficacy to predict recidivism was studied by

comparing the scores from a self-efficacy measure to incidents of recidivism among adult male offenders. Regression analysis was used and is indicated in nonexperimental research design (Green & Salkind, 2014).

Given the quantitative approach to the study and the examination of the predictive relationship of self-efficacy on recidivism, the statistical test used to analyze the data was regression analyses. Binary regression was used to analyze the first research questions and simple linear regression used for the second research questions. Simple linear regression analysis was a valid analytic strategy because it was used to predict the value of one dependent variable or outcome variable on one independent variable or predictor variable. Binary regression was used for the first research question because the dependent variable was a binary, using a yes or no answer to recidivism in the calculation (Field, 2013). I did not compare groups or provide an experimental intervention to the independent variable but rather employed a within group design justifying the use of the design (Creswell, 2014). Finally, a random sample was not used since archival data had made up the independent variable data source, instead a convenience sample was used. As such, the study was not considered a true experiment, nor quasi-experimental, but rather a nonexperimental design (Creswell, 2014).

The independent variable, self-efficacy, was defined by scores on the ISSSES a standardized measure of self-efficacy (Law & Guo, 2015b). The dependent variable, recidivism, was defined as conviction of a crime within a 1-year period postrelease.

Conviction rates were tracked through online resources, via two county criminal case databases.

The independent variable data was composed of scores on a self-efficacy measure which were completed by detainees who participated in a county DOC program designed to address criminogenic needs, which was also being studied by the DOC's Research Department. The aim of the DOC program was to reduce recidivism and incidence of violence in targeted Midwest communities. Data was collected from May 2017 through October 2017. Data from individuals who had been released into the community since having completed the measure were included in the study. Dependent variable data was also considered archival and gathered through information sharing databases which provide criminal case public record information.

Quantitative method was selected because the goal of the study was to analyze data objectively and statistically (Creswell, 2014). Frankfort-Nachmias, Nachmias, and DeWaard (2015) recommended the use of archival data for conceptual-substantive benefits, methodological reasons, and cost. In the case of the current study, the archival data collected as part of the program was unanalyzed yet contained valuable research data. The historical characteristic of the data provided an advantage because there was a time-lapse element to the study and this time span, between collection and analysis, covered the time needed for data analysis. Another benefit of the data was that it was free. Not only were there no financial cost to using the data, but rather, using it freed me up from the time demands of administering the measure. Further the archival data

collected to analyze the dependent variable was easily accessible public information that required no special privileges to access. The use of these two sources of archival data alleviate concerns related to conducting a study with incarcerated participants; who are considered vulnerable participants (American Psychological Association, 2017; Walden University, 2010).

Design Justification

Although researchers have examined the relationship between self-efficacy and criminal conduct, the predictive ability of self-efficacy on recidivism has been absent from the research. For instance, Walters (2015) found that low self-efficacy for criminal desistance resulted in ongoing criminal conduct among juvenile offenders. Laferrière and Morselli (2015) found that the higher the level of self-efficacy for criminal conduct, the more likely an offender was to reoffend, also referred to as criminal self-efficacy. Several studies found that strength-based traits similar to self-efficacy have a relationship to recidivism (Forrest & Hay, 2011; Friestad & Hansen, 2010; Laferrière & Morselli, 2015; Malouf, Schaefer, Witt, Moore, Stuewig, & Tangney, 2014; Martin & Stermac, 2010; Serin et al., 2013; Yarbrough, Jones, Sullivan, Sellers, & Cochran, 2012). Law and Guo's (2015b) study assessed the utility of reality therapy techniques to increase self-efficacy of substance abuse abstinence among female Taiwanese prisoners. Although the purpose of the study was to examine the effectiveness of the therapeutic intervention, the researchers created and validated a self-efficacy measure which was used in the current study (Law & Guo, 2015a; Law & Guo, 2015b).

Quantitative nonexperimental design is justified in behavioral science research because it allows for an examination of relationships (Stangor, 2013). The quantitative, non-experimental design was the preferred method for the current study because the study aimed to examine quantifiable archival data from a population who had already been admitted into another study with set criteria and no randomization (Green & Salkind, 2014). Nonexperimental correlation design was justified for the current study because it provided an opportunity to use statistics to measure a relationship between the variables self-efficacy and recidivism (Creswell, 2015). Regression analysis was a justifiable analytic approach as it is often used in nonexperimental designs (Field, 2013).

Setting and Sample

The independent variable data, scores on a self-efficacy measure, was collected from detainees who had participated in a DOC program, which was also being studied by their research department. The program began in May 2016; although the data used for the study was collected between May 2017 through October 2017. The incarceration phase of the program took place within the DOC located in a large urban Midwest county. The program was based on the Risk-Needs-Responsivity model and employed motivational interviewing and cognitive behavioral therapy techniques (Andrews & Bonta, 1994; Bonta & Andrews, 2017). Participants received several hours of programming per day, 5 days a week, for as long as they were incarcerated and remained in good standing in the program. The second half of the program was community based and was intended to assist participants in targeting criminogenic needs through case

management and support services based on a discharge plan developed during incarceration. The goal of the program was to reduce recidivism and incidence of violence in targeted local communities. However, not all participants admitted to the program presented with violence criminal charges, the assumption on the part of the program developers was that violence can be a factor among those who live a criminal lifestyle, therefore, presenting with a violent charge was not a requirement of admission. Participants consisted of 18 to 24-year-old male offenders from the county. All were incarcerated in DOC for midlevel classification felony charges. Program length of stay varied for each participant. Due to the archival nature of the data collected and the involvement, on the part of the participants, in the program the sample was identified as a convenience sample.

The independent variable data was collected by the program's clinical masters level interns and maintained by program staff on behalf of DOC's research team. The self-efficacy data had not yet been stored electronically nor analyzed in any way but rather had been kept in the original paper form. I did not have any involvement in the administration of the measure. Participant confidentiality was maintained by using a unique inmate identification number on all data sources and statistical analysis tracking documentation. The identification number was not created by me but rather it was assigned by DOC classification department for all inmates upon intake.

Informed consent for participation in the program study was completed by all participants prior to admission in the program. Additionally, demographic data, a self-

reported medical/mental history, employment and academic histories, criminogenic risk factor scores, and criminal history was gathered on each participant prior to admission and was used for the current study. This data was electronically saved but had not been analyzed in relationship to the self-efficacy measure data. Permission to analyze the data was granted by DOC, see Appendix B.

According to Stangor (2013) statistical power is valuable because it tells us the likelihood of avoiding a type 2 error or failing to reject a false null hypothesis. The aim of the study was to assess whether there was level of self-efficacy associated with recidivism. The RQ1 H_11 suggests that self-efficacy does predict the likelihood of recidivism in an adult male ex-offender; while RQ2 H_12 suggests, for those who did reoffend self-efficacy will predict recidivism as defined by the amount of time between release and reincarceration. The rejection or acceptance of the null hypotheses was based on significance level, alpha (α) and probability value (p -value). Alpha was set at the conventional level of $\alpha = .05$ and the p -value was set to avoid the mistake of making a type one error (Stangor, 2013).

Based on Cohen's guidelines (1988) the power analysis assumed a medium effect size. GPower 3.1 uses Cohen's f as an effect size measure for regression analysis. Therefore, within GPower, Cohen's f was set to its large effect size value of .40. The desired power for the analysis was set to the conventional level of .80, and the significance (alpha) level was set to the conventional $\alpha = .05$. The simple linear regression that was tested included one independent variable (self-efficacy) and one

dependent variable (recidivism); therefore, the number of groups was set to 2 (Faul, Erdfelder, Buchner, & Lang, 2009). The overall significance of the model was tested with an *F*-Ratio; therefore, the Test Family setting in GPower was *F*-tests. Given that the analysis was conducted in advanced of the actual study, the Type of Analysis was set to *a priori*. Using these parameter and analysis settings, the estimated minimum sample size for the study was 52 cases.

Instrumentation

Instrument for the Independent Variable

Purpose. Self-efficacy, the independent variable (IV), was measured using Law and Guo's (2015b) Index of Sense of Self-Efficacy Scale (ISSES). The measure was created and validated for use in their study on the effectiveness of a reality therapy substance abuse treatment intervention. The IV for the current study was self-efficacy. The IV data was collected from a measure using a Likert scale. As such, the type of variable is continuous, specifically ratio. The purpose is to quantify participants level of general self-efficacy in an attempt to identify a relationship to recidivism. Self-efficacy is operationally defined as, the level of belief that one possesses the skills necessary to make positive personal change regarding recidivism.

Procedures. The ISSES was validated for use with individuals 18 years and over. It is a standardized pencil and paper instrument with 20 items and three scales. The ISSES applies a 5-point Likert-type scale ranging from 0 (totally disagree) to 4 (totally agree). Ten of the questions were reverse scored and were converted for scoring

purposes. The purpose of the instrument was to measure self-efficacy based on the concept as developed by Bandura (1977a, 1986, 1997). Permission to use the ISSES was not sought as it was not needed when used for academic and research purposes provided distribution is controlled. Use of the measure was free (Law & Guo, 2015b).

DOC clinical interns gave the measure. No incentives were given to participants for completing the survey. An explanation of the purpose and a reiteration of the informed consent for participation in the study was provided. The questions were read aloud to the participants in a group by the intern. However, participants completed the measure independently. Only inmate identification numbers were used to identify the participants.

Scoring. Data was collected from the paper copies of the scale which had been stored by program staff within DOC. The response for each item was scored on a range from 0 (totally disagree) to 4 (totally agree). Individual question responses were tracked, and the measure totaled for each individual (Law & Guo, 2015b). The itemized scores were converted into a SPSS document as raw data for analyses.

Parametric. Index of Sense of Self-Efficacy Scale (ISSES) was validated on a sample of Taiwanese female substance using prisoners. All participants volunteered and were randomly selected. Two studies were completed, a pilot study consisted of 149 women and the follow up study included 197 women. The groups were found to be homogeneous (Law & Guo, 2015a). The Cronbach's alpha for the whole scale was 0.917.

The subscales showed reliability with Decision-Making Ability at .906, Coping and Social Skills, .823, and Planning Ability, .812 (Law & Guo, 2015b).

Instrument for Dependent Variable

Purpose. The dependent variable, recidivism, was defined as reincarceration within a 1-year period postrelease. The number of convictions was defined nominally. Recidivism was tracked and calculated based on data gathered from the county clerk's online public database, and the DOC's Jail Management System (JMS). These databases both provide information on criminal arrests and court dispositions associated with criminal cases heard within the state's Circuit Court system. Like the data gathered from the ISSES, the DV data was also considered archival.

Procedures. The county clerk's database was selected because it provides public information on criminal arrests and court dispositions. The DOC's JMS was selected as a backup to the county clerk's database because information from the JMS was linked to the information provided in participants' program electronic files. Criminal case report data was collected and analyzed via these two county criminal case databases, on an ongoing basis for 1 year beginning at participants' date of discharge from the DOC. Charges incurred during the course of incarceration for the case associated with the program admission will not be counted as recidivism. Additionally, charges brought against participants, associated with offenses committed prior to the program related incarceration were not considered recidivism.

Scoring. Analysis of the DV was quantified by tallying incidents of conviction from 0 and above. Tracking was conducted through regular examination of incidents of reincarceration by participants in the court and DOC databases. The incidents of recidivism were organized by participant in a Microsoft Excel document as raw data for analysis.

Statistical Parametric. The use of criminal case record databases for gathering recidivism data was not associated with the use of a standardized measure. Therefore, parametric data is not presented for the process of gathering the DV data.

Data Collection and Analysis

Provided below is the restatement of the research questions with both the null and alternative hypotheses.

Restatement of the Research Questions and Hypotheses

RQ1 Quantitative: Does self-efficacy predict the likelihood of recidivism in an adult male ex-offender?

H_01 - Self-efficacy does not predict the likelihood of recidivism in an adult male ex-offender.

H_11 - Self-efficacy does predict the likelihood of recidivism in an adult male ex-offender.

RQ2 Quantitative: Among those who did recidivate, does self-efficacy predict time from institutional release to recidivism?

H₀₂ - Among those who did recidivate, self-efficacy does not predict time from institutional release to recidivism?

H₁₂ - Among those who did recidivate, self-efficacy does predict time from institutional release to recidivism?

Data Collection

The independent variable archival data and demographic data was collected from the DOC. Each participant was identified by a DOC issued identification number. I scored the ISSES and collected demographic data from JMS using the participants' DOC issued identification number. All independent variable and demographic data were stored in SPSS following this stage of data collection. The dependent variable data was gathered from the county clerk's office and/or DOC database using the same DOC issued identification number to track the participants. All dependent variable data was collected and stored in SPSS following weekly database checks for incidents of criminal conviction. Walden University, Institutional Review Board (IRB) approval was granted prior to examination of data. The Walden University IRB approval number for the study is 12-12-18-0620365.

Data Analysis

Statistical analysis was conducted using SPSS, version 25 (IBM Corporation, 2017). Given the quantitative design of the study and the intention to examine the predictive relationship of self-efficacy on recidivism, the statistical test used to analyze the data was regression analyses. Descriptive statistics were provided and analyzed for

the individual participants and the sample. Binary regression was used to analyze RQ1, since there was one independent variable and one dependent binary variable. Recidivism was identified as a yes (did recidivate) or no (did not recidivate) variable. Simple linear regression analysis was a valid analytic strategy, for RQ2, because it was used for the purpose of predicting the value of one dependent variable or outcome variable on one independent variable or predictor variable (Field, 2013). The five assumptions of linear regression are that there is a linear relationship, normally distributed errors, there is little to no multicollinearity, there is a lack of autocorrelation, and homoscedasticity or homogeneity of variance has been met (Field, 2013). No violations of these assumptions were found within the current study's collected data, as will be detailed in Chapter 4.

Threats to Validity

The current study design presents threats to internal and external validity. Threats to validity are the factors present in a study that may result in a researcher drawing the wrong conclusions from the findings (Stangor, 2013). In regard to external validity, all of the participants came from the same DOC criminal thinking and behavior modification program. All were 18–24-year-old adult males and they must have lived in a zip code of the DOC's metropolitan area at some point in their lives to be eligible for the program. The limits of the sample demographic may have reduced the generalizability of the findings (Stangor, 2013).

Regarding internal validity, the programming or treatment received by the participant while admitted in the program could have had an effect on the data (Stangor,

2013). Working with an incarcerated population presents challenges related to trust and transparency. Although confidentiality of their answers was reiterated to the participants, the often-present mistrust of some in this population may have cause participants to answer questions a particular way in an effort to please the administer. Although the measure administrators were interns, they did have previous experience working with the participant population. Yet, the naïve nature of an intern and the potential bias of an unseasoned clinician could have had an impact on the measure administration and as a result, threatened internal validity (Stangor, 2013). Lastly, although the ISSES was found to be a valid and reliable measure of self-efficacy for adult offenders (Law & Guo, 2015b) it was not validated on American males but rather Taiwanese females, further presenting a threat to internal validity (Stangor, 2013).

Protection of Participant's Rights

Ethical considerations must be placed at a high priority when conducting a study with human participants. Incarcerated individuals are considered a vulnerable population, as such, additional measure must be in place to protect all parties (Walden University, 2010). The current study protected and ensured the safety of participants by the use of archival data rather than direct interaction. I had no direct contact with the participants during administration of the independent variable measure. Additionally, analysis of the data did not occur until participants had been released from incarceration for at least one year, further ensuring that direct contact was avoided. The archival data was collected while the participants were involved in another research study for which they had signed

a consent. The consent outlined programming participation and details the participants' rights including consenting to their data being used for research analyses. Participants' names were not included and identifying characteristics were not used in the findings. Confidentiality of participants was maintained, as each participant was only identified by his jail identification number, and all information was saved and organized in a SPSS file, on a password protected computer, used only by me.

Summary

The current study was quantitative, nonexperimental, convenience sample design. The purpose of this study was to statistically investigate the possibility of a predictive relationship between level of self-efficacy and rates of recidivism. Archival data in the form of ISSSES and criminal records were examined. The ISSSES was used to quantify self-efficacy and incidents of recidivism were tracked using criminal record public databases. Demographic data was collected from participants' program charts. SPSS version 25 was used to conduct binary regression and simple linear regression analyses. The goal of the study was to add to the body of research that has examined factors that influence recidivism. With recidivism rates as high as 77% at 5 years postrelease, and more offenders sentenced to community corrections, the study was justified and presented the potential for having a positive social change impact.

Chapter 4 will outline the results of the data analysis, the demographics of the sample, data collection process for both the independent and dependent, five test assumptions, results of the data analyses for both research questions, and summary.

Chapter 4: Results

Introduction

According to the 2019 Prison Policy Initiative's report on mass incarceration, jail admissions have risen to approximately 11 million per year with 840,000 individuals on parole, 3.6 million people on probation, and 2.3 million in prisons (as cited in Sawyer & Wagner, 2019). With approximately 17 million people per year cycling through the U.S. correctional system, something needs to be done to support the justice system's efforts to break this cycle. Sawyer and Wagner (2019) noted that there are several social, financial, and legislative factors that contribute to mass incarceration. However, these factors do not help explain why people become incarcerated or what can be done to break the cycle of incarceration (Sawyer & Wagner, 2019). Although the current study was not intended to address the why or how of mass incarceration, I did examine factors that may influence reoffending as an antecedent to incarceration. Specifically, the current study looked at a strength-based personality trait, self-efficacy, and whether it had an influence on recidivism. This chapter will provide an overview of the research questions and hypotheses, demographics of the sample, data collection, test assumptions, results, and summary.

Data Collection

The independent and dependent variable data for the study were archival and provided by a sheriff's office/county jail and the county clerk's office in the Midwest. Prior to being turned over to me, the independent variable data was stored at the jail in a

locked drawer, which was property of program staff from which the data were generated. The data were generated as part of a university project for master's level clinical interns. The purpose of the project was to teach the interns how to administer psychological measures or surveys to detainees. Two different interns administered and maintained the surveys. Participants, $N = 92$, completed the surveys and the results collected between May 31, 2017 and October 10, 2017. The dependent variable data was stored electronically, in databases and Microsoft Excel documents, by the jail and the county clerk's office.

The self-efficacy data, the independent variable, came from the results of the ISSES (Law & Guo, 2015a). Original copies of the completed ISSES were provided with jail booking numbers that were used to identify the participants. The participants' name and the survey date were listed on the survey, but the name was blacked out by the interns with permanent marker and I could not decipher the participants' names.

The ISSES was administered by master's level clinical interns to detainees of a CBT based program designed to address criminogenic needs inside the jail. I scored and converted questions requiring a reverse score for calculation prior to totaling. The ISSES data was then organized, totaled, and kept in a Microsoft Excel file. Individuals with missing ISSES data were not used in the sample since the total score was required for analysis. Independent variable data was kept secure on a password protected laptop with the password known only by me.

Recidivism data was collected by me. The sources of the data included a document prepared by the sheriff's office research team, the JMS, and the county clerk's public database of court filings. Each of the three sources were used to cross-check and authenticate the accuracy of the recidivism data in each source. The detainee booking number was used in all three types of searches to locate and identify the participant. I gathered, handled, and managed all recidivism data which was kept in the same Microsoft Excel spreadsheet used for the ISSES, self-efficacy, data. Individuals with one year or more time released from custody to the date of data analysis were used; Microsoft Excel calculated this amount of time. Individuals released to the community for less than 1 year were not used in the data set. Additionally, release date to reincarceration date was stored and calculated in the same Microsoft Excel document and saved on the same password protected laptop.

Demographics of the Sample

Between May 2017 and the end of October 2017, the time the surveys were completed and collected, all participants were clients in a program created to address criminogenic needs. The program was structured with a six to eight hour, Monday through Friday schedule. Programming included individual and group counseling, psychoeducation groups, anger management, CBT, general education preparation, and discharge planning with linkage to community agencies. No aspect of the program focused specifically on self-efficacy as a treatment goal nor topic of psychoeducation. However, as a program dedicated to addressing criminogenic needs, recidivism and

factors that contribute to recidivism were discussed by staff with detainees. The program used Motivational Interviewing, stages of change, as a foundation of treatment, with “relapse” as one of the stages; as such, the goal of the program was not to reduce recidivism but rather to decrease the severity of the detainees’ next offense, should they reoffend (Miller & Rollnick, 2013). All were incarcerated on minimum or medium level classification felony charges and all were in jail as pretrial detainees with the exception of two inmates who were sentenced to county time.

Participants were male and between 18 and 24–years at the time the survey was completed. The population included $N = 92$ participants with $n = 6$ eliminated for missing data on the ISSES and $n = 14$ excluded for not meeting the 1-year minimum time released to the community. A convenience sample was used and included $N = 72$ participants with $n = 11$ who did not reoffend and $n = 61$ who did reoffend. The racial make-up of the sample was comprised of Black $n = 64$ (90%), Latino $n = 7$ (9%), and White $n = 1$ (1%). (See Table 1.)

Table 1

Demographic of the Study Sample

	Factors	Total sample	Did recidivate	Did not recidivate
Gender	<i>n</i>	72	61	11
	Male	100%	85%	15%
Race	<i>n</i>	72	<i>n</i>	<i>n</i>
	Black	90%	65	9
	Latino	7%	5	2
	White	1%	1	0

Testing Assumptions

All five assumptions of linear regression were met (Field, 2013). The relationship between the independent and dependent variables was linear, meeting the assumption of linearity (see Figure 1). The residuals were normally distributed supporting the assumption of normality. The assumption of homoscedasticity was met and represented by a scatterplot without pattern (see Figure 2). The assumption of the lack of autocorrelation was met and evidenced by a finding of 2.155 on the Durbin Watson statistic. The Durbin Watson statistic investigates autocorrelation between residuals (Field, 2013). Values range from 0 to 4 with a value of 2 indicates no autocorrelation. Values over 2 represent negative correlation and under 2 indicates positive correlation

(Field, 2013). The assumption of little to no multicollinearity was met and evidenced by the VIF of 1.0 and tolerance of 1.0 (Field, 2013).

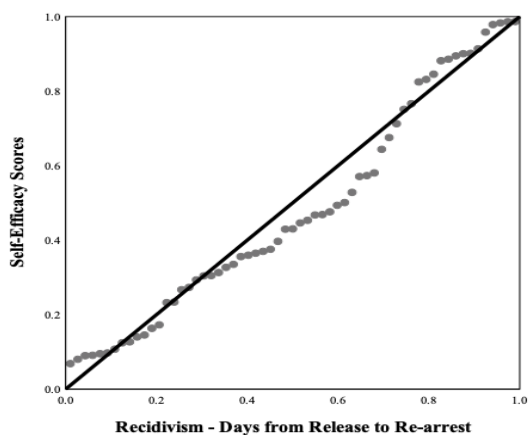


Figure 1. Plot of linearity.

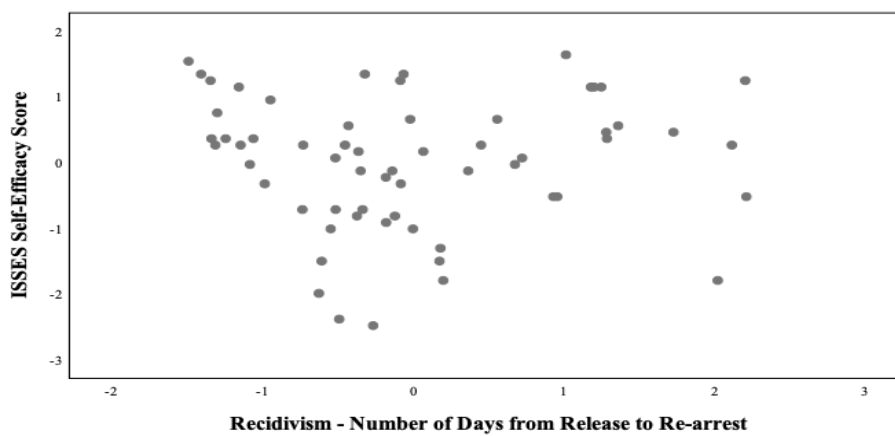


Figure 2. Scatterplot of homoscedasticity.

Results

Research Question 1

RQ1: Does self-efficacy predict the likelihood of recidivism in an adult male ex-offender? The RQ1 data was analyzed using SPSS 25 (IBM Corporation, 2017). A binary regression analysis was used to predict the likelihood of recidivism based on self-efficacy scores. This type of analysis was used because the dependent variable, recidivism, was a binary variable (Field, 2013). Participants who did not offend were variable coded with a Zero and those who did offend were variable coded with the number One. Those who did reoffend were $n = 61$, participants who did not reoffend were $n = 11$ and $N = 72$. The results did not reveal a significant relationship between self-efficacy score and whether a participant reoffended. The analysis indicated that participants who did not recidivate (15%) did not have significantly higher self-efficacy scores than those who did recidivate (85%), $\chi^2(30, N = 72) = 32.083, p < .363$. Results indicate a nonsignificant relationship the dependent variable, recidivism $M = .85, SD = .362$ and the independent variable, self-efficacy $M = 62.28, SD = 10.667$ (see Table 2).

Table 2

Means and Standard Deviations RQ1

	Mean	SD
Recidivism	.85	.362
Self-efficacy	62.28	10.667

Research Question 2

RQ2: Among those who did recidivate, does self-efficacy predict time from institutional release to recidivism? The RQ2 data were analyzed using SPSS 25 (IBM Corporation, 2017). Among the participants who did recidivate ($N = 61$), a simple linear regression was used to predict recidivism, based the time between jail release and reincarceration on general self-efficacy scores. The maximum score on the self-efficacy measure was 80 while the longest time between release and rebooking was 668 days ($n = 1$). The shortest interval of time was 15 days ($n = 2$) based on the final analysis date of September 9, 2019. The purpose of this analysis was to determine whether self-efficacy scores had a relationship to how long it took for the participant to reoffend. The length of time between release from custody, on the case for which the participant was incarcerated at the time of the survey administration, and the next time the participant was incarcerated were calculated and used as the variable data for recidivism.

A simple linear regression was calculated to predict recidivism on self-efficacy resulting in the null hypothesis being rejected. A significant regression equation was found ($F(1, 60) = 4.15, p < .046$), with an R^2 of .066. The data showed that participants' ISSES scores significantly predicted recidivism when self-efficacy was measured in total score and recidivism was measured as time ($\beta_1 = 4.911, p < .046$; see Table 3). Results indicated a significant relationship between self-efficacy $M = 63.26, SD = 10.204$ and recidivism $M = 250.98, SD = 195.489$ (see Table 4).

Table 3

Linear Regression RQ2

Variable	B	95% CI	β	<i>t</i>	<i>p</i>
(Constant)	-59.690	[-368.739, 249.358]		-.386	.701
Self-Efficacy	4.911	[.087, 9.735]	.256	2.037	.046

Table 4

Means and Standard Deviations RQ2

	Mean	<i>SD</i>
Self-efficacy	63.26	10.204
Recidivism	250.98	195.489

Summary

While there is still much to understand about the relationship between strength-based personality traits and reoffending, the results of this study showed that there is a significant relationship between self-efficacy and recidivism. Although self-efficacy did not significantly predict the likelihood that a person would reoffend, a significant relationship was found when self-efficacy scores were examined in relationship to how long a person was in the community before reoffending. The value in this finding is that

with this relationship, a quantifiable window of time exists between release and reoffending among this population. The finding creates an opportunity for identifying and developing interventions to be implemented within that window, to reduce the probability of reoffending and reincarceration.

Chapter 5 will include an interpretation of the findings, limitations of the study, recommendations for future research, implications of the study, and the potential of the findings as a catalyst for positive social change.

Chapter 5: Discussions, Conclusions, and Recommendations

Introduction

“Psychology cannot tell people how they ought to live their lives. It can, however, provide them with the means for effecting personal and social change” (Bandura, 1977b, p. 213). It was this concept that drove me to explore the predictive relationship of self-efficacy and recidivism. The overarching goal of the research was to broaden the forensic psychology literature as it relates to the assessment and treatment of offenders. The primary objective was to equip treatment providers and researchers with data and resources that could be used to help offenders in effecting personal and social change. The findings showed that, for RQ2, self-efficacy does have a relationship to recidivism, and thus supports the aim to fill a gap in the forensic psychology literature.

This chapter will provide a detailed analysis of the findings through interpretation of the findings, outlining limitations of the study, proposed recommendations, implications of the findings, and identification of the potential for positive social change.

Interpretation of the Findings

As summarized in Chapter 4, the null hypothesis for RQ1 was accepted ($p < .363$), while the null hypothesis for RQ2 was rejected ($p < .046$). Further analysis of these findings validated the examination of self-efficacy as a predictor of recidivism for those who reoffend, while shedding light on the potential methodological weakness of examining recidivism as a dependent variable. Accepting the null hypothesis of RQ1 creates questions related to the legitimacy of measuring only recidivism as an indication

of criminal desistance (Butts & Schiraldi, 2018). The rejection of the null hypothesis for RQ2 opens the door for advanced studies on self-efficacy measures and interventions that may be used to support successful desistance from criminal conduct. This finding is supported by the work of Law and Guo (2015a, 2015b), which found that assessment of self-efficacy—and treatment to increase self-efficacy—can assist in reducing recidivism.

Examination of the RQ1 findings revealed that more participants recidivated (85%) than did not (15%), thus indicating a potential methodological weakness of the current study. The difference between the two groups may indicate that, examining only recidivism may not have produce the most valuable quantitative data for analyzing recidivism and self-efficacy. Butts and Schiraldi (2018) noted that with recidivism being a concept grounded in failure, it is likely not the most useful measure of success; equating it to investigating student dropout rates as a measure of assessing teacher success. The researchers suggested that it may prove more informative to employ desistance as a measure of success that would include accepting the likelihood of recidivism as a stage model and focus research instead on a relapsing model (Butts & Schiraldi, 2018). Hence, it is suggested that a harm reduction or stages of change model may prove more applicable to this population (Miller & Rollnick, 2013). Broadly considered, interpretation of this finding generates questions regarding whether employing recidivism as an indicator of intervention success actually provides the valuable information researchers need to better understand and assist returning citizens (Butts & Schiraldi, 2018; Miller & Rollnick, 2013).

Interpretation of RQ2 reveals that the trait of self-efficacy can be a valuable tool in the pursuit of knowledge regarding the risks of recidivism; this interpretation is supported by Law and Guo's (2015a, 2015b) study of Taiwanese detainees. The current study shows that level of self-efficacy can provide clinicians and researchers with information that can be used to advance treatment and assessment of offenders in custody. Equipped with the knowledge that self-efficacy has a predictive relationship on recidivism, researchers have a foundation and justification that is necessary to begin to explore the utility of including self-efficacy in therapeutic program intakes and screenings for the purpose of providing detainees with clinical and case management interventions aimed at increasing self-efficacy to decrease recidivism.

As the results indicate, the higher the self-efficacy score the longer an individual resided in the community before being reincarcerated. This finding creates an opportunity for researchers to explore these variables among justice involved individuals living the community. It is suggested that researchers investigate further, this window of time, to create opportunities for points of intervention and types of self-efficacy building interventions among recently released or community corrections participants. One such recommendation is to examine the window of time among parolees and probationer. Since the window for interventions takes place while an offender is living in the community, it is suggested that future research build upon the literature related to self-efficacy and community corrections interventions, in situations such as, probation, home-based electronic monitoring, court ordered halfway or recovery homes, mandated reentry

programs, and parole. Two separate studies of parole and probation officers found that supportive relationship style and conversational communication style were positively related to criminal or substance use avoidance self-efficacy; supporting the further investigation of these variable among community corrections participants (Morash et al., 2015; Smith et al., 2016).

As evidenced by these results and the Law and Guo (2015a, 2015b) studies there is value in expanding the body of literature around self-efficacy as a factor in treatment or recovery, among offenders. Several studies support the examination of self-efficacy as a treatment factor among juveniles, substance users, and female offenders (Cuevas, Wolff, & Baglivio, 2017; Taylor & Williams-Salisbury, 2015; Wilson, Sheehan, Palk, & Watson, 2016). A similar inquiry found that woman with high self-efficacy and coping skills had greater a likelihood of abstinence than those with low self-efficacy and coping skills (Taylor & Williams-Salisbury, 2015). While another study found that juveniles with high prosocial self-efficacy had a shorter length of stay in residential treatment programs and were less likely to recidivate (Cueva et al., 2017). A study by Wilson, Sheehan, Palk, and Watson (2016) investigated the impact of self-efficacy on desistance planning. The researchers found that high levels of self-efficacy were linked to high rates of desistance planning; further justifying the study of self-efficacy strategies as a tool in clinical interventions (Wilson et al., 2016). Collectively, these studies support the current study's findings and my recommendation that future studies explore the validity of

incorporating self-efficacy as a treatment goal for those impacted by the justice system and substance use.

Limitations of the Study

According Frankfort-Nachmias, Nachmias, and DeWaard (2015), when working with archival data there are both advantages and limitations. In the case of the current study, the limitations included that the data was archival, survey was validated on females, programming may have influenced self-efficacy levels for some and not others, impression management could have been a factor, and the dependent variable information was limited to one jurisdiction.

Regarding the use of archival data, I had no control over the criteria for the selection of participants, the number of participants, quality of independent variable survey administration or survey collection and storage. The independent variable measure, ISSES, was administered and originally collected by clinical interns as a means to practice administering a survey to detainees. It is not known whether detailed instructions were given regarding survey directions and completion, leaving a possible threat to the internal validity (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). It was reported, that program clinical staff directly supervised the interns, but it is not known to what extent the supervisors stepped in, if necessary, during the administration of the survey.

An additional limitation when using archival data is the inability to select participants. In the case of the current study, the archival data came from participants

enrolled in a program for which not all jail detainees were eligible. The program participation was limited to individuals who met a strict set of inclusionary and exclusionary criteria. Inclusionary criteria included 18–24-year-old males living in the geographical boundaries of the county in which the jail is located, with a minimum to medium classification felony. Exclusionary criteria included placement in a different program, medical and/or mental health patients, those classified as anything other than minimum or medium security risk, sex offenses, and those with violent criminal backgrounds. Since the program had admission criteria which excluded some, otherwise eligible, detainees the study sample was limited; hence, limiting the external validity or the generalizability of the findings (Stangor, 2013).

The ISSES was developed to examine self-efficacy, recidivism, and substance use (Law & Guo, 2015b). One particular question was specific to substance use and did not relate to all participants. In order to diminish misunderstanding by the participants, number 8, original wording “using drugs” was changed to “my criminal behaviors.” Any change to a previously validated measures can weaken the validity of the measure (Stangor, 2013). An added threat to internal validity, associated with the survey, which limits the findings was that the self-efficacy measure, the ISSES, was validated on Taiwanese female offenders and not American male offenders (Law & Guo, 2015b; Stangor, 2013). However, the measure was found to be a valid and reliable measure of self-efficacy for adult offenders; as such, its use was justifiable (Law & Guo, 2015b; Stangor, 2013).

At the time of the survey administration, study participants were engaged in a voluntary jail-based program for 18–24-year-old males, aimed at addressing detainees' criminogenic needs. While self-efficacy was not a target of the program, the program did focus on building upon detainees' strengths. Although group programming was delivered to all detainees with the same broad program goals; each detainee had an individualized treatment plan which allowed for additional goals to be addressed. As such, some participants could have received interventions that affected their general self-efficacy scores while others did not. This created a limitation related to threat to internal validity in the forms of history and diffusion of treatment (Creswell, 2014).

Detainees can be mistrustful of authority figures and the justice system overall (Bartol & Bartol, 2008; Voorhis & Salisbury, 2016). As such, an additional limitation of the study is the possibility that participants may have engaged in impression management. According to Rogers (2018) impression management is individual's attempt at controlling how he or she is perceived by others. In the case of the current study, it is possible that participants altered their self-efficacy survey answers to appear either socially desirable or undesirable in the eyes of the survey administrators. Potential reasons for this approach by the participants as it relates to mistrust, may have been to protect themselves emotionally, legally, to please, displease, or manipulate the administrator. It is not known to what extent these factors were addressed and/or combated by those administering the survey (Allen & Bosta, 1981; Bartol & Bartol, 2008; Hanser & Mire, 2011; Rogers, 2018; Stangor, 2013).

I had limited access to recidivism data when offenses took place outside of the county geographical boundaries. The process of tracking incidents of recidivism, the dependent variable, was limited by access to data gathered only within the boundaries of the county for which the jail was located. This limitation leaves instances of recidivism in jurisdictions outside of that county unknown and not calculated, further impacting the internal validity (Stangor, 2013).

Recommendations

With more participants (85%) reoffended than did not (15%), it was challenging to examine likelihood of recidivism based on self-efficacy scores. A recommendation for future studies would be to explore the likelihood of recidivism among a sample of participants who represented a more equally distributed number of recidivists and non-recidivists. It is possible that participation in the jail-based program could have affected self-efficacy for some participants but not others resulting in diffusion of treatment (Creswell, 2014). It is recommended that future studies test the variables among a similar sample of non-program participants, adult female detainees, and juvenile offenders to determine the efficacy of internal and external validity (Stangor, 2013).

The generalizability, or external validity, of the findings may be limited by several sample restrictions due to the use of archival data (Stangor, 2013). The sample was relatively homogenous, the geographical boundaries were narrowly limited to one county in a state of 102 counties, and the setting was restricted to one location. It is recommended that future studies employ broader sample demographics, expand the

geographical reach of the sample, and expand to other types of correctional settings, including community corrections programs (Creswell, 2014).

Recommendations for further research include sample size adjustments, using a randomized sample rather than a convenience sample, studies to examine recidivism following interventions intended to increase self-efficacy, further analysis of recidivism as measured by time between release and reincarceration, and use of primary data collection techniques.

Future studies should expand upon the finding that self-efficacy scores can predict recidivism when analyzed as time. Recommended studies could involve the identification of crucial periods of time, between release and recidivism, when interventions may be most effective. Future studies may further this analysis by seeking to identify variables that may interrupt or increase the time between release and recidivism.

When thinking about treatment studies, the current study's finding that self-efficacy does have a predictive relationship to recidivism, suggests that an examination of treatment interventions to increase self-efficacy has merit as supported by Law and Guo (2015a, 2015b). The aim of these studies would be to capitalize on self-efficacy as a trait which, if increased, may decrease risk of recidivism for at-risk offenders.

Implications for Positive Social Change

Solutions for mass incarceration and the rising rates of recidivism continue to plague researchers and justice stakeholders. The need for policy reform and valid treatment of criminal behaviors remain areas in need of further research (Iarussi, Vest,

Booker, & Powers, 2016; NIJ, 2014). The aim of this study was to move forensic psychology research towards increased understanding of personal traits that influence recidivism. The knowledge gained by this study support the continued efforts of researchers to understand criminal behavior and intervene using evidence-based approaches. The finding that self-efficacy does have a significant predictive relationship to recidivism, when factoring in time between release and recidivism, indicates that research on the relationship of these two variables should be advanced. The potential of these findings and that of further research serves to assist offenders in life changing efforts, creating opportunities for safer communities. The impact of this study's findings on future research and treatment creates a path towards positive social change.

It has been stated several times over, that crime and incarceration produce steep costs for individuals, communities, and governments. These costs show up not only as financial but also as emotional and physical pain, the deterioration of communities, families, and trust (Department of Justice, 2016; Illinois Criminal Justice Information Authority, 2016; Truman & Morgan, 2016). It has been the aim of this study to support efforts to decrease these costs. The goal was to add to the body of scholarly research by focusing on the relationship between criminal offending and incarceration to support broad positive social change. With 3-year postrelease recidivism rates at 66% and 5 year rates at 77% it is clear that how changemakers support offenders in criminal desistance has not only not yet been completely uncovered but, when it is uncovered, it is not likely to come with a simple answer (NIJ, 2014).

Previous research explored the development of criminal self-efficacy and has looked at whether offenders believe they can change their behavior (Laferrière & Morselli, 2015; Malouf et al., 2014; Martin & Stermac, 2010). With limited research on the relationship between general self-efficacy and recidivism the analytic investigation of these variables, in and of itself, advanced the literature. It is my belief, that with the knowledge that self-efficacy does have a relationship to recidivism, in the form of time between release and rearrests, the literature has expanded in a profound way. By uncovering a significant relationship that can be used to reduce recidivism, there is an opportunity to translate this finding into advancements in clinical interventions, reduction in victimization, decrease in the financial and emotional costs of recidivism, and increased public safety.

Summary

The current quantitative non-experimental design study explored the relationship between self-efficacy, independent variable and recidivism, dependent variable. Current correctional and justice researchers' efforts have been directed at reducing recidivism and support returning citizens in their reentry to the community. The attention has been on prevention efforts, education, vocational programs, and clinical interventions for offenders. In alignment with these efforts, the aim of the current study was to identify the strength-based trait, self-efficacy, as a predictor of recidivism. Several studies supported the use of these variables. The application of SCT as a framework for the study was reinforced by the selection of self-efficacy as the independent variable. The data used was

archival. The ISSES was used to measure self-efficacy. Recidivism data was calculated as incidents of reincarceration gathered from the jail management system and county clerk's public database. The two research questions asked whether, first, self-efficacy does predict the likelihood of recidivism; and second, among those who did reoffend does self-efficacy predict the time between release and recidivism. Using SPSS 25, the results showed that the null hypothesis was accepted for RQ1 at ($p < .363$), indicating that self-efficacy did not predict recidivism for all participants. However, there were a disproportionate number of individuals who recidivated as compared to those who did not. Hence, the need for the examination of RQ2, which examined the relationship between self-efficacy among those who did reoffend. With a significance of ($p < .046$), the analysis showed that self-efficacy does have a predictive relationship to recidivism as it related to time between institutional release and reincarceration.

The hope of the study was to identify a trait with enough weight to weaken the cycle of reincarceration. I accepted that challenge by identifying a significant predict relationship between self-efficacy and recidivism. As a result of these findings, it is suggested that future research concentrate on self-efficacy as a deterrent of time, to be used for targeted intervention windows and treatment interventions aimed at increasing self-efficacy among offenders.

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Appendix A: Data Usage Agreement

DATA USE AGREEMENT

This Data Use Agreement ("Agreement"), effective as of May 30, 2017 ("Effective Date"), is entered into by and between Marianne Kelly. ("Data Recipient") and Cook County Sheriff's Office- Research Department ("Data Provider"). The purpose of this Agreement is to provide Data Recipient with access to a Limited Raw Data Set ("LRDS") for use in research in accord with the HIPAA and FERPA Regulations.

1. Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.
2. Preparation of the LRDS. Data Provider shall prepare and furnish to Data Recipient a LRDS in accord with any applicable HIPAA or FERPA Regulations
 - a. In preparing the LRDS, Data Provider or designee shall allow Data Recipient to access all surveys completed by SAVE participants between May 2017 and October 2017
 - b. Data Recipient may only obtain and utilize the following data fields from the LRDS: age at time of assessment; race; highest grade level completed; neighborhood; arrest data, including type of charge; survey scores, and institutional and/or program description
 - c. Data Recipient may not obtain or utilize the following data fields from the LRDS: any direct identifiers, such as names or social security numbers; any personal identifiers, such as birth dates or home addresses.
 - d. Data Recipient shall not name the organization in the doctoral project report that is published in ProQuest.
3. Responsibilities of Data Recipient. Data Recipient agrees to:
 - a. Use or disclose the LRDS only as permitted by this Agreement or as required by law;
 - b. Use appropriate safeguards to prevent use or disclosure of the LRDS other than as permitted by this Agreement or required by law;
 - c. Report to Data Provider any use or disclosure of the LRDS of which it becomes aware that is not permitted by this Agreement or required by law,
 - d. Require any of its subcontractors or agents that receive or have access to the LRDS to agree to the same restrictions and conditions on the use and/or disclosure of the LRDS that apply to Data Recipient under this Agreement; and

- e. Not use the information in the LRDS to identify or contact the individuals who are data subjects.
4. Permitted Uses and Disclosures of the LRDS. Data Recipient may use and/or disclose the LRDS for its research activities only.
5. Term and Termination.
 - a. Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the LRDS, unless sooner terminated as set forth in this Agreement.
 - b. Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the LRDS.
 - c. Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days prior written notice to Data Recipient.
 - d. For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.
 - e. Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections c or d.
6. Miscellaneous.
 - a. Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.
 - b. Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the I-IIPAA Regulations.
 - c. No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.
 - d. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
 - e. Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

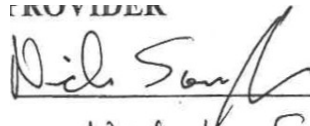
IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

DATA PROVIDER

DATA RECIPIENT

Signed: PROVIDER

Signed:



i: ~~Mauanne Kelly MACADSCODPII~~

me: Nicholas Scottus

Name: Mauanne Kelly MACADSCODPII

le: General Counsel

Title: Program Manager
PhD Candidate