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Effectiveness of Prisoner Reentry Programs for Reduction of Repeat Incarcerations in Nigeria

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Abstract

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MS, Liverpool John Moores University, 2007

BS, University of Lagos, Nigeria, 1983

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The persistently high rate of repeat incarcerations poses a threat to the safety of lives and properties. The problem that led to this study was the prevailing high rate of repeat incarcerations in Nigeria, despite interventions to reduce their occurrences. The purpose of the study was to evaluate the effectiveness of prisoner reentry programs in reducing reincarcerations of ex-prisoners. The focus of the research questions was on whether treatment and the type (faith- or non-faith-based) made a difference in a prisoner's reincarceration status after release. The theoretical foundation was based on the transtheoretical model of change. Reincarceration outcomes were analyzed for 818 prisoners who were released between January 2010 and December 2013 from 3 prisons located in Lagos State, Nigeria. Data were obtained from the prison records on the reincarceration status of the subjects based on an at-risk period of 36 months after release. A propensity score matching procedure was used to select an equal number (n = 409) of treated subjects (those who participated in a prisoner reentry program) and untreated subjects (nonparticipants in the program). Findings from a Cox-regression analysis revealed that participating in any of the programs (faith- or non-faith-based) reduced reincarceration at a statistically significant level; however, there was no difference in reincarceration status based on the type of treatment received. Findings provide evidence that prisoner reentry programs can reduce reincarceration. With this knowledge, the reentry program providers may advocate more government supports for reentry activities. They may collaborate with the policymakers and legislators to develop strategies that will enhance the reintegration of ex-prisoners into communities and thereby prevent their return to crimes but ensure they are productive for themselves, their families and the community.

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Dedication

This study and its findings are dedicated to the released prisoners who, rather than get comfort in the world outside the prison, are regularly stigmatized and isolated. For these people, reintegrating with the community after their release has become a mirage. My sincere desire is that ex-prisoners find enough confidence and strength to live well when they are released into the community. I am hoping that findings from this study will evoke more supports from the community, government, and the organizations to help the prisoners' rehabilitation and reintegration with the community and live a life free of infractions after release from prison.

Acknowledgments

I give glory to God for enabling me to begin the program and to scale through the challenges of funding, studying, and getting people's supports. God is good. I am deeply grateful to my wife and children for their prayers, understanding, and patience during the period; not forgetting my Mom (Deaconess Lydia Ologunde) who regularly asked after my progress and prayed with me. I am glad to have you all by my side. Thank you for always being there for me.

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Chapter 1: Introduction to the Study

Introduction

A major concern about formerly-incarcerated individuals is the risk that these individuals may return to crimes and suffer repeat incarcerations despite attempts made at reintegrating them with the community. Wikoff, Linhorst, and Mirani (2012) opined that some social and economic pressures can expose ex-prisoners to the risk of further infractions after release from prison and subsequent reincarcerations. Findings from earlier studies suggest that reincarceration has become prevalent in Nigeria and other nations despite the interventions developed to minimize their occurrences. In a recent study, Abrifor, Atere, and Muoghalu (2012) observed a rising trend in the repeat incarcerations of prisoners released from the Nigerian prisons from 35 percent in 2007 to 44 percent in 2008 and 52.4 percent in 2010. The scholars observed that ex-offenders constituted a larger proportion of those sent to the Nigerian prisons during the study period.

The prevalent rising trend is not peculiar to Nigeria but a global phenomenon. Findings from a study done by Braga, Piehl, and Hureau (2009) suggest that in the United States, many ex-offenders recidivate and return to prison within their few years of release. In a recent research, Durose, Cooper, and Snyder (2014) evaluated the reincarceration outcomes for 404,638 offenders released in 30 states of the United States between 2005 and 2010. They found that 67.8 percent returned to prison within 3 years after release. In another study carried out on young Swedish offenders, Hau and Smedler (2011) observed a 60 percent recidivism rate over 18 months. Abrifor, et al. (2011) argued that the rising trend of recidivism, if not minimized, can pose a

threat to the safety of lives and properties and hinder investments in social and economic growth.

These studies reveal that prisoner reentry is characterized by widespread failure. The trend questions the effectiveness of various interventions developed to minimize repeat incarceration. Whether some reentry programs are more effective than others, is an ongoing debate. May and Brown (2011) argued that notwithstanding the type of intervention used to prevent reincarcerations, approximately half of released inmates may return to prison within 3 years of their release. On the contrary, findings from a study done by McKean and Ransford (2004) suggest that some faith-based programs may reduce reincarcerations by as much as 50 to 60 percent.

There is no published research found on the evaluation of prisoner reentry programs for reduction of repeat incarcerations of inmates released from the Nigerian prisons. This is despite the growing activities of faith-based and non-faith-based organizations in the Nigerian prisons over the years as observed by Odumosu, Chete, and Alonge (2011). Therefore, it is imperative to evaluate the effectiveness of interventions developed to minimize factors that cause recidivism among formerly incarcerated persons in Nigeria. How effective are these reentry programs? How sustainable are their impacts? This knowledge may contribute to the existing literature on the effectiveness of prisoner reentry program for reduction of reincarceration in a developing country.

Conducting this study gave me the opportunity to determine the relative effectiveness of faith-based versus non-faith-based prisoner reentry supports for prisoners and the prison system in Nigeria. Reentry programs are the activities

developed to facilitate a reintegration of ex-prisoners with the community after prison release (Jonson & Cullen, 2015). Petersilia and Cullen (2015) described reentry as prisoner-release and argued that it is a social problem that requires attention. They argued further that any process that improves a reentry program is a process that reduces a social problem. The goal of a reentry program is to prevent further infractions by the released prisoners and minimize their reincarcerations. The challenge, therefore, is to develop programs that will successfully and sustainably rehabilitate released prisoners back to normal and productive life after their prison experience.

Reentry programs vary in their types depending on the administration and focus but they have a common goal: to reduce repeat incarcerations of released prisoners. Faith- and non-faith-based differ in their administration and contents. A typical faith-based reentry program is administered by a religious or a faith-based organization and has religious contents in its delivery. Non-faith-based is typically managed by nonreligious or secular organizations and has no religious contents in its delivery (Dodson, Cabage, & Klenowski, 2011; Jonson & Cullen). Reentry programs are further discussed in the next section.

I sought to answer the following question: What is the difference in the repeat incarcerations outcomes between groups of subjects who received faith- and non-faith-based treatment while in prison and those who received no treatment? To ensure that the treatment received is the only factor responsible for the repeat incarceration outcomes, other extrinsic characteristics of the subjects were controlled for. The appraisal of prisoner reentry program for offenders in the Nigerian prisons will (a) reveal weaknesses in the existing programs that may require changes, (b)show content

strengths that may be sustained to enhance delivery of existing programs, (c) generate findings, which may trigger further inquiry, resulting in designing better strategies to deliver social change benefits for prisoners, their families, the justice system, and the community, and (d) enhance the body of knowledge by providing more empirical evidence about the relationship between reentry programs and repeat incarcerations.

In this chapter, I introduce readers to the fundamental motivation for this study. I explain the purpose and scope of the study and the assumptions that underpinned my investigation. In addition, I consider the significance of the study for the discipline of human services and discuss the potential implications of my research for social change. The chapter also includes the research questions and the hypotheses and the theoretical framework I used. An overview of my research method and the design and rationale for their use is also provided. In this section of the chapter, I define study variables and the associations I tested as well as summarize the procedure I used for matching subjects to avoid selection bias and ensure internal validity. The chapter also includes discussion of the limitations and inherent weaknesses of my study, including issues that relate to the validity of my findings.

Background

Repeat incarcerations are prevalent across the globe (Deady, 2014; Hau & Smedler, 2011; Osayi, 2013; Wright, Zhang, Farabee, & Braatz, 2014). Scholars such as Gutierrez, Wilson, Rugge, and Bonta (2013) and May and Brown (2011) have attempted to identify the factors that motivate behaviors resulting in repeat incarcerations among formerly incarcerated individuals. They opined that an effective way to address reincarceration should begin with a clear identification of what leads to the problems. Ginner and Smedler (2011) found that antisocial behaviors are

predictive factors for recidivism. The scholars argued that high-risk offenders may influence low-risk offenders into reoffending when they are put together while in prison. In another study, which was conducted to validate Andrews and Bonta's (2010) general theory of criminal behavior, Gutierrez et al. (2013) found that factors such as criminal history, pro-criminal associates, and antisocial personality pattern best predict general recidivism for individuals in a group rather than their cultural, social, and economic ties.

Other researchers have argued that factors including lack of basic physical needs (food, clothing, and shelter), lack of gainful employment, isolation by family members, stigmatization by the public, substance abuse, physical/mental illness, low educational attainment, and legal barriers limiting access to public services are catalysts for behaviors that result in repeat incarcerations (Fontaine & Biess, 2012; Langan & Levin, 2000; Travis, 2005; Wikoff et al., 2012). Scholars including Johnson and Cullen (2015) and McFarlane (2012) researched into these predisposing factors from another perspective and argued that the factors are usually the consequences of economic, social, and political policies of the government. McFarlane noted that the criminal justice system still suffers from the impact of the Great Recession that started in 2007, which has affected efforts of both public and private organizations to meet the needs of incarcerated individuals both during and after serving their jail terms.

To minimize predisposing factors for repeat incarceration, researchers have proposed several approaches, ranging from those involving direct participation of prisoners to those that require systemic reforms. Activities that involve direct participation of prisoners are usually done through reentry programs. These are

activities designed to assist former offenders in reintegrating into society and avoiding criminal behaviors after their release from prisons (Wikoff et al., 2012).

Many reentry programs commence with offenders during their incarcerations though they may differ in structure, services provided, and clients served (Katel, 2009). While some programs focus on helping participants with specific needs, including substance abuse education, employment, or housing, other programs involve multiple activities to address the identified needs of participants (Wikoff et al., 2012). Such activities may include (a) developing an appropriate service plan for prisoners identified to be at higher risk of recidivating; (b) providing intensive parole supervision, case management, and monitoring after release; (c) linking released inmates to treatment programs outside of prison; and (d) coordinating parole with substance abuse and mental health treatment (McKean & Ransford, 2004).

Despite their variations along several dimensions, prisoner reentry is usually viewed as strategic for the criminal justice system. For example, investment in transitioning of offenders from prison to the community is now considered as rational governance that can improve public safety and the lives of ex-prisoners (Jonson & Cullen). Also, prisoner reentry programming can be a useful tool to curb drug use and other antisocial behaviors, and thereby improve societal health and safety (Caporizzo, 2011).

In countries, such as the United States, Canada, and Australia, Reentry is now accepted as part of correction vocabulary (Jonson & Cullen). Reentry programs can be classified by their incorporation of either faith-based or non-faith-based (secular) activities (May & Brown, 2011; Whitehead, 2011). The two programs are similar in their goals; however, faith-based programs usually emphasize religious components in

their structure. In general, both types of interventions include programming in the following areas: education, drug treatment, life skills, vocational training, parenting, domestic abuse, HIV/AIDS, transition, and sex offender (Dodson, Cabage, & Klenowski, 2011; May & Brown 2011).

Findings on the relationship between reentry programs, notwithstanding differences in their nature and structure, and repeat incarcerations have been largely inconsistent. One school of researchers argue that reentry programs do not work to reduce repeat incarcerations (see May & Brown, 2011). Another school of researchers (see Duwe & King, 2012; McKean & Ransford, 2004) observed a reduction of recidivism rate when a faith-based approach was applied. Other scholars (see Dodson et al., 2011; Johnson, Tompkins, & Webb, 2008) argue that findings on the effectiveness of reentry programs can best be regarded as inconclusive because of a limited number of evaluative studies. These scholars (Dodson et al., 2011; Johnson et al., 2008) suggest that more studies on the relationship between reentry programs and recidivism be carried out to address these inconclusive pieces of evidence requires.

Hence, I have done the current study as a contribution to the scholarly efforts towards closing the gap in literature. The gap associated with establishing the effectiveness of prisoner reentry programs for reducing repeat incarceration of formerly incarcerated individuals. Though the study was done within the Nigerian context, the findings provoked useful suggestions to establishing more effectiveness of prisoner reentry programs (faith- and non-faith-based)

Problem Statement

The problem that I addressed is the prevailing high rate of repeat incarcerations in Nigeria. Repeat incarcerations is a common experience among

released prisoners with problems of recidivism (May & Brown, 2011). Recidivism is described as a phenomenon whereby an individual engages in a criminal behavior after being sanctioned or punished for an earlier crime (May & Brown, 2011, National Institute of Justice [NIJ], 2014). Scholars have used different parameters to measure recidivism, within the two extremes of a criminal act that results in rearrests and reincarceration. The parameters include rearrests, substance abuse relapse, parole revocations, new felony convictions, reconvictions, and reincarcerations (Duwe & King, 2012; Hau & Smedler, 2011; Huebner, DeJong, & Cobbina, 2010; Kelso, 2000; The Sentencing Project, 2010; Severson, Veeh, Bruns, & Lee, 2012; Wikoff, Linhorst, & Morani, 2012; Wilson, Gallagher, & Mackenzie, 2000).

Another inconsistency surrounding finding an appropriate measure for recidivism is about the observation or follow-up period, which is the length of time for tracking recidivism. Deady (2014) observed that follow-up period varies across different countries from 1 year, 3 years to 10 years. Previous findings, however, suggest that a preferred parameter for recidivism measure is repeat-incarceration within 1 and 3 years after release (see May & Brown, 2011; Staton-Tindall et al., 2009; The Sentencing Project, 2010).

In reports on the criminal justice system published separately by NIJ (2014) and the United Nations Office on Drugs and Crime (UNODC; 2012), reincarceration was described as more of a fundamental concept in criminal justice. Authors of the UNODC report argued against putting responsibility for reoffending and repeat incarcerations solely on offenders rather than on the society and criminal justice. According to Larney, Toson, Burns, and Dolan (2011), repeat incarcerations impose significant burdens on the criminal justice system and have significant impacts not

only on offenders but on their families, communities, and society (May & Brown, 2011). Larney et al. argued that reducing repeat incarcerations is imperative for achieving a reduction of national spending on prisoners and correctional activities.

Prisoners still bear most of the impact of repeat incarcerations, however. For example, scholars (Baillargeon, Binswanger, Penn, Williams, & Murray, 2009; Busco, 2009) discovered that repeat incarcerations have been a major source of psychiatric problems for offenders. They argued that major psychiatric disorders such as depressive disorder, bipolar disorder, schizophrenia, and non-schizophrenic psychotic disorders were more common among inmates with experience of repeat incarcerations.

Repeat incarcerations have been on the rise across the globe. A nationwide study of recidivism in the United States showed that ex-felons committed crimes at a higher rate than the general population (Braga, Piehl, & Hureau, 2009; Wikoff et al., 2012). Prison statistics from the United States Bureau of Justice revealed that, in the United States, about two thirds of ex-felons released in 2005 were rearrested within 3 years of release while three quarters were rearrested within 5 years and over 50% of those rearrested were sentenced to various prison terms (NIJ, 2014, Wright, Zhang, Farabee, & Braatz, 2014). In Sweden, a study carried out with young Swedish offenders showed a 60% rate of recidivism during the 18-months follow-up period (Hau & Smedler, 2011). In Australia, the reincarceration rate within 10 years of release was estimated to be 39% (Deady, 2014). A similar trend was noticed in Sub-Saharan Africa. According to Osayi (2013), in Sub-Saharan Africa, the resultant social problem from the prevailing recidivism growth has been a major concern for the governments, society, and the human service organizations across the globe.

A concern for formerly-incarcerated individuals is the risk of their committing more crimes and returning into prisons after release (Wikoff et al., 2012). Human and social services professionals want to see these individuals be successfully reintegrated into society and live a life free from further infractions (Griffiths, Dandurand, & Murdoch, 2007; UNODC, 2012). Therefore, they are interested in interventions that might prevent or reduce ex-felons' relapse into criminal behavior and consequently minimize repeat incarcerations.

Recidivism in Nigerian

Using a sample of 567 inmates released from Nigerian prisons between 2007 and 2010, Abrifor et al. (2012) revealed that 35% of those released were reincarcerated within 5 years of release, 44% within 4 years, and 52.4% within 2 years. In my literature search , I found no published Nigerian official report which included rates of recidivism and repeat incarcerations among prisoners released in the 10 years between 2006 and 2016 Factors such as age, gender, family background, imprisonment terms, type of crimes, criminal peer association, poor prison environment conditions, absence of treatment for drug and alcohol addiction, and a defective prison system are prominent predisposing factors for repeat crimes and incarcerations (Abrifor et al., 2012; Chenube, Dosunmu, Omomoyesan, & Omumu, 2011; Tennibiaje, 2013; Stephens & Nel, 2014).

As described in the Background section, reentry activities for prisoners in Nigeria are administered under faith- and non-faith-based programs (Odumosu, Olaniyi, & Alonge, 2009). The players are mainly private organizations (because the federal government's support for prisoner reentry as provided for in some other countries is still insignificant (Odumosu et al., 2009). As in many other countries (see

Hau & Smedler, 2011; NIJ, 2014; Wright, Zhang, Farabee, & Braatz, 2014), incident of repeat incarcerations of released prisoners remains prevalent in Nigeria despite proliferation dominance of reentry supports (Abrifor et al., 2012).

Ordinarily, the prevailing high rate of repeat incarceration can infer ineffective reentry programs. However, from a curious search of scholarly literature between 2005 and 2016, there was no empirical evidence to suggest whether faith- and non-faith-based programs have been effective 21for reduction of repeat incarcerations in Nigeria. This gap of evaluative research makes it difficult to review existing prisoner reentry programs and repackage them for more effectiveness.

Purpose of the Study

The purpose of this research was to address the gap in literature on the study of effectiveness of prisoner reentry programs for reduction of reincarceration of released prisoners in Nigeria. In this quantitative study, I compared the relative differences between prisoners' reentry programs (faith-based and non-faith-based) and effectiveness for reducing repeat incarcerations in Nigeria. Although social organizations have developed and implemented various faith- and non-faith- based interventions to reduce repeat incarcerations, the phenomenon is still prevalent globally (Braga, Piehl, & Hureau, 2009; Dodson, Cabage, & Klenowski, 2011; Hau & Smedler, 2011; May & Brown, 2011).

In Nigeria, there is a disconnect between the prevailing high reincarceration rate of released prisoners and proliferation of faith-and non-faith-based organizations in the prisoner reentry space. Therefore, it became necessary to research on the effectiveness of these prisoner reentry programs. In conducting this study, I sought to determine the impacts of faith-based and non-faith-based activities in reducing repeat

incarcerations among ex-prisoners released from the Nigerian medium security prisons.

Research Questions and Hypotheses

I have done this research to establish the effectiveness of treatments applied on the inmates to prepare them for lives after prison terms and minimize their repeat incarcerations. These treatments fell under faith-based and non-faith-based programs. The research questions and hypotheses were derived from my review of the existing literature on prisoner reentry programs, recidivism, and repeat incarcerations of formerly incarcerated individuals.

I sought to answer two research questions:

RQ1: What is the difference in the repeat incarcerations after prison release between the group of subjects who received treatment (faith- or non-faith-based) while in prison and the subjects who did not receive treatment, when controlling for the confounding variables of the subjects?

RQ2: What is the difference in the repeat incarcerations after prison release between the group of subjects who received faith-based treatment and those who received non-faith-based treatment while in prison, when controlling for the confounding variables of the subjects?

My null hypotheses were as follows:

$H_0$1: There is no significant statistical difference in the repeat incarcerations after prison release between the group of subjects who, during prison terms, received treatment (faith-based or non-faith-based) and those who did not receive treatment when controlling for the confounding variables of the subjects.

$H_0$2: There is no significant statistical difference in the repeat incarcerations after prison release between the group of subjects who, during prison terms, received faith-based treatment and those who received non-faith-based treatment when controlling for the confounding variables of the subjects.

The alternative hypotheses were the following:

H_a1: There is a significant statistical difference in the repeat incarcerations after prison release between the group of subjects who, during prison terms, received treatment (faith-based or non-faith-based) and those who did not receive treatment when controlling for the confounding variables of the subjects.

H_a2: There is a significant statistical difference in the repeat incarcerations after prison release between the group of subjects who, during prison terms, received faith-based treatment and those who received nonfaith-based treatment when controlling for the confounding variables of the subjects.

The independent variables for this study were derived from the participation status of the subjects in the prisoner reentry programs while in prison, including those who participated and those who did not. Participation refers to full participation in the prisoner reentry programs, whether under faith-based or non-faith-based organizations. The dependent variable is the repeat incarceration status of the subjects within a defined follow-up period. The covariate variables will consist of other factors extraneous to the reentry program that could influence repeat incarcerations of the subjects. The nature of these variables is further discussed under the Nature of the Study section of this Chapter and in Chapter 3.

Theoretical Framework for the Study

Two theoretical frameworks guided this research. They were (a) the general personality and cognitive social learning (GPCSL) model (Andrew & Bonta, 2010) and (b) the transtheoretical model (TTM) of change (Prochaska, DiClemente, & Norcross, 1992). The GPCSL model is a general theory of criminal behavior that integrates many different psychological and social learning theories to explain what motivates individuals into criminal and deviant behaviors (Andrews & Bonta, 2010). The model combines empirical evidence in a practical and useful manner to create the basis for the development of different approaches or models that explain crimes and criminal behaviors.

An example of a GPCSL approach is the personal, interpersonal, and community-reinforcement (PIC-R) perspective on deviant behavior (Andrews & Bonta, 2010). GPCSL and its derivative models provide fundamental principles that focus on the risk factors for deviant conducts and incorporates the characteristics for effective prevention. The model incorporates empirically proved biosocial, distal, and proximal variables that influence the likelihood that an individual will commit a crime (Gutierrez et al., 2013). This model explains the risk factors for repeat incarcerations and useful in identifying the covariates for the study.

The second theory, the transtheoretical model of change, TTM (Prochaska et al., 1992) explains how individuals can move away from influences that motivate them into deviant behaviors. The model proffers understanding and predicts change in behaviors that are deviant, addictive and health-promoting, (Hellman, Johnson, & Dobson, 2010). It is based on the hypothesis that individuals can deliberately transit away from addictive and consequent deviant behaviors with or without interventions

and explains the cognitive process that propels such transition for individuals. This model explains the relevance of reentry programs in reducing or preventing behaviors that result in repeat incarcerations for ex-felons. TTM informs the need to have intervention programs for the inmates and to study the effectiveness of the programs. These two theories are discussed in more details in Chapter 2.

Nature of the Study

I identified the subjects for this study through information obtained from archival data of the Nigerian prisons service. The subjects consisted of all formerly incarcerated male individuals that were released from three Nigerian medium prisons located at Lagos State command of the Nigerian Prisons Service (Badagry, Ikoyi, and Kirikiri) between January 2010 and December 2013. The reincarceration status used for each subject was based on his survival pattern over a follow-up period of 36 months after being released from prison as obtained from the prison record.

I used only male ex-felons to control for the effect of gender on the outcome. Prison statistics (Nigerian Prisons Service, n. d.) showed that male population was an average of 98% of all offenders in Nigerian prisons during the study period of 2010 to 2013. Prisons of medium category were considered appropriate for this study because earlier findings have shown that repeat incarceration is relatively more frequent among the inmates in this prison category (Abrifor et al., 2012) released from medium prisons than other categories of prison (maximum, women, juvenile).

In this study, I have established the effectiveness of faith- and non-faith-based prisoner reentry programs in reducing repeat incarcerations of released prisoners. I went further to establish the relatively more effectiveness of one type of program over the other type. who participated in those programs during their jail terms. The

research outcome may motivate the development of a framework for program improvement by program administrators for the benefits of released prisoners, the justice system, and the community (Johnson & Larson, 2003).

To establish the impact of the programs on those treated, I used a comparison group that consisted of released prisoners who did not participate in any program while in prison. The use of the comparison group was imperative to control for what would have been the reincarceration status of those trained if they had not been trained. It would be counterfactual to otherwise assume their state without treatment; hence the use of a comparison group. However, for my final statistical analysis, I ensured that subjects in both treated and comparison groups were of equivalent characteristics. This was necessary to ensure a causal relationship between dependent variable (reincarceration status) and independent variable (treatment status) and improve internal validity of the study.

For purpose of minimizing selection bias and achieving equivalent treatment and comparison groups, I have used a statistical model, called propensity score matching (PSM), to control for the extraneous variables or characteristics of the subjects. These characteristics included age, nationality, ethnicity, religion, religion denomination, the length of completed jail term, number of crimes convicted for severity or type of crime convicted for, criminal history, (Andrews & Bonta, 2010). I have applied a retrospective causal-comparative research design to (a) determine the relative difference in the reincarceration status within the assumed at-risk period between the two groups of treated and untreated subjects and (b) compare the statistical effect of faith- and non-faith-based programs for the reduction of repeat incarceration.

Definitions

Comparison or control group: This is a group of subjects that were not exposed to any treatment (Frankfort-Nachmias & Nachmias, 2008; Key, 1997). They are distinct from but can be closely matched with the treatment groups. The outcomes are then compared to determine the effects of the experimental treatment. For this study, the control group consists of the ex-felons who either did not participate in any reentry program or did not complete the program.

Covariates: These are extraneous variables that can influence the independent effects of an observed variable (Mehta, 2001). Their effects on the dependent variable are statistically adjusted to isolate their indirect effects on those dependent variables. In this study, they include the offender's age, ethnicity, religious affiliation, the length of previous jail term, the severity of the crime for which participants served a complete sentence, criminal history, prior gang involvement, family/marital status, and history of substance abuse (Andrews & Bonta, 2010). All these factors may influence the repeat incarceration status of formerly incarcerated individuals.

Dependent variables: The results of the treatments or programs (independent variables). For this study, this is recidivism, measured by the repeat incarceration status of the subjects.

Follow-up period: The period at which the subjects are at risk of being reincarcerated. It is also referred to as at-risk, exposed, or observation period (Duwe & King, 2012; Deady, 2014; May & Brown, 2011; Wikoff, Linhorst, & Morani, 2012). For this research, I have assumed a follow-up period of 36 months.

Formerly incarcerated individuals (FII): Also referred to ex-felons, ex-prisoners, ex-convicts, former offenders, or former inmates, FIIs are prisoners

released to the community either having completed their sentences or on parole. Because of Nigerian notoriety for many "awaiting trial" inmates (Amnesty International, 2008), FII may be extended to include those released from prisons after awaiting trial for more than 12 months. Tenibiaje (2013) argued that a period of 12 months is long enough to criminalize an innocent person kept along with convicted criminals.

Independent variables: The entities that are manipulated by application of some treatments or programs (Trochim, 2006). The independent variables for this study are the reentry programs (faith- and non-faith-based), measured by full participation in the programs by the subjects during their prison terms.

Prisoners: Other terms used for prisoners are offenders, felons, incarcerated individuals, convicts, and inmates. (Duwe & King, 2012; Gutierrez et al., 2013; May & Brown, 2011; Wikoff et al., 2012)

Prisoner reentry programs: These are programs developed to facilitate easy adaptation of prisoners and their healthy reintegration with the society when released (Travis, 2005). Generally, there are two types of programs, which are faith-based and non-faith-based. The faith-based are those programs organized and managed by faith-based organizations (mostly Christian or Muslim), while the non-faith are those managed by secular (nonreligious) organizations. Prison inmates are usually advised about these programs through interactions with other inmates or as part of the briefing on admission into prisons.

Recidivism: Recidivism is a relapse into crime, a socio-psychological phenomenon that makes a formerly incarcerated person engage in deviant behaviors (The Sentencing Project, 2010). Recidivism can be measured with different relapse-

into-crimes parameters, such as rearrests, substance abuse relapse, parole revocations, new felony convictions, reconvictions, and repeated incarcerations (Duwe & King, 2012; Hau & Smedler, 2011; Severson et al., 2012).

Repeat incarceration: For this study, recidivism is defined as repeat incarcerations or reincarceration for any crime within 3 years after prison release. This clarification becomes imperative because scholars use different follow-up or observation periods for tracking recidivism. For example, Deady (2014) observed that a follow-up period varies from 1 year to 10 years while the Sentencing Project (2010) made use of a general duration of between 1 and 3 years from release.

Subjects: The subjects are the formerly incarcerated individuals whose data, as obtained from the archival record of the Nigerian prisons service, were used for this study. They constituted the sampling frame and are in three categories – those who received faith-based treatment, those who received non-faith-based treatment, and those who did not receive any treatment while in the prison (the comparison group).

Assumptions

I have done this study with the assumptions that relevant and accurate data on the subjects have been provided by the Nigerian prisons service and the prison reentry organizations since the study used archival secondary data. The researcher usually has no control over the quality and quantity of information obtained from secondary datasets (Creswell,2013). I composed my sample frame for the subjects released from the three prisons of medium category at the Lagos State command of Nigerian prisons. The assumption was that data obtained from these sources were sufficient to make the research result generalizable within the Nigerian context.

The sample sizes used for the propensity score matching (PSM) analysis (N = 2026) and for Cox regression estimation (N = 818) of treated versus untreated subjects were within the theoretically estimated numbers. I assumed that these sample sizes would reduce the limitations inherent in the statistical models (PSM and Cox regression) that had been used for data analysis. Finally, I assumed and expected that the outcome of this study will provoke future research to establish why some prisoner reentry programs are not producing desired effectiveness.

Scope and Delimitations

This study addressed the problem of prevailing reincarceration among the prisoners released from the Nigerian prisons. The focus was on assessing the effectiveness of prisoner reentry programs designed to facilitate reintegration of released prisoners with the community. This focus was chosen because the primary purpose of reentry program is to prepare prisoners for a life free of infractions after prison release. The goal is to reduce reincarceration of ex-prisoners. In Nigeria, the high rate of reincarceration has prevailed despite increase in reentry activities. Therefore, this called for a study to formally identity whether the reentry programs and activities are successful.

In line with procedure for a study of this nature, I have used the past performance of existing programs to identify whether they had been effective in reducing the rate of reincarceration among prisoners who participated in their programs. To do this, I used statistical analyses to compare reincarceration rates between two cohorts of released prisoners who participated in `reentry treatments before release and those who did not participate. I took my samples from the population of male prisoners released from prisons of medium category located in Lagos State of Nigeria between

2010 and 2013. Because I assumed at-risk period of 36 months, I had to collect information on the samples to 2016 to identify their reincarceration status for an average period of 36 months.

Two conceptual frameworks most related to this area of study but were not investigated included the sociological criminological theory [SCT] (Gutierrez et al., 2013) and the forensic mental health theory [FMHT] (Bonta, 2000; Mullen, 2000). Proponents of SCT examined crime from sociological perspective. The theory suggests that circumstances and the environment influence individuals into criminal behaviors but with a narrow perspective that the vulnerable and disadvantageous groups have higher risk of committing crimes. The second theory, FMHT, attributes criminal behavior to psychological pathology factors such as neuroticism, low self-esteem, schizophrenic. Both theories have been described as narrow in the perspectives of factors that cause criminal behaviors (Bonta, 2000). These theories are further discussed under "theoretical foundation" in Chapter 3.

Because of the peculiar nature of the study environment, it may be impracticable to generalize the research outcome beyond the country of study. Therefore, the external validity of the study outcome may be impaired. To address this threat will require a restrictive use of the result, as well as testing for accuracy of the result by repeating the study at latter times.

Limitations

The use of a nonexperimental research design and nonprobability data sampling method exposed this study to problem of internal validity. This problem, that could result from bias inherent in the selection of subjects for the study, was minimized by applying propensity score matching (PSM) technique for selection of

subjects to the treated and comparison groups. PSM technique of sample selection can minimize selection bias because the technique attempts to imitate random selection of samples (Duwe & King, 2012). The limitations in using PSM was addressed by measures such as the use of large samples ($N = 2026$) to conduct the propensity score analyses, the inclusion of 28 theoretically covariates in the PSM model, and by ensuring substantial overlap in the propensity scores between the two groups.

Access to adequate and accurate information of the subjects could have possibly limited the internal validity of the data used. The prison record was in *bits and pieces* on registers kept manually. Also, accuracy of information obtained on the inmates is impaired because the prison authority did not have any scientific system in place to validate inmates' information on their records. To improve internal validity of data, information was extracted on *best effort* basis from the record provided with the assistance of assigned prison staffs. I obtained information from the individual prison but processed together to ascertain reincarceration status of subjects. Further, I used the information obtained from the prisoner reentry organizations to validate the one obtained from prison record.

The use of only male subjects for the study could limit the generalizability of research outcome. The implication is that research outcome may not fully give the effect of gender on responsiveness to treatments. Therefore, a future research may be required to identify the effect of the program on female offenders. Scholars such as Scroggins and Malley (2010) and Spjeldnes and Goodkind (2009) supported conducting a research to determine if (a) there are adequate programs for female offenders, (b) some program components are equally effective for women and men,

and (c) gender differences contribute to factors that affect program participation, successful program completion, and repeat incarcerations.

Inconsistent definitions of treatment components, especially among the faith-based organizations could also limit the validity of research outcome. In a previous study that involved faith-based initiatives, Dodson et al. (2011) argued that a serious limitation could arise from perceived inappropriate measure of religiosity. For example, they observed that many studies on a typical Christian faith-based program used involvement in conventional church activities as proxy measures of religiosity; an approach that can best be described as theory proposition with least empirical support. Dodson et al. (2011) argued that such restrictive definition could limit consideration of other items for the phenomenon being evaluated with consequent restrictive findings.

This study did not involve evaluation of program components; it considered effect of the whole program on the subjects who participated. Therefore, the externa validity of outcome may not be limited for reason of perceived inadequacy in the faith- and non-faith-based scopes. Lastly, the study did not consider the released prisoners who committed crimes and reincarcerated in prisons outside those used for this study. Considering them would mean using data from all the prisons in the country, a scope too wide for this study.

Significance

Repeat incarcerations (RI) is a socially unwanted phenomenon; hence, passionate desire of social workers is to see formerly incarcerated individuals successfully reintegrated into the society and live a life free from further infractions (May & Brown, 2011). According to Whitehead (2011), individuals who have gone

through some form of reentry activities are less likely to be involved in criminal behaviors but Dodson et al. (2012) advised more evaluative studies to justify the empirical conclusion on the effectiveness of reentry programs in minimizing reincarceration. The findings from this study may contribute to closing this gap and enhancing the body of knowledge in this area.

The overarching goal of prisoner reentry programs should be to have the formerly incarcerated individuals fully back into the society as law-abiding citizens (Whithead, 2011). On social policy drive, more studies on faith- and non-faith-based interventions for minimization of repeat incarcerations could provide more understanding of challenges affecting their effectiveness and provoke actions to fix the issues. A research on program effectiveness will reveal weak areas that require attention and strong areas than can be sustained for improved performance of program.

Moreover, a research that aims to strengthen the activities of prison reentry organizations and reduce growing incidents of repeat incarcerations will benefit the society. Through my search in academic literature, I did not find any study on the relationship between reentry programs and reincarceration within Nigerian context. On a specific note, therefore, the outcome of this study is significant to pioneering provision of empirical evidence that may be used for enhancement of approach for reduction of repeat incarceration in Nigeria. Also, the result may motivate a re-appraising of the existing reentry supports for prisoners in Nigerian prisons as well as Nigerian prison system. Using the information from the findings, opportunity may be created for advocacy for more government supports for prisoner reentry activities in Nigeria. Finally, this study may create an opportunity to study reentry programs in

other countries, and therefore provide increased knowledge required to develop a more robust approach for similar intervention in Nigeria.

In conclusion, the potential implication of this for social change can be summed as follows: (a) research findings can drive policy, inform practice, and provide information for practitioners that would translate to social change; (b) contribution of a research to the larger public body of knowledge can result in social change; (c) research is like planting seeds of knowledge and information in people's minds, which later blossoms with proper nurturing and care and thereafter motivates social change behaviors; (d) findings could be used to improve the condition of individuals, families, and communities and thereby influence positive social change; and (e) research are used to provide solutions to cycle of problems, which are sometimes generated by change (Laureate Education, 2008).

Summary

In this chapter, I have given a brief overview of the subject matter: the effectiveness of prison reentry programs for reduction of repeat incarcerations in Nigeria. I highlighted some statistics on the growing trend of recidivism and reincarcerations across the globe in general and particularly Nigeria and discussed some scholarly views about the different criteria used for the measurement of recidivism. I have given an overview of some past studies on the effectiveness of reentry programs under faith-and non-faith-based organizations as well as the inconsistencies in their findings. In the chapter, I have explained what has led to the current study, its significance, and what I aimed to accomplish with the findings. Finally, I gave an overview of the variables being studied, the hypotheses that identified the variables and the association being tested.

In the second chapter, I discussed the various scholarly perspectives on the subject matter and explain the measurement for repeat incarceration adopted for this study. In the chapter, I presented the findings on the predisposing factors for repeat incarcerations, and the scholarly views on their mitigating factors including the theories that underpin those factors. Further, I discussed findings on my literature review on what constitutes reentry programs under faith- and non-faith-based organizations and presented the various divergent and inconsistent views about their performances and effectiveness.

In Chapter 3, my focus was on the research type, design and the methodological techniques used for the study as well as the rationale for their use. I detailed out the sampling procedures, data collection strategy, and the statistical strategy used for my data processing and analysis. The reasons and implications for using these sampling and analysis procedures are explained. In the chapter, I have discussed the process and significance for using propensity score matching model to select subjects with equivalent characteristics into treated and comparison groups for data analysis. The statistical procedure used for data analysis was explained. Finally, in this chapter, I discussed the threats to internal validity of data processing and external validity of the research outcome and explained measures to address them. In Chapter 4, I presented my findings from the data processed and analyzed in the third chapter.

In Chapter 5, I discussed my finding and its interpretation. I described further the limitations to generalizability, trustworthiness, validity, and reliability that arose from doing the research. The implications of research outcome for social change as well as the research theoretical and empirical implications were presented. In the

chapter, I expressed an opinion on how the results may contribute to the current efforts at making prisoner reentry programs more effective to reduce repeat incarcerations in Nigeria. I recommended how the findings can be used specifically to provide a more meaningful life for the formerly incarcerated individuals and secure a healthier community. Recommendation for practice is presented. The chapter ended with my message that captured the key essence of the study.

Chapter 2: Literature Review

Introduction

A key focus of criminal justice research is to identify those factors that can significantly minimize recidivism (reoffending, rearrests, reoffending, reincarceration, parole violation) among formerly incarcerated individuals (Wright, Zhang, Farabee, & Braatz, 2014). According to Wikoff, Linhorst, and Morani (2012), human services practitioners are concerned about the unsustainable reintegration of released prisoners into the community and their relapse into crimes after earlier prison experience. Jonson and Cullen (2015) argued that the unsustainable reintegration of ex-prisoners, including their returning to crimes, result from the failure of many prisoner reentry programs in providing prisoners with needed supports both before and after release.

According to the scholars, available evidences did not suggest that reentry programs can have enduring advantages and capabilities for minimizing repeat incarcerations of ex-felons at a significant level. Other studies have been conducted to establish what works for a successful prisoner reentry program. While some scholars have opined that nothing works to prevent repeat incarcerations of released prisoners (see Lipton, Martinson, & Wilks, 1975; Martinson, 1974), others have argued that some programs can indeed work (see Lipton, Pearson, Cleland, & Yee, 2008; Losel & Schmucker, 2005; Mitchell, Wilson, & MacKenzie, 2007; Wilson, Gallagher, & MacKenzie, 2000).

These conflicting views have generated a gap in literature on studies to establish the effectiveness of prisoner reentry program. Despite this conflict in literature, scholars such as Wikoff et al. (2012) have opined that prisoner reentry remains critical for ensuring that prisoners being released are regenerated and have

healthy reabsorption into the community. Repeat incarceration is a social problem that requires attention to ensure a healthy society (Petersilia, 2009; Travis, 2000)

For this literature review, I have demonstrated the relevance of continuing research on how to develop activities that may help to rehabilitate the formerly incarcerated individuals and reintegrate them with the community. The review reveals the importance of creating opportunities for their recovery through processes that are sustainable and ensure they live a useful life after prison experience. In my view, there is hope for former prisoners to live a better life in future. However, the criminal justice and social systems must be able to address those factors that expose them to further criminal acts after release from prison.

In this chapter, I have reviewed previous scholarly studies on repeat incarcerations of individuals after release from initial jail terms. I have given a brief overview of statistical analyses that show the prevailing high rate of prison returns by former prisoners. I present scholarly research on correctional and reentry programs that have been developed to ensure the safe and riskless reintegration of released prisoners into the communities. Although reentry programs have several dimensions (see Jonson & Cullen, 2015), the focus of this review has been on faith-based and non-faith-based activities in these programs.

Based on this classification, I have presented some perspectives from the ongoing debates on whether prisoner reentry interventions have been effective. In my discussion, I have included observations that scholars collected from their evaluative studies on the programs, particularly with a focus on what worked and what did not work. Further, I have explained the influence of these previous studies and findings

on the current work and highlighted contributions of current study to the ongoing debate.

Literature Search Strategy

A digital search of the literature was conducted using electronic databases on criminal justice, human services, psychology, and social work. Specific databases searched via Walden University library were ProQuest Criminal Justice, ProQuest Central, Oxford Criminology Bibliographies, SAGE Premier, SocINDEX with Full Text, Academic Search Complete, PsycINFO, and PscyARTICLES. I also searched the Google Scholar database.

The list of key terms used to conduct the literature search included repeat incarcerations, recidivism, prisoner reentry programs, faith-based reentry programs, prisoner reintegration, correctional programs for prisoners in Nigerian, prison and criminal justice reforms, statistical analyses for reentry performance. Also reviewed were relevant articles obtained through professional journals from other sources. Further, I consulted multiple textbooks for topics on the subject matter. I incorporated in my study every reviewed component considered relevant to enhance the knowledge and understanding I intended to pass across from this research to the audience. My literature review was done through the duration of the research and analyses.

Theoretical Foundation

The theoretical foundation for this study is reviewed in-depth in this chapter. Two major theories formed the platform for this study. They are the general personality and cognitive social learning [GPCSL] model (Andrew & Bonta, 2010) and the transtheoretical model of change [TTM] (Prochaska, DiClemente, & Norcross, 1992).

The theoretical foundation is rooted in the belief that the incident of repeat incarcerations for individuals is influenced by their exposures to some criminogenic factors, which if controlled, could reduce the occurrence of the incidents (Andrews & Bonta, 2010). To address the criminogenic needs, previous findings have suggested that the dispositional factors can be controlled through reliance on a nontherapeutic natural recovery process from criminal behaviors as well as through application of some therapies in the form of correctional programs (Hellman, Jonson, & Dobson, 2010; Prochaska, DiClemente, & Norcross, 1992).

In addition to the two core theories, I reviewed two other theories on the risk factors that may influence returning of released prisoners into criminal behaviors and subsequently into prisons. It is worth noting that empirical research on the connections between dispositional factors and repeat incarcerations appears not only in current peer-reviewed journals with a specific focus on reincarceration but also in longstanding journals on criminal justice and prison systems.

Theoretical Framework

Andrew and Bonta (2010) described factors that result in repeat incarcerations using three theoretical perspectives, which are (a) the sociological criminology theory (which attributes criminal behaviors to a person's location within the social structure), (b) the forensic mental health theory (which attributes criminal behaviors to psychological pathology such as neurotic and self-esteem), and (c) the general personality and cognitive social learning model (described as most significant to explain factors that cause repeat incarcerations).

Sociological criminology theory. Sociological criminological theory (SCT) examines crime from a sociological perspective (Gutierrez et al., 2013). The theory

posits that the society influences people into committing crimes (Bonita, 2002). It recognizes the conditions under which a person commits a crime as a creation of the society and implies that we can only properly understand and explain crime if considered within social, political and economic context (Gutierrez et al., 2013).

Like many other sociological theories, SCT is based on the premise that people are not born criminals but influenced into criminal behaviors by the environment and circumstances they find themselves. The theory suggests that those who belong to vulnerable and disadvantageous groups such as young, poor, and racial/ethnic minority are more at risk of criminal behaviors (Bonta, 2002). This theory has since been proved to be narrow in perspective. Empirical evidence of prevailing high criminal behaviors among other social groups suggests that belonging to disadvantageous groups is a relatively minor predictor of criminal behaviors (Andrews & Bonta, 2010).

Forensic mental health theory. Another perspective, forensic mental health, attributes criminal behavior to psychological pathology factors such as neuroticism, low self-esteem, schizophrenic (Bonta, 2002). Mullen (2000) described forensic mental health in the criminal sphere as an area involving the assessment and treatment of those who are mentally disordered and could behave in offending manners. He observed that offenders tend to move towards forensic services to justify criminal behaviors and called for a clear delineation between forensic mental health and offensive behavior and criminal convictions among people with mental disorders. Evidence suggests that psychological pathology factors are minor risk variables for criminal tendencies, except for antisocial personality and psychopathy (Andrews & Bonta 2010; Hanson & Morton-Bourgon 2009).

General personality and cognitive social learning theory. The general personality and cognitive social learning (GPCSL) model is broader in perspective than the sociological criminology and the forensic mental health theories discussed in the last two paragraphs (Andrew & Bonta, 2010). GPCSL model is a social learning theory that attributes criminal behaviors to factors that are distal and biosocial, such as neighborhood and race/ethnicity as well as other proximal variables and explains eight need factors that could contribute to recidivism.

The eight factors are (a) criminal history, (b) pro-criminal attitudes, (c) pro-criminal associates, (d) antisocial personality pattern, (e) employment /education, (f) family/marital, (g) substance abuse, and (h) leisure/recreation (Andrew and Bonta, 2010). Andrew and Bonta (2010) described the first four factors as immediate factors that influence criminal behaviors and they determine impacts of the last four factors. As a general theory of criminal behavior, the GPCSL model eight central risk/need factors are relevant across offender types.

Empirical evidence suggests that GPCSL factors are relevant to youth offenders (Schwalbe, 2009), women offenders (Smith, Cullen, & Latessa 2009), sexual offenders (Hanson & Morton-Bourgon, 2009), and mentally disordered offenders (Bonta, 2000). Although the general theory of criminal behavior explains what pushes many ex-felons into further criminal behaviors, the theory is limited by its subjective definition of criminal behaviors (Merari, 2007). Gerwehr and Hubbard (2007) have argued that what some perceived as criminal behavior could be considered as a social crusade by others. Nevertheless, Gutierrez et al., (2013) averred that any intervention that effectively addresses these risk factors would minimize repeat incarceration. They posited that a successful implementation of activities or

programs that would minimize these factors are critical for an intervention to be successful.

The GPCSL theory is useful for the implementation of RNR principle in identifying the risk factors for repeat incarcerations and categorizing them in order of importance for treatment (Andrew & Bonta, 2010). Andrew & Bonta, (2010) noted that the principle of RNR is explained by GPCSL theoretical framework. The theory forms the driver for the three RNR steps – assessment to identify which factors lead to crime, targeting to treat the risk factors that are treatable, and applying a treatment that is responsive to the risk factors to cure the offender. GPCSL theory is one of the two theoretical foundations for the current study.

Transtheoretical Model of Change. The second theory underpinning this study is the Transtheoretical Model of Change, TTM (Prochaska, DiClemente, & Norcross, 1992). TTM is a theory that explains the possible transition of ex-felons away from addictions that influence criminal behaviors. TTM explains how individuals can change their addictive behaviors intentionally with or without interventions (through psychotherapy, societal influences, or other imposed changes). The model identifies the cognitive process that motivates self-initiated behavioral changes in individuals who are addicted to cigarettes, alcohols, drugs, and the likes (Hellman, Jonson, & Dobson, 2010). TTM suggests that cognitive change revolves around a progression through five stages of pre-contemplation, contemplation, preparation, action, and maintenance; and individuals typically go through this cycle several times before they finally quit addiction (Prochaska et al., 1992).

In *pre-contemplation* stage, there is no desire to change behavior because victims have little or no awareness about their situations. In *contemplation,* the

individuals become aware of an existing problem and seriously think about resolution but make no commitment to act. The gestation at this stage is different for individuals. *Preparation* is the decision-making stage when reduction of the problem behavior is decided but the individuals still struggle with effective action, such as abstinence from smoking, alcohol abuse, or heroin use. *Action* stage is reached when individuals finally acted to modify behaviors, associations, experiences, or environment to overcome their problems.

Prochaska et al. (1992) warned that action stage should not be equated with complete change to avoid stepping down on efforts needed to maintain the changes that follow actions. To sustain change at this stage may require some reformative externalities like counseling as motivators. The *maintenance* stage is when individuals work towards preventing relapse and consolidate the gains achieved during the action stage; it is a continuation of change to a sustainable level. Therefore, the hallmarks of *maintenance* are to stabilize the behavior change and avoid relapse into crimes.

Deliberate change from addictive behaviors is imperative for a sustainable avoidance of criminal behaviors that could result in reincarcerations. TTM assumes that individuals can change their criminal behaviors either intentionally or through some motivational supports (Hellman et al., 2010). The prisoner reentry programs are examples of interventions that can motivate avoidance of further criminal behaviors by ex-felons after release. These interventions involve a process that progresses through a series of changes and, therefore, fit the TTM of change. TTM integrates ideas from the different change-induced approaches to explain and predict when and how individuals modify their high-risk behaviors (Prochaska, et al., 2004).

Since participation in the prison activities is voluntary, interventions are applied at either precontemplation or contemplation stages. Studies showed that contemplation is a factor that propels an individual's readiness to change from high-risk behaviors (Hellman et al., 2010). Contemplation predicts action stage in TTM model. Therefore, interventions that move a person from precontemplation to contemplation would accelerate behavioral change. Subsequently, intervention at contemplation stage may move offenders towards deciding at the preparation stage to quit criminal behaviors after release. Sustained interventions at the preparation stage may aid them across action and maintenance stages.

The current study tested the effectiveness of faith-based and non-faith-based reentry programs as interventions for change from criminal behaviors. The use of three mutually independent sample sets of released prisoners (faith-based, non-faith-based, and non-therapeutic) tested the effectiveness of interventions. It generated findings that may be helpful for prisoners' acceleration through the stages of TTM of change. Also, it will test if effectiveness can be influenced by the type of intervention.

The importance of getting right the theoretical model for the construction of an effective prisoner reentry program cannot be overemphasized. As earlier discussed, Jonson and Cullen (2015) identified lack of appropriate theoretical base as one of the major reasons why reentry-programs fail. Therefore, in forming an opinion about the effectiveness of prisoner reentry programs for reducing repeat incarcerations for released prisoners, I have considered the theoretical frameworks that underlie program applications.

Literature Review Related to Key Variables and/or Concepts

Recidivism or Reincarceration

Recidivism is generally described as engaging repeatedly in undesirable behaviors after experiencing negative consequences for that behavior or after receiving treatment to stop such behaviors (May & Brown, 2011, p. 353). The National Advisory Commission on Criminal Justice Standards and Goals (1973) suggested two criteria for measuring recidivism. These are (a) conviction of the offender by a court when s/he is either under correctional supervision or was released from correctional supervision within the previous 3 years, and/or (b) a negative change in the offender's legal status because of technical violations of probation and parole. One of the major criticisms of prisoner reentry initiatives remains the lack of a uniform measure for recidivism (May & Brown, 2011; Wright, Zhang, Farabee, & Braatz, 2014). Therefore, it is not surprising that these scholars have advocated for a standard definition or measure of recidivism.

A similar inconsistent definition was noted by the U.S. Department of Justice. Despite measuring criteria suggested by the National Advisory Commission, the U.S. Department of Justice (2010) found that an important criticism of the Serious and Violent Offender Reentry Initiative (SVORI) was the inconsistent definition of recidivism provided to SVORI grantees. For instance, in the United States Midwest reentry program, recidivism was defined as a return to prison for any reason that includes a conviction for a new crime or a revocation of parole (Severson, Veeh, Bruns, & Lee, 2012).

In their study of the Minnesota State InnerChange program, Duwe and King (2012) defined recidivism from the perspective of offenses for both repeated and new

crimes. They used variables such as rearrests, a reconviction, a new sentence reincarceration, or a revocation for a technical violation. They described the first three as variables that measure new criminal offenses and the fourth (revocation for a technical violation), a variable that measures a broader rule-breaking behavior.

Other recidivism measures found in literature include variables such as parole revocation, a new conviction for any crime, return to prison for any reason, and/or substance abuse relapse (Huebner, DeJong, & Cobbina, 2010; Kelso, 2000; The Sentencing Project, 2010; Wilson et al., 2000; Wright et al., 2014). According to Severson et al. (2012), the consequence of this inconsistency of definition is the difficulty posed for comparing the outcomes of various correctional and reentry initiatives designed to address recidivism. Some researchers, including Messina, Burdon, Hagopian, and Prendergast (2006), Prendergast, Hall, Wexler, Melnick, & Cao (2004); the Sentencing Project (2010), and Staton-Tindall et al. (2009) agreed to a definition that treats recidivism as reincarceration within a specified follow-up period, usually between 1 and 3 years.

Following the above arguments, reincarceration can thus be considered as a key variable for defining recidivism. It is the end-product of reoffending, rearrests and reconviction if found culpable. In this study, I have considered recidivism along this perspective. The definition for recidivism will focus on reincarceration resulting from any new offense or crime committed within 36-months of release from previous jail term. The first release of a subject between 2010 and 2013 was used as reference point.

Risk Factors for Repeat Incarcerations

The release of prisoners into the community is a serious issue that requires proper management (Jonson & Cullen, 2015). George W. Bush, the 43rd president of the United States of America between 2001 and 2009 (Whitehouse.gov, n. d.), possibly thought of this when in his January 2004 state of the union address, he appealed to all Americans to give a second chance to prisoners reentering the society (The Whitehouse, 2004). He declared that anyone released from prison deserves to look forward to a better life. He then proposed a $300 million prisoner reentry initiative to enhance opportunities for released prisoners, culminating in the passage of the Second Chance Act of 2008 (Jonson & Cullen, 2015). This step was prompted by the imperativeness to address issues that can expose released prisoners into criminal behaviors after their release.

Numerous social, economic, and political factors motivate behaviors that result in reconviction and reincarceration for the individuals. The issue of returning formerly incarcerated individuals back to prisons after release is not without some influencing factors. Many scholars have researched into identifying those factors that may expose ex-felons to repeat incarcerations. In this literature review, I have categorized these factors into social, political, and economic. Besides these socio-politico-economic factors, there are also risk factors for repeat incarcerations arising from the challenges of failing correctional and prisoner reentry programs as well as punitive, and sometimes inhuman, criminal justice system. All these factors are discussed below.

Social factors. Ginner and Smedler (2011) investigated the effect of antisocial behaviors as contributing factor for reincarceration among young Swedish male

offenders whose ages were between 15 and 17 years. The researchers monitored criminality among the young convicts who were participants in a community-based rehabilitative program. Their findings revealed that (a) antisocial behaviors are predictive factors for recidivism and reincarceration, (b) those with a higher rate of antisocial behaviors are at more risk of repeat incarceration, and (c) merging of high-risk and low-risk offenders may influence more severe criminal behaviors among the low-risk offenders, resulting into their being reconvicted and reincarcerated.

Gutierrez, Wilson, Rugge, and Bonta (2013) corroborated these findings in a meta-analysis they carried out to reconfirm a set of risk factors as predictors for repeat incarcerations. They attempted to find out whether the risk factors for reoffending as hypothesized by the general theory of criminal behavior (Andrews & Bonta, 2010) could be applied to predict reincarceration among the Aboriginal and non-Aboriginal offenders. They found that criminal history, pro-criminal associates, and antisocial personality pattern best predicted general recidivism among the groups rather than their cultural, social, and economic diversities. Their findings validated the general theory of criminal behavior, discussed later in this chapter. Other factors such as age, gender, economic difficulties, legal barriers to accessing public services, and stigmatization and isolation of the ex-convicts have been found to be catalysts for reincarcerations among prisoners released from previous prison terms (Wikoff et al., 2012).

In a quantitative study that revealed general prevailing recidivism among the male convicts released from the Nigerian prisons, Abrifor, Atere, and Muoghalu (2012) found that the behavioral dispositions may be complex and offender specific. Also, they observed that prison inmates in Nigeria between 2001 and 2005 were more

of male recidivists and young offenders between 26 and 36 years. Their findings suggest that factors such criminal peer association, access to weapons, alcohol and drug abuse, and aggressive feelings exacerbate behaviors that result in reoffending and reincarcerations in Nigeria.

A survey on the vulnerability to alcohol use by male prisoners in Nigeria revealed that alcohol and drug abuse constitute best predictors of criminal behaviors in Nigeria (Chenube, Dosunmu, Omomoyesan, and Omumu, 2011). Chenube et al. (2011) observed that the predominantly high rate of reincarcerations among the male ex-prisoners in Nigeria has been connected to their high exposure to these vices; worsened by the absence of treatment for drug and alcohol addictions in the Nigerian prisons. The scholars argued that this situation largely contributes to the ineffectiveness of reentry programs for released prisoners and constituted major threats for efforts being made to minimize the incidence of repeat incarcerations.

Economic and political factors. According to AMS (2016), there is generally an increase in crime rates as the national economy declines. They noted that economic recession often results in more poverty on a wider scale, massive employment and housing challenges, more difficult access to basic needs, and more people turning to prohibited activities and criminal behaviors to satisfy their needs. Politically, the society and the government cannot be exonerated as contributors to dispositional factors that encourage criminal behaviors.

McFarlane (2012) highlighted the social chaos that often accompanies threats to survival by elements of the political and economic system. According to him, such social chaos manifests in the form of rising disruptive behaviors within the purview of the criminal and administrative justice system. He argued therefore that a society that

fails to provide a basic standard of living for its citizens opens the door for certain social and political disorder, which can manifest as crimes and a problem for the criminal justice administration.

May and Brown (2011) argued that the criminal justice system, the public social policies, and the societal pressures do constitute doorways for behaviors that send ex-felons back to prisons. For example, Wright et al. (2014) traced the growth in the reincarceration of ex-prisoners witnessed in the United States from the 1970s to the government's enactments of tougher sanctions and sentencing guidelines. Other scholars (Haney & Zimbardo, 1998; Petersilia, 2003/2009; Pew Center on the States, 2009; Travis & Petersilia, 2001) critiqued the policy as politically motived; there were no considerations for prison overcrowding, inaccessibility of inmates to rehabilitation programs, and what would become of majority of the prisoners on their release. The scholars attributed the policy discordance to the many problems subsequently experienced by ex-offenders.

Other issues, including denial of access to important factors for rehabilitation such as medical treatment and medication, drug treatment, housing, and employment have been found to be factors that escalate repeat incarcerations among the released prisoners. The Alcohol Monitoring Systems (AMS, 2016) observed that these factors, exacerbated by the economic recession, which started in 2007 (the great recession) resulted in rising criminal activities and violence in many communities across the globe. In the United States, the AMS (2016) reported a staggering rise in the prison population to above 1.7 million between 2008 and 2011, a 13% rise. This percentage increase was estimated to represent three times the growth rate of the whole population. In the United Kingdom, violent criminal activities were estimated to have

risen by 20% between 2007 and 2011 (McFarlane, 2012). In Sub-Sahara Africa, during the same period, the rise in reincarcerations and new crimes became a significant social issue affecting the government, society, the humanitarian organizations across the globe, and the multinationals (Osayi, 2013).

The impact of economic and political factors on the criminal justice system. In his study on the impact of the global economic recession on the American criminal justice system, McFarlane (2012) observed the prevailing impact of the economic downturn, which started in 2007 (the great recession), on the criminal justice system. There was an obvious failure of the criminal justice system to effectively uphold its fundamental purposes of retribution, deterrence, incapacitation, and rehabilitation.

McFarlane noted that the resultant finance and economic difficulties created a burden for justice administration, the court, and the prison systems as more people turned to criminal activities and became incarcerated. The increase in incarcerations caused prison overcrowding and created difficulty for any meaningful participation in corrective and reentry programs as most inmates were struggling for survival. Consequently, the prisons became the breeding places for crimes rather than being corrective and rehabilitation centers and exacerbated the prevailing reoffending and reincarcerations for released prisoners.

In their analysis, the Economist (2011) opined that prison overcrowding could completely overturn the rehabilitative purpose of the prison system. The analyst argued that rather than being rehabilitated, many incarcerated individuals may develop mental problems, develop physical health problems, be influenced into committing more heinous crimes and become more hardened, or die while in prison. If the prisons have become a breeding place for criminals, it should be expected that

those turned out of prisons engage themselves in criminal activities on getting into the community. McFarlane (2012) opined that the crimes in the community may become worse as more prisoners are released on parole to reduce overcrowding. These are released without any reentry treatment, thus leading to their return to criminal activities in the communities.

Another consequence of the harsh economic climate is the inability of offenders to offset their judgement debts – stiff fines and fees imposed on the offenders by the criminal justice system. Many ex-felons are exposed to reoffending and repeat incarcerations, in their struggles and frustrations to pay the penalties (Carter & Adcock, 2015). According to Carter and Adcock (2015), some public opinions have described such penalties as outrageous and counterproductive and should be reviewed. The scholars also presented the arguments of the proponents for these charges that its necessity has been based on economic reality and will cushion the effect of dwindling revenue. For example, Carter and Adcock (2015) observed that in the Oklahoma State, these fees and fines form part of the budget that funds the criminal justice system, mental health programs, and maintenance of hospitals, schools, roads, and bridges.

In their investigation of the problems facing the inmates at the Oklahoma correctional centers, Carter & Adcock (2015) discovered that both the prison and court systems encourage repeat incarcerations by their impositions of these stiff fees and fines, which in most cases pile up and remain unpaid while in jail. They argued that the pressure to redeem these penalties after release constitute barriers to building a safe and steady life for ex-felons and frustration that result in reoffending and reincarceration apart from the threat of being returned to prison for failing to pay off.

Further, they observed that, apart from court fines, fees are generally imposed on other items that include (a) fingerprinting, (b) lab analysis, (c) use of the services of public defender, (d) filing of bonds, (e) jail booking, (f) trauma care fund, (g) mental health, (h) phone calls, (i) the law library, (j) revolving funds for drug education and medical liability, (k) post-release probation fees, (l) extra charges for getting driver's license, and (m) in some places, inmates pay daily rent between the time of arrest and conviction. Their study revealed that these fines can pile up to millions of dollars and available for the government business. In my opinion, the opportunity cost of such imposed fines and fees may manifest as increased crimes and its associated management cost and may render the policy of fines and fees a decision with a reversal effect.

The Nigerian experience of socio-economic problems. In Nigeria, studies have revealed an increase in reincarceration because of the defective prison system. Scholars (Abrifor et al., 2012; Osayi, 2013; Soyombo, 2009; Tenibiaje, 2013; Ugwuoke 2010) observed that the Nigerian prison system encourages exchange of criminal influences, abject neglect of prisoners' welfare, unchecked alcohol, substance abuse, and the public negative attitudes towards ex-felons. These and other factors such as family economic status, imprisonment terms, and type of crime cannot be isolated from the economic recession and defective governance (Obioha, 2011).

In his investigation of the physical states of the Nigerian prisons, Obioha (2011) described the condition as appalling and sordid. He lamented that those offenders kept in the Nigerian prisons may be more hardened than they were before imprisonments because of what he described as the breakdown of the prisons' functional parts (p. 97). According to him, most of the inmates in the Nigerian prisons

are being psychological and emotionally brutalized because of the regimented nature of the prison's management and strict control of inmates' activities.

Other scholars such as Adetula, Adetula, and Fatusin (2010) and institutions such as Amnesty International (2008) have averred to the precarious states at which the Nigerian prisoners are released into the community. They expressed concerns about the Nigerian justice administration and penal subsystems. They observed that the system breeds criminals and enhances repeat incarcerations rather than make offenders fit for the community after they are released. Unlike in many nations, where the government has taken some practical steps at addressing the criminogenic needs of inmates, the Nigerian government over the years has completely neglected its responsibilities towards the prisoners.

In their report, the Amnesty International (2008) observed a complete deviation by the Nigerian government, from the standards stipulated by the United Nations for the treatment of prisoners. The Organization observed, among others, the lack of appreciable rehabilitation programs for inmates by the Nigerian government, lack of government incentive to encourage participations of the private and nongovernmental organizations in rehabilitating the inmates after release, lack of proper social infrastructure and recreational facilities for the use of inmates, majority of inmates being left to waste away while in the prisons, as well as the appalling living conditions of inmates. These punitive and dehumanizing rather than corrective tendencies of Nigerian prisons make it almost impossible for most ex-felons to settle into better lives after release and their relapse into criminal behaviors (Obioha, 2014).

Correctional and prisoner reentry challenges. The challenges besetting correctional and prisoner reentry initiatives also expose offenders to repeat

incarcerations. Prisons are generally referred to as correctional institutions and are meant to correct the inmates of whatever criminal behaviors that led to their incarcerations (Obioha, 2011; Wright et al., 2014). The scholars (Obioha2011; Wright et al.2014) however noted that prisons have not been as effective as correctional centers they are created to be. Studies have shown that the consequence of imprisonment on reoffending is mostly criminogenic (Cullen, Jonson, & Nagin, 2011). Jonson and Cullen (2015) argued that rather than reduce criminality of inmates, prisons constitute more problems for offenders' return to the community and therefore fueling the prevailing high rate of repeat incarcerations.

Correctional programs are expected to focus on recidivism and substance abuse relapse (Wright et al., 2014). According to Duwe and King (2012), activities carried out within the prison confinement should be such that address the criminogenic needs of the inmates, including attitudes supportive of a socially decorum lifestyle, abstinence from substance abuse, abstinence from criminal companions, emotional and psychological healing (from anxiety, depression, and schizophrenia), and empowerment to be economically relevant. The failure to embrace, pursue, and achieve these objections with desired effectiveness exposes inmates to reoffending after release from prison terms.

Wright et al. (2014) described prisoner reentry as interventions that support the corrective objectives of the prisons. From the perceptions of Petersilia (2011) and Travis (2005), prisoner release is simply prisoner release but also a social change driver in need of attention. Notwithstanding the different views, prisoner reentry is a component of a correctional landscape, along with the whole gamut of criminal justice issues, the court as well as prison matters. Its overarching goal is to prepare

prisoners mentally and emotionally for life outside the prison wall and ensure they behave in a socially responsible manner once they are back in the community (Jonson & Cullen, 2015). Therefore, reentry programs are expected to provide continuity of care and relapse prevention for released prisoners (Dowden, Antonowicz, & Andrews, 2003).

Jonson and Cullen (2015) argued that the term *prisoner reentry* is not of itself transformative. A defective reentry intervention can diminish public confidence, push offenders into more criminal behaviors, and threaten public safety. They noted that a weak program constitutes a risk as it exposes released prisoners to societal pressure that influence reoffending but a well-developed and executed prisoner reentry program can reduce or eliminate the risk of repeat incarcerations. The scholars observed that prisoner reentry efforts are currently faced with a challenge of creating programs that work and positively impact the lives of participants. Hence, prisoners released into the community face the risk of going back to crimes.

Other scholars such as Travis (2005); Visher, Kachnowski, Vigne, & Travis, (2004); Wikoff et al. (2012) have expressed concerns over the ineffectiveness of correctional and reentry programs in helping prisoner reintegrate with community and avoid repeat incarcerations. Their studies done at different times and places have shown that a dysfunctional correctional agenda and failing reentry programs contribute to the challenges faced by ex-felons on reentering the community. They identified those challenges to include low self-esteem, drug treatment, unemployment, housing, and inaccessibility to medical treatment, among others. The unresolved question, therefore, remains: What works to ensure effective reintegration of prisoners released into the community?

There are divergent views about what works in the correctional and prisoner reentry efforts. Findings from studies in the field of corrections done by Lipton, Martinson, and Wilks (1975) and Martinson (1974) make many to be pessimistic and apprehensive about the workability of prisoner reentry programs. On the contrary, other researchers such as Lipton, Pearson, Cleland, & Yee (2008); Losel & Schmucker (2005); Mitchell, et al., (2007); and Wilson, Gallagher, & MacKenzie (2000) identified programs that can effectively reduce repeat incarcerations of ex-felons.

Notwithstanding these contrary views, the key point is that absence of functional and effective correctional and prisoner reentry programs is a risk factor for repeat incarcerations. Such weak programs cannot prepare prisoners returning to the community for life after jail and will expose them to face environmental problems that may push them into reoffending. Jonson and Cullen (2015) argued that a reentry program without effective treatment services will only turn out prisoners unprepared for reentry, the majority of whom may return to prisons within 3 years of release. Such consequence has far-reaching negative impacts on the offenders, their families, and communities (Taxman, Pattavina, & Caudy, 2014).

Wright et al. (2014) have singled out aftercare and housing provision as key reentry components, absence of which may constitute higher risk of reincarceration. In their narrative review of published evaluations of 29 community-based reentry programs in the past 10 years, Wright et al. (2014) discovered that programs that include the provision of housing assistance and after-prison care have the highest positive impacts and reduce the risk of reincarceration for participants. A similar observation was shared by scholars such as Alexander (2010); Bonczar (2008); Rukus

& Lane (2014); Travis (2005). They referred to those laws and practices that discriminate against those with past criminal records in the provision of public housing opportunities; they argued that a situation where ex-felons are discriminated against in their quests to secure both private and public rental housing can be a risk for reoffending with possible subsequent reincarceration.

There are other barriers faced by released prisoners on reentry. They include (a) legal prevention from some job opportunities such as child care, security, nursing, and home health care; (b) complete exclusion from, or limited access to, occupations that require licensure, including small businesses as barbing, manicure, gardening, or counselling and regardless of whether or not the offender's crime affect the ability to do well in the profession; (c) reluctance of employers to hire released prisoners; and (d) restricted access to necessary services for proper rehabilitation while on parole supervision (Jonson & Cullen, 2015).

Jonson and Cullen (2015) noted that these issues contribute to the prevailing problem encountered in prisoners' reentry. The scholars identified four other challenges affecting the reentry effectiveness in the U.S. and which related to the development and execution of prisoner reentry programs. These challenges are: the diversity of programs many of which has remained unevaluated, conjuring up programs without any credible theoretical backing, implementing programs without a process that depicts integrity, and developing programs without being guided by the Serious and Violent Offender Reentry Initiative (SVORI). In the U.S., SVORI is considered to have the potential of establishing an appropriate blueprint for effective reentry programming.

Summary: Risk factors for repeat incarcerations. In sum, repeat incarcerations is an issue that transcends the offenders themselves. It is an issue for the entire criminal justice system (the offenses, the offenders, the police, and the courts), the society, the social system, and the governance system. The erstwhile United Kingdom shadow home secretary, Oliver Letwin pointed out that the society rather than an individual is responsible for crime; he argued that the society creates criminals (see Murphy, 2002). Letwin highlighted environmental influences (childhood development, social background, social learning) as the major factor for criminal tendencies and criminal behaviors. He condemned the situation whereby the burden of crime is laid on the offender, ignoring the foundation of the individual, as well as the dysfunctional family and social system. He argued that such practice will only exacerbate criminality in the society.

Shelden, Brown, Miller, and Fritzler (2007) expressed concern about the rise in insecurity despite increased spending on more prisons, more police stations, more courthouses, and more correctional centers. They noted with displeasure that these structures, being built in anticipation of more criminal activities and incarcerations are indicative of a hypocritical expression of any sincere desire to reduce crimes. These scholars argued that existing and new laws usually reflect the views and beliefs of those in power and made to reinforce order against threats, an issue of "we versus them".

According to Letwin (see Murphy, 2002), crime would reduce if issues that make an individual commit a crime are addressed rather than this traditional reactive mode. The society, the criminal justice administration, the political hegemony must

all share in the responsibility for crimes. The players in those areas must demonstrate active roles in addressing the fundamental issues that influence criminal behaviors.

Reducing repeat incarcerations may remain a mirage where the ex-convicts have little or no chance to a decent job or education on release from jail but left to face the same situation that influenced their criminal behaviors at first. It may not be logical after punishment to send the offender back into society without providing an alternative to an option to go back into crime.

To achieve this social change becomes more difficult with a penal system – the police, the justice system – and the political class that do not show compassions on the prisoners. Therefore, any proposed solution to the prevailing rise in repeat incarcerations must be such that adopts a holistic approach that considers all the risk factors discussed. Implementation of such proposal will require the political will of those in position of authority.

Mitigations for Risk Factors

Some scholars (Alexander, 2010; Bonczar, 2008; McFarlane, 2012; Rukus & Lane, 2014; Taxman, Pattavina, & Caudy, 2014; Wright et al., 2014) have advocated for social and economic reforms in the interest of society if crimes will be drastically reduced. According to these scholars, social order and justice will be preserved if the government and the society can appropriately respond to the existing economic situation. They argued that for reoffending and reincarceration to drastically reduce, the criminal justice system must, among others, effectively meet its responsibility of rehabilitating offenders and deal with the overcrowding in the prison system. The scholars advocated for a concerted national and state interventions to provide the

leadership and managerial skills, as well as authority and power required by the justice and prison administrators.

Apart from systemic interventions, researchers have suggested other approaches, largely behavioral therapy, that can ensure minimization of dispositional factors for multiple incarcerations. For example, Chenube et al. (2011) have advocated for an approach that incorporates educational, pharmacological, psychological, and environmental considerations. Also, scholars (Cabezas, Advani, Puente, Rodriguez-Blanco, & Martin, 2011; Hellman, Johnson & Dobson, 2010) have proposed the application of Transtheoretical Model of Change, TTM (Prochaska, DiClemente, & Norcross, 1992) to help ex-felons overcome their criminal, smoking, and drug abuse behaviors, especially those who desire to change from their criminal behaviors.

Using TTM of change, Hellman et al. (2010) examined how criminals can decide to willingly change from violent and criminal tendencies. They assessed readiness to change for participants in a 52-week treatment program and found that contemplation is a key factor that motivates change and predicts the action stage in TTM. They advised that intervention should focus on activities that can propel individuals from precontemplation to contemplation to achieve an early transition to action stage where a less aggressive behavior is anticipated. Other researchers have revealed acceleration to contemplation stage using interventions such as transformative learning theory (Hansen, Ganley, & Calucci, 2008), motivational interview (Muscat, 2005), and adaptive change therapy (Bowels, 2010). Based on the ideals of TTM, many prisoner reentry programs have been developed with the aim of minimizing impacts of dispositional factors for multiple incarcerations.

Community Reentry Programs for Released Prisoners

For this study, prisoner reentry programs are classified into faith-based and non-faith-based programs. Faith-based initiatives have some similar components with the rehabilitation programs and services offered by the non-faith-based) organizations; however, they emphasize more on religious components such as Christian counseling, bible study, prayer, and spiritual transformation (Whitehead, 2011). Although researchers have expressed inconclusive evidence to suggest that prisoner reentry programs are effective (as discussed under "correctional and prisoner reentry challenges" above), it cannot be gainsaid that effectiveness of reentry programs is imperative for minimization of repeat incarcerations and public safety. (Petersilia & Cullen, 2015).

The importance of program effectiveness was highlighted by Petersilia and Cullen (2015). They noticed that mass incarceration is becoming more financially burdensome, necessitating the growing need to regularly downsize the inmates. The challenge therefore is how their return to the community will not jeopardize public safety and lives of those released. Despite the general support for reentry programs, more work still needs to be done to establish the effectiveness of these programs Establishing the program effectiveness may address the gap identified by scholars such as Jonson and Cullen (2015). They observed that reentry programs, because of their human services nature, provide prisoners with needed supports but there is little evidence to suggest that the programs have lasting effects and can reduce repeat incarcerations for ex-felons.

Faith-based programs. Several studies (Braga, Piehl, & Hureau, 2009; Daggett, Camp, Kwon, Rosenmerkel, & Klein-Saffran, 2008; Dodson, Cabbage, &

Klenowski, 2011; Duwe & King, 2012; Higgins & Albrecht, 1977; Johnson & Larson, 2003; McKean & Ransford, 2004; Whitehead, 2011) have been done to assess whether faith-based programs have been effective in reducing repeat incarcerations, many of which were inconclusive in their findings. Dodson et al. (2011) carried out an evidence-based assessment by evaluating previous four studies that compared faith-based and non-faith-based prisoner reentry programs. They observed reduced reincarceration for participants on faith-based programs and noticed that factors such as gender, culture, and severity of offense have influences on the reduction rate. They, however, expressed inconclusive evidence from their findings because of two major limitations in their research – weak methodology and few studies used for the evaluation.

Other several studies have also shown inconclusive evidence to suggest better performance or effectiveness of faith-based over non-faith-based programs. They included Braga et al., (2009), Daggett et al. (2008), Johnson and Larson (2003), and Willison et al. (2010); they all observed the conflicting performance of faith-based programs from their studies done at different times. For instance, in their evaluation of a prisoner reentry program tagged InnerChange for Texas, Johnson, and Larson (2003) found that faith-based program did not significantly reduce recidivism.

Another scholar, Whitehead (2011) reviewed the evidences obtained from 18 earlier studies on the critical relationship between religion, faith-based intervention, and reincarceration as well as the contributions of community chaplaincy to criminal justice reforms in England and Wales. Like others, their finding was inconclusive because of limitation that arose from methodology deficiencies observed in the studies evaluated.

Despite this finding, Whitehead (2011) used the study to observe the activities of community chaplaincy towards the rehabilitation of released prisoners. He noticed the gaps between chaplaincy performance and expected role in prisoner reentry and argued: regardless of the impact of the reentry program on reincarceration, chaplains are morally constrained to support ex-felons unless some conditions are put in place to ensure performance. Hence, he proposed (a) a more inclusive role for community chaplaincy association during the process of criminal justice reformation, (b) mobilizing chaplains to serve as mentors for ex-felons, and (c) building alliances with churches and other sectors of the economy to support prisoners after release. Whitehead (2011) argued that these initiatives will facilitate chaplaincy's activities and uniquely position faith-based supports for the rehabilitation of ex-felons and chaplaincies' contributions towards criminal justice reformation.

Contrary to the inconclusive evidences from the above studies, scholars such as Higgins and Albrecht (1977) and McKean and Ransford (2004) have found that formerly incarcerated individuals who are involved in faith-based interventions are less likely to return to criminal behavior. Also in a recent study, Duwe and King (2012) evaluated the effectiveness of InnerChange for Minnesota and concluded that faith-based prisoner reentry programs can reduce recidivism if they are focused on evidence-based practices that involve behavioral intervention, resolution of criminogenic needs, and provision of care and mentoring support on a continuous basis. Their findings suggest that faith-based program can produce a reduction in rearrests, reconviction, and reincarceration of released prisoners and can provide an advantage from the cost-benefit perspective.

Non-faith-based programs. The trend of inconclusive observations was not different for non-faith-based prisoner reentry programs. In their study, May and Brown (2011) examined possible impacts of correctional programs on reincarceration with a sample of 1,234 volunteered incarcerated inmates, representing 11% of prisoners in the United States Mid-Southern state in July 2010. The program was designed to reduce recidivism among ex-felons as well as to control behavior, increase morale, and reduce idleness. May and Brown (2011) observed that about half of released inmates returned to prison within 3 years of their release no matter what measure of recidivism is used. They concluded that correctional program applied to inmates while in prison had an insignificant impact on the inmates' perception to recidivate after release. They suggested future studies to include comparisons for actual recidivism between those who participated in the correctional program and those who did not.

An evaluation of another prisoner reentry program, called project re-connect (PRC) was done by Wikoff et al., (2012). The scholars observed a reduction in recidivism among the participants when compared with other ex-prisoner support programs such as Living Insurance for Ex-Offenders (LIFE) and the Transitional Aid Research Project (TARP) that provided just monetary stipends.

Wikoff et al., (2012) observed that the PRC process of combining personalized case management and financial assistance proved more promising to reintegrate ex-felons into society and avoid their returning to crime. Commenting on their observations, Draine, Wolff, Jacoby, Hartwell, and Duelos (2005) cautioned on generalizing this finding due to restrictions that surrounded the study. These are PRC

eligibility, lack of ethnic diversity in samples used, limited access to data for non-participating ex-felons, and the six months' duration of the procedure.

To address the insufficient evidences of what works in reentry, Jonson and Cullen (2015) suggested three approaches. These are (a) the use of a website dedicated to house the various program reentry programs, (b) take stock of the effectiveness of these programs, and (b) undertake more research reviews of reentry programs. The scholars observed that majority of reentry initiatives have never been evaluated, those assessed produced inconsistent outcomes while some carefully designed ones produced disappointing results.

The inconclusive evidence has necessitated the quest to do more evaluative studies to determine the effectiveness of reentry programs for prisoners coming into the community. In line with this, researchers such as Dodson et al. (2011), May and Brown (2011), and Whitehall (2011) advised more studies to evaluate the effectiveness of reentry programs for reduction of repeat incarcerations. One of the purposes of this study is to address this gap in literature. It is premised upon these calls for more research to determine the effectiveness of reentry programs.

Risk-Need-Responsivity (RNR) Model

Jonson and Cullen (2015) advocated resolution of four issues to address barriers to reentry-program effectiveness. The four issues are (a) the development of interventions and programs along various dimensions, creating difficulty for a standard measurement of performance assessment, (b) development of programs without any credible or coherent theoretical treatment foundation. Most programs are developed to address observable problems faced by offenders and implementations are based on common sense rather than reliance on any scientific criminology when

implementing an intervention, (c) lack of integrity in project implementation. Failure of adopting the scientifically validated principle of risk-need-responsivity (RNR) in program development, and (d) the inability to generate a blueprint for the best way to deal with released offenders from an initiative such as the Serious and Violent Offender Reentry Initiative (SVORI). SVORI is the major reentry evaluation study to date and could be used to produce a blueprint for effective reentry program.

From evaluations done by scholars such as Petersilia (2011); Turner and Petersilia (2012); Mears and Cochran (2015); Jonson and Cullen (2015), results suggest that adherence to the components of RNR model in reentry program management could achieve a more appreciable level of effectiveness. RNR model was developed by Andrews, Bonta, Gendreau, and other Canadian scholars (Cullen 2013). The model is a scientifically validated theory for correctional interventions and considered to be the leading treatment method in corrections (Andrews & Bonta, 2010; Cullen 2013). The principle simply involves matching treatment levels to the offender risk level.

The model gives three steps to adopt to have effective rehabilitative and reentry programs for released prisoners. The three steps are (a) focusing on high-risk offenders (the risk principle); (b) targeting the predictors of repeat incarcerations that can be changed, such as antisocial attitudes and low self-control (the need principle); and using treatment approaches that can reduce the risk factors for reoffending, such as cognitive-behavioral therapy (the responsivity principle). According to the model, to reduce reoffending, the higher-risk offenders are to be given intensive and extensive care while low-risk offenders are treated with minimal or even no intervention (Andrews & Bonta, 2010).

Summary and Conclusions

In this chapter, I have given an overview of the literature on the divergent views about the effectiveness of various prisoner reentry programs, despite the differences in their compositions. There is widespread opinion of inconclusive evidence to suggest that prisoner reentry programs are effective for reducing reincarceration of released prisoners. Hence, scholars have proposed more studies to determine effectiveness using appropriate methodologies and alignments that will generate bias-free findings.

In reviewing the literature on "what works" in various initiatives towards the sustainable rehabilitation of ex-felons, I have highlighted the risk factors for repeat incarcerations and the mitigations provided. I have presented the factors across social, economic, and political dimensions as well as those resulting from correctional and reentry challenges. The literature reviews of the factors have revealed variables that may influence reoffending by released prisoners, ranging from remote variables, such as economic and political factors to proximal ones such as social influences peculiar to the individuals.

My understanding of these peculiar variables from perspective of the risk-need-responsivity model and the general personality and cognitive social learning theory was helpful for this study. The literature review provided a source to identify the confounding factors used as control variables in this study. The factors included age, ethnicity, religious affiliation, the length of previous jail term, the severity of the crime for which participants served a complete sentence, criminal history, prior gang involvement, family/marital status, education status, and history of substance abuse. The study applied a matching technique (propensity score matching) to control for the

influence of these variables during analysis to establish relationship between the outcome and independent variables of interest.

Finally, in this chapter, I have provided earlier findings on the application of faith-based and non-faith-based prisoner reentry programs as therapies for minimization of repeat incarceration. I have used these programs as drivers for application of the Transtheoretical Model (TTM) of change. The goal of the program was to transform the offenders towards modification of deviant behaviors and associations and prevent their reoffending after release from prison. The prisoner reentry programs are expected to be the game changers and they formed the core and independent variables for this study.

In Chapter 3, I have presented the research method used for this study. I explained my variables and the relationship between the variables. The population from which I drew up my sample as my sampling procedure were explained. Thereafter, I discussed the ethical procedures followed during data collection and processing.

Chapter 3: Research Method

Introduction

The purpose of this study was to determine the effectiveness of prisoner reentry programs for reduction of repeat incarcerations in Nigeria. First, I determined whether there was a statistical difference in the repeat incarceration status between prisoners who were treated before their release (i.e., prisoners who participated in reentry programs) and those who were untreated before their release (i.e., prisoners who did not participate in reentry programs). Second, I examined whether the type of reentry program (faith-based or non-faith-based) made a significant statistical difference in the avoidance of repeat incarceration for the participants.

I collected data on participants from the archival records of the three similar prisons situated in Lagos Command of the Nigerian Prisons Service (Badagry, Ikoyi, and Kirikiri Medium prisons). The focus was mainly on individuals who had been released from these prisons between January 2010 and December 2013. Also, I incorporated the prisoners who were released in 2008 and 2009to enable my assessment of all the prisoners who have been treated since establishment of formal prisoner reentry program in 2007 in Lagos prisons of medium category. The record of each subject was reviewed to determine reincarceration status within 36 months of release; doing so necessitated data collection through 2016.

I found that participation in different prison activities (faith-based or non-faith-based) was statistically different in terms of effectiveness in reducing repeat-incarcerations for the subjects who were part of those programs during their jail terms. To establish the relative statistical effectiveness of reentry programs (treatment) in comparison with the total population of released prisoners, I used a control group of

released prisoners who were not treated (i.e., did not participate in any program) but with equivalent characteristics as those treated.

In the sections that follow, I have described the research design used for this study and the rationale for my preference of retrospective comparative design over some other quantitative designs described in the literature. I explained the variables used, the composition of the sampling frame for the study, and the population from which the sample was drawn. The appropriateness of the sample size, as well as the research instrument used for the measure of the variables and their attributes, are explained. Further, the chapter provides clarifications about the types of data used, the sources of the data, their collection process, and the data analysis. Because the study involved the use of equivalent treatment and comparison groups, information is provided on the techniques I used for matching the subjects in both groups to achieve equivalent characteristics for the subjects in the groups.

Research Design and Rationale

I sought to answer two research questions:

RQ1. What is the difference in the repeat incarcerations after prison release between the group of subjects who, while in prison, received treatment (faith-based or non-faith-based) and the subjects who did not receive treatment, when controlling for the confounding variables of the subjects?

RQ2. What is the difference in the repeat incarcerations after prison release between the group of subjects who, while in prison, received faith-based treatment and those who received non-faith-based treatment, when controlling for the confounding variables of the subjects?

Repeat incarceration was the measure of recidivism in this study. Treatment referred to full participation in the reentry program (faith-based or non-faith-based) prior to release. I made the following assumptions for my analysis (a) the use of two mutually exclusive subject groups – treated (under faith-based and/or non-faith-based programs) and the untreated control group; (b) participation in reentry programs could not be conclusively described as the only predictor factor that caused the outcome variable; (c) consideration of, and controlling for, other theoretically confounding variables to which the subjects might have been exposed and that could affect the outcome variable; (d) subjects could not be manipulated – there was lack of control over whether an individual received or not the treatment while in prison; (e) repeat incarcerations status of subjects could only be established post intervention; and (e) information about any subject was obtained at a point in time using historical record.

Based on these assumptions, I used a retrospective comparative research design to determine whether reentry programs had an impact on repeat incarceration. The research was a retrospective case-control study in which I considered two cohort groups of treated – untreated subjects based on data retrospectively obtained from archival record. A retrospective research enables looking backward to examine exposure to a risk event or protection factors in relation to an outcome of interest (National EMSC Data Analysis Resource Center [NEDARC], 2016). I have done this study by looking back at events that have already happened.

According to the NEDARC (2016), a retrospective case-control study facilitates a quick estimation of exposure effect on the outcome status. In a case-control study, cases of interest must be like the controls on all factors except the outcome of interest (Kalogeropoulos, 2014). Therefore, using a retrospective case

design enabled me to ascertain the extent of the statistical relationship between two variables and estimate the effect of the treatment on the dependent variable while controlling for the confounding variables.

A comparative design provides the advantage to statistically establish the differences in the outcomes between two groups. However, the design may not establish cause-effect relationships because it cannot control for most extraneous variables (Schenker & Rumrill, 2004). My intention in this study was not to determine a cause-effect relationship but to establish whether a statistically significant relationship existed between two variables (predictor and outcome). I have used samples of subjects who were not experimentally manipulated or randomly assigned but were purposive and categorical.

To ensure that the compared treated and control groups were equivalent in their characteristics, it was necessary to ascertain same mean propensity score for subjects in the two groups. I ascertained the same mean propensity score through a one-to-one matching of individuals in the two groups. Thereafter, I compared reincarceration outcomes between the subjects in the treatment group and matched untreated subjects in the control group. The matched subjects were statistically obtained from a sample frame that consisted of the total population of prisoners released between January 2010 and December 2013 from the three prisons of a medium category in Lagos State, Nigeria. The matching was done using a propensity score matching (PSM) technique; I used SPSS PSM analysis with one-to-one, without replacement option to select subjects into the case (i.e., treated) and the control (i.e., untreated) groups.

The Research Variables

For the first research question, I used all the matched subjects categorized as treated (faith-based or non-faith-based) or untreated groups. All the subjects in the treated group were matched with equivalent subjects in the untreated group. For the second research question, I used the matched treated subjects categorized as FB treated as case group, and the NFB as the control. Because there were less FB treated subjects, all subjects in that group were matched with equivalent subjects in the NFB group. To match the subjects, I used the nine confounding factors theoretical identified to influence recidivism (Andrew & Bonta, 2010) as control variables in addition to the dependent and independent variables. These nine factors were broken into 24 categorical and 3 continuous variables.

The dependent variables. For this study, I have used repeat incarceration (reincarceration) for a new offense as the only measure of recidivism. It was not a parole violation on the original offense or an alternative to the inability to control for this. This was convenient because of deficiencies in the data I had available for the study. Sufficient data were unavailable for other known measures of recidivism (rearrests, reconviction, or revocation for technical violation). Although I used subjects released from prisons between January 2010 and December 2013 for the study, I obtained the status of reincarceration through 31 December 2016 to ensure a follow-up time of 36 months for the subjects released in December 2013. Data on repeat incarceration status for subjects were obtained on "best effort" basis from the archival records manually kept in the respective prison locations.

Record keeping by the organizations that managed the prisoner reentry program was not also sufficient. The only relevant information they could provide

about the treated subjects were their names. Subsequently, the treated subjects were traced to and matched with corresponding names on the prison manual registers. This was necessary because the information on treatment received by inmates was not available on the records kept by the prison authority.

I observed that the prison records were not accurately maintained and contained very limited information about the inmates. Also, the accuracy of each subject's reincarceration status was likely impaired by an inability to identify those who served their reincarceration terms in prisons other than the 3 prisons used for this study. Consequently, findings from this study might have understated the true reincarceration positions for the subjects examined.

The independent variables. These variables comprised of treated and untreated subjects. Treated subjects were those who fully participated in the prisoner reentry programs initiated and executed by either the faith-based or the non-faith-based organizations. Eight subjects who participated in both programs were classified under faith-based. A subject was rated "treated" if he participated fully in any of the programs. The untreated subjects were those who did not participate in any program or the dropouts. Dropouts were those who quit or were terminated from the respective program prior to their prison release. The independent variable is categorical, hence, a binary value of "1" was assigned to participants who received treatment and "0" to those who did not receive treatment. For the statistical comparison of the two programs, I assigned a categorical value of "1" to faith-based, and "0" to non-faith-based, treatment.

The control variables. Other independent covariates are the confounding variables that may theoretically influence repeat incarceration of a subject and affect

drawing inferences based only on the variables of interest. Andrews and Bonta (2010) identified general confounders to include age, ethnicity, religious affiliation, the length of previous jail term, the severity of the crime for which subjects served a previous sentence, criminal history, prior gang involvement, family/marital status, education status, and history of substance abuse. Notwithstanding, inadequate information about the inmates available in the prisons' records had influenced the type and number of control variables used for this study.

The number of confounders included in the statistics model used for data analysis has been limited by this inadequate prisoners' data. After a scrutiny of the prison record, nine confounders were identified for the subjects. These were age, nationality, ethnicity, Christianity, religious denomination, the length of sentence completed, the number of crimes that led to the expired sentence, type of crimes that led to the expired sentence, and the number of the previous imprisonment (criminal history). Other variables such as marital status, education status, prior gang involvement, and history of substance abuse could be relevant but information about them was not contained in the prison records made available for this study. The nine variables were subdivided into the 28 control variables used for all my statistical analyses – the PSM, logistic regression, and Cox regression.

Because of non-availability of sufficient information on the subjects for statistical analyses, the background data used to achieve equivalence between the treated and untreated (control) groups might lack sufficient accuracy. Therefore, the process of reducing the bias of the confounders on the dependent variable might have been impaired. Consequently, this may place some limitation on the validity of the

outcome of this study. In Table 1, I have presented summarized information on all variables used for my analyses.

Table 1

Research Variables

Dependent variables	Independent variables	Control variables
• Repeat incarceration status after the release of each subject. • Status is based on reincarceration data from 2010 to 2016. • Subjects are those released between January 2010 and December 2013.	• Subjects who received faith-based and/or non-faith-based treatment while in prison. The non-faith-based program referred to reentry program that the prison authority initiated and executed. Faith-based program was mainly initiated and executed by third party faith-based organizations • Subjects who neither received nor completed treatment while in prison.	• Age of subject. • Nationality • Ethnicity • Religion • Christian denomination • Length (months) of completed jail term • Number of crimes that led to the completed sentence • Type of crimes that led to the completed sentence • Number of the previous imprisonment

Propensity Score Matching (PSM)

For this study, I have applied a propensity score matching (PSM) method to achieve equivalence of both the treatment and control groups. PSM uses estimated conditional probabilities to select subjects into a group. I have constructed the equivalent case and control groups by matching the treated with the untreated subjects. Treatment and control subjects were matched based on the 28 variables listed in Table 2. For my statistical analysis, I split the nine confounding factors into 28 control variables (24 categorical and 4 continuous variables) and assigned binary values of "1" and "0" to the 24 categorical variables as shown in Table 2.

Table 2

The 28 Covariates Used for Statistical Analysis

The nine confounding factors	The 28 covariates	Description of covariates
1. Age of subject.	1. Age**	Age at release (years)
2. Nationality	2. Nationality *	Nigerian / Non-Nigerian
3. Ethnicity (Nigerian geopolitical region)	3. Southwest*	Offenders from the southwest
	4. Southeast*	Offenders from southeast
	5. South-south*	Offenders from south-south
	6. Northcentral*	Offenders from northcentral
	7. Northwest*	Offenders from northwest
	8. Northeast*	Offenders from northeast
4. Religion (Christian or non-Christian)	9. Christian*	Christian or non-Christian
5. Christian denomination	10. Catholic*	Offenders who were Catholic
	11. Pentecostal*	Offenders who were Apostolic, Evangelicals, or Pentecostal
	12. Orthodox*	Baptist, Protestant, Anglican, Methodist, Presbyterian
	13. Other Christian*	Non-Pentecostal, Nonorthodox
	14. Islam*	Offenders who were Muslim
	15. Other religion*	Offenders who belonged to cult, traditional, or pagan region
6. Length of completed jail term (in months)	16. Prison duration**	Duration of reference sentence (in months)
7. Number of crimes that led to the completed sentence	17. No of crimes**	Number of crimes for which reference sentence was given
8. Type of crimes that led to the completed sentence	18. Robbery*	Robbery offenders (including stealing and armed robbery)
	19. Assault*	Assault offenders (including threat to life)
	20. Burglary*	Burglary offenders
	21. Conspiracy*	Conspiracy offenders
	22. Drug*	Drug and narcotic offenders
	23. Fraud*	Fraud offenders
	24. Obstruction*	Obstruction offenders (including touting, roguery, breach of peace, vagabonding, trespass.)
	25. Sanitation*	Sanitation offenders
	26. Traffic*	Traffic offenders
	27. Felony*	Felony offenders (including rape, kidnapping, and murder)
9. Number of the previous imprisonment (crime history)	28. Previous**	Number of previous jail terms

*Categorical Variables, assigned binary values of “1” and “0”.

**Continuous Variables

Studies have suggested that these 28 factors are related to reincarcerations (Andrews & Bonta, 2010, Chung, Hill, Hawkins, Gilchrist, & Nagin, 2002). PSM technique uses the given vector of identified covariates to estimate the conditional probability of selection (propensity score) into a treatment (Rosenbaum & Rubin, 1985, Sainani, 2012). The given confounding factors for the individual subject were summarized into a variable with a single index (the propensity score) and the resulting values used to match the subjects in the treatment groups to those in the control group (Becker & Ichino 2002, Rosenbaum & Rubin, 1985).

Using PSM technique, I have generated the propensity scores by estimating a logistic regression model with selection (selection = 1; no selection = 0) as the dependent variable and the 28 covariates as predictors. Another benefit of using PSM technique l was that the single composite score could serve as a basis for balancing the multiple covariates, (Duwe & King, 2012). Also, the technique facilitated a comparative analysis for the equivalent groups – treated and untreated subjects, FB and NFB treatments. PSM gives an estimate of what would have been the post-release status of the subjects if they had not participated in the reentry programs. Therefore, it reduces selection bias (Duke & King, 2012).

In PSM technique, the presence of some selection bias could not be ruled out because the technique cannot practically capture all covariates that can affect the outcome variables (Braga et al., 2009). For example, PSM may not control unobserved covariates that can arise from the choice of an individual to participate in the programs. Such choice is voluntary but can have some effects on selection to the programs and reincarceration. Shadish, Clark, and Steiner (2008) argued that credibility of propensity score is boosted when proper and sufficient covariates are

selected. They observed that convenient covariates such as age, gender, income are usually insufficient. Further, the problem of sample size limitation is usually associated with propensity score analysis (Rubin, 1997). To address this, the study used a sample frame of 2,026 subjects, which was the total population of offenders released from the three prisons between January 2010 and December 2013.

Methodology

Population

According to World Prison Brief (2016), the total population of inmates at the Nigerian prisons grew from 46,586 in 2010 to 51,560 in 2012 and to 63,142 at 31 March 2016. Of the 2016 population, only 1.7% were female prisoners. Hence, this study was done on only male prisoners released from the Nigerian prisons of medium category. There were also prisons of the maximum category, where more ardent criminals with longer, life, and death sentences were kept. The use of medium security prison was based on empirical evidence suggesting that recidivism is most prevalent in this category of prisons (Abrifor et al., 2012). Further, Abrifor et al., (2012) observed that the medium security prisons hold the highest percentage of prisoners (62.5%) than the those of maximum category. The population for this study comprised of the prisoners released between January 2010 and December 2013 from the three medium prisons in the Lagos command of the Nigerian prisons service.

Sampling and Sampling Procedures

The sampling frame for this study was a composition of subjects obtained from the record of prisoners at the three Nigerian prisons of medium security category located in Lagos State Command of the Nigerian Prisons Service – Badagry, Ikoyi, and Kirikiri Medium prisons. The study used the total population of ex-prisoners

released within the specified follow-up period as sampled subjects. The sampling frame consisted of male prisoners released between January 2010 and December 2013. To allow for a follow-up period of 3 years for each subject in the sampling frame, reincarceration status was observed to 2016. This was the best possible approach since the prison records did not accurately capture reincarceration status of convicted prisoners.

The extraction of data from the prison records was done with assigned prison officials to maintain confidentiality and protection of the subjects. The use of only male ex-felons was to control for the effect of gender on research outcome because the average male population accounted for over 98% of convicted prisoners in Nigeria as stated in the last paragraph, "population". I have used PSM technique to control for the confounding variables to have equivalent case and comparison groups.

I extracted names of the released prisoners who participated in the reentry programs from the record of the three organizations that provided prisoners reentry services. These organizations were the two faith-based organizations, Prisons Fellowship of Nigeria and Joy Bringers Foundation and a non-faith-based prison initiative called "3Rs" (reformation, rehabilitation, and reintegration). These were the only three organizations that provided formal prisoner reentry programs for inmates during the period of study. Only participation or nonparticipation at the first incarceration was considered for the study. As stated under "review of literature", reentry programs in the Nigerian prisons are of two types – faith- and non-faith-based (Odumosu, Olaniyi, & Alonge, 2009).

Sample Size

The study applied convenience sampling for sample selection. To ensure adequate samples, the sample size consisted of the total prisoners released between January 2010 and December 2013 and with an average follow-up period of 3 years. After cleaning of all data obtained from the prison record, I identified and used a sample size of 2,026 subjects for the PSM, out of which there were 409 treated subjects. I did a propensity matching for all the treated subjects and obtained a sample size of 818 subjects (409 treated, 409 untreated). The sample size of 818 subjects was consistent with my hypothetical minimum size of 720 (320 treated, 320 nontreated) subjects. The hypothetical figure was estimated from (a) G*Power statistics estimation (Buchner, Faul, & Erdfelder, n. d.) with option of priori power analysis, F-test ANCOVA statistical test, .05 alpha level, power level of .80 and applying effect sizes of between .10 and .25 and (b) the average of sample sizes used for four similar studies in other countries as shown in Table 3.

Table 3

Sample Sizes of Respondents Used on Earlier Research on Recidivism

Sample size	Name of program	Source
395	Humaita faith-based prison (Johnson, 2002)	Dodson et al. (2011, p. 378).
402	Prison fellowship ministry (Johnson, Larson, & Pitts, 1997)	Dodson et al. (2011, p. 377).
365	Prison fellowship ministry (Young, Gartner, O'Connor, Larson, & Wright, 1995)	Dodson et al. (2011, p. 377).
280	Missouri department of corrections (MDOC) prisons	Wikoff, Linhorst, and Morani (2012).

The sample size of 818 was used for the analysis of my first research question. For my first research question, I sought to identify whether there was a significant statistical difference in the reincarceration status of treated and untreated subjects within 36 months at-risk period after release from prison. A sample size higher than the hypothetical figure was appropriate to reduce bias in selection of subjects from PSM analysis (Thoemmes, 2012).

My second research question was to identify whether there was a significant statistical difference in the reincarceration status of faith-based (FB) treated and non-faith-based (NFB) treated subjects within 36 months after release from prison. For this purpose, I used a sample size of 200 subjects, comprising of 100 FB treated, and 100 NFB treated subjects. The sample size of 200 was below my hypothetical minimum size of 360. The insufficient sample size resulted from the small number (n=100) of FB treated subjects within the period used for this study. The number of non-faith-based subjects treated during same period was 309. However, matching was done for all the treated 100 subjects. The consequence of the small sample size was that it impaired the external validity of the result from FB- and NFB-treated analysis. This was further discussed in Chapter 4 under “data collection process”.

Data gathering for this study involved direct visits to the sampling locations. Use of computer was applied to store, organize, and analyze the data. The pruning and analyses of data obtained from the three prisons were done within the respective prison officer to maintain the confidentiality of the subjects. After the in-prison exercise, I took out the analyzed data but without any confidential information such as names and numbers that could reveal the prisoners’ identities. Nevertheless, to

maintain the track of our analysis, dummy numbers were assigned to the prisoners; the numbers had no bearing whatsoever with the real identities of the prisoners.

Rudestam and Newton (2007) explained some strengths and weaknesses of the archival method approach of data collection. The strengths include the following: (a) local availability of information; (b) process is relatively cheap; (c) process is grounded in setting and language in which they occur; (d) it is useful for determining value, interest, positions, political climate, and public attitudes; (e) process provides information on historical trends or sequences; (f) provides opportunity for study of trends over time; and (g) the approach could be relatively non-obstructive. The weaknesses include (a) possible incomplete records; (b) information collected may be inaccurate or of questionable authenticity; (c) locating suitable documents may pose challenges; (d) analysis of data may be time-consuming, and (d) access may be difficult. To reduce the flaws, Rudestam and Newton (2007) advised the researcher to have total access to, and control of the data as much as needed for the study. I ensured that this approach was followed when collecting data.

The use of archival record was more appropriate for this research than surveys and observations. A survey uses standardized questionnaires or interviews for the collection of data (Trochim, 2006) and inappropriate in this instance because prisoners are a protected class of individuals and difficult to get access to them. Besides, I did not require interviews with the individuals to gather data for this study. Also, observation approach was inappropriate because it was not practicable to observe the prisoners after their release since I could not control their movements. Therefore, using archival record was most appropriate than observing criminal activity or its absence, which may not be consistently practicable.

Data Analysis

The purpose for my data analysis was twofold. First, to determine the statistical relationship between reentry programs and repeat incarcerations and identify if the prisoner reentry programs were effective for reduction of repeat incarcerations in Nigeria. Second, to determine whether there is statistical difference between faith- and non-faith-based treatments in the effectiveness to reduce repeat incarcerations. Both analyses were subject to controlling for the confounders.

I controlled for the confounders extrinsic to treatments received to have equivalent comparison groups. An equivalent comparison group was required to achieve a group of subjects with similar variables apart from the variable of interest, which was the treatment. It would be counterfactual to assume a treated group of subjects with pretreatment characteristics. They have already been treated and could no more assume their status before treatment. Hence, a group of subjects with similar pretreatment variables was required for comparison.

The data analysis was done at three levels as suggested by Wikoff, Linhorst, and Morani (2012). First, I determined whether treated and untreated subjects were significantly different across control variables. Second, I determined the differences in the reincarceration rates between treated and untreated subjects. Third, I examined how the participation in the programs correlated with reduced repeat incarcerations among the subjects when the confounders were controlled for. Data collected were analyzed using descriptive and inferential statistics. The statistical means, standard deviation, and standard error were established for the subjects and used for the descriptive explanation of their demographic and other covariate factors.

PSM analysis. PSM analysis was done to ensure a balance between the case and control groups with respect to measured covariates. It was applied to determine whether treated and untreated subjects were significantly different across those control variables. The essence was to build a model that predicted the probability that the untreated received the treatment in place of remaining as the control. By matching treated subjects with the untreated subjects on the conditional probability of being treated, PSM gives a counterfactual estimate of what the state of treated subjects would have otherwise been if they had not participated in the reentry program and thereby limits selection bias. The technique uses propensity scores (PS) to adjust for the selection bias in the comparison groups. PS is the conditional probability of receiving a given treatment given a vector of measured covariates (Rosenbaum & Rubin, 1985).

The process of propensity score matching includes (a) selection of a set of empirically pre-test covariates. Thoemmes (2012) described this step as most important to ensure causal effect that is unbiased, (b) estimation of propensity scores for the covariates, (c) matching of case and control subjects based on the estimated propensity scores, (d) conducting model adequacy checks, (e) performing the estimation of treatment effect. In this study, I have used a set of pre-test variables that consisted of nine confounding factors identified as theoretically relevant for the selection process. These are the age, nationality, ethnicity, Christianity, religious denomination, the length of sentence completed, the number of crimes that led to the expired sentence, type of crimes that led to the expired sentence, and the number of previous imprisonments.

The use of only nine factors might have exposed the PSM analysis to some unobserved bias but I was constrained by the data available from the prison record for this study. To reduce this limitation, I split the nine factors into 28 different covariates (as listed in Table 2) and subsequently used these for my PSM analysis. To address the sample size constraint, I used the population as sample size (N=2,026). Propensity scores were calculated for the treated subjects and the untreated ones by using estimates derived from a logistic regression model with treated subjects as the dependent variables and the 28 covariates as the independent variables. Using the individual PS, the program participants were matched to nonparticipants with the closest propensity score.

Matching treated and untreated subjects. A propensity score analysis was conducted using SPSS custom dialog. I estimated propensity scores for the 409 subjects in the treatment group and the 1,617 untreated subjects in the comparison group by using a logistic regression model. Participation in any reentry program (treatment) was the dependent variable and the 28 covariates were the predictors. For the analysis, the dependent variable was assigned categorical values of "0" for nontreated subjects and "1" for the treated subjects. In a similar manner, categorical values of "0" and "1" were assigned to predictors that were categorical while the continuous predictors maintained their real values. The coding and frequencies for the categorical variables are shown in Table 4. The descriptive statistics for all subjects are shown in Appendix A, and for treated subjects only, in Appendix B.

Table 4

Coding and Frequencies for Categorical Variables

The variables	Frequency (1; 0)
Felony offenders (felony = 1, nonfelony = 0)	71; 1955
Offenders from Baptist, Protestants, Anglican, Methodist, Presbyterian churches (orthodox = 1, nonorthodox = 0)	113; 1913
Offenders from Apostolic, Evangelical, Pentecostal churches (Pentecostal = 1, non-Pentecostal = 0)	512; 1514
Offenders from Catholic church (Catholic = 1, non-Catholic = 0)	385; 1641
Offenders who were Christian (Christian = 1, non-Christian = 0)	1215; 811
Offenders from northeast region of Nigeria (northeast = 1, non-northeast = 0)	161; 1865
From northwest region (northwest = 1, non-northwest = 0)	150; 1876
From northcentral region (northcentral = non-northcentral = 0)	275; 1751
From south-south region (south-south = 1, Non-South-south = 0)	458; 1568
From southeast region (southeast = 1, non-southeast = 0)	847; 1179
From southwest region (southwest = 1, non-Southwest = 0)	1961; 65
Offenders who were neither Catholic, Pentecostal nor orthodox (other Christian = 1, nonother Christian = 0)	205; 1821
Offenders who were Muslims (Muslim = 1, Non-Muslim = 0)	773; 1253
Traffic offenders (traffic = 1, nontraffic = 0)	63; 1963
Sanitation offenders (sanitation = 1, non-sanitation = 0	131; 1895
Obstruction offenders (obstruction = 1, non-obstruction = 0)	524; 1502
Fraud offenders (fraud = 1, nonfraud = 0)	75; 1951
Drug and narcotic offenders (drug = 1, nondrug = 0)	331; 1695
Conspiracy offenders (conspiracy = 1, non-conspiracy = 0)	314; 1712
Offenders from cult, traditional, pagan religion (other religion = 1, nonother religion = 0)	38; 1988
Robbery offenders (robbery = 1, nonrobbery = 0)	359; 1667
Assault offenders (assault = 1, non-assault = 0)	66; 1960
Burglary offenders (burglary = 1, non-burglary = 0)	92; 1934
Country of Origin (Nigerian = 1; non-Nigerian = 0)	1961; 65

N=2,026. See Appendix A for the descriptive statistics of the variables.

In Table 5, I have presented the isolated impacts of each covariate on the variations in the treatment, when controlling for other variables (described by *Exp(b),* the odds ratio). It shows the statistical significance of the impact (as indicated by significance statistics, *p*). The outcome of the logistic regression analysis shows that 5

of the 28 covariates (jail sentence for assault crime, jail sentence for obstruction crime, months of completed incarceration, number of crimes for which sentence was served, and the number of previous jail term) were likely to have made statistical significant contribution (p<.05) to predicting whether a subject was treated.

Table 5

Logistic Regression Model for Selection of Reentry Program Participants

				95% C.I. for Exp(b)	
Covariables	B	S.E.	Exp(b)	Lower	Upper
Age	.001	.007	1.001	.988	1.014
Christian	.583	.420	1.791	.786	4.081
Catholic	.186	.248	1.205	.741	1.959
Pentecostal	-.199	.215	.820	.538	1.250
Orthodox	-.245	.309	.783	.427	1.435
Islam	.677	.395	1.967	.908	4.263
Nigerian	.296	.517	1.345	.488	3.705
Southwest	-.355	.402	.701	.319	1.541
Southeast	-.443	.428	.642	.277	1.487
South-south	-.202	.435	.817	.348	1.916
North-central	.291	.470	1.338	.533	3.358
Northwest)	-.130	.450	.878	.364	2.121
Robbery	-.410	.358	.663	.329	1.338
Assault	-.860	.438	.423*	.180	.998
Burglary	.271	.475	1.312	.517	3.325
Conspiracy	.171	.379	1.187	.564	2.497
Drug	.652	.394	1.919	.886	4.157
Fraud	-.557	.439	.573	.242	1.355
Obstruction	-1.307	.348	.271***	.137	.535
Sanitation	.627	.477	1.872	.735	4.768
Traffic	-.076	.494	.927	.352	2.443
Sentence (months)	.005	.001	1.005***	1.002	1.008
Number of crimes	-.404	.115	.668***	.533	.837
Previous jail times	.438	.161	1.549**	1.130	2.123
Constant	.217	3.327	1.242		

N=2,026, -2Log-likelihood =1,835.82, Nagelkerke R^2=.15. Model $\chi^2(24) = 202.30$. p=0.00 *p<.05. **p<.01. ***p=0.00.

Three of these statistically significant covariates (subjects jailed mainly for assault crime, for obstruction crime, and the number of crimes for which completed jail term was served) have odd ratio [*Exp(b)*] with values less than 1. As these predictors increase, the odds of the outcome occurring decrease. This indicates that the likelihood of participating in treatment programs decreased among the subjects jailed mainly for assault crime and for obstruction crime, and subjects with the higher number of crimes for which completed jail term was served. However, with their lower values below 1, there was a chance that the direction of their relationship with the outcome (treatment) was opposite to what was observed.

Other two significant covariates (duration of completed jail term and the number of times previously jailed) have an odd ratio with values more than 1. As these predictors increase, the odds of being treated increased. The likelihood of getting treated increased by 1.55 times with a subject with the higher number of previous jail terms and by 1.01 times with a subject with more jail term. Also, with a lower value above 1, there was a chance that in the population, the direction of the relationship was as observed. The values of *-2Log-likelihood* and *Nagelkerke* R^2 and a statistical significant *chi-square* indicate a good fit of the statistical model.

After estimating the propensity scores for the 2,026 subjects, a matching procedure with options of (a) without replacement method and (b) 1:1 nearest neighbor matching was done for all the 409 treated subjects. The standard deviation of the propensity score logit was applied to match the 409 treated subjects with the 1,617 untreated ones. Table 6 shows the covariates and the propensity score means for treated and untreated subjects before and after matching.

Table 6

Covariate Balance and Propensity Score Matching for Treated and Untreated (Control) Subjects

		Means treated		Means control		Std. mean diff.	
Subsamples	Covariates	Before	After	Before	After	Before	After
(all cases)	propensity	.283	.281	.181	.277	.764	.026
	Age	29.479	29.457	30.054	28.646	-.060	.085
	Non-Nigerian	.029	.029	.033	.025	-.020	.029
	Nigerian	.971	.971	.967	.975	.020	-.029
	Southwest	.971	.971	.967	.980	.020	-.058
	Southeast	.509	.509	.395	.523	.227	-.029
	South-south	.208	.206	.231	.231	-.056	-.060
	Northcentral	.130	.130	.137	.111	-.023	.058
	Northwest	.044	.044	.082	.032	-.183	.060
	Northeast	.061	.061	.084	.066	-.096	-.020
	Christian	.614	.612	.596	.624	.036	-.025
	Catholic	.142	.143	.202	.150	-.173	-.021
	Pentecostal	.308	.310	.239	.310	.150	.000
	Orthodox	.061	.059	.054	.061	.028	-.010
	Other Christian	.103	.101	.101	.103	.006	-.008
	Islam	.359	.361	.387	.349	-.058	.026
	Other religion	.027	.027	.017	.027	.063	.000
	No. of crimes	1.318	1.319	1.411	1.366	-.178	-.089
	Sentence	19.284	17.889	15.210	15.248	.073	.047
	Robbery	.183	.184	.176	.187	.020	-.006
	Assault	.044	.044	.030	.044	.070	.000
	Burglary	.024	.025	.051	.027	-.170	-.016
	Conspiracy	.088	.088	.172	.106	-.296	-.061
	Drug	.076	.074	.186	.066	-.414	.028
	Fraud	.044	.044	.035	.027	.043	.084
	Obstruction	.467	.467	.206	.477	.523	-.020
	Sanitation	.024	.025	.075	.020	-.326	.032
	Traffic	.022	.022	.033	.025	-.078	-.017
	Felony	.027	.027	.037	.022	-.063	.030
	Previous	.134	.128	.052	.108	.197	.047

N = 2,026; Treated = 409; Untreated = 1,617; Matched = 409;

The main concern is to confirm whether the matching process achieved a balance on all observed covariates. A statistical check for the post-match covariate balance is a post-matching standardized mean difference with a value close to 0 and the variance ratio close to 1 (Thoemmes, 2012). For the predictors, the distribution of the standard mean differences after matching spread between .085 and -.089, which is considered an insignificant difference (Thoemmes, 2012). The two groups after matching appeared balance because all the measured covariates have standardized differences below 10%. Also, the balance on covariates was verified from the dot-plot of standard mean differences (Cohen's d) for the covariates pre- and post-matching. The dot-plot (see Figure 1) shows variables spread between -0.5 and 0.5 and standard mean difference for all the variables close to 0.

Two other observations that indicated improved overall balance after matching are the overall balance test, which has a nonsignificant chi-square value, $\chi 2(25) = 13.71$, p=.97 and the relative multivariate imbalance (RMI) Test ($L1$), which shows a much lower value after matching (.74) than before (.90). $L1$-test measures the difference between the multivariate histogram of the treated group and that of the control group (Iacus, King, & Porro, 2011). A value of $L1 = 0$ indicates a completely identical treatment and control distributions. If the value of $L1 = 1$, it indicates a completely separated distribution, an imbalance of the distributions and no overlap between the densities (Iacus, King & Porro). Further, the PSM analysis generated other diagnostic plots that confirmed statistical balance of covariates after matching. These plots are shown in Appendix C

Treated and Untreated Faith-based and Nonfaith-based

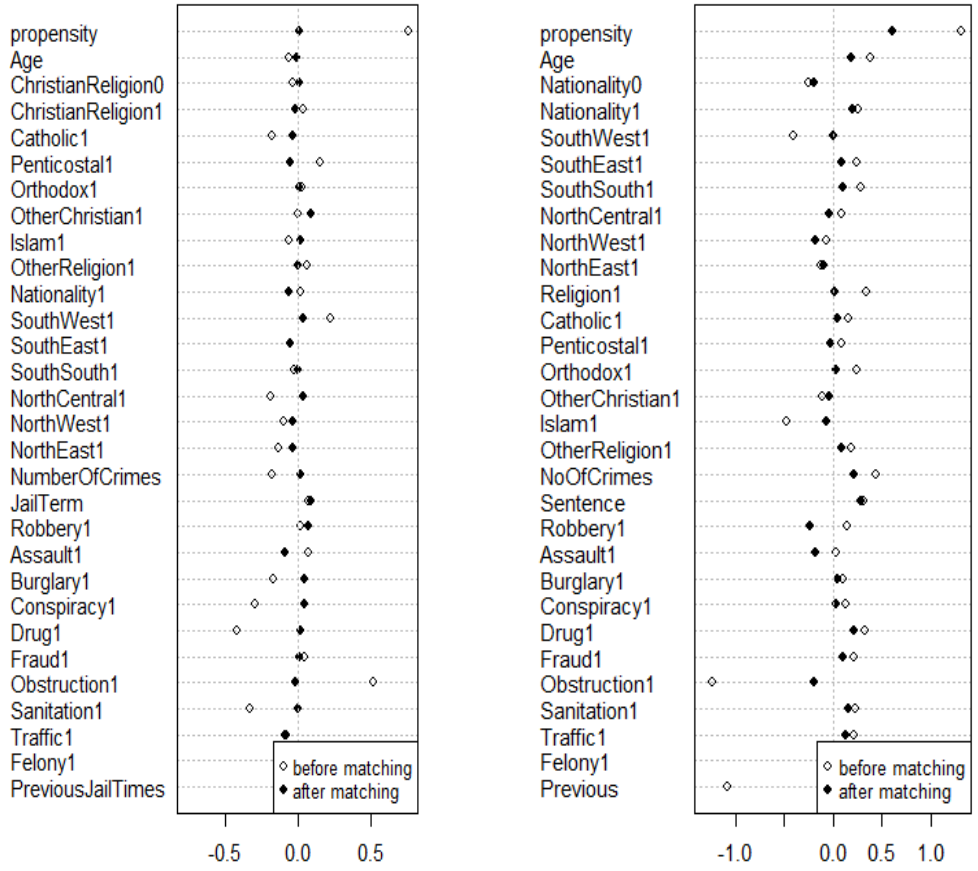

Figure 1. Dot-plot of standardized mean differences (Cohen's d) for all the covariates before and after matching.

Matching faith-based and non-faith-based treated subjects. From the 409 treated subjects, 100 subjects were faith-based and 309 nonfaith-based treated. Using PSM technique, one-to-one matching was done for all the 100 faith-based treated subjects using a without replacement method. A logistic regression analysis was also estimated to test the fit of the PSM model. Consequently, 200 subjects were used for the survival analysis that involved a comparison between faith- and non-faith-based

treated subjects. In Table 7, I have presented the outcome of the logistic regression analysis to identify the relationship between the variables and the fit of the model.

Table 7

Logistic Regression Model for Selection of Faith-Based Treatment Participants

					95% C.I. for Exp(b)	
	Covariates	B	S.E.	Exp(b)	Lower	Upper
Step 1[a]	Age	-.007	.017	.993	.959	1.027
	Nigerian	-.559	1.678	.572	.021	15.312
	Southwest	-.516	1.248	.597	.052	6.889
	Southeast	-.121	1.303	.886	.069	11.405
	South-south	-1.707	1.312	.181	.014	2.374
	Northcentral	-1.087	1.378	.337	.023	5.023
	Northwest	-.681	1.354	.506	.036	7.196
	Christian	1.402	.941	4.063	.642	25.708
	Catholic	-.814	.669	.443	.119	1.644
	Pentecostal	-.780	.553	.459	.155	1.356
	Orthodox	-1.643	.739	.193*	.045	.823
	Islam	.870	.905	2.388	.405	14.073
	No. of crimes	1.691	.324	5.422***	2.876	10.224
	Sentence	.030	.012	1.030*	1.006	1.056
	Robbery	-.484	.949	.616	.096	3.961
	Assault	-.073	1.088	.930	.110	7.838
	Burglary	-.834	1.218	.434	.040	4.726
	Conspiracy	.704	1.019	2.022	.274	14.902
	Drug	-.197	1.028	.821	.110	6.157
	Fraud	-.721	1.113	.486	.055	4.308
	Obstruction	1.747	.981	5.735	.839	39.222
	Sanitation	-2.480	1.203	.084*	.008	.884
	Traffic	-1.848	1.246	.158	.014	1.812
	Previous	-2.674	.914	.069**	.012	.414
	Constant	6.086	9.116	439.765		

N=409, -2Log-likelihood =293.72, Nagelkerke R^2=.48.
Model $\chi 2(24)$ =161.26, *p<.05. **p<.01. ***p=0.00

I observed a similar pattern to analysis for the treated – untreated subjects. Five of the 28 covariates proved to have made a statistically significant contribution

(p<.05) to predicting whether a subject was treated under the faith-based program. Three of these statistically significant covariates have odd ratio [*Exp(b)*] < 1. They have their lower values below 1, a chance that the direction of their relationship with the outcome was opposite to what was observed. Other two significant covariates have odd-ratios with values more than 1. As these predictors increase, the odds of being treated decreased. With their lower values above 1, there was a chance that in the population, the direction of the relationship was as observed. The values of *-2 Log-likelihood* and *Nagelkerke* R^2 and a statistical significant chi-square $\chi 2$ revealed a good fit of the statistical model and relationship between the variables in the equation.

Using the propensity scores of the 409 subjects, a similar matching procedure that uses a without replacement and 1:1 nearest neighbor method was used to match the faith-based with non-faith-based treated offenders. Matches were found for all the 100 faith-based participants. Next, I confirmed whether the matching process achieved a balance on all observed covariates. The post-match covariate balance should have a post-match standardized mean difference with a value close to 0 and the variance ratio close to 1. Table 8 shows the covariates and the propensity score means for treated and untreated subjects before and after matching.

Table 8 shows the distribution of the standard mean differences (SE) after matching to have a spread between .282 and -.236 and dispersed from 0. Sainani (2012) recommended the use of standardized difference as a test for the balance of covariates, where the sample size is small. A standardized difference (SE) of less than 10% is indicative of a good balance. He cautioned against using *p*-value tests as a measure of the balance of covariates because their results are highly dependent on sample size.

Table 8

Covariate Balance and PSM for Faith-based and Non-faith-based Treated Subjects

Subsamples	Covariates	Means FB treated		Means NFB treated		Std. mean diff.	
		Before	After	Before	After	Before	After
(all cases)	propensity	.531	.531	.152	.354	1.312	.612*
	Age	32.740	32.740	28.424	30.710	.386	.182*
	Non-Nigerian	.010	.010	.036	.030	-.256	-.200*
	Nigerian	.990	.990	.964	.970	.256	.200*
	Southwest	.360	.360	.557	.360	-.408	.000
	Southeast	.290	.290	.181	.250	.239	.088
	South-south	.220	.220	.100	.180	.287	.096
	Northcentral	.060	.060	.039	.070	.089	-.042
	Northwest	.050	.050	.065	.090	-.067	-.183*
	Northeast	.010	.010	.023	.020	-.127	-.100*
	Christian	.730	.730	.576	.720	.345	.022
	Catholic	.190	.190	.126	.170	.162	.051
	Pentecostal	.340	.340	.298	.350	.089	-.021
	Orthodox	.120	.120	.042	.110	.239	.031
	Other Christian	.080	.080	.110	.090	-.110	-.037
	Islam	.210	.210	.408	.240	-.483	-.073
	Other Religion	.060	.060	.016	.040	.184	.084
	No of Crimes	1.530	1.530	1.249	1.390	.437	.218*
	Sentence	45.380	45.380	10.838	14.950	.320	.282*
	Robbery	.230	.230	.168	.330	.146	-.236*
	Assault	.050	.050	.042	.090	.036	-.183*
	Burglary	.040	.040	.019	.030	.105	.051
	Conspiracy	.120	.120	.078	.110	.130	.031
	Drug	.170	.170	.045	.090	.330	.212*
	Fraud	.090	.090	.029	.060	.212	.104*
	Obstruction	.140	.140	.573	.210	-1.241	-.201*
	Sanitation	.070	.070	.010	.030	.235	.156*
	Traffic	.060	.060	.010	.030	.211	.126*
	Felony	.030	.030	.026	.020	.024	.058
	Previous	020	020	172	020	-1.077	.000

N = 409; FB treated = 100; NFB treated = 309; Matched subjects = 200;
*SE after matching>10%

Based on Sainani's suggestion, since the post-match SE was more than 10% for this analysis, the statistically nonsignificant overall chi-square value, $\chi 2$ (24) = 22.67, p=.54, might not necessarily indicate a balance of the covariates because of the relatively small sample size (n = 200). Also, more than half of the covariates in this model have post-matching SE > 10%, indicative of imbalanced covariates and model. The *L1* has pre-and post-matching statistics that were close to 1 (.95; .85). Only 15% of the distribution overlaps after matching (*L1* = .85). The *L1* statistics and the many covariates with post-match standardized mean differences with values more than 10% suggested that the treatment and control groups after matching were barely balanced on observed covariates. Figure 1 shows the dot-plot with variables spread between .282 and -.236 and many of the variables with post-SE not close to 0. Other diagnostic plots are in Appendix D

Ethical Procedures

In this study, the data collection method did not involve any physical interactions with the subjects but the confidentiality, rights, needs, values, and freedom of subjects have been respected and protected as much as practicable. At the early stage of data gathering, I used the prison records that revealed the identities (i.e., the names and prison numbers) of the subjects. However, all research works that involved the use of these identities were carried out in the prison offices under the purview of the assigned prison officials. My research work computers were in the custody of the prison authorities for most part of the data gathering, sorting, and cleaning exercise. Prison data files were pass-worded by the prison authority to protect access on few occasion that I went out with the computers for urgent reasons

(e.g., to support data collection in another prison location). These procedures were adopted to protect the subjects' identities.

Protection of rights and confidentiality was also agreed and executed with the Lagos State command of the Nigerian prisons service by a jointly signed data use agreement. In the agreement, I clarified the purpose of the study, data collection procedures, known risks associated with samples in the study, and the expected benefits from the study. Further, I enumerated the responsibilities and commitments of both the data provider and data recipient.

The two research supports who worked with me for data collection were made to sign confidential agreement. Further, duly signed letters of cooperation to provide support during data collection were obtained from the Nigerian prisons service and the faith-based and non-faith-based organizations that provided information for this study. All these signed documents were forwarded to the IRB. Prior to obtaining confidential and sensitive data, approval for the study and the protocol adopted was obtained from Walden University institutional review board (IRB). IRB approval number for this study is 12-28-16-0363946.

Summary

I carried out this study to determine whether treatments given to prisoners while in prison is effective for reduction of repeat incarcerations and to assess the relative effectiveness of a type of treatment over another (faith-based and non-faith-based). I assumed the use of two mutually exclusive subject groups, the recognition of other theoretically-proved confounding variables as likely predictors of the outcome, nonmanipulated subjects, the establishment of reincarceration status of subjects

retrospectively, and the use of historical record to obtain information about the subjects at a point in time. For sample selection, I used a convenience sampling.

Data was collected on subjects from the archival prison records. For the analysis, I determined whether treated and untreated subjects were significantly different across their covariates, whether there were differences in the reincarceration rates between treated and untreated subjects, and whether reduced repeat incarcerations correlated more with the type of treatment received when controlling for the confounders. I used a retrospective comparative research design for the study. I analyzed a propensity score matching procedure to control for the confounding variables and achieve equivalent case (treated) and control (nontreated) groups. Finally, I estimated a Cox regression analysis to determine the impact of programs on the reincarceration status of the subjects Findings from the analyses are discussed in the next chapter.

Chapter 4: Results

Introduction

This study was driven by two research questions. First, I wanted to determine whether there was a difference in the reincarceration status within 36 months after prison release between the group of subjects who received treatment while in prison and those who did not receive treatment. Second, I wanted to determine whether there was a difference in the reincarceration status within 36 months of prison release between the group of subjects who received faith-based treatment while in prison and those who received non-faith-based treatment. To analyze repeat incarceration, I used survival analysis (Cox regression) model. Cox regression model utilizes time-dependent data to determine whether the subjects suffer reincarceration and when they were reincarcerated.

Cox regression model is a semiparametric type of survival analysis that gives prediction of a categorical outcome when controlling for variables and time (Bian, 2013). With the model, a comparison can be made between the hazards of two treatment groups, using several variables. The model was appropriate for my analyzing data collected because it made it possible for me (a) to compare the hazards (as ratios) of the two groups (treated / untreated; faith-based / non-faith-based treated) while considering the covariates and (b) to assume how the covariates affected the hazard function (see Bian, 2013). The hazard ratio is the probability of reincarcerating within the 36 months at-risk period and indicated by odds ratios, *Exp(b)*, with 95% confidence intervals.

With Cox regression analysis, I could estimate the effect of the predictor variables on repeat incarceration using variables that were time- and status-based. Use

of this model enabled me to assess the relationship between survival time and the covariates. For this analysis, the "time" variable was used to measure the duration between the date a subject was released and when he reincarcerated before the defined at-risk period of 36 months. The "status" variable measured whether a subject reincarcerated during the defined at-risk period of 36 months. The covariates were the same covariates used for the PSM analysis.

I estimated Cox regression model for repeat incarceration (my recidivism measure). The estimation was at two levels: first, to determine the difference, if any, in the reincarceration status of treated and untreated subjects, and second, to determine any difference in reincarceration status of subjects treated under faith-based and non-faith-based programs. The SPSS output for my Cox regression analysis shows the values of the odds ratio, *Exp(b)*, which explains the predicted change in the hazard (repeat incarceration) resulting from a unit increase in the predictor. For the binary covariates, hazard ratio (*Exp(b)*) is the estimated ratio of the hazard rate in one group to the hazard rate of the other group. A value of *Exp(b)* >1 means that a predictor and the odds of the outcome occurring move in the same direction. If *Exp(b)*<1, the predictor and the odds of the outcome occurring move in the opposite direction.

Data Collection

Data collection for this study depended solely on the use of data on the subjects extracted from the archival records of the prisons and those of the organizations involved in the reentry programs. The prison records were manually kept as registers and contained limited information on the subjects for research purpose. Therefore, obtaining information was a rigorous exercise of poring over the

registers and transferring relevant data into computer storage. Scanning through the records and transferring data to computer storage was done with supports of assigned prison officials and two research assistants. It was expedient to transfer the manually kept information into computer storage to facilitate subsequent data sorting and analysis.

Information obtained from the prison records included inmates' names, prisoner numbers, age, religion, denomination, employment/trade (scanty), offense types, the state of origin, duration of the sentence, number of offences for which subject was incarcerated, date of incarceration, date of release, date of transfer to another prison (where applicable). Information on the status of the previous imprisonment was inconsistently and inaccurately recorded since such information was as provided by the inmates and there was no way of verification. From the information obtained, I derived nine confounders, which included age, nationality, ethnicity, religion, Christian denomination, the length of sentence completed, the number of crimes that led to the expired sentence, type of crimes that led to the expired sentence, and the number of previous imprisonments. These were subsequently reclassified into 28 covariates.

The prison records did not contain accurate information about whether an offender was repeating incarceration. Therefore, in all cases, I identified the reincarceration status by using Microsoft Excel analysis to search for duplications in names and, with guidance of assigned prison officials, confirmed repeat incarceration cases. The analysis was based on all the subjects put together irrespective of the prison because there were instances of a subject released from one prison but served a term of reincarceration in another prison within Lagos command. I obtained

information on 5,672 names from the prison records (Kirikiri Medium 3288, Ikoyi 1992, Badagry 392) and reduced to 2,026 after adjusting for duplicated cases and other outliers (cases outside the period covered, and below six months' sentence).

I obtained the names of those treated from the two FB organizations and from the prison's coordinator responsible for reentry programs and mapped the names to corresponding names on the prison record. The faith-based organizations used were the Prison Fellowship of Nigeria and the Joy Bringers Foundation. The non-faith based platform was the treatment program initiated and managed by the prisons service and tagged "3Rs" (reformation, rehabilitation, and reintegration) program. Interestingly, more inmates were treated under this initiative before their release. Describe how representative the sample is of the population of interest or how proportional it is to the larger population if non-probability sampling is used (external validity).

The results of multivariate analyses that justify inclusion of covariates in the model are shown in Tables 5 and 7. The logistic regression analyses indicated a good fit of the statistical model and relationship between the variables in the equation. Also, the PSM analysis for treated and untreated subjects revealed a balance of the covariates after matching and a fit of the PSM model. The result was however different for the matching of faith- and faith-based treated subjects. Because of the small sample size of subjects used for the matching (n = 200), the analysis showed imbalanced covariates after matching and a misfit of the PSM model. The effect of the imbalanced covariates and model on the Cox regression estimation is discussed in the next section.

Results

The Impact of Treatment on Reincarceration

I estimated Cox regression analysis for reincarceration using 818 matched subjects: 409 treated and 409 untreated. The dependent variable (Status) was the repeat incarceration status assigned with categorical codes (reincarcerated = 1, nonincarcerated = 0). The Cox regression output is presented in Table 9. The result shows that when controlling for the effects of the covariates in the statistical model, the effect of treatment received before release was statistically significant. Treatment reduced the odds of reincarceration by about .029*100 = 3%. A treated subject had a survival that was about 97% better than that for an untreated subject. The hazards ratio (i.e., the odds of reincarcerating) was statistically low at a significant level for subjects who were older at release. Table 9 shows that the odds ratio (*Exp(b)*) for *age at release* is .918, suggesting that old age at release was associated with (1-.918) *100 = 8% decrease in reincarceration hazard.

The hazards ratio (i.e., the odds of reincarcerating) was statistically low at a significant level for subjects who were from southwest region of the country. The table shows that offenders from the southwest region of Nigeria were about .387 *100 = 39% less risky of reincarceration after release. The risk of reincarceration was statistically high at a significant level for offenders with higher number of previous jail terms (i.e., the jailbirds). Jailbirds are offenders with frequent reincarcerations (Meriam-Webster, 2005). A significant *Exp(b)* of 2.310 for this variable indicates that the odd of being reincarcerated was 2.31 times higher for a subject with a record of more previous reincarceration. The Cox regression (hazard function) plot for both

Table 9

Cox Regression Model: Impact of Treatment on Reincarceration Duration

				95% CI for Exp(b)	
Offenders identity	B	SE	Exp(b)	Lower	Upper
Received treatment before release	-3.530	.280	.029***	.017	.051
Age at release (years)	-.085	.015	.918***	.891	.946
Christian	.809	.543	2.245	.774	6.506
Catholic	.027	.389	1.027	.479	2.201
Pentecostals	-.039	.306	.962	.528	1.753
Orthodox	2.025	1.045	7.575	.977	58.758
Other Christians					
Muslims	.302	.490	1.353	.518	3.536
Other religion					
Nigerian	-10.638	167.536	.000	.000	9.714E+137
Southwest	-.950	.482	.387*	.150	.994
Southeast	-.775	.558	.460	.154	1.375
South-south	-.895	.561	.409	.136	1.226
Northcentral	-.680	.629	.506	.148	1.736
Northwest	-.805	.536	.447	.156	1.278
Northeast					
Robbery offenders	-.428	.485	.652	.252	1.687
Assault	-.995	.539	.370	.129	1.064
Burglary	-.156	.641	.856	.243	3.008
Conspiracy	-.277	.544	.758	.261	2.203
Drug and narcotic	.492	.686	1.636	.427	6.269
Fraud	-.192	.654	.825	.229	2.975
Obstruction	-.207	.472	.813	.322	2.051
Sanitation offender	-.810	.655	.445	.123	1.607
Traffic offender	1.243	1.103	3.466	.399	30.114
Felony					
Prison sentence (in months)	-.003	.006	.997	.986	1.008
Number of crimes for which sentence was served	-.330	.173	.719	.512	1.010
Number of times previously jailed	.837	.093	2.310***	1.924	2.774

Note. N = 818; -2Log-likelihood = 1,731.04; Model Overall $\chi 2$ (25) = 356.48, p = .00; *p < .05; ***p = 0.00.

patterns (see Figure 2) shows the difference in effects between treated and untreated subjects on the risk (hazard) of reincarceration.

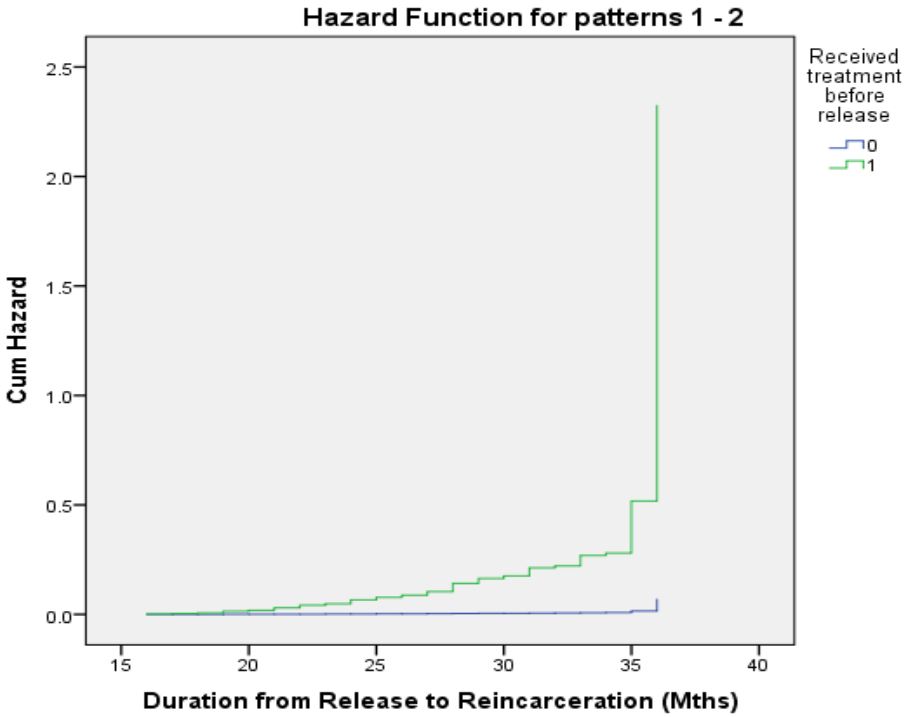

Figure 2. The difference in the risk (hazard) of reincarceration between treated and untreated subjects.

Finally, the analysis revealed a chi-square that was statistically significant at p=.00 and a deviance value *(-2LL* = 1,731.040), which indicates that the variables used in the analysis are related and the fit of the model. These findings suggest that treatments (faith-based or nonfaith-based) obtained by offenders prior to being released from prison might have mitigating effect against the hazard of repeat incarceration within at-risk period of 36 months. Similar analysis to identify any difference in the effectiveness of type of treatment (faith-based versus non-faith-based) is discussed in the next section.

Reincarceration Difference Between FB and NFB Treatment

The Cox regression output for faith-based and non-faith-based analysis is presented in Table 10. A Cox regression model was estimated for reincarceration

Table 10

Cox Regression Model: Difference in Reincarceration between FB and NFB treatment

				95.0% CI for Exp(b)	
Offenders identity	B	SE	Exp(b)	Lower	Upper
Faith-based treated	.125	.390	1.134	.528	2.434
Age at release (years)	.000	.023	1.000	.956	1.047
Nigerian	1.028	114.763	2.795	.000	1.358E+98
Southwest	-8.634	86.963	.000	.000	1.876E+70
Southeast	-7.820	86.965	.000	.000	4.249E+70
South-south	-8.125	86.964	.000	.000	3.131E+70
Northcentral	-8.576	86.965	.000	.000	1.997E+70
Northwest	-8.494	86.964	.000	.000	2.163E+70
Christian	-.328	1.200	.720	.069	7.573
Catholic	.622	1.006	1.863	.259	13.380
Pentecostals	-.278	.654	.757	.210	2.730
Orthodox	.855	1.210	2.350	.219	25.173
Other Christians					
Muslims	-.442	1.166	.643	.065	6.316
No of crimes that led to sentence terms	.626	.401	1.870	.852	4.108
Prison sentence (in months)	-.008	.013	.992	.967	1.018
Robbery offenders	-8.459	67.907	.000	.000	1.347E+54
Assault	-9.281	67.908	.000	.000	5.923E+53
Burglary	-7.743	67.914	.000	.000	2.794E+54
Conspiracy	-7.670	67.910	.000	.000	2.979E+54
Drug and narcotic	-7.906	67.911	.000	.000	2.357E+54
Fraud	-7.385	67.914	.001	.000	3.995E+54
Obstruction	-7.469	67.909	.001	.000	3.639E+54
Sanitation offenders	-8.763	67.910	.000	.000	9.989E+53
Traffic offenders	-7.539	67.916	.001	.000	3.436E+54
Number of Previous jail terms	.584	.857	1.794	.335	9.622

N = 200; -2Log-likelihood = 309.24; Model Overall $\chi 2$ (25) = 51.21, p = .09.

using the 200 matched subjects, 100 faith-based treated, 100 non-faith-based treated. The dependent variable (status) was the repeat incarceration status assigned with categorical codes (reincarcerated=1, nonincarcerated=0). The result showed that no variable statistically predicted, at significant level, whether a subject was reincarcerated within 3 years after release from prison.

The nonsignificant outcome for the variables had resulted from the misfit of the model as shown by the small deviance value (*-2LL* = 309.24), indicating lack of alignment between the observed and predicted probabilities of the hazard occurring. Also, a statistically nonsignificant chi-square (p = .09) implies a lack of relationship between the variables. The Cox regression plot that pictorially describes the hazard functions for faith-based and non-faith-based status (see figure 3) showed an overlap of both patterns. This also suggests that, from analysis of the available data, there was no statistically significant difference between faith-based and non-faith-based treatments on their effect to reduce reincarceration.

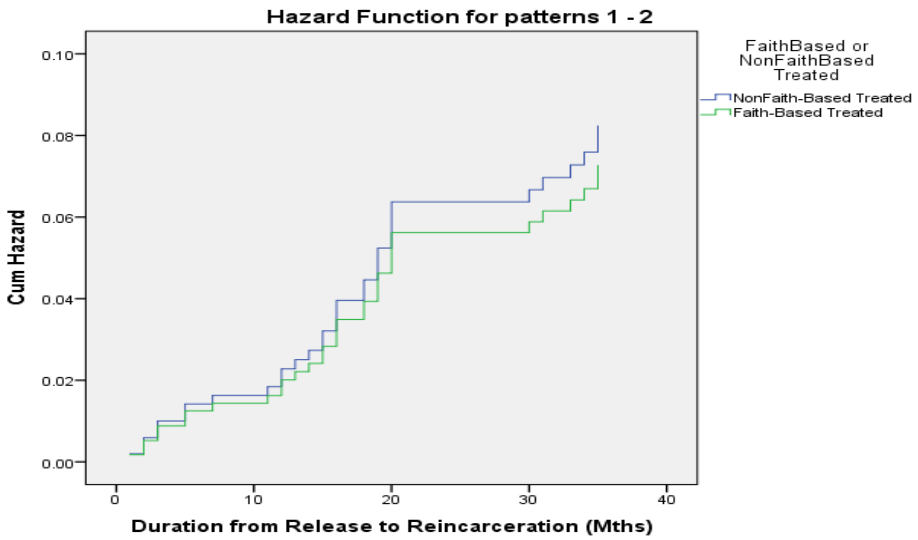

Figure 3. The difference in the risk (hazard) of reincarceration between faith-based and non-faith-based treated subjects.

Summary

The statistical analyses of the data revealed that treatments of prisoners while in prison may minimize their reincarcerations after release from prison. Further analyses showed that there may be no difference between faith-based and non-faith-based treatments in their effectiveness to reduce repeat incarceration. This second outcome may not be conclusive because of the small sample size of 200 used in the analyses, which was below the hypothetical minimum size of 720. I was constrained to using a sample size of 200 subjects because only 100 faith-based treated subjects were available for this study; they were all matched with non-faith-based subject of equivalent characteristics.

In the next chapter, I have presented the summary of this study and the conclusion about my findings. I explained the limitations that could mar the validity of the study and its outcome and stated some delimitation steps taken. Social change implications of my findings were discussed and I suggested recommendations for future research on this issue.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

I conducted this study to determine the effectiveness of prisoner reentry programs for reduction of repeat incarcerations in Nigeria. I sought to answer two research questions. The first was to determine whether there is any difference in the repeat incarceration status between prisoners treated before their release (i.e., prisoners who participated in reentry programs) and prisoners who were untreated before their release (i.e., prisoners who did not participate in reentry programs). Second was to determine whether type of prisoner reentry program (faith- or non-faith-based) make any difference in their effectiveness to reduce repeat incarceration for released prisoners.

Using a PSM procedure, I processed the data obtained to achieve equivalent case and control groups across the confounding variables. I completed a logistic regression analysis to identify whether the case and control subjects (treated/untreated; faith-based/non-faith-based treated) were statistically significantly different across control variables. Finally, I estimated a Cox regression model (survival analysis) to determine whether the reincarceration statuses between (a) treated and untreated subjects and (b) faith-based and non-faith-based treated subjects were statistically significant.

Based on the values of the given covariates, I concluded that the Cox regression procedure was appropriate for modeling the defined 36-months' time duration for the reincarceration of the subjects. The procedure enabled the assessment of the relationship between survival time and covariates. My focused population comprised the formerly incarcerated individuals released between January 2010 and

December 2013 from the three medium category prisons (Badagry, Ikoyi, and Kirikiri Medium prisons) located under the Lagos State command of the Nigerian Prisons Service. I omitted those with prison terms less than 6 months from my analysis because the minimum duration for completed treatment under the reentry program was 5 months.

My findings revealed the following: first, treatment received before prison release statistically significantly reduced the odds of reincarceration by 3% when controlling for other variables. Second, offenders who were older at release had lower odds by 8% of being reincarcerated. Third, offenders from the southwest region of Nigeria were 39% less risky of reincarceration after release. Fourth, the odd of repeating reincarceration was 2.31 times higher for ex-prisoners with experience of previous reincarceration. Fifth, there was no difference in the reincarceration status between those who received faith-based treatment and those who received non-faith-based treatment before release from prison. As shown in Tables 9 and 10, each of the other variables did not statistically predict that an offender would repeat incarceration at significant level, when controlling for effects of other variables.

Interpretation of Findings

In their analyses of the influence of social factors for repeat incarceration, scholars such as Ginner and Smedler (2011) and Gutierrez, Wilson, Rugge, and Bonta (2013) observed that antisocial behaviors and criminal history are strong predictive factors for reincarceration and those with a higher rate of antisocial behaviors are at more risk of repeat incarceration. My findings confirmed their observations. As shown in Table 9, the likelihood of repeating incarceration is about 230% higher (the

highest) among offenders with a history of more frequent reincarcerations. This is despite the likelihood of their received treated (see Table 5).

This study revealed that offenders with longer jail terms are about 100% more likely to participate in any treatment program (see Table 5), yet such participation does not significantly reduce their being reincarcerated (see Table 7). This finding suggests that spending 16 months (the average prison sentence term) in a Lagos medium prison has a risk of exposing offenders to repeat incarceration. I observed a few factors, consistent with earlier studies, that might account for this risk.

The first factor is the practice of merging prisoners of different jail terms in similar cells. Ginner and Smedler (2011) had argued that merging of high-risk and low-risk offenders can harden the low-risk offenders into reoffending and subsequent reincarceration after release. The second factor is the influence of prison conditions on the psychology and emotions of the inmates. Obioha (2011) posited that offenders kept in Nigerian prisons may be more hardened than they were before their imprisonments because of what he described as the breakdown of the prisons' functional parts. Referring to the precarious states at which the Nigerian prisoners are released into the community, Amnesty International (2008) submitted that the Nigerian justice administration and penal subsystems enhance repeat incarcerations.

My findings showed that offenders who originated from the southwest region of Nigeria have about 39% lower risk of being reincarcerated, despite their statistical insignificance of being treated. This might be because these offenders were released into communities within their place of origin (Lagos prisons used for this study are situated in the southwest region). Studies have revealed that releasing prisoners into communities that are close to their places of origin may facilitate easy rehabilitation

through better access to basic needs (food, clothing, housing) and medical treatment. Previous researchers (see Petersilia, 2009, Pew Center on the States, 2009) have found that access to medical treatment and medication, drug treatment, housing, and employment will deescalate repeat incarcerations among released prisoners.

As discussed under introduction, I found that age of inmates on release could influence avoidance of criminal behaviors and prevent repeat incarceration. This confirms earlier observation by Goldstein (2015) that people may avoid crime as they grow older. His study revealed that, a person may avoid lawbreaking as parts of the brain that govern risk and reward mature. Goldstein also argued that committing crimes becomes physically taxing for older people.

Some other theoretical predictors for repeat incarceration such as religion, ethnicity, type of crimes committed, and number of crimes (Andrews & Bonta, 2010) were observed to be statistically nonsignificant variables for such prediction in this study. However, the variables predict the relationship between treatment and reduce reincarceration at statistically significant level; consistent with the argument of Gutierrez et al. (2013) that repeat incarceration is minimized when treatment effectively addresses risk factors for reincarceration.

That these variables predict the relationship between treatment and reduce reincarceration at statistically significant level also confirms the relationship between general personality and cognitive social learning theory (GPCSL) theory and risk-need-responsivity (RNR) principle. GPCSL model is a useful implementation tool of risk-need-responsivity (RNR) principle to identify the risk factors for repeat incarcerations and categorize them in order of importance for treatment. Because more than 95% of the subjects were Nigerian, country of origin was not a predictor of

reincarceration at statistically significant level in my analysis. However, the country of origin can be a predicting factor in situation of a population with diverse nationalities.

Another theory that underpinned this study is the Transtheoretical Model of Change, TTM (Prochaska, DiClemente, & Norcross, 1992). The scholars argued for a possible transition away from vices that can result in repeat incarceration and explained how individuals can change from criminal behaviors with or without interventions. The theory posits that an intervention such as reentry programs can move a person from precontemplation to contemplation stage and accelerate behavioral change.

The goal of a prisoner reentry program is to create a platform for this movement. Therefore, a reentry program satisfies this theory when it effectively reduces those behaviors that result in repeat incarceration. The result in Table 9 evidences this effectiveness. The result shows the reduction of odds of repeat incarceration by about 3% at a statistically significant level. It suggests that reentry treatments can move subjects from their precontemplation stage, through contemplation, preparation, and action to changing their behaviors. Prisoner reentry programs demonstrates an example of TTM of change that may be effective for the reduction of repeat incarceration.

There have been many divergent views on the effectiveness of reentry programs in reducing repeat incarceration. While some scholars opined that such programs have effectively minimized reincarceration, some others differ. In their evaluation of the “Innerchange” program in Minnesota, Duwe and King (2012) found that program reduced new offense reincarceration by 40%. Although a faith-based

program, they discovered that non-Christians were not significantly worse than the Christians in their reincarceration rate. In a meta-analysis of four studies that compared faith-based with non-faith-based reentry programs, Dodson, Cabbage, and Klenowski (2011) noticed reduced reincarcerations among the faith-based participants. However, they expressed inconclusive evidence to suggest that faith-based programs were more effective than non-faith-based due to methodology deficiencies. Findings from the current evaluation are consistent with these observations.

The whole treatments put together showed a reduction in reincarceration rate at a statistically significant level. The result suggests that treatment while in prison can minimize a reincarceration after release. As shown in Table 10, comparison of faith-based with non-faith-based showed a statistically non-significant result for all the variables. Five covariates predicted whether subjects participated in the faith-based program at statistically significant level (see Table 7).

As explained in Chapter 3 (see Table 7), subjects with a higher number of crimes, more sentence terms, who were not of orthodox religion, not sentenced for sanitation offense, and with less number of the previous offense more likely participated in faith-based programs. Nevertheless, none of these variables statistically significantly predicted that faith-based was more effective than non-faith-based. The inconclusive outcome resulted from the imbalanced covariates in the matching of faith-based with non-faith-based treated subjects (see Table 8). The analysis shows that the groups had little overlap in propensity scores suggesting that we cannot compare the two groups. This imbalance resulted from the small sample size (N=200) used in the analysis.

In summary, my findings from this study suggest that prisoner reentry programs can work but must be designed such as to satisfy the criminological needs of the participants. This suggestion is imperative in view of only about 3% improvement in the odds to reincarcerate for the treated over the untreated subjects. Findings also suggest that the type of program attended may not necessarily affect the effectiveness of treatment to reduce repeat incarceration for released prisoners. However, this conclusion about which program (faith-based or non-faith-based) is more effective will be an issue for a future evaluation with a larger sample size, additional or higher order term covariates.

Limitations of the Study

The use of archival data always contains the risks of inaccurate and biased data; affecting the internal validity of a study. This is the first limitation in this study. As explained under "data collection" section in Chapter 3, data kept on the prisoners were fraughted with a lot of errors, which emanated from both the supplier and the recorder of information. Information obtained from the inmates were not confirmed by any proof of evidence. Lack of computerization system and fingerprint identifier made it difficult to easily identify a returning prisoner. Consequently, such person could provide a name different from that provided during previous incarcerations without being discovered. However, the prison service provided adequate support to peruse, review, redress, and repair data collected on "best effort" basis. Lack of national and gender diversities in the samples used for the study may hinder generalizing research findings for a similar setting outside Nigeria and for female offenders.

Finding from Cox regression analysis of comparing faith- and non-faith-based treatments may be limited for generalization. The accuracy of the regression estimation might be impaired by the inadequate matched sample that resulted from the small number of samples available as subjects trained by the faith-based organization. Within the study period, subjects who went through the faith- and non-faith-based program were 100 and 309 respectively. The faith-based program started in 2008 but on a very small scale and with few participants. The non-faith-based program started in 2011 and was attractive to many inmates because of its being managed by a diligent prison official who has regular interactions with the prisoners. However, for comparison of treated and untreated subjects, the sample size of 818 subjects was within my theoretical sample size evaluated for this study. This size was suitable for the evaluation of reincarceration status of treated and untreated subjects and for generalization of its outcome. To address the limitations that are inherent in the use of PSM model, I used a large size of 2,026 subjects (the total population in my sample frame) for and included multiple covariates in the PSM analysis.

The approaches (propensity score, logistic regression, Cox regression analysis) that I used for this study are known and tested statistical models that can answer the research questions. The outcome of the statistical analysis provided the evidence that the study allows correct inferences about the research questions. It is expected that these approaches will provide similar outcome if used for a similar study.

Recommendations

The current study was done to create availability of published scholarly literature on the relationship between prisoner reentry programs and their effectiveness for reducing repeat incarceration in Nigeria. The absence of any existing

study on similar issue became more obvious during the study. The results provide a background empirical statistical evidence that program managers and scholars may subsequently use to improve prisoner reentry efforts; the aim being to minimize repeat incarcerations of ex-prisoners. The potential consequence may be to motivate necessary repackaging of the existing reentry program.

Findings from this study may agitate the questions of *"why?" or "what?"* For example*, "why is a program making or not making expected impact?" "What factors contribute to positive impact observed for a program?"* Such questions may engender another inquiry and subsequently lead to social change. Therefore, this study and the findings may create the vital platform to lead to the next step in the process of social change for the benefits of released prisoners and the society in general. The implications of findings for social change are discussed further in the next section.

Concerning the future use of this study and its findings: first, it is imperative to include this study in the body of knowledge for use in the interest of the goal of minimizing repeat incarceration and enhancing human values. Scholars such as Whitehead (2011) and Dodson et al. (2012) have advocated for more evaluation studies to justify the evidence that prisoner reentry programs can be effective to lessen the social problem of reincarceration. The inclusion may be in the form of publication, paper presentation, advocacy, and knowledge sharing.

On a second note, this study may be a pioneering study but restrictive in terms of location and scope. Therefore, subsequent research is recommended across other prison commands in the country to enhance the external validity of findings on the effectiveness of prisoner reentry programs. Further studies may close the gaps identified from the current study and strengthen the evidence obtained.

Third, networking through a controlled social platform among those involved in similar studies will be useful. Sharing of ideas across the globe and viewing of issues from global perspectives can produce a more effective result. Finally, I advocate more collaboration between research persons, the prisoner reentry organizations, and the officials of prison service to address reincarceration issue from a holistic perspective that considers the views of other stakeholders.

Implications

Repeat incarcerations is a phenomenon that put people and systems at risk – individuals reincarcerated, their families, criminal justice system, the nation, and the society at large. For example, incarceration of a parent or guardian has its negative impact on their children or wards, and consequently on the society. Petersilia (2009) described it as a social challenge begging for resolution in the interest of a healthy society. It is a problem that affects all aspects of human activities – social, economic, political, emotional, psychological, and spiritual. An environment with high incidents of crime is unsafe for all.

Despite its negative consequences, scholars have observed an undesirable upward move of new offense reincarceration because of criminal behaviors by those who have had previous experiences of imprisonment (Braga, Piehl, & Hureau, 2009, May & Brown, 2011, Tenibiaje, 2013). There are growing concerns about the future of formerly incarcerated individuals; the risk of going back to jail after their rehabilitation and reintegration with family members (Wikoff, Linhorst, & Morani, 2012). Social workers are therefore passionate about seeing the ex-felons successfully reintegrated into the community and live a life free from crimes. No effort is too little

towards reducing repeat incarceration and contributing to ensuring a safe and secure society.

Implications for Social Change

This study has far-reaching implications for social change, especially around crime reduction and the enhancement of the security of citizenry. The society benefits more from any program that reduces crimes and enhances security (Burgess, 2012). Further, the enhancement of prisoner reentry programs to reduce reincarceration is beneficial to the society as well as the individuals delivered from criminal tendencies. My findings may contribute to other security research with consequential outcome that can change the society and social relations. Burgess (2012) argued that such steps may add to societal gains through decreased anxiety, reduced social conflict and violence, better perceptions of security, improved well-being, enhanced confidence in the financial markets, improved economic stability, and more investment inflow.

A research typical of this current one exposes the performance of a program and invokes the "why" and "what" questions that can drive program improvements. Knowing the root cause of a problem enables the development of an intervention that will resolve the issue from source. Therefore, to develop a sound intervention requires a distinct understanding of issues, which are agitated by a research of this type. A key benefit of research is that it brings to surface some truth about a phenomenon.

A research is done because we want to establish a new knowledge. If a process works, we want to know why it is working so that we can preserve what makes it work and eliminates what could reduce its effectiveness. If a process does not work we want to identify why it is not working so that we can develop means to make it work. The goal of all these procedures is to create better social benefits.

Another example of social change benefit of this research findings is the availability of empirical evidence to advocate for more societal and government sensitivities towards the plights of formerly incarcerated individuals. The society breeds crimes and criminals through the values embraced, consciously or unconsciously (Farhan & Rabia, 2015, Hunt & Colander, 2016). Publication of the research outcome may provide a basis for the community and government to collaborate more with the organizations involved in preparing the prisoners for life free of infractions after their prison terms.

In addition to the risks of safety, security and social costs of crimes, there are also financial costs associated with every crime and such costs can be substantial (Akintola, 2017; Duwe & King, 2012; UNODC, 2012). A recent study by Vera Institute of Justice (2017) averred that spending on prisons and prisoners can be lowered by reducing the prison population. Hence, more studies to enhancing performance of reentry programs may provide alternative means of reducing the high cost of maintaining the prisoners and prison system. Such savings may be appropriated toward improving provisions of improved welfare benefits to citizenry, especially the vulnerable.

The outcome of this study may provide the policy makers with information to guide in formulating policy to reduce high costs of running prisons and maintain prisoners. The government and the public sector should encourage more studies on faith- and non-faith-based interventions for minimization of repeat incarcerations. This could reveal more factors responsible for crime and empower the efforts of the organizations at resolving them.

Social Change Policy

Social policy refers to interventions designed to change, maintain or create living conditions fit for people's welfare (Vargas-Hernandez, Noruzi, Ali, 2013). According to Seckinelgin (2015), conflicts can be viewed as formative forces that can generate the birthing of new ideas and formulation of fresh social relations. Social policy defines the process of communicating and implementing these new ideas and social relations. The focus is to improve the welfare of people, especially those of the vulnerable. Within this context, I argue that research facilitates the procedure to dig deep into the social conflicts, with a view to providing a resolution. Social change occurs when research findings (a) create information flow for practitioners and support development of social change policy; (b) enhance body of knowledge; (c) motivates paradigm shift and leads to social change behaviors; (d) influence improvement of living conditions for individuals, families, and communities; and (e) are used as solution providers for challenges, which sometimes result from change.

Findings from this study have revealed that with some interventions, inmates can be helped to overcome their criminal behaviors, in line with TTM of change. To suggest the type of policies and programs that could be developed based on this research, Burgess (2012) presented some useful questions to consider. The questions include (a) what segment(s) of society will benefit from reduced reincarceration because of this study? (b) how will society benefit from the findings? (c) what other societal values can the research outcome enhance? (d) if implemented, will findings have a negative impact on the rights and values of some other people or discriminate against them? (e) what measures can be taken to ameliorate any negative impacts from the implementation of the findings?

With these considerations, findings from this research may lead to the initiation of policy to address the following areas for the reintegration of released prisoners and reduction of reincarceration:

- Provision of international best practices for treatment of prisoners and management of prisons.
- Government incentives to encourage more participation in reentry programs by faith-based and nonfaith-based organizations.
- Making reentry programs accessible to a large population of inmates and encourage better participation.
- Provision of facilities at the prisons to facilitate effective training and treatment of inmates.
- Encouragement of collaboration among the reentry organizations to enable the delivery of more effective programs.
- Cooperation between the reentry organizations, government agencies, prison officials, and police to address the challenges hindering the development and delivery of effective programs.
- Engagement of the community in the planning and execution of the program and encourage strong community ownership.
- Existing stigmatization, isolation, and discrimination against released prisoners. Ex-prisoners are often perceived as “once a prisoner, always a prisoner” and discriminated against for employment in the civil service and in the political arena.
- Establishment of an institute like the United States’ National Institute of Corrections to manage and ensure more involvement of government

in the transition of released prisoners from prison to the society. This can also serve as a one-stop shop for released prisoners to access support and services.

- After-release assistance to prisoners to foster their seamless reintegration into the society. Nigeria has wide expanses of land lying fallow in many parts of the country. These can be used to develop farm settlements for interested ex-felons.
- Computerization of the prison system to enable effective use of thumb printing and accuracy of prisoners' information. Prisoners' records are currently in shambles and infringe accuracy.
- Continuous evaluation of programs to assess their effectiveness, identity, and correct areas of weakness.

Conclusion

There is empirical evidence to suggest that prisoners can be supported to live a crime free life after their release from prison. Results of current efforts may appear not significant enough but they have provided platforms to motivate more efforts towards the subsequent development of more effective programs. I support the call for clear and comprehensive strategies to guide the development, execution, and support of prisoner reentry intervention programs to assist released prisoners and protect the society. Such strategies will involve coordination across government agencies and pooling of resources at the community level (UNODC, 2012). I have done this study in line with this holistic approach by involving three important stakeholders for reintegration of ex-prisoners (i.e., prison authorities, faith- and non-faith-based organizations).

From my observation of the components of current programs, there is need to place more emphasis on the following to ensure that programs are more effective, irrespective of program type. These are:

- The program should as much as possible address the challenges that precipitated the past criminal behaviors. Also, it should incorporate methods to assess the risk factors of inmates.
- The program should address multiple issues of prisoners. They include insufficient or lack of skills, illiteracy, anger, substance abuse, antisocial attitude, mental issue, family issues, vicious dispositions and other vile behaviors.
- Prison programs should have some basic components. They include physical health care, mental health care, psychological support, education and literacy support, vocational and skills acquisition training, substance abuse prevention, addressing behavior and attitudes. (UNODC). Delivery of the basic components requires a strong collaboration among the reentry organizations and prison authorities.
- The program should be tailored towards working with, rather than managing, the prisoners. There may be a need for one-for-one interactions with prisoners to identify individual's specific emotional needs and ensure effective case management process.
- Specific programs to address specific needs, status, and circumstances are imperative. There should be specific programs for different groups of offenders – young, elderly, mentally-ill, violent, sexual, drug-dependent, with HIV/AIDS, with physical disabilities, high-profile, political, foreign

nationals, similar ethnic and racial identities, members of gangs and criminal groups.

- The program should include plans for public exhibitions of the various items produced by inmates during skills acquisitions and improvement classes.
- There should be a plan for periodic monitoring and evaluation of the program to determine whether activities have been effectively executed and goals achieved. Use of risk-needs-responsivity (RNR) framework, incorporating wider social contexts and circumstances can be useful for this purpose.
- Post-release supervision and follow-up procedure of ex-prisoners, that involves the community and family, should be well articulated and implemented.

The work of successfully reintegrating released prisoners into the community and minimizing reincarceration is extensive and involves the cooperation of all stakeholders – policymakers, lawmakers, government officials, prison officials, police, reentry organizations, and former prisoners. Findings from this and similar research can provide information to these stakeholders and facilitate advocacy. They are useful to enhance local policy, service delivery, and public responses to reentry.

In conclusion, the joy of being part of the research process is the opportunity of contributing to positive change. A social change is only possible with a proposal for a new order because the society cannot have a harvest of different fruits unless different seeds are planted. There can be no different results with an old order. Effective change of an old order requires a research into what makes the old order

defective. It is providing knowledge and expertise that is based on sound empirical research.

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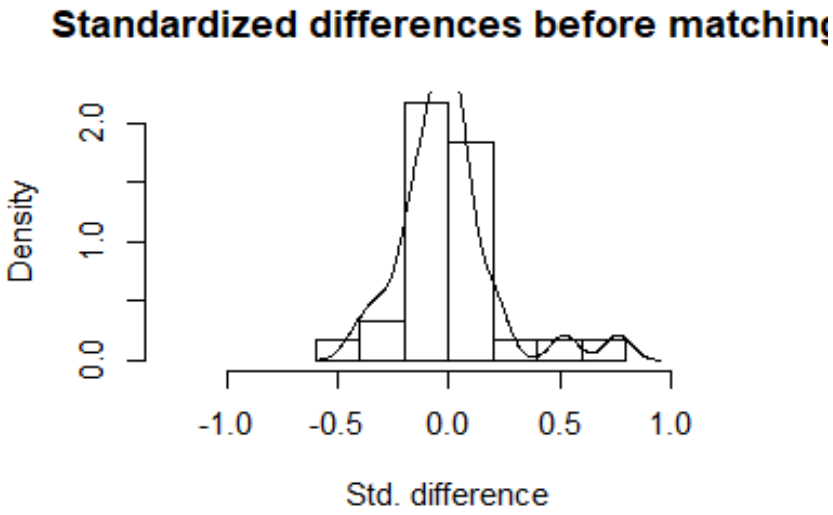
Appendix A: Descriptive Statistics for Treated and Untreated Subjects

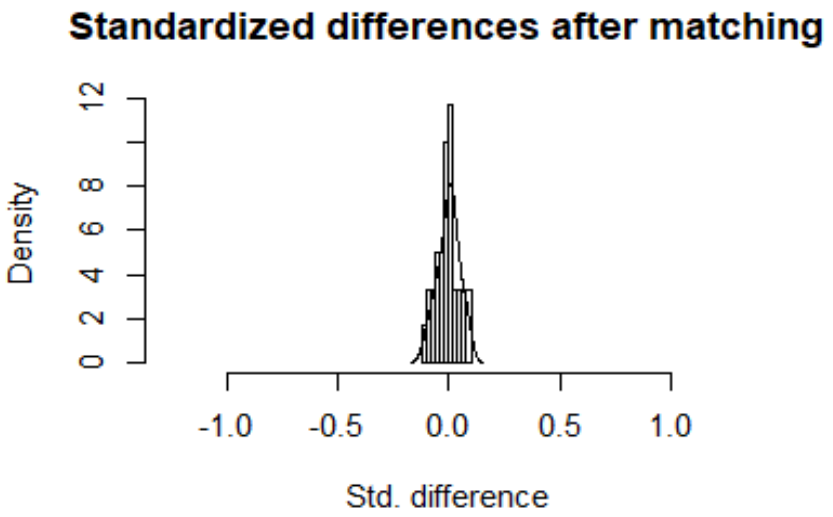
The variables	*N*	Min.	Max.	Sum	*M*	Mean Std. Error	*SD*
Age at release (years)	2026	15	78	60655	29.94	.215	9.670
Christian	2026	0	1	1215	.60	.011	.490
Catholic	2026	0	1	385	.19	.009	.392
Apostolic, Evangelicals, Gospel, or Pentecostal	2026	0	1	512	.25	.010	.435
Baptist, Protestant, Anglican, Methodist, or Presbyterian	2026	0	1	113	.06	.005	.230
Non- Pentecostal, nonorthodox	2026	0	1	205	.10	.007	.302
Muslim	2026	0	1	773	.38	.011	.486
Cult, Traditional, Pagan	2026	0	1	38	.02	.003	.136
Country of origin (Nigeria)	2026	0	1	1961	.97	.004	.176
Southwest region of Nigeria	2026	0	1	847	.42	.011	.493
Southeast region	2026	0	1	458	.23	.009	.418
South-South region	2026	0	1	275	.14	.008	.343
Northcentral region	2026	0	1	150	.07	.006	.262
Northwest region	2026	0	1	161	.08	.006	.271
Northeast region	2026	0	1	70	.03	.004	.183
Robbery offenders	2026	0	1	359	.18	.008	.382
Assault	2026	0	1	66	.03	.004	.178
Burglary	2026	0	1	92	.05	.005	.208
Conspiracy	2026	0	1	314	.15	.008	.362
Drug and narcotic	2026	0	1	331	.16	.008	.370
Fraud	2026	0	1	75	.04	.004	.189
Obstruction	2026	0	1	524	.26	.010	.438
Sanitation offenders	2026	0	1	131	.06	.005	.246
Traffic offenders	2026	0	1	63	.03	.004	.174
Felony	2026	0	1	71	.04	.004	.184
Prison sentence (in months)	2026	6	792	32481	16.03	.846	38.102
Number of crimes for which sentence was served	2026	0	3	2821	1.39	.013	.569
Number of times previously jailed	2026	0	3	139	.07	.007	.314
Received treatment before release	2026	0	1	409	.20	.009	.401
Reincarcerated 1-3 years after release	2026	0	1	299	.15	.008	.355
Duration from release to reincarceration (years)	2026	0	78	12039	5.94	.279	12.579
Valid N (list-wise)	2026						

Appendix B: Descriptive Statistics for Treated Subjects

The variables	*N*	Min	Max	Sum	*M*	Mean Std. Error	*SD*
Age at release (years)	409	16	78	12057	29.48	.473	9.559
Nigerian	409	0	1	397	.97	.008	.169
Southwest region	409	0	1	208	.51	.025	.501
Southeast region	409	0	1	85	.21	.020	.406
South-south region	409	0	1	53	.13	.017	.336
Northcentral region	409	0	1	18	.04	.010	.205
Northwest region	409	0	1	25	.06	.012	.240
Northeast region	409	0	1	8	.02	.007	.139
Christians	409	0	1	251	.61	.024	.487
Catholic	409	0	1	58	.14	.017	.349
Apostolic, Evangelicals, Gospel, or Pentecostals	409	0	1	126	.31	.023	.462
Baptist, Protestants, Anglican, Methodist, or Presbyterian	409	0	1	25	.06	.012	.240
Non-Pentecostal, Nonorthodox	409	0	1	42	.10	.015	.304
Muslims	409	0	1	147	.36	.024	.480
Cult, Traditional, Pagan	409	0	1	11	.03	.008	.162
No of crimes that led to sentence terms	409	0	3	539	1.32	.026	.526
Prison sentence (in months)	409	6	600	7887	19.28	2.766	55.937
Robbery offenders	409	0	1	75	.18	.019	.387
Assault	409	0	1	18	.04	.010	.205
Burglary	409	0	1	10	.02	.008	.155
Conspiracy	409	0	1	36	.09	.014	.284
Drug & Narcotic	409	0	1	31	.08	.013	.265
Fraud	409	0	1	18	.04	.010	.205
Obstruction offenders	409	0	1	191	.47	.025	.500
Sanitation offenders	409	0	1	10	.02	.008	.155
Traffic offenders	409	0	1	9	.02	.007	.147
Felony	409	0	1	11	.03	.008	.162
Number of previous jail terms	409	0	3	55	.13	.021	.419
Treated under FBO programs	409	0	1	100	.24	.021	.430
Reincarcerated 1-3 years after release	409	0	1	106	.26	.022	.439
Months from release to Reincarceration	409	0	45	1787	4.37	.413	8.361
Valid N (list-wise)	409						

Appendix C: Standardized Differences from Propensity Score Matching for Treated and Untreated Subjects





Appendix D: Standardized Differences from Propensity Score Matching for Faith-Based Versus Non-Faith-Based Treated Subjects