A Dissertation

Entitled

A Retrospective Study on the Relationship among Social Controls and Individual Factors as Indicators in Predicting Desistance or Persistence in the Substance Abusing Mentally Ill Supervised Offender Population

By

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Submitted to the Graduate Faculty as partial fulfillment of the requirements for The Doctor of Philosophy Degree in Counselor Education

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The University of Toledo
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An Abstract of

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This study investigated the relationship social controls and individual factors have on the persistence rate in the substance abusing mentally ill-supervised offender (SAMI-SO) population as measured by the number of persistent related incidents during a 3 to 5 year monitored period of active community supervision. The social controls predictor variables in this study were the type of community supervision, supervision by a mental health caseload specialist, length of time on active community supervision, linkage to a community-based linkage provider(s), and active treatment involvement. The individual factors predictor variables were chronological age, ethnicity, years of educational experience, employment, previous mental health and substance abuse treatment, mental health classification, housing classification, number of months spent in a correctional institution, and the number of positive drug screens or intoximeter tests. The criterion variable in this study was persistence, which was measured by the number of persistent related incidents during an active period of community supervision. The research involved a proportional sampling and analysis of 886 closed supervision cases from the
Ohio Department of Rehabilitation and Correction’s (ODRC) database of offenders released from community supervision with the Adult Parole Authority (APA).

Independent samples $t$-tests revealed that SAMI-SO individuals who were supervised by a mental health caseload specialist, were linked to a community treatment provider, were actively involved in a treatment program, or were employed had significantly lower means of persistent incidents and were more desistant than SAMI-SO individuals who lacked these factors. An independent samples $t$-test revealed that a SAMI-SO individual who had previous treatment had a lower mean, but no discernable difference in persistent incidents than a SAMI-SO individual who had no previous treatment. A Kruskal-Wallis version of the chi-square nonparametric statistical test revealed that a SAMI-SO individual supervised at the intense supervision classification had a lower mean in persistent incidents and was more desistant then a SAMI-SO individual supervised at either the basic, basic low or monitored time classification. A one-way analysis of variance used to compare two ethnic groups revealed that the persistence means between African Americans and European Americans was not significantly different. A one-way analysis of variance used to compare the means between two mental health classifications revealed that C1 individuals had significantly lower means in persistent incidents and were more desistant than C2 individuals were. A one-way analysis of variance used to compare the means between three housing classifications revealed that SAMI-SO individuals placed in a permanent residence had a significantly lower mean of persistent incidents and were more desistant then SAMI-SO individuals placed in either a temporary or homeless shelter. Three separate Pearson product-moment correlation
coefficients and one Spearman’s rank-order correlation coefficient revealed no practical significance because of the small effect sizes, which were below Cohen’s (1988) minimum cutoff of .10. However, one Spearman’s rank-order correlation coefficient revealed that a relationship existed between high positive drug screens or intoximeter tests and high persistent incidents. Finally, a multiple regression and simultaneous multiple regressions to determine the best fitting model revealed that the fourteen predictor variables together are a good predictor in determining persistent incidents during an active period of community supervision.

The main contribution of this research study to the literature and desistance research is the identification of potential markers that could lead to the development of new policies and treatments procedures in measuring desistance or persistent behaviors in the SAMI-SO population.
This manuscript is dedicated to my family especially my wonderful daughter Kieran Delaney whose love and smile is a constant encouragement to complete this project. In addition, in loving memory of my mother Grace Matthews and niece Demetra Matthews, both of them are always in my heart. Douglas Matthews my brother who has always been a beacon and role model to me throughout my life. Mattie Matthews my sister-in-law and matriarch of the family has always been an inspiration to countless others including myself. I would like to include a heartfelt dedication to my nieces Deidra and Deonna Matthews, and their wonderful daughters Dera and Mimi who are my heart. I would also like to add my extended family Professor Lawrence Michael Nixon, my lifelong sensei and mentor, his wife Cynthia Nixon, and their wonderful children, Antwaun, Jule, and Carl, who have all grown up to become my exceptional little brothers.
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CHAPTER I

INTRODUCTION

Since the initial movement to deinstitutionalize the mentally ill during the 1960s and 1970s (Farabee & Shen, 2004; Klerman, 1977), the number of incarcerated inmates serving time with a classification of mentally ill or chronically mentally ill with a history of substance abuse or dependence has doubled in the United States (James & Glaze, 2006; Maloney et al., 2003; Steven, 2000). “From the perspective of the criminal justice system, it is difficult to find a bright side to deinstitutionalization” (Kreig, 2001, p.373), especially when considering the increased number of mentally ill offenders supplanting the general inmate population.

The rate of substance dependence or abuse in clients diagnosed with a mental health condition is relatively high in the general non-forensic population (Barrowclough et al., 2001) with approximately ten million people in the United States diagnosed with both a mental illness and a substance related disorder (Beaulieu & Flanders, 2000; Yeager, 2002). Clients diagnosed with both a mental health and substance abuse condition are commonly referred to as substance abusing mentally ill or SAMI for short (Stevens, 2006; Telias, 2001). Even though substance abuse or dependence is generally accepted as a type of mental illness by the medical and mental health fields, some community treatment providers, including providers in the forensic field, such as the Ohio Department of Rehabilitation and Correction (ODRC), deal with the problem of
mental illness and substance dependence as two dissimilar problems. However, for purposes of this study, these two areas of interest were treated as two separate but related constructs.

As suggested by Stevens (2006), clients diagnosed with both a mental health and substance abuse condition present with a complex cluster of symptoms that fluctuate or change depending on their stage of addiction or abuse. For example, in instances where clients are abusing stimulants such as amphetamines or methamphetamines, they may experience a number of symptoms during any specified stage of their use varying from mania subsequent to ingestion, psychosis during intoxication, and finally, depression or agitation resulting from withdrawal. Depending on the client’s stage of use and the context in which these symptoms occur, the symptoms may mask or distort a true clinical picture of a preexisting mental illness not evident during presentation (American Psychiatric Association, 1994). As well as the lack of clarity during presentation, SAMI clients have a high prevalence of relapse and medication non-adherence that may be a precursor to self-medication with mood-altering illegal substances (Telias, 2001). What is more, SAMI clients have a low treatment engagement rate, and numerous emergency room visits in comparison to other clients diagnosed with only a mental illness (Ho et al., 1999).

Other contributing factors include ineffective psychotropic or psychosocial interventions (Barrowclough et al., 2001; Swartz et al., 1998), which according to Lurigio (2001) and Farabee and Shen (2004) increases the SAMI client’s exposure to arrest and reincarceration. Abramsky and Fellner (2003) point out what differentiates the SAMI
population from other offenders within local jails and the corrections system is that SAMI offenders are often neglected, receive little or no treatment, may be accused of malingering, and are treated as disciplinary problems by the court system and correctional staff. Considering that the SAMI population comes from disenfranchised, disorganized, and poor communities, it is no wonder why they may have a higher rate of arrest and incarceration than the non-SAMI population (Harwell, 2004).

A new term, coined by Steven (2000), that characterizes the SAMI population’s transition from community-based mental health care to correctional system care is “transinstitutionalization” (p. 5). According to Steven, trans-institutionalization is the process of shifting SAMI offenders from community-based mental health care to correctional institution care. Both Lamb et al. (2004), and Steven suggested that this phenomenon resulted from a decrease in funding to community mental health providers and a change in the attitudes of criminal justice policy decision makers, corrections industry, and the mental health field in regard to effective therapeutic interventions and services for the SAMI population. Following the trans-institutionalization of the mentally ill into prisons throughout the United States, jail and prison administrators were obligated to accommodate the influx of mentally ill offenders by converting inmate dorms and in a few cases entire prisons from a general inmate holding facility to a therapeutic treatment facility (Abramsky & Fellner, 2003; Groom, 1999; Maloney et al., 2003). This conversion was the result of three preexisting weaknesses within the jails and correction’s system. The three preexisting weaknesses were: (a) an increase in the number of institutional infractions and mental health problems associated with the SAMI
population; (b) a lack of proper treatment interventions; and (c) a limitation on the number of trained mental health staff to treat the problem behaviors associated with managing the special needs of mentally ill inmates (Lamb & Bachrach, 2001; Maloney et al.).

Despite being overwhelmed and struggling to find a workable solution to manage the influx of SAMI offenders, prisons and municipal jails in the United States progressively hired licensed mental health staff to develop therapeutic programs that specifically targeted the special needs of mentally ill inmates (Adams & Ferrandino, 2008; Lurigio, 2001). Such programs not only involved medication management and therapeutic interventions, but also involved therapeutic centers/therapeutic communities (TCs) that specifically focused on mental health management and substance abuse prevention (Groom, 1999; Wang et al., 2000). The central purpose of TCs was and still is to reduce the number of institutional infractions through cognitive behavior modification, mental health treatment, substance abuse education, and more importantly, reintegration of SAMI inmates back into society (Groom; Wang et al.).

Regardless of these and similar intervention efforts to accommodate the special needs of the SAMI inmate population, their rate of retention and reincarceration within the correctional system continues to be, on average, higher than those offenders with no history of mental illness (Maloney et al., 2003). Furthermore, SAMI offenders are more likely to receive longer prison sentences, are less likely to be paroled back into the community, and, when paroled, have their parole status revoked and returned to prison on
either a parole technical violation or new criminal conviction (Draine & Solomon, 2001; Groom, 1999; National Research Council, 2007).

Notwithstanding an increase in the number of mentally ill offenders in the criminal justice system, new taxonomies have emerged in the criminal justice and mental health lexicon that characterizes the SAMI population’s non-offending/offending behaviors such as desistance and persistence. First coined by Laub and Sampson (2001) in their age-graded informal social control theory, desistance is viewed as a process where an individual’s offending behaviors subsides or abruptly stops, whereas persistence is viewed as an individual’s continuation or repetition of those offending behaviors, especially after experiencing the negative consequences associated with the undesirable behaviors. Changes in either desistance or persistence according to Laub and Sampson are subject to formal as well as informal social controls, which become more salient with age.

Over and above persistent criminal involvement, one contributing factor for the SAMI population’s high arrest rate is the preference for community supervision staff and arresting officers to detain or reincarcerate persons with mental illness as mercy bookings or detainers. The rationale for this approach is that the availability of shelter; food, safety, and mental health services can be provided to the mentally ill while they are being detained (Cooper et al., 2004; Department of Justice, 2003; Lamb et al., 2004).

Age-Graded Informal Social Control Theory

Numerous difficulties exist that are associated with servicing, managing, and treating the SAMI population (Cooper et al., 2004; Lamb et al., 2004). While it is
generally accepted, though widely lamented by mental health specialists, criminologists, and social scientists that finding a workable solution that interrupts this population’s propensity from repeatedly cycling through the criminal justice system is an ongoing serious problem (National Research Council, 2007). Over the last century, numerous theoretical approaches exist to explain criminal behavior from Sigmund Freud’s Personality Development Theory, which asserts that deviant behavior results from an abnormal or weak ego development (Tellings & Hafften, 2001), to Sutherland’s Differential Association Theory, which asserts from a social perspective that criminal behavior is learned from interacting with others (Matsueda, 1988). These theories and others have attempted to explicate this conundrum to no avail with the exception of Laub and Sampson’s (2003) longitudinal study of offender behavior with their age-graded informal social control theory. Starting in the early 1990s with their age-graded informal social control theory -- *Crime in the making: Pathways and Turning Points Through Life* (1993) -- and culminating in their most recent study of persistence and desistance over the life course -- *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70* (2003) -- Laub and Sampson approached the problem of criminal offending by shifting the general focus from why people begin offending to questions related to factors associated with continued (persistence) or stopping (desistant) criminal offending over the life course.

As a category of informal social control, it could be argued that Sampson and Laub’s (2005) theoretical construct of the marital relationship as having an effect on either maintaining desistance or reducing persistent offending behaviors in the offender
population is analogous to the relationship between community supervision and community linkages as a type of social control on the SAMI offender population. Given that social controls such as community supervision and community linkages act as mechanisms that underlie the desistance process and afford the opportunity to alter their behaviors is indistinguishable to the opportunities that are involved in a martial relationship suggested by Sampson and Laub’s four factors that facilitate long-term behavioral change and stability over the life course. Sampson and Laub’s four factors include, (1) new situations that “knife off” the past from the present, (2) new situations that provide both supervision and monitoring as well as new opportunities of social support and growth, (3) new situations that change and structure routine activities, and (4) new situations that provide the opportunity for identity transformation (p.18).

Correspondingly, Sampson and Laub’s four factors have relevance to community supervision and community linkages by providing an offender the opportunity to shed off the past by exposing them to community resources such as employment, education, training, and treatment opportunities. Additionally, community supervision and linkages presents an offender the opportunity to invest in new meaningful relationships with professional staff and treatment providers who offer social support, a sense of direction, as well as, direct and indirect supervision including monitoring of behaviors and personal growth. Another benefit to maintaining meaningful relationships are the structural routines that center on informal as well as formal obligations associated with family, children, and self-maintenance. Finally, community supervision and linkages provide an offender the opportunity for identity transformation from previous perceptions about self
that allows for the emergence of a new self or script, which contributes to the
continuation of the desistance process. Considering the relationship between Sampson
and Laub’s four factors, the parallels are evident between marriage, community
supervision, and community linkage services. For purposes of brevity and simplification,
both formal as well as informal social controls were referred to as social controls,
because formal and informal social controls are interlinked along the social controls
continuum, which significantly contributes to the desistance process paradigm. For
example, even though informal social controls such as community linkage services,
family members, spouses, and close relatives are not generally considered formal social
control agents similar to community supervision. Informal social control agents directly
influence as well as have an invested interest in the overall stability of the SAMI
individual and therefore directly act as catalyst in enhancing the desistance process.

The SAMI Population and Community Supervision

Although not well explored, the substance abusing mentally ill-supervised
offender (SAMI-SO) population present a different set of challenges to community
supervision (county probation, and state parole). Normally, the term parole, or, for
purposes of this study, the synonymous term “community supervision” is a branch of the
department of corrections that asserts legal control of the SAMI-SO individual (as ward
of the state). Community supervision usually lasts 1 to 5 years, or until the SAMI-SO
individual is formally dismissed and no longer obligated to serve the remainder of his or
her sentence (National Research Council, 2007). As a form of social control, the
intended purpose of community supervision is to monitor and in some respect control or
reduce persistent type criminal behaviors of an offender while under community supervision (Skeem et al., 2006). Common in the United States, community supervision occurs after offenders have served a portion of their sentence in a correctional institution or a local jail (Texas Department of Criminal Justice, 2000). According to the National Research Council, there is a high parole revocation rate of approximately 300,000 supervised offenders throughout the United States. Of those returned to prison, 16 percent were returned because of a drug related violation (National Research Council). Challenged with a higher than normal revocation rate and an added responsibility of servicing an increasing number of SAMI-SO individuals being released to the community with multiple needs, community supervision staff are presented with a dilemma in effectively supervising and managing an ever increasing caseload. SAMI-SO individual needs include substance abuse testing and monitoring, employment, housing procurement for homeless supervisees, and multiple linkages for hard to find services for which supervision staff are ill equipped to handle due to their large caseloads (Department of Justice, 2003; National Research Council). According to Lurigio (2001) and the Department of Justice, there has been an emphasis for specialized caseload supervision of SAMI-SO individual as well as in-house treatment to reduce the number of SAMI-SO individuals being recycled back through the corrections system.

Community Linkages

In addition to community supervision, another potential form of social control is community linkages. Community linkages involve using a holistic approach to treating and matching offender needs to specific community services. An example of community
linkage services is the assertive community treatment team (ACT) model. The ACT team model utilizes a coordinated approach in matching SAMI-SO individual’s needs to community services. Community service can include psychiatric care, substance abuse counseling, housing procurement specialists, rehabilitation and vocational counselors, mental health clinicians, nurses and peer counselors who offer essential services and assist in monitoring the behaviors of SAMI-SO individual if necessary (Department of Justice, 2003; Morrissey et al., 2007). What drives the community linkages process is the brokering of services between correctional staff, community supervision staff, and community linkage providers. The brokering of services is the principle goal of community linkage services in aiding the SAMI-SO individual transitioning from an institutional environment to community supervision (Lamberti et al., 2001; Morrissey et al.). What differentiates community linkage services as a form of social control from other community treatment provider programs is the relationship community linkage services has with community supervision staff. According to Draine and Solomon (2001), a community linkage services provider becomes an extension of community supervision by way of supervision agreements and stipulations between the community supervision staff and the SAMI-SO individual to attend mandated mental health and/or substance abuse linkage services. Because of this relationship, community linkage providers such as mental health workers can monitor and report any changes in the mental health status or program participation of the SAMI-SO individual to their community supervisors, which may prevent or stop continued persistent behaviors before they result in the SAMI-SO individual being return to prison. Based on the limited
research that exist relative to community supervision and community linkages, the National Research Council (2007) cautions against eliminating these two types of social controls as viable turning points in maintaining desistance or reducing persistent behaviors in the SAMI-SO population.

The SAMI-SO Population’s Individual Factors

In addition to the above social controls, Laub and Sampson (2001) suggest that desistance stems from a variety of complex processes, which are developmental, psychological, and sociological. As such, these complex processes are associated with numerous individual characteristics or factors that have a relationship with the process of desistance. According to Laub and Sampson, key elements associated with these characteristics or factors are maturation, stable employment, and a good marriage. However, due to the current population under study, Laub and Sampson’s description for individual characteristics or factors were substituted with the term individual factors because it expands upon current desistance literature and previous research on Laub and Sampson’s age-graded informal social control theory. A number of individual factors besides marriage, stable employment, and maturation can be related to the affects social controls have on either maintaining desistance or reducing persistent behaviors in the SAMI-SO population.

The individual factors that are the focus of this study and considered to have a relationship with desistance type behaviors are medication adherence, years of education, previous and current mental health treatment, current diagnosis, mental health classification, and number of months in a correctional facility. Additional individual
factors range from the quality of housing subsequent to release from a correctional institution to resumption of mood-altering illegal substances. For example, Sullivan et al. (2000) suggest that the type of housing such as homelessness has a profound effect on the SAMI-SO individual’s sense of stability and self-worth when transitioning from a controlled correctional environment back into the community, which is less predictable. Sullivan et al. continued that homelessness exposes this population to relapse using mood-altering illegal substances and non-adherence with prescribed psychotropic medications. Whereas, on the other hand, stable or permanent housing reduces the potential for relapse, increases adherence with prescribed psychotropic medications, resulting in an improvement in the quality of life and social adjustment in the SAMI-SO population (Sullivan et al.). In addition, relapsing using mood-altering illegal substances and non-adherence to a prescribed psychotropic medication regiment was shown to have a significant negative impact on maintaining desistance behaviors making the SAMI-SO population more vulnerable to detection, arrest, and incarceration (Farabee & Shen, 2004; Gagliardi et al., 2004).

Problem Statement

Persons with mental health and substance abuse related disorders are overrepresented in the criminal justice system and, despite the large number of offenders released to community supervision, their rate of retention and reincarceration is on average higher than offenders with no mental health history (Messina et al., 2004; Skeem, 2008). Additionally, a significant proportion of the SAMI-SO population who are released back into the community, are rearrested due to a technical parole violation or
new criminal offense (Skeem & National Research Council, 2007). Notwithstanding the
efforts of the criminal courts and correction system to accommodate the special needs of
the SAMI-SO population, social controls such as community supervision and community
linkages are neither designed nor prepared to meet the unique needs of this population
(Department of Justice, 2003; Skeem et al., 2003). In spite of the efforts to curtail the
reincarceration rate of the SAMI-SO population, the criminal courts, corrections system,
mental health specialists, criminologists, and social scientists are uncertain what
facilitates the SAMI-SO population to desist while on community supervision.
Consequently, failing to find a workable solution that interrupts the SAMI-SO
population’s escalating trend of recycling through the prison system will result in
increased cost to the correctional system in providing housing, medical and psychiatric
care, mental health staff, and more importantly, geriatric care as this population ages.
Additional consequences relative to community supervision will result in an increase in
the number of supervision cases for community supervision staff. An increase in
supervision cases can result in ineffective supervision efforts, increased technical
violations stemming from continual use of mind-altering illegal substances, wasted
funding for community based treatment services because of an interruption in treatment
due to the SAMI-SO population’s continual persistence or sporadic offending
“zigzagging” over the life course (Laub & Sampson, 2003, p.196).

Purpose of the Study

The purpose of this research study is to examine the relationship social controls
and individual factors have on persistence in the SAMI-SO population. This examination
can be achieved by measuring the number of persistent related incidents during a 3 to 5 year monitored period of active community supervision, and more specifically, whether a relationship exists between the SAMI-SO population’s persistence rate, community supervision, community linkages, and individual factors. This study may be significant because as previously indicated there is no research literature that exclusively focuses on the relationship social controls and individual factors have as a potential catalyst relative to persistent behaviors specific to the SAMI-SO population. The results of this research study may help mental health specialists, criminologists, and social scientists concentrate less on the individual correlates of crime and rates of recidivism and alter their focus more on social controls and individual factors as potential catalysts in altering the behavioral patterns in the SAMI-SO population. Studying the relationship social controls and individual factors have on the SAMI-SO population may assist these professions in developing appropriate interventions that interrupts this population’s propensity to recycle through the correctional system. Developing appropriate interventions may reduce the cost for the SAMI-SO population’s re-hospitalization and reincarceration by improving their quality of life, increasing their overall functioning in the community while accommodating their special needs during their period of active community supervision.

Definition of Terms

For purposes of this research study, the following operational definitions were used for purposes of clearing up any ambiguous or unclear terms. This was accomplished with the use of a constitutive (dictionary-type) approach in clarifying their
meaning. In instances where no constitutive definitions exist, an operational definition was developed for the purposes of specifying the actions or operations necessary to measure or identify these terms:

a) **Community Supervision or Parole Supervision**: consists of releasing an offender from a correctional institution or jail after having served a portion of their sentence, and as a condition of their release, the parolee or probationer is under continued custody of the state or courts. As a continuation of their release or under conditions that permit their reincarceration in the event of a violation of the terms of their release, which may otherwise not be a criminally related, i.e., a violation of the conditions of community supervision (National Research Council).

b) **Community linkages**: is operationally defined as a community provider(s) who offers mental health services, substance abuse counseling, case management services, housing procurement, and rehabilitation or vocational services including assisting in monitoring the behaviors of the SAMI-SO individual while they are under the jurisdiction of the state or courts (Department of Justice, 2003; Texas Department of Criminal Justice, 2000).

c) **Substance abusing mentally ill (SAMI)**: is operationally defined as anyone who has a history of using mood-altering illegal substances, (not excluding misuse of prescription medication) as well as diagnosed with either an emotional or a psychological disorder (Telias, 2001).
d) **Substance abusing mentally ill-supervised offender (SAMI-SO):** is operationally defined as an offender who has a history of using mood-altering illegal substances, (not excluding misuse of prescription medication) as well as diagnosed with either an emotional or a psychological disorder (Telias), and is under the jurisdiction of the criminal justice system for purposes of community supervision.

e) **Desistance:** at present, there exist no agreed upon definitions of desistance. However, according to the National Research Council there is a growing consensus among researchers that desistance is a process, not a single abrupt event, in which the frequency of criminal behavior decelerates and exhibits less variety. For purposes of this research and the population under study, desistance will be operationally defined as an improvement upon a previous measureable rate of offending behaviors, the absence of offending, or the process of maintaining a continued state of non-offending during a monitored period of active community supervision.

f) **Persistence:** there are few, if any, working definitions related to persistence relative to the SAMI-SO population. For purposes of this research and the population under study, a modification of Piquero (2008) definition is used. Persistence is operationally defined as the continuation or presence of offending behaviors, regardless of the frequency or randomness of the behaviors that is measurable during a monitored period of active community supervision.
g) **Formal social controls:** is operationally defined as any catalyst such as the courts, correctional institutions, person, agency, or community supervision that brings into being social conformity of the law or rules through coercion of punishment for wrongful behavior, and rewards for compliance (Goode, 2007).

h) **Informal Social Controls or Professional Controllers:** is operationally defined as any person or agency that acts as a catalyst or is associated with the desistance behaviors of an offender (such as a spouse or significant other, employer, friends, family, community linkages providers). Moreover, as a catalyst in augmenting the desistance process, formal social controls regulate certain behaviors by bringing about compliance to society’s laws or rules as part of the reintegration process (Goode).

i) **Individual factors:** is operationally defined as any factors such as age, race, education level, mental health diagnosis, medication adherence, substance use history, relapse rate, and/or treatment compliance to name a few that is associated with either maintaining desistance or reducing the persistence rate of criminal behaviors.

j) **Catalyst:** is any driving force such as formal or informal social controls that provokes or speeds significant change or action in behavior. Something that causes an important event to happen, a person or agency acting as the stimulus in bringing about or hastening a result or change in offending behaviors (Webster’s Dictionary, 2008).
k) **C1 or C2**: is operationally defined as a mental health classification system established by the Ohio Department of Rehabilitation and Corrections based upon severity of mental illness, mental health needs, and the types of treatments needed for stabilization purposes by identifying those mentally ill offenders who may need additional linkage services while on active community supervision. For purposes of differentiating between these two classifications, the following are described:

1. A C1 individual is any supervised offender that has a diagnosed mental disorder, meets the criteria for severely mentally ill (SMI), and is significantly impaired or has some impairment in functioning or acuity.

2. A C2 individual is any supervised offender that does not meet the criteria for SMI and has no impairment in functioning, but has a diagnosed mental disorder, and receives mental health services.

*Research Questions*

To help fill the current research gaps relative to persistence measures in the SAMI-SO population, the present researcher examined the relationship social controls and individual factors relative to persistence behavioral patterns in the SAMI-SO population. Per Laub and Sampson’s (2003) age-graded informal social control theory, one could hypothesize that social controls act as catalysts in either maintaining desistance or controlling the persistence behaviors in the SAMI-SO population. Additionally, based upon Laub and Sampson’s hypothesis and previous research on individual characteristics,
for instance, individual factors (demographics) as having a continuance relationship with the SAMI-SO individual desistance or persistence behaviors, this study addressed the following research questions:

What is the relationship between the social controls (predictor variables) such as supervision classification, supervision by a mental health caseload specialist, length of time on active community supervision, linkage to a community-based linkage provider(s), and active treatment involvement on the criterion variable (persistence) as measured by the number of persistent incidents during a monitored period of active community supervision?

Additionally, what is the relationship between the individual factors (predictor variables) such as chronological age, ethnicity, years of formal educational experience, employment status, previous mental health and substance abuse treatment, mental health classification, housing classification, number of months spent in a correctional institution, and number of positive drug screens or intoximeter tests on the criterion variable (persistence) as measured by the number of persistent incidents during a monitored period of active community supervision?

Summary

This chapter provided an introduction and background on the topic of desistance and the SAMI-SO population. A presentation of the research questions was discussed. The significance for pursuing this study was addressed, and the variables were operationally defined. The literature review highlighted the need for continued exploration relative to the relationship between social controls and individual factors.
relative to desistance or persistence behaviors in the SAMI-SO population as a unique contribution to the field of mental health counseling and criminal justice studies.

Organization of Chapters

Chapter I provided a background and rationale for the study. Chapter II reviewed the relevant literature. Chapter III presented the methodology used in answering the research questions. Chapter VI provides a description of the statistical tests used and their results. Chapter V discusses and summarizes the research findings including the conclusions that were developed from this research study.
CHAPTER II

LITERATURE REVIEW

This chapter presents a review of the relevant literature. Chapter II consists of ten sections. The first section is a preliminary overview of the relevant literature and the relationship between the substance abusing mentally ill-supervised offender (SAMI-SO) population, social controls, and persistence. Persistence is defined as a continuation or presence of offending behaviors, and desistance is defined as the absence of offending, or the process of maintaining a continued state of non-offending. The second section provides a background on the historical consequences of deinstitutionalization in the course of trans-institutionalization of the substance abusing mentally ill (SAMI) offender population. The third section discusses SAMI inmates and the pervasiveness of mental health problems within the correctional system. The fourth section reviews the retention and reincarceration rate of the SAMI inmate population. The fifth section examines the prevalence and responsivity of the SAMI population to remedial interventions provided by community based treatment providers and correctional institutions. The sixth section looks at the impact mental illness and substance abuse has had on the overall functioning and quality of life issues relative to the SAMI-SO population. The seventh section examines the relationship between social controls such as community supervision and linkage systems in modifying persistence behaviors in the SAMI-SO population. The eighth section reviews and compares the research literature on individual factors as
turning points, focusing specifically on desistance and persistent behaviors in the SAMI-SO population. The ninth section discusses the relevance of Laub and Sampson’s age-graded informal social control theory and its application to the SAMI-SO population under study. The tenth section is a final review and summary of the relevant literature focusing specifically on the weaknesses and gaps in the research literature relative to SAMI-SO population.

Preliminary Overview of the Relevant Literature

A SAMI-SO individual can be defined as an adult who is under the supervision of either the courts or state correctional system and has a history of mental illness and dependence or abuse of mood-altering illegal substances (Farabee, 2006). Based on this definition and review of the available literature, a number of studies have loosely focused on the problems associated with integrating the SAMI-SO population back into society with an emphasis on social controls and individual factors as catalyst in maintaining desistance behaviors. The literature suggests that several issues are associated with the effectiveness of the social controls paradigm that is outside of the control of community mental health providers, community supervision, and the correctional institutions (Rock, 2001). These issues can include how the mental health field views or addresses the problem of deinstitutionalization, the conundrum associated with the SAMI-SO population recycling through the criminal justice system, and the implications past statistical data has had in resolving the persistence problems associated with this population.
A discussion of the difficulties associated with servicing the SAMI-SO population is arranged in a topical, but historical manner throughout the literature. A major strength of the literature was the degree to which information was available on the topic of deinstitutionalization, age-graded informal social control theory, desistance, substance abusing mentally ill offenders, and community supervision of the mentally ill population. The shortcomings of the review included limited research on the SAMI-SO population and role ambiguity involving social controls systems relative to their relationship to desistance or persistence behaviors. Most of the research literature involved small sample studies or surveys, which restricted generalization of the data to only those subjects in their study (Gagliardi et al., 2004; Hagar et al., 2008; James & Glaze, 2006; McCollister et al., 2003; Raphael, 2000; Raphael & Stoll, 2007; Smith et al., 2002).

However, the research studies or surveys reviewed did provide a foundation for further exploration of the life-course paradigm, which has a general application to the subject matter of persistence relative to the SAMI-SO population (Schroeder et al., 2007). The current literature lacks a strong connection between the desistance or persistence behavioral variable and its association with the SAMI-SO population. Albeit, the majority of the studies reviewed demonstrate the importance of formulating a solution(s) that addresses the needs of the SAMI population, the relationship social controls, and individual factors have on desistance or persistence behaviors remains elusive (National Research Council, 2007).

There is a great deal of research information available across several fields. These fields included psychology, corrections, and mental health outcome studies.
regarding what experts, paraprofessionals, as well as professional organizations believe to be the cause for the SAMI-SO population’s difficulties in recycling through the corrections system. These concerns also include what the SAMI-SO population need to effectively transition back into society, and what these professions should be actively doing to resolve this dilemma. However, descriptive research delineating concrete solutions remain absent in the literature. This literature review provides some additional descriptive research regarding a SAMI-SO individual’s trends both in and out of the correctional environment. These trends include the impact social controls have on improving the SAMI-SO population’s quality of life, reduction in the cost of rehospitalization and reincarceration, as well as approaches to disrupting this populations propensity to recycle through the criminal justice system. More importantly, how to improve the SAM-SO population’s overall functioning in the community. Finally, the purpose of this literature review is to determine the relationship and to what degree social controls and individual factors have in altering persistence behaviors in SAMI-SO population.

*Deinstitutionalization in the Course of Trans-institutionalization*

Deinstitutionalization refers to a change in the care of mentally ill persons from long-term psychiatric hospitalization to a more independent and least restrictive alternative living environment (Krieg, 2001). Whereas both Krieg and Lamb (2001) view deinstitutionalization of the mentally ill population as more than a reduction or depopulation of psychiatric hospital care, but a method of extending that same care
beyond the boundaries of the hospital setting to a smaller, less isolated, community based alternative.

However, Steven (2000) characterizes trans-institutionalization as this same population’s movement from a least restrictive environment to one that is more limiting and controlled from the context of a correctional setting. As well as Steven’s characterization of trans-institutionalization, Abramsky and Fellner, (2003) refer to trans-institutionalization as the problem of persons with mental illness being left untreated until they end up institutionalized within a correctional setting.

According to both Krieg and Lamb, despite the good intentions of those who advocated for the deinstitutionalization of the mentally ill, they failed to anticipate the negative consequences resulting from a lack of planning. Lack of planning involved incorporating legislative funding for community based alternative services and resources for mental health treatment, hiring of additional mental health professionals, family involvement, the community, and the criminal justice system that has had to bear the burden of creating nonexistent services for the SAMI-SO population. Krieg and Lamb continued that one major stakeholder that was not included in the planning process of deinstitutionalizing of the mentally ill, was the federal government. The federal government’s principle responsibility involved creating services for the SAMI-SO population in the community, funding federal and state insurance funds for mental health and substance abuse treatment services, and community based treatment programs, which resulted in a failure to anticipate the increasing demand for services needed in addressing the special needs of the SAMI-SO population.
There are a couple of outcome studies that chronicle the movement patterns and pervasiveness of mental health problems associated with the SAMI inmate population. One such survey research report produced by Raphael (2000) and again later by Raphael and Stoll (2007) chronicled the connection between deinstitutionalization and trans-institutionalization of the mentally ill. Raphael, Raphael and Stoll reaffirmed the hypothesis that the SAMI population’s movement patterns from community based mental health care to correctional institution mental health care was highly consistent with an increase in the coercive social control paradigm of enhanced sentencing laws. Raphael tackled the question that decreases in the hospitalization rate of mentally ill patients corresponded with an increase in their rate of incarceration by using a robust econometric model that analyzed the movement patterns of the mentally ill population subsequent to deinstitutionalization. Raphael was able to test this hypothesis by using quantitative data gathered and compiled from numerous national, state, county, and private sources for the period 1971-1996. By eliminating non-mental-health related factors to incarceration, Raphael’s analysis supports the supposition that a decrease in the hospitalization census of mentally ill patients correspondingly occurred with an increase in their rate of incarceration. Likewise, between the above periods, deinstitutionalization resulted in between 48,000 and 148,000 additional state prisoners in 1996, which according to Raphael, accounted for approximately 4.5 to 14 percent of the total prison population for the previous periods and roughly 28 to 86 percent of prison inmates that were identified as suffering from a mental illness. Raphael’s analysis of this population’s movement
trends appears less likely a coincidence of deinstitutionalization, but more reflective of stringent criminal laws that have cast a wider dispersion over the SAMI population and those who live on the fringes of society. Moreover, these trends continue to support Raphael’s contention that deinstitutionalization has shifted the burden of providing mental health services for mentally ill through the criminal justice system, which has become the de facto or adjunct mental health service provider for the SAMI population.

Furthering Raphael’s analysis of the mentally ill offender’s movement patterns is James and Glaze’s (2006) statistical survey, which validates the pervasiveness of mental illness, illegal substance use, and other problems challenging the SAMI inmate population. For example, in their 2006 Bureau of Justice Statistics (BJS) of the Department of Justice special report, they surveyed 705,600 inmates in state prisons, 78,800 in federal prisons, and 479,900 in local jails to determine the prevalence rate of mental illness within the general inmate population. James and Glaze found that of those inmates who reported to have a mental health condition, approximately 41.7 percent of state prison inmates, and 48.7 percent of jail detainees also reported having a history of substance dependence or abuse. Local jails typically hold inmates whose sentences last one year or less; state and federal inmates, by comparison, serve one or more years within the correctional system. The benefit of longer sentencing according to Raphael provides greater opportunity for inmates who suffer from a mental health problem to come to the attention of mental health professionals and receive a mental health screening, diagnosis, and treatment relative to those inmates who only serve short determinate sentences. James and Glaze’s survey report suggests that
compared to a fifth of the general inmate population without a mental health history, a third of those surveyed with a mental health history had served three or more prior incarcerations including longer sentences, averaging 5 months or more, in comparison to non-mentally ill inmates convicted for the same offence.

A further breakdown of James and Glaze’s study reveal that 74 percent of state inmates and 76 percent of jail inmates who had a mental health problem met the diagnostic criteria for substance dependence or abuse. Nearly 76 percent of jail inmates, followed by 74 percent of state inmates, and 64 percent of federal inmates reported using drugs or alcohol within one month prior to their most recent arrest in comparison to 49 percent of those without a mental health problem. Of the state inmates surveyed for a history of substance abuse or dependence, 45.7 percent reported chronic use of either marijuana or hashish, while 24.4 percent reported an addiction to cocaine, with methamphetamines following a close third at 12.6 percent. In addition to illegal drug use, binge drinking among jail inmates with a mental health problem was relatively high at 43 percent, and 29 percent among state inmates.

Of the mentally ill state inmates surveyed by James and Glaze, approximately 13 percent were homeless in the year prior to their arrest in comparison to only 6 percent of the general inmate population. Mentally ill state inmates are twice as likely to report an injury resulting from a fight or sanction for a prison rule violation within twelve months of their admission into the correctional system, while only 10 percent of the general inmate population reported any injuries resulting from fights or sexual assaults.
Also noted in James and Glaze’s BJS survey report is the prevalence rate of mental health symptoms within the inmate population. Of those participants who reported mental health symptoms 12 months prior to their incarceration, 24 percent were state inmates, 21 percent were jail inmates, and 14 percent were federal inmates. Those who reported mental health symptoms, also received a mental health diagnoses by a mental health professional, had an overnight stay in a hospital for purposes of psychiatric care, received a prescription for psychotropic medication, or was involved in mental health treatment in the community. In addition to previous mental health contacts, all indicated to varying degrees some symptoms of major depression, mania, or psychosis. James and Glaze’s survey did not cover severity or duration of the reported symptoms; however, insomnia, hypersomnia, persistent anger, and depression were the most frequently reported symptom with 49 percent of those surveyed. Attempted suicide was the least reported symptom by state inmates (18%), federal inmates (10%), and jail inmates (10%). These low reporting percentages of suicide are less likely the result of a reduction in suicide attempts, but more likely, due to an increase in the number of correctional officers used to monitor inmates who are at risk for suicide.

Besides mood related disorders and suicide attempts, approximately 24 percent of jail inmates, 15 percent of state inmates, and 10 percent of federal inmates reported at a minimum of one psychotic symptom within twelve months of their incarceration, which included hallucinations involving hearing or seeing things that were not present. These inmates characterized their delusions as having distorted beliefs that their mind and thoughts were being controlled or read by others, including being suspicious for no
particular reason. Of those inmates identified with a psychotic symptom, approximately 4 out of 10 jail inmates, and 3 out of 10 state and federal inmates also had a history of substance abuse or dependence. However, none of these inmates reported any previous history of either treatment or a mental health diagnosis.

As well as the high prevalence rate of mental illness and substance use history within the inmate population, James, and Glaze’s survey also focused on numerous individual factors as potential catalysts that contribute to some of the problems encountered by the SAMI population. Besides being homeless within twelve months prior to their period of incarceration being a major issue, additional factors included employment status prior to arrest, age, race, gender, and their family’s previous legal and mental health history. On average, the unemployment rate among mentally ill inmates, in the month before their arrest, was approximately 70 percent with 28 percent reporting income from illegal sources. The remaining percentage of mentally ill inmates reported income from other resources varying from family support to compensation payments such as supplemental security income (SSI). Across local jails, state and federal institutions, inmates age 24 and younger had the highest rate of mental illness (62.6%) compared to inmates who were 55 or older (39.6%). In contrast to gender, female inmates constituted the highest rate of mental health illness (73.1%) compared to male inmates (55%). Among racial or ethnic group types, the prevalence of mental illness was highest among white inmates (62.2%), with black inmates second (54.7%), and Hispanics third (46.3%). Relative to familial background, 51.7 percent reported having an immediate family member with a history of arrest or incarcerations, while 39.3 percent
reported that one or both parents had used either drugs, alcohol or both in the past.

Finally, the number of mentally ill inmates who reported having immediate family members with a mental health history appears to be higher compared to the non-mentally ill inmate population.

The criminalization of mentally disordered behavior according to both Cooper et al. (2004) and Lamb et al. (2004) in citing Abramson (1972) and subsequent incarceration of those who display such behavior into the criminal justice system instead of the mental health system retract from those who have invested time, effort, and training to provide services to this population. As a social process with secondary consequences, deinstitutionalization involves more than a locus of care according to Lamb and Bachrach (2001), but entails a radical approach from a well-established method of providing long-term community based mental health treatment in a clinical environment to one that involves short stays and prompt discharges back onto the streets without constant follow up support. An additional consequence to short stays and prompt discharges is the lack of medication adherence and treatment engagement necessary for the SAMI-SO individual to stabilize and function in the community. When the SAMI-SO individual becomes unstable or ceases to function normally in the community, it is easy, according to Lamb and Bachrach, to lose sight of this population as persons in need of mental health care, but criminals who end up back on the streets, in jail or in prison.

Retention and Reincarceration Rate

Based on the statistical evidence, there is substantive reason for believing why the SAMI offender population represents a different type of offender from those whose
persistent behaviors is primarily based on life circumstance and economic convenience. Little research has focused on those SAMI offenders released from the correctional institution back into the community. However, previous small sample recidivism studies have shed some light on the retention and reincarceration rate of the SAMI offender population. According to a review by Gagliardi et al. (2004) involving a published study on the recidivism rate of mentally ill prisoners over a five-year period by Cohen and Spock (1989). The re-arrest rate for mentally ill offenders (n=135) released from the state of Maryland’s correctional system was 73.3 percent compared to 65.4 percent and 53.3 percent for non-mentally ill offenders (n=127).

However, in a second study by Cohen and Spock of the state of New York’s mentally Ill offender’s (n=147) recidivism rate, of those offenders released back into the community, approximately 64 percent were rearrested, and 48 percent were re-hospitalized within 18 months post-release compared to 60 percent and 1 percent of 400 non-mentally ill released offenders. As a potential catalyst, individual factors associated with or contributing to this population’s recidivism rate was not considered in the Maryland or New York research study.

Few, if any, research exist that focuses on individual factors or assess level of risk relative to the recidivism rate of SAMI offenders with the exception to Gagliardi et al. (2004) recent study which attempts to forecast the recidivism rate by identifying individual factors of mentally ill offenders released from the correctional institution in Washington State. In their forecast study and case analysis of 333 mentally ill offenders released from the correctional institution back into the community from 1996-1997, 70
percent were male, and 67 percent were Caucasian. The comparison of new offenses by this group to the general population was relatively the same with exception to sex offenders whose new arrest were slightly more in comparison to both the mentally ill and general offender population. In terms of the average age (33-years-old) and prior convictions (4.4 and 4.2 respectfully), 31 percent of those identified were diagnosed with various forms of schizophrenia, whereas 21 percent had a diagnosis of depression, and 17 percent were diagnosed with bi-polar disorder rounding off with 8 percent diagnosed with another qualifying disorder. Of the 333 mentally ill offenders evaluated, 70 percent had received some form of residential mental health treatment while incarcerated, usually ranging from six months to one year. Additionally, of those mentally ill offenders evaluated, approximately 75 percent had a prior substance abuse problem with 38 percent receiving antipsychotic medication, 26 percent mood stabilizers, and finally, 40 percent antidepressants. Of the 26 percent men and 36 percent of women identified as having an active mental health diagnosis, all were provided discharge medication, which from all indications lasted from four to six weeks. Finally, their report revealed that after a 3 to 5 year follow up period, 77 percent of those studied received a new arrest(s) or was charged with a new crime(s), which included a guilty finding for a supervision violation (69%).

An analysis of the majority of the research data on the incarcerated mentally ill offender population (Gagliardi et al., 2004; James & Glaze, 2006; Lamb & Bachrach, 2001) suggest that the recidivism rate has been the single measure used in determining the usefulness of the rehabilitation paradigm. Whereas protective factors or for the purposes of this study individual factors are currently used in determining the SAMI
population’s risk for persistence behavior and reincarceration. Research studies similar to those reviewed (Farabee & Shen, 2004; Gagliardi et al.; Morrissey et al., 2007) deviate from the recidivist approach by focusing on the individual characteristics of the SAMI population to estimate the probability of continued persistent behavior, which can be used in determining the effectiveness of institutional and community based remedial interventions.

Prevalence and Responsivity to Remedial Interventions

As suggested by the statistical data, the prevalence of problems encountered by the SAMI offender population in the course of their incarceration and subsequent release appears to be universal. Several outcome studies demonstrate the effectiveness of correctional institution mental health treatment programs.

Smith et al. (2002) conducted an analysis of secondary data on the prevalence rate of co-occurring mental illness and substance abuse disorders in the New York State Department of Correctional Services (DOCS), and the Central New York Psychiatric Center (CNYPC) inmate population. Their analysis involved a review of several correctional treatment programs and their efficacy in treating SAMI offenders. A caseload analysis by Smith et al. of approximately 7,383 inmates with a mental health problem revealed that 33 percent of those receiving inpatient treatment had a primary or secondary substance abuse (SA) diagnosis, while 28 percent of the outpatient inmates had a SA diagnosis. Most, if not, all of the inmates surveyed had an additional major mental illness diagnosis of either schizophrenia or a mood disorder. Smith et al. noted that many of the 7,383 inmates identified with a mental health and SA diagnosis participated in one
of the three DOCS’ treatment programs. The three DOCS’s collaborative treatment programs consisted of alcohol and substance abuse treatment (ASAT), comprehensive alcohol and substance abuse treatment (CASAT), and residential substance abuse treatment (RSAT). All of the above treatment programs lasted approximately six months with ASAT incorporating an adjunct mental health component using a competency-based continuum of care model that focuses on skills development and recovery. CASAT mirrors the therapeutic community treatment (TC) model, which involved separating the SAMI inmates from the general inmate population with an emphasis on community integration and community supervision. Similar to ASAT, CASAT, and RSAT services involve segregating SAMI inmates with a medical condition or are physically handicapped in a maximum-security facility. As a component of the DOCS and CNYPC continuum of care model, intervention services by means of discharge planning for ongoing services was provided to SAMI inmates within the prison setting or subsequent to being released back into the community. Even though the DOCS and the CNYPC approach to treating SAMI inmates appears innovative by incorporating an adjunct mental health component, no outcomes studies were reported by Smith et al. to support the effectiveness of this approach. Nonetheless, Smith et al. did cite past studies summarized by Drake et al. (1998) that demonstrated the efficaciousness of integrating a comprehensive mental health and SA treatment program as a method to reduce SA relapse and promote mental health stabilization.

Despite the lack of outcome data to support the effectiveness of the DOCS and CNYPC approach to program development for SAMI inmates outside of a controlled
environment, McCollister et al. (2003) evaluated the economic feasibility of funding a therapeutic treatment (TC) model within California’s correctional systems. Their two group experimental design involved a sample of 715 incarcerated inmates assigned to a treatment group and non-treatment control group over a twelve-month period. The demographics of the study group’s age ranged from thirty to thirty-three with an average educational level of approximately the eleventh grade. Both the control and experimental groups racial make-up was approximately 36-37 percent African American in contrast to 50 percent Caucasian for the treatment group with Hispanics being equal in both control and treatment group ranging from 24-29 percent. The primary drug of choice reported by both groups was methamphetamine with crack cocaine and heroin being the second most commonly used drug. The results of their study suggest that inmates diagnosed with a substance abuse (SA) condition who received SA treatment in a correctional institution and aftercare subsequent to their release had fewer reincarceration days (34.41) compared to the none treatment group (142.30). In addition, the re-arrest post release rate for the treated group was relatively low (0.28) in comparison to (0.65) the non-treated group. A review of their outcome study suggests that in-prison SA treatment followed by aftercare in the community increases an offender’s desistance, community supervision compliance, and reduces the probability of recycling back through the correctional system.

Consistent with previous outcome studies on the efficacy of institutional treatment programs, a research study by Hagar et al. (2008) evaluated the effectiveness of a transitional therapeutic treatment program for mentally ill inmates in Broward County, Florida. Their study focused on segregated mentally ill inmates who were unable to
function in a correctional environment, was non-medication compliant or exhibited severe symptomology, which contributed to an increase in negative incident reports. Their study involved 132 inmates with an average age 35 years (M=34.57, SD=11.81), racial makeup consisted of 54 percent Black, 37 percent white with 7 percent Hispanic, and 3 percent other. The educational level of the participants ranged from 11 percent with an elementary or middle school education to 11 percent having taken college courses or graduated from college. The remaining percent consisted of 38 percent having received a GED or completed high school. Inmates who voluntary participated in their ten month treatment program showed an increase in medication adherence, a reduction in both symptomology and distress, a reduction in the number of negative incident reports, and an increase in program participation. Those inmates who showed an overall improvement because of their participation in the transitional treatment program received less restrictive housing outside of the segregation unit and eventually transitioned back into the community.

In summary, only one of the above research studies reviewed gauged the success of their correctional institution mental health delivery system by monitoring the return rates of those who had successfully completed their programs versus none completers. Despite the author’s successful treatment results, mental health treatment in a restricted environment does not necessarily translate to success beyond the boundaries of the institution. The detailed individual characteristics in the literature provides both a composite picture of the SAMI population, their range of mental illnesses and other related factors, which are the focus of this study. As part of the rehabilitation paradigm,
institutional treatment programs such as the TC model is primarily focused on maintaining security and population control, while addressing maladaptive behaviors and fostering personal responsibility of its SAMI inmates (Sacks et al., 2004). With the current emphasis on community linkages and inmate transitions back to the community, the primary weaknesses of the previous studies fail to take into account the affects their programming will have on the SAMI-SO individual while they are on active community supervision.

**Overall Functioning and Quality of Life Issues**

Despite the positive outcomes of correctional treatment programs, the community stigmatizes the SAMI-SO population because of their mental illness and substance abuse problems according to Hartwell (2004), which result in inferior access to needed community resources. Consequently, after transitioning from a correctional environment, the SAMI-SO populations’ overall functioning and quality of life continues unabated by major obstacles including inconsistent or interrupted community treatment services and the emergence of medical comorbidity issues (Hartwell; Chwastiak et al., 2006). A comparative post-release study involving transitioned SAMI-SO individuals versus non-SAMI-SO individuals by Hartwell suggest a significant difference in outcomes 3 months post release. Hartwell’s study involved a survey of 501 mentally ill offenders in the Massachusetts’s prisons and county house of corrections of which 344 were SAMI-SO individuals. According to Harwell, the SAMI-SO population has a low treatment engagement rate or interrupted treatment resulting from being reincarcerated, or failing to follow through with scheduled appointments. Also, the SAMI-SO population is more
likely to be re-hospitalized due to a reoccurrence of mental health problems, failing substance abuse treatment programming resulting from relapse, or resumption of polysubstance use, and is more likely to be homeless three months post release from prison in comparison to none substance abusing mentally ill offenders. In addition, medical comorbidity issues plague the SAMI population according Chwastiak et al. with increasing severity. A multivariate research study on the rate of medical comorbidity within the SAMI population by Chwastiak et al, involving 1,460 SAMI patients reveal that at least 58 percent had one medical condition, 20 percent had hypertension, 11 percent had diabetes mellitus, and 4 percent had four or more medical conditions ranging from obstructive artery disease, Hepatitis C, to HIV. Chwastiak et al.’s findings suggest that medical comorbidity was associated with poorer neurocognitive functioning, greater depressive symptoms, and severe psychotic symptoms, which increase the exposure of the SAMI population’s to additional medical deceases and use of mind altering illegal chemicals.

A research study by Rich et al. (2001) involving 97 HIV-positive post-release offenders in the community revealed that 80 percent were (intravenous) IV drug users with 45 percent having an active mental health diagnosis. The average number of prior incarcerations for all of those receiving supportive services was four separate incidents. All of the participants in the program reported an extensive history of substance using behavior including previous drug related treatment in the community. According to Rich et al., of 58 clients who successfully completed the treatment program, only 2 percent remained abstinent from drug use during the 18-month program. Rich et al. suggest that
substance-abusing behaviors is the biggest obstacle to continuity-of-care, social as well as mental health and medical stabilization of those SAMI-SO individuals diagnosed with HIV.

In addition to medical comorbidity issues, Yeager (2002), Farabee, and Shen (2004), suggests that the most common cause of relapse is depression, which exacerbates the use of alcohol, cocaine, and opiates. Schroeder et al. (2007) also suggests that the use of illegal substances is strongly associated with persistent patterns of using behaviors as well as general offending across the life course. As pointed out by Maruna (2004) in his research on depression and criminality, “criminal behavior and depression share common sociological antecedents and risk factors” (p.196). Risk factors can involve stressful life events such as the experience of incarceration, being released back into the community without supportive mental health services, or an inability to self sustain due to a lack of financial support, which all contribute to an increase in exposure to substance abusing behavior and persistent criminal involvement.

Two independent studies by Farabee and Shen (2004), and Gagliardi et al. (2004) concerning medication non-compliance and relapse of either alcohol or illegal substances disclosed that of those SAMI offenders clinically assessed, many had multiple psychiatric illnesses ranging from severe schizophrenia to bi-polar disorder with an extensive history of alcohol and or substance dependence. Swartz et al. (1998), and Farabee and Shen (2004) ascertained that one factor contributing to the SAMI offender population’s discontinuation of their prescribed psychotropic medication was significantly associated with the negative interactions they encountered when combining illegal substances with
their medications and not a negative reaction to medication commonly associated with some psychotropic medications. Despite the importance of the negative interactions between illegal substances and prescribed medications, their study did not differentiate whether a particular mental health diagnosis over another was more likely to predispose a SAMI-SO individual to relapse or be a catalyst in their non-compliance to prescribed medications.

The Relationship between Social Controls

As suggested by Lurigio (2001) and the National Research Council (2006), the status of community supervised offenders such as SAMI-SO individuals have changed significantly in the past decade ranging from intensive supervision to minimum supervision. Intensive supervision requires closer surveillance by the supervising officer and strict adherence by the supervisee to comply with stipulations involving social service linkage providers such as participation in a substance abuse or mental health treatment program. Whereas a minimum supervision status requiring less stipulations and minimal to no treatment for offenders with less severe convictions. The benefit of intensive community supervision, according to National Research Council, is that increased surveillance combined with community based linkage programming reduced the recidivism rate of the participants by 10 to 20 percent. However, one of the disadvantages of intensive supervision is an increase in detection of persistent behaviors by the supervising officer, which results in more violations that are technical and returns to incarceration than for non-intensive supervised offenders (Lurigio).
However, parole and to a lesser extent, probation departments broker community linkage services for their SAMI-SO individual prior to or during their period of supervision. Where the challenge presents itself is in identifying SAMI offenders with a history of both substance abuse and mental illness, during their period of incarceration or while on community supervision. Failure to identify and link a SAMI-SO individual during the transitional process with supportive mental health services will more than likely predispose them to continued criminal involvement (National Research Council, 2006). One method suggested by Lamb and Weinberger (2004) in resolving this dilemma is training supervising officers as mental health specialist along with integrating mental health programming such as cognitive behavioral therapy as part of the community supervision process (Carroll & Onken, 2005; Reisch et al., 2001) or solution focused therapy (Bannink, 2007; Yeager, 2002). According to these authors, and Barrowclough et al. (2001), these therapeutic approaches in conjunction with medication management is efficacious with the SAMI-SO population while they are under the umbrella of community supervision. According to Lamb and Weinberger, a supervising mental health specialist’s primary function is to focuses on identifying, brokering, and linking the SAMI-SO population to community based mental health or substance abuse services once they have left the institution. However, if community based mental health services are in short supply or do not meet the specific needs of the SAMI-SO population, the supervising mental health specialist provides in-house mental health programming in combination with community linked psychiatric services for purposes of medication management.
In addition to training supervising officers as mental health specialist, the Department of Justice (2003) suggests that hiring community supervision personnel with formal training in either mental health counseling or clinical social work would remedy some of the constant problems linked with scarce community resources, and failure to comply with treatment program requirements commonly associated with the SAMI-SO population. However, a national survey by the Department of Justice indicates that fewer than 25 percent of all community supervision agencies in the United States operate mental health programming, and less than 4 percent have specialized caseload mental health supervision staff for their SAMI-SO population. A shortage of specialized caseload supervisors present one of the most formidable challenges in fully integrating the SAMI-SO population back into society as law-abiding citizens, while maintaining their level of desistance (National Research Council).

A research study by Skeem et al. (2003) evaluated the difference in supervision approach between traditionally trained probation officers and mentally ill-trained probation officers, and their effectiveness in implementing mandates for SAMI probationers to participate in a psychiatric treatment program. A sampling of 32 probation officers and 20 probationers consisting of an assortment of agencies where surveyed. Skeem et al.’s research suggests that a considerable difference exist between specialty agencies and traditional supervision agencies in their approach to monitoring and enforcing treatment compliance among SAMI probationers. Of those specialty agencies surveyed with mentally ill trained probation officers that emphasized respectful versus authoritarian, care versus control, and casework versus supervision were more
effective in maintaining mental health treatment compliance than traditional supervision agencies whose emphasize was exclusively community safety. Consistent with both strategy and style of supervision, Harper and Hardy (2000) found that probationers supervised by mentally health trained supervisors who use motivational interviewing solicit a better response in attitude and compliance to treatment mandates versus untrained supervisors that use a coercive strategy to motivate their probationers into treatment. Despite the lack of any background on probation officer characteristics, both Skeem et al. and Harper and Hardy’s research emphasis on mental health trained probation officers and none coercive strategies provides a foundation for further research into effective approaches that could positively be related to reducing persistent behaviors in the SAMI-SO population.

As well as community supervision as a form of social control, community linkages potentially function as a form of social control in reducing persistent criminal behavior in the SAMI population. Enhancement of community linkages occur when a close alignment exist between the courts and community supervision. According to Jacoby and Kozie-Peak (2003), the benefit of community based social support linkages for SAMI offenders could potentially have a positive affect on the SAMI population by facilitating a higher quality of life, promote social adjustment, and decrease this population’s propensity to recycle through the correction’s system. In order to test this hypothesis, Jacoby and Kozie-Peak conducted a longitudinal study over a two year period involving 27 mentally ill prison inmates released from Ohio state prison system from 1994-1996. The theoretical underpinnings of the author’s research was based upon Laub
and Sampson’s criminal career research on the analysis of life course dynamics, trajectory and transitions, and was able to define three distinct life course trajectories. These three distinct life course trajectories were the SAMI offender’s initial encounter with mental illness, the mental health system, imprisonment, and subsequent release from incarceration. Focusing more on the post-release phase of the SAMI population, the authors, Jacoby and Kozie-Peak, were able to determine through their research that post-prison social support was positively associated with quality of life, objective measures such as an increase in stable housing, an increase in contacts with family, friends, and self-help activities. A result of their research suggest that subjective measures were positively associated with an overall satisfaction with living arrangements, financial status, daily activities, social relations, and health. Even though all of the subjects in Jacoby and Kozie-Peak’s study had a history of substance abuse or dependence, there was a statistically significant difference (83%) between those participants diagnosed with a mood disorder and those diagnosed psychotic disorder. Those participants diagnosed with a mood disorder where more likely to have problems with daily living, require more social support services, along with an increased frequency in rehospitalization. Whereas those participants diagnosed with a psychotic disorder were less likely to have fewer problems with daily living and less frequency in rehospitalization.

Individual Factors as Turning Points

Despite previous efforts by community supervision, social support services, and treatment programs to stabilize the SAMI-SO population in the community, SAMI-SO individuals are confronted with high-risk situations that interfere with their ability to
abstain from using mood altering illegal substances. As such, a research study by Bradizza and Stasiewicz (2003) examined the association between interpersonal and intrapersonal determinates that expose the SAMI population to high-risk situations. A qualitative data analysis of survey participants in the treatment group revealed numerous themes that encompassed 33 high-risk situations. Composition of the group involved 41 volunteers in an outpatient focus group treatment program in the Buffalo, NY area. The group consisted of 21 women and 20 men with a mean age of 37.1 of which 75 percent where African American, 25 percent where Caucasian with Hispanics (25%) and others (6%) rounding off the remainder of the group members. Seventy-two percent were single/never married, twenty-five percent were separated or divorced, and three percent were married/cohabitating. The mean education level of the group members was 11.3 years of education and 95 percent were unemployed. Fifty-five percent had a major affective disorder and 45 percent had a psychotic disorder diagnosis with 97 percent of the group participants prescribed psychotropic medications.

Based on the group’s consensus, numerous themes emerged that were the foundation for triggering drugs or alcohol relapse. The emergence of psychological symptoms such as paranoia, hallucinations, and feeling anxious triggered a resumption of using behaviors, which the participants indicated was a coping mechanism to deal with their psychological symptoms. Positive or negative affect was associated with feeling either good or bad and closely aligned with the use of stimulants such as cocaine, depressants, or alcohol. Reminders of substance use included people who use or talk about using, places such as bars or where
others congregate to use, and physical objects such as drug paraphernalia were highly associated with triggering using behaviors. Other triggers reported by the group were interpersonal conflict, the loss of a loved one, receiving money, loss of appetite, which resulted in an increased use of marijuana, and finally being abstinent for an extensive period can generate the urge to resume using. Even though their analysis of potential triggers to relapse were not categorized by level of importance, their emphasis on high-risk situations and accompanying individual factors provides some insight into how potential triggers can act as turning points by contributing to persistent drug or alcohol using behaviors in the SAMI-SO population.

As a protective factor against substance using behaviors, Gagliardi et al. (2004) found that previous mental health treatment prior to release from the correctional institution had a slight effect on risk reduction of SAMI-SO individual’s propensity to reoffend. Whereas, Farabee and Shen’s (2004) evaluation of both age and race as plausible predictors to medication non-compliance suggested that African Americans were more likely to be non-compliant with prescribed psychotropic medications and experience more incidents of relapse than non-whites. Conversely, there appeared to be no difference in age between those who abstained from using mood-altering illegal substances, were medication compliant than those who continued to use, and were non-medications compliant. Another protective factor is level of education and its implications in reducing persistent behaviors of some SAMI-SO individuals. A study by Bonta et al. (1998), and Farabee and Shen suggest that the level of education has a protective effect in reducing relapse and increasing compliance with prescribed medication among SAMI-SO
individuals. That is, the more education a SAMI-SO individual has, the more likely he, or she will internalize treatment and follow directions relative to their medication regimen. As suggested by both Gagliardi et al., and Bonta et al., previous mental health treatment prior to being released back into the community and awareness of high-risk situations that have the potential to trigger drugs or alcohol relapse can act as turning points in strengthening the SAMI-SO person’s individual factors in abstaining from drug or alcohol using behaviors.

Consistent with Laub and Sampson’s (2003) age-graded informal social control theory, social support in the form of employment has shown to have a protective effect in reducing persistent type behaviors in the SAMI-SO individual according to Jacoby and Kozie-Peak (1997). SAMI offenders directly linked to employment resources prior to release from the correctional institution or within thirty days of being on community supervision are more likely to stabilize and successfully negotiate community supervision requirements than those SAMI offenders released without any employment prospects. An analysis of the literature suggests that meeting a SAMI-SO person’s individual needs can have a protective effect in controlling persistent criminal involvement.

A review of Bond et al.’s (2001) controlled trials outcome study on the effectiveness of assertive community treatment (ACT) program by Morrissey et al. (2007) suggests that SAMI participants in an ACT treatment program had better outcomes than none participants. Better outcomes resulted in a significant reduction in psychiatric hospitalization, patient symptomology, and illegal substances use. Additional outcomes were also associated with an increase in community supervision compliance, an
overall improvement in quality of life, and better social adjustment. According to Morrissey et al., positive outcomes of the ACT model was the result of using various types of case management and the integration of an individualized dual diagnosis treatment team (IDDT) component, which incorporated special interventions such as housing stability, psychiatric hospitalization reduction, including linkages to community based service providers for purposes of psychotropic medication, and employment. Morrissey et al., point out that the ACT model alone had no relationship relative to persistent criminal involvement of those SAMI-SO individuals engaged in treatment. However, in their (Morrissey et al.) survey of several other ACT treatment programs that incorporated a forensic component that addressed persistent criminal involvement produced better outcomes for the SAMI-SO population than ACT treatment alone. Additionally, adding IDDT team members and fostering a close alliance with the criminal justice system such as community supervision, the ACT model approach resulted in better outcomes for SAMI-SO participants than non-SAMI-SO participants. A majority of the articles reviewed by Morrissey et al. involved small sample studies that relied exclusively on unwilling participants, i.e., SAMI-SO individuals whose treatment participation was mandated by the courts or community supervision.

As suggested by the above research articles, treatment interventions can act as catalyst in stabilizing individual factors in the SAMI-SO population. In addition, community-supervision can be instrumental as a turning point helping the SAMI-SO population in managing persistent behaviors long after completing their initial sentence in a correctional institution. As with the previous articles, tracking the SAMI-SO
population from the point of program completion is a daunting task for a majority of community treatment providers, especially those community linkage providers that do not coordinate community services directly with the courts or corrections system.

Relevance of Laub and Sampson’s Theory

The theoretical underpinnings of Laub and Sampson’s (2003) theory provides some insight into how turning points facilitated by certain social controls can alter the trajectory of behaviors that interfere with the SAMI population’s overall functioning and propensity to reoffend throughout the life course. Laub and Sampson’s theory presupposes that certain turning points such as age, maturation, social stability, and marriage can play an important role in reducing an offender’s propensity to reoffend. In conceptualizing marriage as a potential turning point in curbing persistent criminal behaviors, Sampson and Laub refer to five factors within the marital relationship that facilitate long-term behavioral change as the following:

*These institutional or structural turning points all involve, to varying degrees, new situations that: (1) a “knifing off” of the past from the present; (2) provide opportunities for investment in new relationships that offer social support, growth, and new social networks; (3) forms of direct and indirect supervision and monitoring of behavior; (4) structured routines that center more on family life and less on unstructured time with peers; (5) situations that provide an opportunity for identity transformation and that allow for the emergence of a new self or script. (p.34)*

Maruna and Roy (2007) suggest that the term “knifing off” has been a point of reference by mental health specialists and social scientists such as Elder (1998) as the
cycle of cumulative disadvantages that are broken by eliminating the unwanted past. Maruna and Roy continued that new life transitions into different environments assist this process by establishing potential turning points for a troubled life course. While age-graded informal social control theory is no panacea in predicting continuous criminal behaviors (persistence) or stopping of criminal behaviors (desistance), it does have its intrinsic worth from a methodological point of view by focusing on formal as well as informal social controls as potential catalysts or turning points in facilitating the process of behavioral change within the SAMI population.

According to Laub and Sampson (2003), previous research relative to the forensic population has focused on between individual correlates of crime -- what factors distinguished offenders from non-offenders -- and concerns with measuring these correlates using national data versus self-reported data. Recent research on the same population has only focused on outcome studies in relation to the recidivism rate of offender types. Despite these approaches, a number of gaps in the research literature still exist relative to the SAMI-SO population (Laub & Sampson; Roskes & Feldman, 1999; Roskes et al., 1999).

One of the strengths and principle goals of Laub and Sampson’s research was in exploiting life history narratives and evaluating within individual variability behavioral patterns for purposes of understanding stability and change in offending behaviors over the life course. As suggested by the National Research Council (2007), community supervision and community linkages potentially act as types of formal social controls that can be associated with informal social controls in curbing offending behaviors, and more
importantly, act as catalyst in establishing continuity and behavioral change over the life course. Categorizing offender typology and analyzing recidivism rates for purposes of research may not be a plausible approach to evaluating the SAMI-SO population. This is more likely due to the dynamics and complexities involved in both their mental illness and propensity for continued criminal involvement; and any longitudinal study would be annulled by the fact that little is known concerning their movement patterns between the corrections system and the community mental health environment (Sampson & Laub, 2005). Through their research, Laub and Sampson (2003) were able to undermine the idea that unique causal processes can easily explain developmentally distinct groups by focusing on and identifying specific social controls as turning points that contribute to altering persistence over the life course.

Review and Summary of the Relevant Literature

First, there are general gaps in the research literature. These gaps entail a lack of clarity vis-à-vis the relationship between social controls (community supervision and community linkage systems), and individual factors (type of mental illness, treatment outcomes, medication adherence, relapse rate, and length of supervision to name a few) on the SAMI-SO population’s persistence patterns. Additionally, there is also lack of clarity in connection with how these affects act as catalyst in altering the SAMI-SO population’s propensity to reoffend over the life course. No distinction is made in the literature between the SAMI-SO individuals from other psychologically or emotionally compromised offenders. Including the relationship between individual factors as potential catalyst in altering the behaviors in a SAMI-SO individual who has an
uninterrupted criminal history (persistence) versus a SAMI-SO individual who has stopped or desisted (e.g., Draine & Solomon, 2001; Farabee & Shen, 2004; James & Glaze, 2006; Lamb & Bachrach; Lamberti et al., 2001; Maloney et al., 2003; Messina et al., 2004). By bridging these gaps, mental health specialists, criminologists, and social scientists might be able to develop an effective therapeutic model that can meet the specific needs of the SAMI-SO population. Such a model could potentially improve this population’s overall functioning in the community, and interrupt their propensity to repeatedly cycle through the criminal justice system (National Research Council, 2007).

Secondly, despite the paucity of research literature on the SAMI-SO population, one theoretical approach that appears to address the research gaps is Laub and Sampson’s (2003) age-graded informal social control theory. Their theory focuses on social controls or individual factors as turning points or catalysts in altering the trajectory of behavioral patterns that reduce reoffending among those already involved in crime. While their theory does not specifically focus on the SAMI-SO population, their methodological approach to evaluating social controls and individual factors as catalyst or turning points to behavioral change is applicable. Marked by short-term life events, Laub and Sampson suggest that transitions have the potential to modify the trajectory of an individual’s criminal behavior such as marriage, employment, and to a major extent, therapeutic interventions. As noted by Laub and Sampson, some would fail to agree that turning points are random events outside of the control of the individual; however, they (Laub & Sampson) would differ in that people make choices that expose them to turning points.
Thirdly, there are additional gaps identified through the literature concerning the number of SAMI offenders who were not diverted through the mental health system prior to serving their sentence, or the type of treatment services they received after leaving the correctional institution to active community supervision (Roskes & Feldman, 1999; Roskes et al., 1999). Despite the fact that many SAMI offenders leave prison without having either their substance abuse or mental health issues resolved, even less is known concerning the number of SAMI-SO individuals who are released from active community supervision without any community linkages support (National Research Council, 2007). Presently, there is no statistical data detailing the number of SAMI-SO individuals in the United States, although recent estimates suggest that 16 percent of approximately 546,000 community supervised offenders in the United States are identified as having a serious mental illness (Department of Justice, 2003). Despite the number of supervised offenders identified as having a serious mental illness, there is no differentiation made between this population and those classified as a SAMI-SO individual (Beaulieu & Flanders, 2000; Maloney et al., 2003; National Research Council). The above-identified gaps reveal a lack of focus concerning the SAMI-SO population, including social controls such as community supervision or community linkages as potential catalysts together with individual factors that could alter the trajectory of persistent behaviors in this population subsequent to termination from active community supervision (National Research Council; Department of Justice).

Much of the previous research literature examining desistance or persistence behaviors relative to the SAM-SO population fall short in clarifying if there are parallel
types or levels of persistence/desistance behaviors, but instead approach desistance as an abrupt cessation of all criminal behaviors, and persistence as an uninterrupted process of criminal involvement (National Research Council, 2007).

The previously described gaps and lack of clarity vis-à-vis the research literature present several dilemmas that require redress. First, the financial burden incurred by the correctional institutions to service the SAMI population with mental health treatment services offset resources from preexisting inmate programs, an increase in demand for psychiatric medication, which diverts money from the correction’s medical fund, and finally, additional correctional staff for purposes of security and safety of this vulnerable population. For example, a previous report reviewed by Moras (2004) of the Human Rights Watch: The mentally ill in the U.S. prisons (2003) examined the average cost of incarcerating a SAMI offender in the Pennsylvania correctional system as $140 per day in comparison to $80 for a non-SAMI offender.

Considering the rate of inflation and the SAMI offender’s propensity to receive longer sentences and recycle through the correctional system, the financial implications are immense. Secondly, as the correctional institutions release more SAMI offenders with a community supervision stipulation to participate in mental health or substance abuse treatment, supervising officers must shift ninety percent of their supervision efforts to manage approximately ten percent of their caseload, which is composed of SAMI-SO individuals. Consequently, this shift has an effect on the supervising officer’s ability to utilize proper case management skills and effective linkage services in meeting the needs of their SAMI-SO population (Lurigio, 2001). Thirdly, with the financial shift of federal
and state dollars to overcrowded correctional institutions from community based mental health treatment programs, mental health providers are challenged with the task of doing more with less, and in some cases eliminating mental health or substance abuse treatment services altogether.

Confronted with a reduction in community based mental health services, the social implications result in an increase in the homelessness rate, decrease in the availability of psychiatric care, unemployment, relapse, and persistence in criminal activity to self-medicate with mood altering illegal substances which adds downward pressure on developing effective social controls that positively impact the SAMI-SO population. Fourthly, failure to address the financial and social problems associated with meeting the needs of the SAMI-SO population can have long-term negative implications on improving their quality of life, overall functioning in the community, and more importantly, interrupt their propensity to cycle through the criminal justice system.

Finally, as evident from the literature, the number of SAMI-SO individuals in the correctional system is steadily increasing despite the efforts of federal, state, and local governments in providing programming and community based services to stabilize this population in the community. Even though professions such as mental health specialists, criminologists, and social scientists have attempted to resolve the problems associated with this populations continued persistent behavior, numerous questions remain in our knowledge base that requires further research in determining the needs of the SAMI-SO population. Based on the available literature and previous research, the question that remains requiring further research is whether social controls such as community
supervision and community linkages result in a positive relationship in either maintaining desistance or controlling persistent behaviors of this population while they are on active community supervision. Moreover, if certain individual factors specific to the SAMI-SO population act as a catalyst either in reinforcing or in undermining the desistance process, this study should provide some insight relative to specific markers that could extend further desistance research.

Based upon the previous identified gaps and lack of clarity in the research literature, I propose to evaluate the relationships between SAMI-SO person’s individual factors, and social controls for purposes of determining whether social controls or individual factors act as catalyst relative to persistent behaviors in the SAMI-SO population while on active community supervision. In addition, I propose to examine the current methodological approach to community supervision and whether it accentuates or impedes the desistance process, and if impedes, specifically identify those individual factors or social controls that would require special attention to improve or accentuate the desistance process. By identifying the strengths and weaknesses in the desistance process, and their relationship to each other, may assist in closing the gaps in our knowledge base relative to effective methods in meeting the SAMI-SO person’s needs over their life course.
CHAPTER III

METHOD

The method section describes the foundation and process used for conducting this research study, discussion of the design, description of the population, sampling plan, data collection, and procedural analysis used to answer the research questions.

To help fill the current research gaps relative to persistence measures in the substance abusing mentally - supervised offender (SAMI-SO) population, the present study examined the relationship social controls and individual factors have on persistence among the SAMI-SO population while they are on active community supervision.

The results of this research study may be of interest to correctional agencies and community based mental health service providers that specifically service the SAMI-SO population in identifying individual needs and treatment programming. Additionally, the results of this research study should help in identifying specific markers for future research that contribute to reducing persistent type behaviors that affect offending over the life course.

Research Design

This is a retrospective research study that utilized the correlational design method to describe an existing relationship or association among two or more variables that already exist between groups. This entailed exploring the relationship or association between social controls and individual factors (predictor variables) on the number of
persistent incidents (criterion variable) in the SAMI-SO population (Fraenkel & Wallen, 2003). Since using the correlational design method does not imply causation, the results of this study are more suggestive due to the lack of control or manipulation over the criterion as well as the predictor variables because the differences between the groups, however, have already occurred (Fraenkel & Wallen, 2003). Using the correlational design approach is appropriate for this study because this study involves two groups, has more than two variables, describes a relationship between variables, and the criterion or predictor variables and is not under experimental control by the researcher (Fraenkel & Wallen). One widely cited study by Glueck and Glueck involved using a correlational design approach in the 1940s. They compared two groups totaling 500 boys on one quantitative criterion variable (number of months institutionalized over a seven month period) and numerous quantitative and categorical predictor variables that resulted in a table for predicting probable delinquency (Fraenkel & Wallen; Laub & Sampson, 2003). According to Mertins and McLaughlin (2004), one advantage of using the correlational research design is that several variables can be included in one study more easily than in experimental or causal comparative designs.

Identification of the Sample

Since the objective of this study is to investigate the relationship between social controls, and individual factors (predictor variables) on the number of persistent incidents (criterion variable) involving the SAMI-SO population released from community supervision. The SAMI-SO population was identified, selected, and operationally defined using the mental health classification system developed by the Ohio Department
of Rehabilitation and Corrections ([ODRC] 2008). According to the ODRC, the mentally ill offender classification system is currently based upon severity of mental illness, mental health needs, and the types of treatments needed for stabilization purposes. More importantly, the classification system identifies those mentally ill offenders who may need additional linkage services while on active community supervision. For purposes of clarifying specific acronyms and database analysis, the following abbreviated classification matrices were used to identify the population of interest:

There are two groups of offenders referred to as C1 individuals. The first group, the categorical offender, consists of any offender that meets the criteria for severely mentally ill (SMI), has significant impairment in thought, mood, judgment, behavior, and no capacity to recognize reality or cope with ordinary demands of life within the prison environment, as manifested by substantial pain or disability. The second groups of C1 individuals are functional offenders, which consists of any offender who may have any diagnosed mental disorder that entails some impairment in functioning or acuity as demonstrated in a pattern of high-risk behaviors.

The third group of individuals is classified as C2. The C2 individual is any offender that does not meet the criterion for SMI, but has a diagnosed mental disorder, receives mental health services including psychotropic medication, and no impairment in functioning or acuity as demonstrated in a pattern of high-risk behaviors.

The population characteristics used in selecting case samples for this study were adult male offenders eighteen years or older that have previously been incarcerated in a correctional institution, have a previous or current history of mental illness, substance use
or dependence, a previous history of treatment, and is no longer on active community supervision. Additional selection criteria were community linkage files that indicate the mental health classification of either a C1 individual or C2 individual. The reason for only selecting adult male offenders is due to their substantial representation in both the correction’s system and community supervision. Again, only those community linkage referral case samples identified as either a C1 individual or C2 individual were used as a source in evaluating the ODRC’s provisional databases to observe the presence of both the criterion and predictor variables that were used in answering the research hypotheses.

The rationale for exclusively focusing on the SAMI-SO population that are classified as either a C1 individual or C2 individual in this research study and excluding the non-SAMI-SO population is based upon the following factors concerning the non-SAMI-SO population:

1. They are less likely to have a diagnosed mental disorder
2. Have no prior history of receiving mental health treatment prior to or during their period of incarceration
3. Would most likely not be assigned to a mental health case load specialist during their period of active community supervision
4. Would most likely not be linked and transitioned to a community mental health provider or assertive community treatment (ACT) team services without a classification as either a C1 individual or C2 individual
5. Would most likely not be actively involved in a mental health treatment program while on active community supervision

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6. Would not be assigned to a mental health case manager while actively incarcerated without being classified as either a C1 individual or C2 individual

Including the non-SAMI-SO population in this study would either distort or skew the results of several predictor variables in determining their relationship to the criterion variable (persistence) that is specific to the SAMI-SO population. While these specific markers differentiate the SAMI-SO population from the non-SAMI-SO population, there is an additional marker of importance that was excluded as a predictor such as successful or unsuccessful termination from active community supervision.

The logic for not considering termination status is based on the present criterion used by the ODRC for determining the type of termination recommendations. For instance, after a supervised offender receives a felony or misdemeanor conviction, they may receive a favorable termination provided they are compliant for eight months following a felony conviction or six months following two misdemeanor convictions. This criterion suggests that an offender can receive numerous convictions including sanctions prior to their eighth or sixth month period of community supervision from their supervising officer for persistent incidents and still receive a favorable termination from community supervision. Whereas an offender with no convictions or documented persistent incidents within the last eight or six months can receive an unfavorable termination for failing to serve all available administrative or jail/prison sanction time for a minor violation, or fail to make a good faith effort in making financial restitution. Previous to the above described time frames (8 months or 6 months), the offender can have been persistent involving numerous incidents not excluding arrest, one
misdemeanor violation, sanction hearings, prison sanction time, county jail time, or have reached their maximum date of release prior to being convicted for a new felony offense. Therefore, due to the imprecise requirements for a favorable or unfavorable termination from active community supervision, the relationship between the supervision termination rate as a predictor variable and persistent incidents, criterion variable, was excluded as part of this research study. However, for purposes of further research, the relationship between persistent incidents and termination rate is a topic of interest in the future.

Since all of the community mental health linkage referral cases being reviewed were proportionally sampled from each of the six parole regions, more than enough cases were available in meeting the screening criteria, arriving at a minimum sample size to establish sufficient statistical power, achieve a high confidence level, and small level of error.

Finally, in simplifying this research study all identified C1 individuals that are categorical and functionally mentally ill-diagnosed offenders with a history of substance abuse related disorders were reviewed and selected from a list of offenders released from active community supervision, and categorized as a C1 individual. Similarly, all C2 individual offenders with a mental health diagnoses and a history of substance abuse related disorders were reviewed, selected, and categorized as a C2 individual. Only those offenders that are no longer on active community supervision with the Adult Parole Authority (APA) from January 1, 2005 to June 30, 2009 and categorized as either a C1 individual or C2 individual comprised the sample of cases reviewed. These case samples
were compiled for purposes of identifying the criterion and predictor variables that were used in this research study.

*Ethical Considerations*

Attention was given to following all the protocols and ethical guidelines put forth by the University of Toledo’s Human Subjects Review Board, the Ohio Department of Rehabilitation and Correction’s (ODRC) Human Subjects Research Policy (#06-RES-02, dated October 27, 2007), the American Counseling Association’s Code of Ethics (2005), State of Ohio laws, and the Ohio professional standards licensing boards. This study was limited in scope to only an analysis of secondary data from the ODRC’s database of SAMI-SO individuals released from community supervision, which precluded personal interviews, formal interventions or any contact with those individuals whose cases were under study. With that in mind, there was no risk involved relative to those individuals whose cases were under review. All information collected about any cases reviewed during this research study was held in the strictest confidence in accordance with all agreements reached between the ODRC and the University of Toledo, College of Health Sciences and Human Service, Department of Counselor Education and School Psychology’s dissertation committee and advisory staff.

*Research Questions and Statistical Null Hypotheses*

To help fill the current research gaps relative to persistence measures in the SAMI-SO population, the present researcher examined the relationship social controls and individual factors have on the persistence behavioral patterns in the SAMI-SO population. Per Laub and Sampson’s (2003) age-graded informal social control theory,
this researcher hypothesized that social controls act as catalysts in reducing persistent behaviors in the SAMI-SO population. Based upon Laub and Sampson hypothesis and previous research on individual characteristics, i.e., individual factors (demographics) as having a continuance relationship with the SAMI-SO individual’s persistence patterns, this researcher addressed the following research questions with accompanying statistical null hypotheses:

1. Does an active community supervised SAMI-SO individual’s persistence rate differ by type of community supervision classification (intensive, basic, basic low, and monitored time)?
   a. $H_0$: There is no statistically significant difference at the .05 level that a SAMI-SO individual with a more intensive supervision classification status will no more likely maintain a different persistence rate than a SAMI-SO individual with a less intensive supervision classification status during a period of active community supervision.

2. Is there a difference in the persistence rate between SAMI-SO individuals who received community supervision from a mental health caseload specialist and SAMI-SO individuals whose community supervision was provided by a general caseload specialist?
   a. $H_0$: There is no statistically significant difference in the persistence rate at the .05 level, between SAMI-SO individuals who was supervised by a mental health caseload specialist and SAMI-SO individuals that was not supervised
by a mental health caseload specialist during a period of active community supervision.

3. Is there a relationship between the amount of time (months) a SAMI-SO individual serves on active community supervision and the persistence rate during a period of active community supervision?
   a. H₀: There is no statistically significant relationship at the .05 level between the amount of time (months) that a SAMI-SO individual serves on active community supervision and persistence rate.

4. Is there a difference in the persistence rate between SAMI-SO individuals who are linked to a community-based linkage service provider(s) and those who were not?
   a. H₀: There is no statistically significant difference at the .05 level that linking a SAMI-SO individual to a community-based linkage service provider(s) would no more likely be related to the persistence rate than a SAMI-SO individual that is not linked to a community-based linkage service provider(s) during a period of active community supervision.

5. Is there a difference between active treatment involvement (mental health, psychiatric or substance abuse) and the persistence rate of a SAMI-SO individual during a period of active community supervision?
   a. H₀: There is no statistically significant difference at the .05 level that a SAMI-SO individual that is actively involved in treatment would no more
likely be persistent than a SAMI-SO individual that is not actively involved in
treatment during a period of active community supervision.

6. What is the relationship between the chronological age of a SAMI-SO
individual and the persistence rate during a period of active community
supervision?

a. \( H_0 \): There is no statistically significant difference at the .05 level that a
SAMI-SO individual that is older will no more likely be persistent than a
SAMI-SO individual that is younger during a period of active community
supervision.

7. Does the ethnicity (African American, European American, and Latin
American) of a SAMI-SO individual have an influence on their persistence
rate during their period of active community supervision?

\( H_0 \): There is no statistically significant difference at the .05 level that a SAMI-
SO individual of a particular ethnic group will no more likely be persistent
then a SAMI-SO individual from a different ethnic group during a period of
active community supervision.

8. What is the relationship between the number of years of formal educational
experience and the persistence rate of a SAMI-SO individual during a period
of active community supervision?

a. \( H_0 \): There is no statistically significant difference at the .05 level that a
SAMI-SO individual who has more years of formal educational experience
will no more likely be persistent than a SAMI-SO individual with less years of
formal educational experience during a period of active community supervision.

9. Is there a difference between the employment status (employed versus unemployed) and the persistence rate of a SAMI-SO individual during a period of active community supervision?
   a. $H_0$: There is no statistically significant difference at the .05 level that a SAMI-SO individual that is employed will no more likely be persistent than a SAMI-SO individual that is unemployed during a period of active community supervision.

10. Is there a difference between previous mental health and substance abuse treatment and the persistence rate of a SAMI-SO individual during a period of active community supervision?
    a. $H_0$: There is no statistically significant difference at the .05 level that a SAMI-SO individual with previous mental health or substance abuse treatment will no more likely be persistent then a SAMI-SO individual with no previous mental health or substance abuse treatment during a period of active community supervision.

11. Is there a difference between the mental health classification (C1 individual or C2 individual) of a SAMI-SO person and the persistence rate during a period of active community supervision?
    a. $H_0$: There is no statistically significant difference at the .05 level that a SAMI-SO individual with a C1 mental health classification will no more
likely be persistent then a SAMI-SO individual with a C2 mental health classification during a period of active community supervision.

12. Is there a difference between the housing classification (permanent, temporary, homeless) of a SAMI-SO individual and the persistence rate during a period of active community supervision?
   a. $H_0$: There is no statistically significant difference at the .05 level that a SAMI-SO individual’s housing classification is no more likely related to the persistence rate during a period of active community supervision.

13. Is there a difference between the number of months a SAMI-SO individual has spent in a correctional institution and the persistence rate during a period of active community supervision?
   a. $H_0$: There is no statistically significant difference at the .05 level that the more time (months) a SAMI-SO individual has spent in a correctional institution will no more likely be related to the persistent rate than a SAMI-SO individual that has spent less time (months) in a correctional institution during a period of active community supervision.

14. Is there a difference between the number of positive drug screens or intoximeter tests produced and the persistence rate of a SAM-SO individual during a period of active community supervision?
   a. $H_0$: There is no statistically significant difference at the .05 level that the number of positive drug screens or intoximeter tests produced by a SAMI-SO
individual will no more likely be related to the persistence rate during a period of active community supervision.

*Primary Data Collection*

Permission was obtained from the University of Toledo’s Human Subjects Review Board, and the Ohio Department of Rehabilitation and Correction’s (ODRC) Human Subjects Research Board for purposes of conducting this research study and collection of the data (Appendix A and B). The initial data source for this research study was referral packets for community linkage services (community mental health linkage services request) that were sent to each offender’s perspective parole region where they were supervised and linked for purposes of community based mental health treatment services. Most if not all regions maintain a copy of the offender’s referral packet for linkage services on either a database or a list of offenders that were referred by an institutional human services program consultant or a community linkage social worker. A significant portion of the information needed to complete this research study was extracted from these sources, which provided the mental health classification, previous treatment, mental health history, medical history, corrections history, and demographics. The information gathered from these sources, especially the institution number, were used to access an additional data source to investigate and validate the existence of the criterion and predictor variables through the ODRC’s provisional databases, which is commonly referred to as the departmental offender tracking system portal (DOTS-Portal).
In order to assemble a large database of SAMI-SO individuals, all offenders that were classified as either a C1 individual or C2 individual with a history of substance abuse or dependence and were referred to the Adult Parole Authority’s (APA) regional offender services network (OSN) for community mental health linkage service were reviewed. Only six out of the seven regions, see Appendix C, surveyed maintained an accessible record, database or referral packets for the period beginning January 1, 2005 to June 30, 2009. The seventh region (Akron) had neither an accessible database nor any records of their community mental health linkage referral packets available for review. Due to this limitation, only one region with fourteen counties was excluded from the sample. However, six regions (Cincinnati, Chillicothe, Cleveland, Columbus, Lima, and Mansfield) with seventy-four total counties consisting of both urban and rural cities were included in the sample. All of the cases that were reviewed and analyzed for this research study was conducted in the Cleveland Region Office of the Adult Parole Authority (APA).

Sampling Procedures

Proportional sampling procedures were used for those community linkage referral cases that were identified in meeting the basic criteria for substance abusing mentally ill-supervised offender (SAMI-SO). The advantage of using proportional sampling is that it provides better precision than a simple random sample of the same size, gains in precision are greatest when values within each strata are homogeneous, and finally, gains in precision accrue in all sample measures (Fraenkel & Wallen, 2003). A survey of the six parole regions covering a five-year period from January 1, 2005 to June 30, 2009
disclosed a total accessible case sample of 7,110 community mental health linkage referral cases. Of the 7,110 accessible cases, 4,340 usable cases were identified with a mental health classification as either a C1 individual or a C2 individual.

Proportionately sampled and separated by region, Cincinnati has 401 C1 individuals and 411 C2 individuals totaling 812 case samples. Chillicothe has 202 C1 individuals and 121 C2 individuals totaling 323 case samples. Cleveland has 353 C1 individuals and 222 C2 individuals totaling 576 case samples. Columbus has 778 C1 individuals and 454 C2 individuals totaling 1,232 case samples. Lima has 559 C1 individuals and 121 C2 individuals totaling 1,062 case samples. Finally, Mansfield has 173 C1 individuals and 161 C2 individuals totaling 334 case samples. Total case samples for all six regions constitute 2,467 C1 individuals or 57% and 1,873 C2 individuals, which is 43%. An additional proportional sampling of all community mental health linkage referral case samples by region, year, and mental health classification resulted in 505 C1 individuals or 20% of 2,467 and 381 C2 individuals, which is 20% of 1,873 case samples. The total sample after proportioning was 886 available case samples. However, for purposes of calculating the number of case samples needed to establish a confidence level of 95% and a minimum margin of error or confidence interval of 5% with a C1 population of 2,467 case samples, a minimum sample size of 335 cases was needed. Using the same confidence level and minimum margin of error or confidence interval with a C2 population of 1,873 case samples, a minimum sample size of 319 cases was needed.
The proportional sampling method used resulted in an over sampling of a minimum number of C1 individual cases from 335 to 505 and C2 individual cases from 319 to 381, which is more than enough to establish a confidence level of 95%, and a minimum margin of error or confidence interval of 5%. Using this method of over sampling more than compensates for any missing data or incomplete files, and eliminates the problems associated with both sampling selection and geographic bias. See sampling data by region, Table 1.
Table 1

Proportional Sampling by Region

| Community Linkage Referral Cases Proportionally Sampled by Region, Year, and Mental Health Classification | Available Cases all Six Regions: 4,340 | C1: 2,467 and C2: 1,873 | Proportionally Sampled: 886 |
| C1: 505 and C2: 381 |

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For purposes of establishing statistical significance, a minimum sample size according to Cohen’s (1998) power and sample size tables 3.4.1 for multiple regression/correlation and Soper’s (2009) “Post-hoc Statistical Power Calculator for Student's $t$-test” involving 505 C1 individuals and 381 C2 individuals’ cases were selected. With an alpha level or $p$-value of .05, and a medium effect size (Cohen’s $d$) of 0.5 results in an observed power of 1.000 for both a one-tailed (directional) and two-tailed (non-directional) hypothesis.

_Treatment of the Data_

This research study involved two separate but similar groups, which are operationally defined in the _Identification of the Sample_ section, one continuous criterion variable (persistence), and fourteen predictor variables consisting of a mixture of both categorical (9) and continuous (5) variables, which according to Cohen (1988), more than meets the basic rule for conducting multiple regression analysis.

Statistical analysis of this project involved the researcher using descriptive and inferential statistical tests to analyze the data. Descriptive statistical analysis is used to describe basic features of the data set, which includes the calculation and reporting of central tendency estimates such as frequencies, means, and standard deviations (Fraenkel & Wallen, 2003). Inferential statistical analysis is a data technique used to make inferences from a sample to a larger population, and was used to answer the research questions (Fraenkel & Wallen). The study utilized independent samples $t$-tests, analysis of variance (ANOVA) statistical tests, and the Pearson product–moment correlation coefficient statistical tests.
Research questions 2, 4, 5, 9, and 10, involved the use of an independent samples $t$-tests. An independent samples $t$-test is the most frequently used inferential statistical test and is appropriate when you have a single continuous criterion variable and a dichotomous predictor variable and want to determine if there is a difference between two group means on the criterion variable (Fraenkel & Wallen, 2003). According to Fraenkel and Wallen, an independent samples $t$-test is a parametric test used for analyzing categorical data for a difference in proportions, i.e., whether the proportion in one category is different from the proportion in another category such as the persistence mean score between C1 individuals and C2 individuals.

Research questions 1, 7, 11 and 12 involved the use of an analysis of variance (ANOVA) statistical tests, which test the significance of group differences between the means of two or more groups, and involves a predictor variable that has two or more categories (Fraenkel & Wallen, 2003). However, an analysis of variance (ANOVA) statistical test cannot tell which of the two groups are different, and requires a post-hoc statistical analysis to determine where the differences are if it exist.

Research questions 3, 6, 8, 13, and 14 involved the use of a Pearson product–moment correlation coefficient statistical test, which is used with two continuous variables to determine a relationship/association (covariance). However, a correlation analysis does not distinguish between the criterion and predictor variables (Fraenkel & Wallen). The Statistical Package for the Social Sciences-Sixteen, SPSS-16 (SPSS Inc., 2008) was used to conduct the above-identified statistical test. These test including other procedures were incorporated into this research study along with a multiple regression
statistical test to examine the relationship of a single variable or multiple variables with or without considering the relationships of other variables was used (Cohen et al., 2003).

The rationale for choosing the multiple regressions statistical test over other statistical methods is that multiple regressions is a flexible data method of data analysis that may be appropriate whenever a criterion variable is to be examined in relationship to multiple categorical and quantitative predictor variables (Fraenkel & Wallen, 2003). Because some of the research questions are derived from Laub and Sampson’s (2003) desistance theory, the multiple regression statistical test enables the researcher to determine the strongest relationship in comparison to the weakest relationship and differences between the criterion variable (persistence) or the best combination of two or more predictor variables in establishing an order of significance (Fraenkel & Wallen, 2003). The relationship between criterion and predictor variables can be nonlinear and the researcher can examine the results of a single variable or multiple variables with or without the effects of the other variables taken into account (Cohen et al., 2003). For purposes of testing the null hypotheses in this study, numerous statistical tests were used for purposes of establishing a relationship between the variables of interest in determining the best fitting model.

The following lists of variables in this research study were coded accordingly in alphabetical order.

The predictor variables were:

Active Treatment (1 = yes, 2 = no)

Age (continuous)
Ethnicity (1 = African American, 2 = European American, 3 = Latin American)
Employed (1 = yes, 2 = no)
Housing (1 = permanent, 2 = temporary, 3 = homeless)
Linked (1 = yes, 2 = no)
Mental Health (MH) Case Specialist (1 = yes, 2 = no)
Mental Health (MH) Classification (1 = C1 individuals, 2 = C2 individuals)
Months on Supervision (continuous)
Number of Months in Prison (continuous)
Positive (Pos) Drug or Alcohol Screens (continuous)
Previous Treatment (1 = yes, 2 = no)
Supervision classification (1 = intense, 2 = basic, 3 = basic low, 4 = monitored time)
Years of Education (continuous)

The criterion variable was:

Persistence (continuous), Desistance (0)

Due to the unique nature of this study, the criterion (persistence) was coded as a zero (0). Any continuous numbers above zero to the highest number found in the data was considered as either a persistent incident or incidents. Given that a persistent incident or incidents were cumulative ranging from one to perpetuity, a persistence scale appropriate for each predictor variable relative to persistent incidents was constructed with a means plot after each variable was analyzed. The following markers were
analyzed, measured, and coded as either a single persistent incident or incidents in
meeting the criterion persistence, which is a continuous variable:

1. New offences or arrest
2. Reincarceration due to:
   a. Number of persistent incidents associated with prison sanction time for
      post release control (PRC) offenders (1 to 270 days), or revocation for
      parole offenders
   b. Number of persistent incidents associated with being sentenced to
      County or municipal jail time (12 months or less)
   c. Resentenced on a new prison number due to a new conviction
3. Number of persistent incidents related to noncompliance or violation of
   supervision conditions
4. Number of unsuccessful treatment failures or noncompliance with treatment
5. Number of incidents associated with drug use or abuse
6. Number of written/verbal sanctions or violation sanction process (VSP) hearings
   resulting from a supervision violation
7. Number of persistent incidents associated with noncompliance with a treatment
   provider such as failure to attend scheduled meetings, attendance, treatment
   disruption, and medication non-adherence to name a few
8. Number of linkage failures
9. Any identified persistent behaviors that interfere with normal functioning or
   active community supervision.

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The logic for selecting the above markers as indicators of persistence is based on the current administrative disciplinary process used by ODRC, more specifically; community supervision and current literature, which suggest that a SAMI-SO individual could be highly persistent in their behaviors during a period of active community supervision by committing relatively minor persistent incidents without being re-incarcerated. While on the other hand, a SAMI-SO individual could be re-incarcerated for a single persistent incident while presenting with little or no persistent behavior prior to being returned to prison. Even supposing that a SAMI-SO individual commits a single persistent incident that results in resentencing, there could potentially be indicators of persistence leading up to being re-incarcerated. Since persistence is actually different but potentially related to re-incarceration and continued community supervision, they are two different variables. Persistence is a continuous variable and re-incarceration is a dichotomous variable.

Due to the dissimilarities of these two variables, the focus of this research study is on persistent incidents and not just a single persistent incident of re-incarceration even though re-incarceration is a good indicator of persistent behavior. For example, a SAMI-SO individual can serve numerous persistent incidents (not exceeding 270 days) of being re-incarcerated (prison sanction time) resulting from a violation sanction process (VSP), which is a formal hearing between a hearing officer, offender and supervising officer to determine whether an offender has violated their conditions of supervision. While another SAMI-SO individual can serve numerous short-term sentences in the county or municipal jail for a major misdemeanor/minor felony offence and remain on active community supervision.
community supervision. Even though the type and number of persistent incidents would vary between these two types of offenders, persistent incidents of re-incarceration are additive and calculated along with other persistent incidents, which are all indicators of a SAMI-SO individual’s level of functioning or adjustment while on active community supervision. Since all persistent incidents are additive, no one persistent incident is ranked higher than another persistent incident.

Both data entry and analysis involved using the SPSS-16 software package. The rationale for using SPSS-16 as suggested by Field (2005) is that the SPSS-16 statistical software package provides a wide array of statistical functions involving basic data entry, descriptive analysis, and all standard methods of statistical inference. Therefore, SPSS-16 is an appropriate and sufficient statistical tool for importing, coding, and analyzing the research data gathered in answering the research questions proposed in this study.

Data Management

Any and all data were handled in an ethical manner consistent with the: University of Toledo’s Human Subjects Review Board, the Ohio Department of Rehabilitation and Correction’s (ODRC) Confidentiality of Medical, Mental Health and Recovery Services information policy (07-ORD-11, dated September 25, 2004), the American Counseling Association’s Code of Ethics (2005), State of Ohio laws, and the Ohio professional standards licensing board’s guidelines. A copy of the approval letter by the University of Toledo’s Human Subjects Review board and the ODRC’s Human Subject Review Committee is included in Appendix A and B. As previously indicated,
data gathering did not involve personal interviews formal interventions or any contact with those individuals whose cases were reviewed.

Any and all data gathered during the process of conducting this research study were saved on the author’s password protected memory stick, and transported to his home computer, which is password protected requiring a log-in name (access code) for purposes of analyzing the data in SPSS-16. Because the participants under study come from a protected group, no individual files were saved, copied in paper form, or stored using magnetic media. Only the data needed to answer the research questions were extracted, truncated, coded, and exported into the SPSS-16 database file. No identifying information such as name, institution, or file numbers was used or included in either SPSS-16 database or in the final research study. After completion and subsequent publication of the research study, the data were made available to the Ohio Department of Rehabilitation and Correction (ODRC).

Summary

Chapter III introduced the methodology section of this study. The research design used was described. The population being studied was identified; including ethical considerations for purposes of protecting the population was discussed. The research questions and framing of the statistical null hypotheses was listed. Procedures involving primary data collection, sampling procedures used, treatment of the data, and how it was managed was highlighted.
CHAPTER IV

RESULTS

This study examined the manner in which social controls and individual factors are related to persistent incidents involving the substance abusing mentally ill-supervised offender (SAMI-SO) population during a monitored period of active community supervision. An analysis of each case was performed to gauge the presence of persistence, which is a continuation or presence of offending behaviors, as well as desistance, which is the absence of offending, or the process of maintaining a continued state of non-offending behaviors. Persistent incidents were measured to determine if a significant relationship existed between the types of social controls such as community supervision, supervision by a mental health caseload specialist, length of time on active community supervision, linkage to a community-based linkage provider(s), and active treatment involvement. Additionally, individual factors relative to age, ethnicity, years of educational experience, employment status, previous mental health and substance abuse treatment, mental health classification, housing classification, number of months spent in a correctional institution, and number of positive drug screens or intoximeter tests were also explored.

In order to determine if a relationship existed between social controls and individual factors, the researcher examined 886 case samples from six parole regions for purposes of analyzing patterns of persistence during an active period of community
supervision between the dates of January 1, 2005 to June 30, 2009. The 886 case samples examined consisted of persons who were classified as meeting the criteria for severely mentally ill (SMI), are significantly impaired, or has some impairment in functioning or acuity (C1 individuals). Additionally, case samples were examined consisting of persons who did not meet the criteria for SMI, had a diagnosed mental disorder, and received mental health services while in the correctional institution (C2 individuals).

The researcher contacted each Adult Parole Authority (APA) region and obtained either their Microsoft Excel database file containing offender services community linkage referrals files or the offender’s linkage referral packet, which was mailed to the APA prior to the offender’s release from the correctional institution. These two sources contain the offender’s institution number, mental health classification, psychiatric diagnosis, prior mental health treatment, and community agency that the offender was referred to in the community. A proportional random sampling from these two sources was used in creating the initial list of case samples comprising this research study. Since all of the case samples selected were of persons who had received some form of treatment in the correctional institution prior to their release to the community, the researcher was able to use this list to explore the Ohio Department of Rehabilitation and Correction’s (ODRC) provisional database using the offender’s correctional institution number. The ODRC’s provisional database was used to confirm the information contained in the offender’s linkage referral packet, and provided additional information relative to the variables used in this research study. Only those case files that were
missing critical information relative to the criterion and predictor variable were excluded and replaced with another proportionally random case sample specific to the APA region being sampled.

This researcher used both descriptive and inferential statistical tests to analyze the data. Descriptive statistical analysis was used to describe the basic features of the data set, which included the calculation and reporting of central tendency estimates such as frequencies, means, and standard deviations (Fraenkel & Wallen, 2003). Inferential statistical analysis is a data technique used to make inferences from the data gathered from a sample to a larger population (Fraenkel & Wallen). The study utilized independent samples \( t \)-tests, analysis of variance (ANOVA) statistical tests, and the Pearson product–moment correlation coefficient statistical tests.

Research questions 2, 4, 5, 9, and 10 involved the use of independent samples \( t \)-tests. An independent samples \( t \)-test is the most frequently used inferential statistical test and is appropriate when you have a single continuous criterion variable and a dichotomous predictor variable and want to determine if there is a difference between group means on the criterion variable (Fraenkel & Wallen). According to Fraenkel and Wallen, an independent samples \( t \)-test is a parametric test used for analyzing categorical data for a difference in proportions. That is, to determine whether the proportion in one category is different from the proportion in another category such as the persistence means score between C1 individuals and C2 individuals. Independent samples \( t \)-tests were used to compare the persistence mean between the predictor variables supervision by a mental health specialist, linkage to a treatment community provider, active
treatment, employment, and previous mental health or substance abuse treatment on the criterion variable persistence.

Research questions 1, 7, 11, and 12 involved the use of an analysis of variance (ANOVA) statistical test, which is used to determine the statistical differences between the means of two or more groups, which involves a predictor variable that has two or more categories (Fraenkel & Wallen, 2003). However, ANOVA cannot determine which of the two groups are different, which requires a post-hoc statistical analysis to determine where the differences are if they exist. When only two groups are being compared, the $F$ test is sufficient to tell the researcher whether significance has been achieved (Fraenkel & Wallen). An ANOVA was used to determine the differences between the criterion persistence total mean of the SAMI-SO population by the predictor variable supervision status, ethnicity, mental health classification, and housing classification.

Research questions 3, 6, 8, 13, and 14 involved the use of the Pearson product–moment correlation coefficient statistical tests to determine if a relationship existed between criterion variable persistence, and the predictor variables, months on active supervision, age, years of education, months incarcerated, and positive drug alcohol test. A Pearson product–moment correlation coefficient statistical test is used with two continuous variables to determine a relationship/association (covariance).

The Statistical Package for the Social Sciences-Sixteen, SPSS-16 (SPSS Inc., 2008) was used to conduct the above-identified statistical tests. These tests including other procedures were incorporated into this research study along with the multiple regression statistical test to examine the relationship of a single variable or multiple
variables with or without considering the relationships of other variables was used (Cohen et al., 2003).

The rationale for choosing the multiple regression analysis over other statistical methods is that multiple regressions is a flexible method of data analysis that may be appropriate whenever a quantitative criterion variable is to be examined in relationship to multiple categorical and quantitative predictor variables (Fraenkel & Wallen, 2003). Additionally, because some of the research questions are derived from Laub and Sampson’s (2003) desistance theory, the multiple regression method is most appropriate. The multiple regression method enables the researcher to determine the strongest relationship in comparison to the weakest relationship and differences between the criterion variable (persistence) or the best combination of two or more predictor variables in establishing an order of significance (Fraenkel & Wallen, 2003). The relationship between criterion and predictor variables can be nonlinear and the researcher can examine the results of a single variable or multiple variables with or without the effects of the other variables being taken into account (Cohen et al., 2003).

The researcher gathered demographic information and descriptive characteristics from each case to determine their relationship to the criterion variable persistence. The predictor variable supervision classification and mental health caseload specialist was chosen by the researcher based on previous research (Lurigio, 2001; National Research Council, 2006; Skeem et al., 2003), and this researcher’s interest in their relationship to persistent incidents during a period of active community supervision. The researcher chose the predictor variable months on active community supervision because the
researcher was interested in the relationship between the number of months SAMI-SO individuals spend on active community supervision and their propensity to desist or persist during an active period of community supervision. The predictor variable community linkage service provider was chosen by the researcher based on previous research by Jacoby and Kozie-Peak (2003), which suggested that a relationship existed between SAMI-SO individuals that are linked versus those that are not linked relative to persistence measures. The predictor variable active treatment involvement was chosen by the researcher based on previous treatment research (Bond et al., 2001; Hartwell, 2006; Chwastiak et al., 2006; Rich et al., 2001) and this researcher’s interest in determining if a relationship existed between persistence and active treatment during an active period of community supervision. The predictor variable age was chosen because the researcher was interested if there was a difference in the persistence rate, as SAMI-SO individuals get older. According to Laub and Sampson’s (2001) age-graded informal social control theory, changes in either desistance or persistence becomes more salient with age. The researcher chose the predictor variable ethnicity because the researcher was interested if a relationship existed between the different ethnic groups on the criterion variable persistence.

The researcher chose the predictor variable years of formal educational experience based on this researcher’s interest and previous research (Bradizza & Stasiewicz, 2003; Hagar et al., 2008; McCollister et al., 2003). Previous research suggests that formal educational experience acts as a protective factor in reducing recidivism and contributes to positive behavioral changes in persistent behavior patterns.
in the SAMI-SO population during an active period of community supervision. The predictor variable employment status was chosen by this researcher based on previous research by Jacoby and Kozie-Peak (1997), which suggest that meaningful employment after being released from a correctional institution can be efficacious relative to persistence during an active period of community supervision. The predictor variable previous mental health and substance abuse treatment was chosen by the researcher based on previous articles by Gagliardi et al. (2004) and Hagar et al. (2008), which suggest that prior mental health treatment can have a protective effect in maintaining desistance or reducing persistent behaviors. The researcher was interested in the predictor variable mental health classification to determine if a difference existed between C1 individuals and C2 individuals relative to the number of persistent incidents over a period of active community supervision. The researcher chose the predictor variable housing classification because the researcher was interested if a relationship existed between the three housing classifications of permanent, temporary, or homeless housing relative to persistent incidents during an active period of community supervision. The researcher chose the predictor variable number of months spent in a correctional institution because the researcher was interested if a relationship existed between the number of months of incarceration and persistent incidents. The researcher chose the predictor variable number of drug screens or intoximeter test produced because the researcher was interested if a relationship existed between the number of positive drug screens or intoximeter test, and their relationship to persistent incidents.
Finally, the criterion persistence variable was chosen based on previous desistance literature ((Draine & Solomon, 2001; Groom, 1999; Laub & Sampson, 2001; National Research Council, 2007), and this researcher’s interest in the relationship between the SAMI-SO population’s persistence rate during an active period of community supervision. The researcher found no studies that approached desistance theory by examining the above variables separately and together as potential catalyst relative to persistent incidents in the SAMI-SO population during an active period of community supervision.

This chapter presents an analysis of the procedures described in chapter 3. Description of the case samples, and descriptive demographic characteristics are presented and examined. The analysis includes all of the inferential statistics that were used to test the null hypothesis. Results of the null hypothesis test and supplemental statistical analysis such as multiple regressions are presented. A summary of the results is included at the end of the chapter.

*Description of the Case Samples*

A proportional sampling of six parole regions (Cincinnati, Chillicothe, Cleveland, Columbus, Lima, Mansfield) of the Ohio Department of Rehabilitation and Corrections (ODRC) resulted in a total of 886 case samples being selected that met the screening criteria for substance abusing mentally ill-supervised offender (SAMI-SO). Sampling data by region is in Chapter 3, Table 1. One region, Akron, was not included in the analysis because no case samples were available due to a lack of linkage referral files or a database that list either C1 individuals or C2 individuals. Of the 886 proportionally
sampled cases of both C1 individuals and C2 individuals, 151 (17%) were from the Cincinnati region, 76 (8.6%) were from the Cleveland region, 349 (39.4%) were from the Columbus region, 24 (2.7%) were from the Chillicothe region, 260 (29.3%) were from the Lima region, and 26 (3.0%) were from the Mansfield region, see Table 1. Case samples represent both urban and rural areas within each region. All of the case samples selected for this research study was no longer under the supervisory control of the Adult Parole Authority (APA) between the dates January 1, 2005 to June 30, 2009.

Descriptive Demographic Characteristics

Age of the case samples reviewed ranged in age from 22 years to 75 years, with a mean age of 40 years (SD=10.3). In regards to ethnicity, 38.8% (n=344) were of African American descent, 60.2% (n=533) were of European American descent, and 1.00% (n=9) were of Latin American descent. Information concerning Age and ethnicity was initially gathered during in processing by the correctional institutions. However, age and ethnicity of each case sample was validated through the ODRC’s provisional database.
Table 2

*Descriptive Demographic Information of the Sample*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>886</td>
<td>100%</td>
<td>40.24</td>
<td>10.3</td>
<td>22 – 75</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>886</td>
<td>100%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>African American</td>
<td>344</td>
<td>38.80%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>European American</td>
<td>533</td>
<td>60.20%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Latin American</td>
<td>9</td>
<td>1%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

*Descriptive Characteristics of the Sample*

*Mental Health Classification.* Eight-hundred and eighty-six case samples were reviewed of which, 57% (n=505) were classified as C1 individuals, and 43% (n=381) were classified as C2 individuals by the ODRC’s correctional mental health staff prior to the SAMI-SO individual being released to active community supervision. Confirmation of the mental health classification of each offender was achieved by reviewing the offender’s community linkage referral packet or each Adult Parole Authority (APA) region’s Microsoft Excel database file of community linkage referrals.

*Previous Mental Health Treatment.* Eight-hundred and eighty-four (99.8%) of the SAMI-SO individuals that were classified as either a C1 individual or C2 individual, had a previous history of either mental health, psychiatric or substance abuse treatment and only two (.2%) had no previous record of treatment prior to being released to active community supervision. Information related to previous treatment was confirmed by
reviewing the offender’s community linkage referral packet; each Adult Parole Authority’s (APA) regions Microsoft Excel database file, the supervising officer’s field notes, and the ODRC’s provisional database. Only one file failed to reflect any treatment prior to or during their period of incarceration. This suggests that the offender’s mental health concerns were not identified until the offender was out processed from the correctional institution.

**Supervision Classification**

Subsequent to being released to parole supervision, 376 (42.4%) offenders were supervised at the intensive supervision classification, which resulted in four supervision contacts per month between the SAMI-SO individual and supervising officer, whereas, 495 (55.9%) were supervised at the basic classification, which resulted in two supervision contacts per month. Additionally, 13, (1.5%) were supervised at the basic low classification, which resulted in one supervision contact every three months, and only 2, (.2%) where supervised at the monitored time classification, which resulted in one initial supervision contact between the SAMI-SO individual and the supervising officer regardless of the length of active community supervision. Each SAMI-SO individual’s supervision classification was confirmed by comparing the number of actual contacts reported in the officer’s field notes against the assigned supervision classification. The number of supervision contacts may have been higher or lower, which is based on an existing criteria of offences, offender’s needs, level of functioning, and persistent behaviors.
Mental Health Case Specialist

Subsequent to being released to active parole supervision, 151 (17%) received special supervision by a mental health caseload specialist. The mental health caseload specialist’s primary function is only to supervise mentally ill offenders, whereas 735 (83%) were supervised by a general caseload supervision parole officer. A general supervision parole officer’s caseload consists of a mixture of supervisees such as sex offenders, mentally ill offenders, and general offenders. Case assignment was confirmed by reviewing each mental health specialist’s assigned cases and comparing them to the mental health linkage referral packets by institution number.

Community Linkage

Prior to being released and while on active community supervision, 814 (91.9%) SAMI-SO individuals were linked to a community treatment provider via the correctional institution, the APA’s offender services network coordinator, or supervising parole officer to a community treatment provider in the community for purpose of mental health, substance abuse, or psychiatric care. Only 72 (8.1%) were not linked to community treatment provider in the community. Linkage confirmation was validated by reviewing the mental health referral linkage packages and the supervising officer’s field notes on the ODRC’s provisional database, which reflect administrative and supervision activities during active community supervision.

Active Treatment

While on active community supervision, 551 (57.7%) were actively receiving treatment (mental health, psychiatric or substance abuse) with a community treatment
provider. Three-hundred seventy-five (42.3%) were not actively involved in treatment.
The possible reasons that 375 participants were not actively involved in treatment include
the possibility that the SAMI-SO individual never followed through with their scheduled
linkage appointments, termination of services by the community treatment provider for
relapsing on mind-altering chemicals, or the discontinuation of psychotropic medication
and failing to show for treatment. In addition, some of the offenders were terminated
from treatment due to being returned to the correctional institution for a new conviction,
violating community supervision rules, or absconding supervision (whereabouts
unknown). Active treatment involvement was verified by reviewing both the supervising
officer’s field notes and the offender’s file on the ODRC’s provisional database, which
confirmed community treatment participation, assertive community treatment team
(ACT) program participation, medication compliance, and the minutes of clinical case
staff meetings.

Employment

While on active community supervision, 225 (25.4%) were employed, and 671
(74.6%) were unemployed. All of the SAMI-SO individuals that were actively employed
secured employment prior to being released from the correctional institution or obtained
employment while on active community supervision. Whereas many of SAMI-SO
individuals that were unemployed either quit or were terminated from gainful
employment while on active community supervision. Employment status was verified by
reviewing both the supervising officer’s field notes and the offender’s file on the
ODRC’s provisional database.
**Housing Classification**

Subsequent to being released to active community supervision, 409 (46.2%) SAMI-SO individuals were placed in a permanent residence with either a family member, a previous residence prior to being incarcerated or close friend of the family. Three-hundred fifty-six (40.2%) offenders were released to a temporary residence such as a halfway house, three quarter-way house, transitional housing or a treatment facility. The remaining SAMI-SO individuals, (n = 121 [13.6%]) were placed in a homeless shelter or were homeless without a permanent residence. Housing classification was verified by reviewing both the supervising officer’s field notes and the offender’s file on the ODRC’s provisional database.

**Number of Months on Active Community Supervision**

The number of months served on active community supervision ranged from 2 to 62 months, with a mean of 24 months (SD=16.408). The total number of months was calculated by adding both consecutive months and interrupted months resulting from short periods of incarceration due to a sanction violations hearing or an arrest for a new offence. The number of months on active supervision was verified by reviewing both the supervising officer’s field notes and the offender’s file on the ODRC’s provisional database.

**Years of Education**

The number of years of educational experience ranged from 5 to 16 years, with a mean of 11 years (SD=1.406). The total number of years of education was determined by reviewing both the supervising officer’s field notes and the offender’s file on the
ODRC’s provisional database, which reflected the last grade level attended such as a high school graduate or a general equivalency diploma. Those case files that reflected a general equivalency diploma were given credit for twelve years of education.

**Number of Months Incarcerated**

The number of months of incarceration ranged from 2 to 444 months, with a mean of 56 months (SD=61.267). The number of months of incarceration was calculated by adding both consecutive months and interrupted months resulting from long and short periods of incarceration due to minor and serious felony convictions. The number of months of incarceration was verified by reviewing both the supervising officer’s field notes and the offender’s file on the ODRC’s provisional database.

**Number of Positive Drug Alcohol Screens**

The number of positive drug alcohol screens ranged from 0 to 18, with a mean of 1.42 (SD=1.992). The number of positive drug and alcohol screens was calculated by totaling the number of actual positive drug screens, alcohol intoximeter breathalyzer test, and self-admissions as reflected in the supervising officer’s field notes and the offender’s file on the ODRC’s provisional database.

**Persistent Incidents**

The number of persistent incidents for all 886 cases reviewed ranged from 0 to 6 with a mean of 1.39 (SD=1.742). The number of persistent incidents was determined by totaling the number of persistent incidents identified in Chapter 3, *Treatment of the Data* section. The number of persistent incidents was verified by reviewing both the
supervising officer’s field notes and the offender’s file on the ODRC’s provisional database.

Table 3

*Descriptive Characteristics of the Sample*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health Class</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>C1</td>
<td>505</td>
<td>57.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>C2</td>
<td>381</td>
<td>43.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Previous Mental Health Treatment</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Yes</td>
<td>884</td>
<td>99.80%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>0.20%</td>
<td>−</td>
<td>−</td>
<td>−</td>
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<tr>
<td>Supervision Classification</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Intense</td>
<td>376</td>
<td>42.40%</td>
<td>−</td>
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</tr>
<tr>
<td>Basic</td>
<td>495</td>
<td>55.90%</td>
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<tr>
<td>Basic Low</td>
<td>13</td>
<td>1.50%</td>
<td>−</td>
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<tr>
<td>Monitored Time</td>
<td>2</td>
<td>0.20%</td>
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<tr>
<td>Mental Health Case Spec.</td>
<td>886</td>
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<td>−</td>
<td>−</td>
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<tr>
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<td>151</td>
<td>17.00%</td>
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<td>−</td>
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<tr>
<td>No</td>
<td>735</td>
<td>83.00%</td>
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<td>−</td>
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Table 3.1

*Descriptive Characteristics of the Sample*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Linkages</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Yes</td>
<td>814</td>
<td>91.90%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>No</td>
<td>72</td>
<td>8.10%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Active Treatment</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Yes</td>
<td>511</td>
<td>57.70%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>No</td>
<td>375</td>
<td>42.30%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Employed</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Yes</td>
<td>225</td>
<td>25.40%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>No</td>
<td>661</td>
<td>74.60%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Housing Status</td>
<td>886</td>
<td>100.00%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Permanent</td>
<td>409</td>
<td>46.20%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Temporary</td>
<td>356</td>
<td>40.20%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Homeless</td>
<td>121</td>
<td>13.60%</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Months on Supervision</td>
<td>886</td>
<td>100.00%</td>
<td>24.36</td>
<td>16.408</td>
<td>2 – 62</td>
</tr>
<tr>
<td>Years of Education</td>
<td>886</td>
<td>100.00%</td>
<td>11.02</td>
<td>1.406</td>
<td>5 – 16</td>
</tr>
<tr>
<td>Months Incarcerated</td>
<td>886</td>
<td>100.00%</td>
<td>56.03</td>
<td>61.267</td>
<td>2 – 444</td>
</tr>
</tbody>
</table>
Table 3.2

**Descriptive Characteristics of the Sample**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos Drug Alcohol Screens</td>
<td>886</td>
<td>100%</td>
<td>1.42</td>
<td>1.992</td>
<td>0 – 18</td>
</tr>
<tr>
<td>Persistent Incidents</td>
<td>886</td>
<td>100%</td>
<td>1.39</td>
<td>1.742</td>
<td>0 – 6</td>
</tr>
</tbody>
</table>

**Research Questions and Inferential Statistical Tests of the Null Hypotheses**

An inferential statistical analysis was conducted for the purpose of testing the null hypotheses, and answering the questions in this research study. This section examines the research hypotheses including the analysis of the results relative to the Pearson product–moment correlation coefficient statistical tests, independent samples \( t \)-tests, analysis of variance (ANOVA) statistical tests, and multiple regressions statistical test. An analysis using Cohen’s (1988) estimates for effect size was conducted. According to Cohen, effect size estimates (\( d \)) can be used to indicate the standardized difference between two means in reporting an independent samples \( t \)-test, and when comparing the independent sample means of two groups. Additionally, an analysis of variance (ANOVA) statistical test effect size (\( f \)) means can be used in determining to what degree a phenomenon is present in the population being studied. More importantly, the calculation of effect size depends on the statistical technique being used. For purposes of calculating an independent samples \( t \)-test for means effect size, Cohen suggest three levels of effect sizes (\( d \)) of .20 for small, .50 for medium, and .80 for large in detecting a relationship, if it exists. For purposes of calculating an analysis of variance (ANOVA)
statistical test for effect size means, Cohen suggest three levels of effect size ($f$) of .10 for small, .25 for medium, and .40 for large in detecting a relationship, if it exists. For purposes of calculating the Pearson product–moment correlation coefficient statistical test effect size, Cohen suggest three levels of effect sizes ($r^2$) of, .10 for small, .30 for medium, and .50 for large in detecting a relationship, if it exists. A $p$ value of .05 or less was established in order for a confidence level of 95% that a relationship existed. The researcher set an alpha of .05 for all inferential procedures since it is a customary set value in the behavioral sciences and education (Morgan et al., 2007). Setting an unadjusted alpha level at .05 reduces the probability of making a Type I error (rejecting the null hypothesis when it is true). Whereas an estimate of power provides an approximation of the type II error (failing to reject the null hypothesis when it is false) rate for different effect sizes that may exist in the population. An estimate of power was conducted based on an alpha level or $p$-value of .05, and a medium effect size (Cohen’s $d$) of .05 resulted in an observed power of 1.000 for both a one-tailed (directional) and two-tailed (non-directional) hypothesis from a proportional sample size of 886. Based on the power analysis (McNeil et al., 1996), the researcher was 95% confident that if a significant difference existed, that is at least medium in size; the statistical procedures employed in this analysis would be of sufficient strength to detect those differences.

**Research Question and Hypothesis 1**

The first research question of this study asked does an active community supervised SAMI-SO individual’s persistence rate differ by type of community supervision classification (intensive, basic, basic low, and monitored time)?
The researcher conducted a Kruskal-Wallis version of the chi-square nonparametric test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual with a more intensive supervision classification status will no more likely maintain a different persistence rate than a SAMI-SO individual with a less intensive supervision classification status during a period of active community supervision. The rationale for using the Kruskal-Wallis nonparametric test is because the supervision classification variable is ordinal, which has four categories that are ordered from low to high and are not equal. The Kruskal-Wallis analysis of variance test indicated that the four supervision classifications differed significantly in their relationship to one another $F(3, N=882) = 185.28, p \leq .001$. Since the Chi-Square is normally used to determine the relationship between two variables (2 x 2), the researcher used the Cramer’s Phi statistical test because the supervision classification variable had four levels to measure in determining the effect size between supervision classification and persistent incidents. A Cramer’s Phi is similar to a Chi Squared equivalent statistic ($\chi^2 = 423.455$), and the researcher calculated a Cramer’s Phi ($\Phi = .69$) which, according to Cohen’s (1988), suggest a large effect size and indicates that 47.61% of the variance is accounted for in the persistence variable. The results of the Kruskal-Wallis test was statistically significant, and since there are no post hoc tests built into SPSS-16’s Kruskal-Wallis test to determine which mean ranks are different relative to the four supervision classifications, the researcher conducted a post hoc Mann-Whitney U test to compare the supervision classifications relative to persistent incidents. The mean rank of SAMI-SO individuals that were supervised at the basic classification
(577.78, n = 495) was significantly higher in persistent incidents than SAMI-SO individuals that were supervised at the intense classification (249.35, n = 376), $z = -20.56$, $p \leq .001$, $r = .70$, a large effect size according to Cohen (1988). The mean rank for SAMI-SO individuals that were supervised at the basic low classification (7.88, n = 13) was slightly less persistent, but more desistant than SAMI-SO individuals that were supervised at the monitored time classification (8.75, n = 2), $z = -.278$, $p \leq .781$, $r = -.072$, a small effect size according to Cohen. Table 4, shows the supervision classification means for intense which is .14 (low), basic low, which is 1.15 (medium), monitored time which is 1.50 (medium), and basic which is 2.34 (high). The results of the above tests indicate that there is a statistically significant difference in the persistence rate at the .05 level between the four supervision classifications. A SAMI-SO individual that was supervised at the intensive supervision classification was more likely to be desistant and less persistent than a SAMI-SO individual that was supervised at the basic, basic low or monitored time supervision classification. A review of Figure 1, suggests that a SAMI-SO individual that was supervised at the basic low and monitored time classification was more likely to be desistant than a SAMI-SO individual that was supervised at the basic supervision classification. Figure 1 also shows that the means between these four groups differ significantly from a straight line. Therefore, the researcher rejected the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between the four supervision classifications.
Table 4

Means and Standard Deviations Comparing the Four Supervision Classifications on Persistence

<table>
<thead>
<tr>
<th>Supervision Classifications</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive (low)</td>
<td>376</td>
<td>0.14</td>
<td>0.569</td>
</tr>
<tr>
<td>Basic Low (med)</td>
<td>13</td>
<td>1.15</td>
<td>1.46</td>
</tr>
<tr>
<td>Monitored Time (med)</td>
<td>2</td>
<td>1.5</td>
<td>2.12</td>
</tr>
<tr>
<td>Basic (high)</td>
<td>495</td>
<td>2.34</td>
<td>1.74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>886</td>
<td>1.39</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Figure 1. Means Plot
Research Question and Hypothesis 2

The second research question of this study asked is there a difference in the persistence rate between SAMI-SO individuals who received community supervision from a mental health caseload specialist and SAMI-SO individuals whose community supervision was provided by a general caseload specialist.

The researcher used an independent samples $t$-test to test the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level, between SAMI-SO individuals who was supervised by a mental health caseload specialist and SAMI-SO individuals that was not supervised by a mental health caseload specialist during a period of active community supervision. The rationale for using an independent samples $t$-test is to investigate the difference between two unrelated independent groups, such as supervision by a mental health caseload specialist (yes) versus not supervised by a mental health caseload specialist (no) on the criterion variable persistent incidents. The predictor variables in both groups are equal, normally distributed, and the data of one variable is not related systematically to the scores of the other variable. The results of this test indicate that supervision by a mental health caseload specialist (yes) was significantly different from not supervised by a mental health caseload specialist (no) on the criterion variable persistence, ($p \leq .001$). Both the Levene’s test for equality of variances and an independent samples $t$-test for equality of means (sig. 2 - tailed) indicated a statistical significance in their relationship to one another ($p \leq .001$). Inspection of the statistical differences between the two groups on the mean of “yes”, supervised by a mental health caseload specialist ($M = .37$) was lower than the “no”,...
supervised by a mental health caseload specialist ($M = 1.60$). The difference between the two means is 1.23. The effect size $d$ is approximately .45, which, according to Cohen (1988), is a small to medium effect, and typical for the number and type of cases assigned to a mental health caseload specialist. The means plot in Figure 2 suggests that the mean of persistent incidents for MH case specialist (yes) was lower than the mean of persistent incidents for MH case specialist (no). Figure 2 also shows that the means between these two groups are a straight line, and fail to differ significantly. Supervision by a mental MH caseload specialist (yes) did differ significantly from the (no) not supervised by a mental health caseload specialist ($p \leq .001$). Therefore, the null hypothesis is rejected because there is a statistically significant difference in the persistence rate at the .05 level between supervised by a mental health caseload specialist (yes) and not supervised by a mental health caseload specialist (no) during a period of active community supervision (see Table 5).

Table 5

*Comparison of Supervision by a Mental Health Caseload Specialist and General Caseload Specialist on Persistence (n=151 yes and 735 no)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>$M$</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td></td>
<td>-8.18</td>
<td>884</td>
<td></td>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td>Mental Health Specialist (yes)</td>
<td>151</td>
<td>0.37</td>
<td>0.942</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Case Specialist (no)</td>
<td>735</td>
<td>1.6</td>
<td>1.79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question and Hypothesis 3

The third question of this research study asked is there a relationship between the amount of time (months) a SAMI-SO individual serves on active community supervision and the persistence rate during a period of active community supervision?

The researcher used a Pearson product–moment correlation coefficient statistical test to test the null hypothesis that there is no statistically significant relationship at the .05 level between the amounts of time (months) that a SAMI-SO individual serves on active community supervision and the persistence rate. The rationale for using a Pearson product–moment correlation coefficient statistical test is to determine the strength and direction between months on supervision and persistent incidents. In order to determine if there was a statistically significant difference in the relationship between months of
supervision and the persistence rate, the researcher concluded that the months on supervision was positively skewed (skewness = .890), which is less than either + 1.0 and - 1.0, and does not violate the assumption of normality. Therefore, the Pearson product–moment correlation coefficient statistical test was calculated, $r (884) = .12, p \leq .001$, which is significant at the 0.01 level (2-tailed). Using Cohen’s (1998) guidelines, the $r^2$ indicates that approximately .01% of the variance in persistent incidents can be predicted from the months on supervision, which is much smaller than typical. The scatterplot, Figure 3, suggests that the direction of the correlation was positive. This means that the more months a SAMI-SO individual spent on active community supervision the higher the number of persistent incidents. Therefore, the null hypothesis is rejected because there is a statistically significant difference/relationship in the persistence rate at the .05 level between months on supervision and persistent incidents. However, due to a negligible effect size, which was calculated using $r^2$ to determine practical significance findings, was below Cohen’s cutoff of .10. Therefore, no strong conclusions can be made regarding the relationship between the persistence rate and the number of months a SAMI-SO individual serves on active community.
The fourth research question of this study asked is there a difference in the persistence rate between SAMI-SO individuals who are linked to a community-based linkage service provider(s) and those who were not.

The researcher used an independent samples $t$-test to test the null hypothesis that there is no statistically significant difference at the .05 level that linking a SAMI-SO individual to a community-based linkage service provider(s) would no more likely be related to the persistence rate than a SAMI-SO individual that is not linked to a community-based linkage service provider(s) during a period of active community
supervision. The rationale for using an independent samples t-test is to investigate the difference between two unrelated independent groups, SAMI-SO individuals that are linked (yes) to a community treatment provider versus SAMI-SO individuals that are not linked (no) on the criterion variable persistent incidents. The criterion variable in both groups is equal, normally distributed, and the data of one group is not related systematically to the scores of others. The results of this test indicate that linked (yes) to a community treatment provider was significantly different in comparison to not linked (no) to a community treatment provider on persistence, \((p \leq .001)\). Both the Levene’s test for equality of variances and an independent sample t-test for equality of means (sig. 2-tailed) indicate a statistical significance \((p \leq .001)\). Inspection of the statistical differences between the two groups, reveal that the “yes”, linked to a community treatment provider \((M = 1.25)\) was lower than the “no”, not linked to a community treatment provider \((M = 2.93)\), see Table 6. The difference between the two means is 1.68. The effect size \(d\) is approximately .40, which, according to Cohen (1988), is a small to medium effect, which is typical for a community linkage referral. The means plot in Figure 4, suggests that the mean of persistent incidents is higher for community linkages (no) than the mean persistent incident for community linkages (yes), and shows that the means between these two groups are a straight line and fail to differ significantly. Community linked (yes) did differ significantly from (no) those that were not linked \((p \leq .001)\). Therefore, the null hypothesis is rejected because there is a statistically significant difference in the persistence rate at the .05 level between linking (yes) and not linking
(no) a SAMI-SO individual to a community linkage service provider(s) during a period of active community supervision.

Table 6

*Comparison of Community Linkages on Persistence (n = 814 yes and 72 no)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td>-8.13</td>
<td>884</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community linkage (yes)</td>
<td>814</td>
<td>1.25</td>
<td>1.703</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community linkage (no)</td>
<td>72</td>
<td>2.93</td>
<td>1.377</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. Means Plot
Research Question and Hypothesis 5

The fifth research question of this study asked is there a difference between active treatment involvement (mental health, psychiatric or substance abuse) and the persistence rate of a SAMI-SO individual during a period of active community supervision.

The researcher used an independent samples $t$-test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual that is actively involved in treatment would no more likely be persistent than a SAMI-SO individual that is not actively involved in treatment during a period of active community supervision. The rationale for using an independent samples $t$-test is to investigate the difference between two unrelated independent groups. That is, a SAMI-SO individual that is actively involved in treatment (yes) versus a SAMI-SO individual that is not actively involved in treatment (no) during a period of active community supervision on the criterion variable persistent incidents. The criterion variable in both groups is equal, normally distributed, and the data of one group is not related systematically to the scores of the other group. The results of this test indicate that a SAMI-SO individual that was actively involved in treatment (yes) was significantly different in comparison to a SAMI-SO individual that was not actively involved in treatment (no) on persistence, ($p \leq .001$). Both the Levene’s test for equality of variances and an independent samples $t$-test for equality of means (sig. 2 - tailed) indicate a statistical significance ($p \leq .001$). Inspection of the statistical differences between the two groups, the mean of the “yes”, actively involved in treatment ($M = .19$) was lower than the “no”, not actively involved in treatment ($M = 3.02$), see Table 7. The difference between the two means is 2.83. The
effect size $d$ is approximately .88, which according to Cohen (1988) is a large effect, which is typical for this population relative to active treatment involvement. The means plot in Figure 5, suggest that the mean of persistent incidents is higher for active TX (no) than the mean of persistent incidents for active TX (yes), and shows that the means between these two groups are a straight line and fail to differ significantly. Active treatment (yes) did differ significantly from (no) those that were not actively involved in treatment during a period of active community supervision ($p \leq .001$). Therefore, the null hypothesis is rejected, because there is a statistically significant difference in the persistence rate at the .05 level between a SAMI-SO individual that is actively involved in treatment (yes) and a SAMI-SO individual that is not actively involved in treatment (no) during a period of active community supervision.

Table 7

*Comparison of Active Treatment Involvement on Persistence (n = 511 yes and 375 no)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td>-40.1</td>
<td>884</td>
<td>0.001</td>
<td></td>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td>Active Treatment Involvement (yes)</td>
<td>511</td>
<td>0.19</td>
<td>0.599</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Treatment Involvement (no)</td>
<td>375</td>
<td>3.02</td>
<td>1.432</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question and Hypothesis 6

The sixth research question of this study asked what is the relationship between the chronological age of a SAMI-SO individual and the persistence rate during a period of active community supervision.

The researcher used a Pearson product–moment correlation coefficient statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual that is older will no more likely be persistent than a SAMI-SO individual that is younger during a period of active community supervision.

The rationale for using a Pearson product–moment correlation coefficient statistical test was to determine if there is a significant relationship between age and persistence.
is to determine the strength and direction between chronological age and persistent incidents. In order to determine if there was a statistical difference in the relationship between age and the persistence rate, the researcher concluded that the age variable was positively skewed (skewness = .418), which is less than either + 1.0 and - 1.0, and does not violate the assumption of normality. Therefore, a Pearson product–moment correlation coefficient statistical test was calculated, $r(884) = -.20, p \leq .001$, which is significant at the 0.01 level (2-tailed). Using Cohen’s (1998) guidelines, the $r^2$ indicates that approximately .04% of the variance in persistent incidents can be predicted from the age, which is much smaller than typical. The scatterplot, Figure 6, suggest that the direction of the correlation was negative, which means that the higher the chronological age, the lower the number of persistent incidents during an active period of community supervision. Therefore, the null hypothesis is rejected because there is a statistically significant difference/relationship in the persistence rate at the .05 level between age and persistent incidents. However, due to a negligible effect size, which was calculated using $r^2$ to determine practical significance findings, was below Cohen’s cutoff of .10. Therefore, no strong conclusions can be made regarding the relationship between the persistence rate and age of a SAMI-SO individual while on active community supervision.
The seventh research question of this study asked does the ethnicity (African American, European American, and Latin American) of a SAMI-SO individual have an influence on their persistence rate during their period of active community supervision.

The researcher used an analysis of variance (ANOVA) statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual of a particular ethnic group will no more likely be persistent than a SAMI-SO individual from a different ethnic group during a period of active community supervision. The purpose of using an analysis of variance (ANOVA) statistical test is to compare the means of two or more independent ethnic groups on the criterion variable.
persistence. The results of this test indicate that there are no differences in the means between the three different ethnic categories $F(2, 883) = 1.415, p \leq .243$. Therefore, no follow-up Post hoc test to determine which means were different from each other was performed. Table 8, shows the persistence means for African Americans (1.27), European Americans (1.47), and (1.11) for Latin Americans. The test of Homogeneity of Variances using the Levene statistic resulted in a $p$-value of .019, which is not significant enough to say the variances between the three groups are significantly different, which results in the researcher assuming equal variances among the three ethnic categories on persistent incidents. Therefore, the researcher failed to reject the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between ethnic categories and persistent incidents during a period of active community supervision. However, due to the limited number of Latin American case samples (9) needed for each cell, an additional analysis of variance (ANOVA) statistical test was conducted consisting of only African Americans and European Americans. The results of excluding the Latin Americans indicate a small difference in the $p$-value from .243 to .102 in the statistical differences of the mean between the two ethnic categories $F(1, 875) = 2.682, p \leq .102$, which is consistent with the previous analysis for both African Americans and European Americans. The only minor changes observed by the researcher were a change in the total $n$ from 886 to 877, and $SD$ from 1.74 to 1.75 (see Table 8.1). Due to the criterion variable being reduced from three to two categories, no post hoc tests were performed. However, an additional test of Homogeneity of Variances using the Levene statistic resulted in a small reduction of the $p$-value from .019 to .018,
which is not significant enough to say that the previous variances of these two groups are significantly different. Therefore, the researcher assumes the same equal variances between the two ethnic categories. The changed means plot, which excludes Latin Americans, (see Figure 7) suggest that the mean of persistent incidents for European Americans was higher than the mean of persistent incidents for African Americans, and shows that the means between these two groups are a straight line and fail to differ significantly. Therefore, the researcher again failed to reject the previous null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between the different ethnic categories and persistent incidents during a period of active community supervision.

Table 8

*Means and Standard Deviations Comparing the Three Ethnic Categories on Persistence*

<table>
<thead>
<tr>
<th>Ethnic Categories</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin Americans (low)</td>
<td>9</td>
<td>1.11</td>
<td>1.67</td>
</tr>
<tr>
<td>African Americans (medium)</td>
<td>344</td>
<td>1.27</td>
<td>1.66</td>
</tr>
<tr>
<td>European Americans (high)</td>
<td>533</td>
<td>1.47</td>
<td>1.79</td>
</tr>
<tr>
<td>Total</td>
<td>886</td>
<td>1.39</td>
<td>1.74</td>
</tr>
</tbody>
</table>
Table 8.1

*Means and Standard Deviations Comparing the Two Ethnic Categories on Persistence*

<table>
<thead>
<tr>
<th>Ethnic Categories</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans (low)</td>
<td>344</td>
<td>1.27</td>
<td>1.66</td>
</tr>
<tr>
<td>European Americans (high)</td>
<td>533</td>
<td>1.47</td>
<td>1.79</td>
</tr>
<tr>
<td>Total</td>
<td>877</td>
<td>1.39</td>
<td>1.75</td>
</tr>
</tbody>
</table>

**Figure 7. Means Plot**
Research Question and Hypothesis 8

The eighth research question of this study asked what is the relationship between the number of years of formal educational experience and the persistence rate of a SAMI-SO individual during a period of active community supervision.

The researcher used a Pearson product–moment correlation coefficient statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual who has more years of formal educational experience will no more likely be persistent than a SAMI-SO individual with less years of formal educational experience during a period of active community supervision. The rationale for using a Pearson product-moment correlation coefficient statistical test is to determine the strength and direction between years of education and persistent incidents. In order to determine if there was a statistically significant difference in the relationship between the years of educational and the persistence rate, the researcher concluded that the years of educational was negatively skewed (skewness = -.952), which is less than either + 1.0 and - 1.0, and does not violate the assumption of normality. Therefore, a Pearson product–moment correlation coefficient statistical test was calculated, \( r (884) = - .17, p \leq .001 \), which is significant at the 0.01 level (2-tailed). Using Cohen’s (1998) guidelines, the \( r^2 \) indicates that approximately .03% of the variance in persistent incidents can be predicted from years of education, which is much smaller than typical. The scatterplot, Figure 8, suggest that the direction of the correlation was negative, which means that the more years of education would be associated with low persistent incidents. Therefore, the null hypothesis is rejected because there is a statistically significant
difference/relationship in the persistence rate at the .05 level between years of education and persistent incidents. However, due to a negligible effect size, which was calculated using $r^2$ to determine practical significance findings, was below Cohen’s cutoff of .10. Therefore, no strong conclusions can be made regarding the relationship between the persistence rate and years of education of a SAMI-SO individual while on active community supervision.

![Figure 8. Scatterplot](image)

**Research Question and Hypothesis 9**

The ninth research question of this study asked is there a difference between the employment status (employed versus unemployed) and the persistence rate of a SAMI-SO individual during a period of active community supervision.
The researcher used an independent samples $t$-test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual that is employed will no more likely be persistent than a SAMI-SO individual that is unemployed during a period of active community supervision. The rationale for using an independent samples $t$-test is to investigate the difference between two unrelated independent groups, SAMI-SO individuals that are employed (yes) versus SAMI-SO individuals that are not employed (no) during a period of active community supervision on the criterion variable persistent incidents. The criterion variable in both groups is equal, normally distributed, and the data of one participant is not related systematically to the scores of others. The results of this test indicate that a SAMI-SO individual that was employed (yes) was significantly different in comparison to a SAMI-SO individual that was not employed (no) on the criterion variable persistence, ($p \leq .001$). Both the Levene’s test for equality of variances and an independent samples $t$-test for equality of means (sig. 2 - tailed) indicate a statistical significance ($p \leq .001$). Inspection of the statistical differences between the two groups, the mean of the “yes”, were employed ($M = .84$) was lower than the “no”, not employed ($M = 1.57$), see Table 9. The difference between the two means is .73. The effect size $d$ is approximately .30, which, according to Cohen (1988), is a small to medium effect, which is typical for this population relative to employment. The means plot in Figure 9, suggest that the means in persistent incidents for employed (yes) is lower than the means in persistent incidents for not employed (no), and shows that the means between these two groups are a straight line and fail to differ significantly. Employed (yes) did differ significantly from not
employed (no) during a period of active community supervision ($p \leq .001$). Therefore, the null hypothesis is rejected, because there is a statistically significant difference in the persistence rate at the .05 level between employed and persistent incidents.

Table 9

Comparison of Employment Status on Persistence ($n = 225$ yes and 661 no)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td></td>
<td>-5.52</td>
<td>884</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status (yes)</td>
<td>225</td>
<td>0.84</td>
<td>1.487</td>
<td>1.487</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status (no)</td>
<td>661</td>
<td>1.57</td>
<td>1.781</td>
<td>1.781</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 9. Means Plot
Research Question and Hypothesis 10

The tenth research question of this study asked is there a difference between previous mental health and substance abuse treatment and the persistence rate of a SAMI-SO individual during a period of active community supervision.

The researcher used an independent samples t-test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual with previous mental health or substance abuse treatment will no more likely be persistent than a SAMI-SO individual with no previous mental health or substance abuse treatment during a period of active community supervision. The rationale for using an independent samples t-test is to investigate the difference between two unrelated independent groups such as SAMI-SO individuals that have received mental and substance abuse treatment (yes) versus SAMI-SO individuals that have not had any previous mental and substance abuse treatment (no) during a period of active community supervision relative to the criterion variable persistent incidents. The results of this test indicate that SAMI-SO individuals that previously received treatment was not significantly different from SAMI-SO individuals that received no previous treatment on the criterion variable persistence ($p \leq .086$). Both the Levene’s test for equality of variances and an independent samples t-test for equality of means (sig. 2 - tailed) did not indicate a statistical significance ($p \leq .112$). Inspection of the statistical differences between the two groups, the mean of the “yes”, previous MH TX ($M = 1.38$) was lower than the “no”, previous MH TX ($M = 3.50$), see Table 10. The difference between the two means is 2.12. The effect size $d$ is approximately .44, which according to Cohen
(1988) is a small to medium effect, which is typical for this population relative previous mental health treatment. The means plot in Figure 10, suggest that the means of persistent incidents (no) was higher than the means for persistent incidents (yes), and shows that the two groups are a straight line and fail to differ significantly. Previous MH TX (yes) did not differ significantly from previous MH TX (no) during a period of active community supervision ($p \leq .086$). Therefore, the researcher failed to reject the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between previous mental health or substance abuse treatment and persistent incidents during a period of active community supervision.

Table 10

*Comparison of Previous Mental Health or Substance Abuse Treatment on Persistence (n = 884 yes and 2 no)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td></td>
<td>-1.72</td>
<td>0.086</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Treatment (yes)</td>
<td>884</td>
<td>1.38</td>
<td>1.739</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Treatment (no)</td>
<td>2</td>
<td>3.5</td>
<td>0.707</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 10. Means Plot

*Research Question and Hypothesis 11*

The eleventh research question of this study asked is there a difference between the mental health classifications (C1 individual or C2 individual) of a SAMI-SO individual and the persistence rate during a period of active community supervision.

The researcher used an analysis of variance (ANOVA) statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual with a C1 mental health classification will no more likely be persistent then a SAMI-SO individual with a C2 mental health classification during a period of active community supervision. The researcher’s rationale for using an analysis
of variance (ANOVA) statistical test is because the data is extremely skewed, statistical significance is \( p \leq .001 \), involves less than three groups, and finally, is needed to compare the means of two independent groups on the criterion variable persistent incidents. Due to having only two groups, no post hoc test was performed. The results of this test indicate that there is a statistically significant difference in the mean number of persistent incidents between C1 individuals and C2 individuals, \( F (1, 884) = 710.37, p \leq .001 \).

Table 11, shows the persistence means for the two different mental health classifications, which are .38 for C1 individuals (low) and 2.72 for C2 individuals (high). The difference in means between C1 individuals and C2 individuals suggest that C2 individuals were more persistent than C1 individuals were, while on the other hand, C1 individuals were more desistant than C2 individuals were. The test of Homogeneity of Variances has a \( p \)-value of .001, which is statistically significant enough to say that the variances of the two mental health classifications are the same, which indicates that the assumption is not violated. The means plot in Figure 11, suggest that the mean of persistent incidents for C1 individuals was lower than the mean of persistent incidents for C2 individuals, and shows a straight line that fails to differ significantly. Therefore, the researcher rejects the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between mental health classification (C1 individuals & C2 individuals) and persistent incidents.
Table 11

*Means and Standard Deviations Comparing the Two Mental Health Classifications on Persistence*

<table>
<thead>
<tr>
<th>Mental Health Classifications</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 (low)</td>
<td>505</td>
<td>0.38</td>
<td>0.83</td>
</tr>
<tr>
<td>C2 (high)</td>
<td>381</td>
<td>2.72</td>
<td>1.73</td>
</tr>
<tr>
<td>Total</td>
<td>886</td>
<td>1.39</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Figure 11. Means Plot
Research Question and Hypothesis 12

The twelfth research question of this study asked is there a difference between the housing classification (permanent, temporary, homeless) of a SAMI-SO individual and the persistence rate during a period of active community supervision.

The researcher used an analysis of variance (ANOVA) statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that a SAMI-SO individual’s housing classification is no more likely related to the persistence rate during a period of active community supervision. The purpose of using an analysis of variance (ANOVA) statistical test is to determine the means of two or more independent groups on housing classification relative to the criterion variable persistent incidents. The results of this test indicate that there is a statistically significant difference in the mean number of persistent incidents between the three different housing classifications, $F(2, 883) = 20.29, p \leq .001$. Since the analysis of variance (ANOVA) statistical test does not reveal which means is more significant and the assumption of equal variances cannot be justified, the Levene’s test indicated a significance ($p \leq .001$) resulting in a follow-up Post hoc test to determine which pairs of means were significantly different. The Games-Howell post hoc tests indicate that there was a significant difference between the housing classifications of permanent (low), homeless (high), and (medium) temporary ($p < .05$, $d = 1.00$) on the persistent incidents. Table 12, shows the persistence means for the different housing classifications which are 1.05 for permanent (low), 1.52 for temporary (med), and (high) 2.12 for Homeless. The difference in means suggest that SAMI-SO individuals who were placed in permanent
housing subsequent to being released from a correctional institution were more likely to be desistant than SAMI-SO individuals who were placed in temporary housing or in a homeless shelter. Whereas, SAMI-SO individuals who were in a homeless shelter were more likely to be persistent than SAMI-SO individuals who were placed in temporary or permanent housing. The test of Homogeneity of Variances has a \( p \)-value of .001, which is significant enough to say the variances of the three housing classifications are not significantly different, which results in the researcher assuming equal variances among the three housing classifications on persistence. The means plot in Figure 12, suggest that the mean of persistent incidents for both temporary and homeless housing status was higher than the mean of persistent incidents for permanent housing status, and shows that all three were a moderately straight line that fails to differ significantly. Therefore, the researcher rejects the null hypothesis that there is no statistically significant difference in the persistence rate at the .05 level between the three housing classifications and persistent incidents.
Table 12

Means and Standard Deviations Comparing the Three Housing Classifications on Persistence

<table>
<thead>
<tr>
<th>Housing Classifications</th>
<th>Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
</tr>
<tr>
<td>Permanent (low)</td>
<td>409</td>
</tr>
<tr>
<td>Temporary (medium)</td>
<td>356</td>
</tr>
<tr>
<td>Homeless (high)</td>
<td>121</td>
</tr>
<tr>
<td>Total</td>
<td>886</td>
</tr>
</tbody>
</table>

Figure 12. Means Plot
Research Question and Hypothesis 13

The thirteenth research question of this study asked is there a difference between the number of months a SAMI-SO individual has spent in a correctional institution and the persistence rate during a period of active community supervision.

The researcher used a Spearman’s rank-order correlation coefficient statistical test to test the null hypothesis. The null hypotheses states that there is no statistically significant difference at the .05 level that the more time (months) a SAMI-SO individual has spent in a correctional institution will no more likely be related to the persistence rate than a SAMI-SO individual that has spent less time (months) in a correctional institution during a period of active community supervision. The purpose for using a Spearman’s rank-order correlation coefficient statistical test is to determine the strength and direction between the number of months spent in a correctional institution and the persistence rate. In order to determine if there was a statistically significant difference in the months spent in a correctional institution and the persistence rate, the researcher concluded that months spent in a correctional institution was positively skewed (skewness = 2.664), which is greater than + 1.0 and violates the assumption of normality. Therefore, a Spearman’s rank-order correlation coefficient statistical test was calculated, $r_s (884) = .09$, $p \leq .001$, which is significant at the .05 level (2-tailed). Using Cohen’s (1998) guidelines, the $r^2$ indicates that approximately .01% of the variance in persistent incidents can be predicted from months incarcerated, which is much smaller than typical. The scatterplot, Figure 13, suggest that the direction of the correlation was positive, which means that the more months a SAMI-SO individual is incarcerated would be associated with higher persistent
incidents. Using Cohen’s (1998) guidelines, the effect size is smaller than typical ($r = .09$) for months incarcerated on persistent incidents. Therefore, the null hypothesis is rejected because there is a statistically significant difference in the persistence rate at the .05 level between the number of months incarcerated and persistent incidents. However, due to a negligible effect size, which was calculated using $r^2$ to determine practical significance findings, was below Cohen’s cutoff of .10. Therefore, no strong conclusions can be made regarding the relationship between the persistence rate and months incarcerated of a SAMI-SO individual while on active community supervision.

Figure 13. Scatterplot
The fourteenth research question of this study asked is there a difference between the number of positive drug screens or intoximeter tests produced and the persistence rate of a SAM-SO individual during a period of active community supervision.

The researcher used a Spearman’s rank-order correlation coefficient statistical test to test the null hypothesis that there is no statistically significant difference at the .05 level that the number of positive drug screens or intoximeter tests produced by a SAMI-SO individual will no more likely be related to the persistence rate during a period of active community supervision. In order to determine if there was a statistically significant difference in the relationship between the number of positive drug alcohol screens and persistent incidents, the researcher conclude that the number of positive drug alcohol screens was positively skewed (skewness = 1.917), which is greater than + 1.0 and violates the assumption of normality. Therefore, a Spearman’s rank-order correlation coefficient statistical test was calculated, $r_s (884) = .57, p \leq .001$, which is significant at the 0.01 level (2-tailed). Using Cohen’s (1998) guidelines, the $r_s$ indicates that approximately 32% of the variance in persistent incidents can be predicted from positive drug alcohol screens, which is medium or typical. The scatterplot, Figure 14, suggest that the direction of the correlation was positive, which means that a SAMI-SO individual that has a high number of positive drug alcohol screens would tend to have a high number of persistent incidents. Therefore, the null hypothesis is rejected because there is a statistically significant difference in the persistence rate at the .05 level between positive drug alcohol screens and persistent incidents.
A multiple regression analysis was conducted to examine the relationship between social controls and individual factors on persistent behavioral patterns in the SAMI-SO population during a period of active community supervision. A simultaneous multiple regression was conducted to determine the best predictors of persistent incidents. The means, standard deviations, and intercorrelations can be found in Table 13.1, 13.2, and 13.3. The combination of variables to predict persistent incidents from Supv Level, MH Case Spec, Months on Supv, Comm. Linkages, Active TX, Age, Ethnicity, Yrs. of Education, Employed, Prev. MH TX, MH Class, Housing Status, Mon. Incarcerated, and Pos. Drug Alcohol was statistically significant.
$F(14,871) = 170.68, p \leq .001$, and indicates that a combination of the predictor variables is significantly related to the criterion variable persistent incidents. The beta coefficients are presented in Table 13.4. Note that high Supv Level, MH Case Spec, Months on Supv, Comm. Linkages, Active TX, Ethnicity, Yrs. of Education, Employed, Prev. MH TX, Housing Status, Mon. Incarcerated, and Pos. Drug Alcohol screens significantly predict persistent incidents and this model when all 14 predictor variables are included. The adjusted $R^2$ value was .729. This indicates that 73% of the variance in the criterion variable persistent incidents can be predicted from the predictor variables and was explained by this model. According to Cohen (1988) is a large effect.

Table 13.1

*Means and Standard Deviations, and Intercorrelations for Persistent Incidents and Predictor Variables (N = 886)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Supv Level</th>
<th>MH Case Spec</th>
<th>Months on Supv</th>
<th>Comm Linkages</th>
<th>Active TX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistent Incidents</td>
<td>1.39</td>
<td>1.74</td>
<td>.58**</td>
<td>.27**</td>
<td>.12**</td>
<td>.26**</td>
<td>.80**</td>
</tr>
<tr>
<td>Predictor Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Supv Level</td>
<td>1.59</td>
<td>0.53</td>
<td>--</td>
<td>.37**</td>
<td>.00*</td>
<td>.21**</td>
<td>.63**</td>
</tr>
<tr>
<td>2. MH Case Spec</td>
<td>1.83</td>
<td>0.38</td>
<td>--</td>
<td></td>
<td>0.05</td>
<td>.11**</td>
<td>.26**</td>
</tr>
<tr>
<td>3. Months on Supv</td>
<td>24.36</td>
<td>16.41</td>
<td>--</td>
<td></td>
<td>-.06*</td>
<td>.06*</td>
<td></td>
</tr>
<tr>
<td>4. Comm. Linkages</td>
<td>1.08</td>
<td>0.27</td>
<td>--</td>
<td></td>
<td></td>
<td>.33**</td>
<td></td>
</tr>
<tr>
<td>5. Active TX</td>
<td>1.42</td>
<td>0.5</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p \leq .05; **p \leq .001.*
Table 13.2

*Means and Standard Deviations, and Intercorrelations for Persistent Incidents and Predictor Variables (N = 886)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Year of Education</th>
<th>Employed</th>
<th>Prev MH Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Age</td>
<td>40.24</td>
<td>10.3</td>
<td>--</td>
<td>--</td>
<td>-.15**</td>
<td>.11**</td>
<td>.16**</td>
</tr>
<tr>
<td>7. Ethnicity</td>
<td>1.62</td>
<td>0.51</td>
<td>--</td>
<td>--</td>
<td>-0.03</td>
<td>-.13**</td>
<td>-0.01</td>
</tr>
<tr>
<td>8. Yrs. of Education</td>
<td>11.02</td>
<td>1.41</td>
<td>--</td>
<td>--</td>
<td>-.15**</td>
<td></td>
<td>-.07*</td>
</tr>
<tr>
<td>9. Employed</td>
<td>1.75</td>
<td>0.44</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td>0.03</td>
</tr>
<tr>
<td>10. Prev. MH TX</td>
<td>1</td>
<td>0.05</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

*p ≤ .05; **p ≤ .001.
Table 13.3

Means and Standard Deviations, and Intercorrelations for Persistent Incidents and Predictor Variables (N = 886)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>MH Class</th>
<th>Housing Status</th>
<th>Months Incarcerated</th>
<th>Pos. Drug Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. MH Class</td>
<td>1.43</td>
<td>0.5</td>
<td>--</td>
<td>.09*</td>
<td>-.05*</td>
<td>.40**</td>
</tr>
<tr>
<td>12. Housing Status</td>
<td>1.67</td>
<td>0.7</td>
<td>--</td>
<td>--</td>
<td>0.02</td>
<td>.19**</td>
</tr>
<tr>
<td>13. M. Incarcerated</td>
<td>56.03</td>
<td>61.27</td>
<td>--</td>
<td>--</td>
<td>-0.06</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05; **p ≤ .001
Table 13.4

*Simultaneous Multiple Regression Analysis Summary for Supv Level, MH Case Spec, Months on Supv, Comm. Linkages, Active TX, Age, Ethnicity, Yrs. of Education, Employed, Prev. MH TX, MH Class, Housing Status, Mon. Incarcerated, and Pos. Drug Alcohol Predicting Persistence (N = 886)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supv Level</td>
<td>0.25</td>
<td>0.08</td>
<td>.08**</td>
</tr>
<tr>
<td>MH Case Spec</td>
<td>0.04</td>
<td>0.09</td>
<td>.08</td>
</tr>
<tr>
<td>Months on Supv</td>
<td>0.07</td>
<td>0.02</td>
<td>.07**</td>
</tr>
<tr>
<td>Comm. Linkages</td>
<td>-0.04</td>
<td>0.12</td>
<td>-0.06</td>
</tr>
<tr>
<td>Active TX</td>
<td>1.78</td>
<td>0.1</td>
<td>.51**</td>
</tr>
<tr>
<td>Age</td>
<td>-0.08</td>
<td>0.03</td>
<td>-.46*</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.05</td>
<td>0.63</td>
<td>-0.01</td>
</tr>
<tr>
<td>Yrs. of Education</td>
<td>-0.05</td>
<td>0.23</td>
<td>.03*</td>
</tr>
<tr>
<td>Employed</td>
<td>0.64</td>
<td>0.77</td>
<td>0.16</td>
</tr>
<tr>
<td>Prev. MH TX</td>
<td>0.55</td>
<td>0.65</td>
<td>0.15</td>
</tr>
<tr>
<td>MH Class</td>
<td>0.97</td>
<td>0.79</td>
<td>.28**</td>
</tr>
<tr>
<td>Housing Status</td>
<td>0.25</td>
<td>0.48</td>
<td>0.1</td>
</tr>
<tr>
<td>Mon. Incarcerated</td>
<td>0</td>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>Pos. Drug Alcohol</td>
<td>0.11</td>
<td>0.18</td>
<td>.13**</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.13</td>
<td>0.769</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = 73$; $F (14,871) = 170.68, p \leq .001$. *p \leq .05; **p \leq .001.
Summary of the Results

In this chapter, the researcher examined the relationship between social controls and individual factors on persistent incidents in the SAMI-SO population during a period of active community supervision. Eight hundred and eighty six case samples were evaluated with no case samples missing data or being excluded from any of the statistical tests.

Independent Samples t-tests

Five separate independent samples t-tests (2, 4, 5, 9, and 10) were conducted comparing the means between two independent groups on persistent incidents.

The first independent samples t-test (2) compared the means between SAMI-SO individuals that were supervised by a mental health caseload specialist and SAMI-SO individuals that were not supervised by a mental health caseload specialist during a period of active community supervision. Results of the statistical test indicate that SAMI-SO individuals that were supervised by a mental health caseload specialist had a significantly lower mean of persistent incidents and were more desistant than SAMI-SO individuals that were not supervised by a mental health caseload specialist, which had a significantly higher mean of persistent incidents. There was a significant statistical difference between these two groups on the variable persistent incidents.

The second independent samples t-test (4) compared the means between a SAMI-SO individual that was linked to a community-based linkage service provider(s) and a SAMI-SO individual that was not linked during a period of active community supervision. The results of the statistical test indicate that a SAMI-SO individual that
was linked had a significantly lower mean of persistent incidents and was more desistant than a SAMI-SO individual that was not linked and had a significantly higher mean of persistent incidents. There was a significant statistical difference between these two groups on the variable persistent incidents.

The third independent samples \( t \)-test (5) compared the means between a SAMI-SO individual that was actively involved in treatment (mental health, psychiatric or substance abuse) and a SAMI-SO individual that was not actively involved in treatment during a period of active community supervision. Results of the statistical test indicate that a SAMI-SO individual that was actively involved in treatment had a significantly lower mean of persistent incidents and was more desistant than a SAMI-SO individual that was not actively involved in treatment and had a significantly higher mean of persistent incidents. There was a significant statistical difference between these two groups on the variable persistent incidents.

The fourth independent samples \( t \)-test (9) compared the means between a SAMI-SO individual that was employed and a SAMI-SO individual that was not employed during a period of active community supervision. Results of the statistical test indicate that a SAMI-SO individual that was employed had a significantly lower mean of persistent incidents and was more desistant than a SAMI-SO individual that was not employed and had a significantly higher mean of persistent incidents. There was a significant statistical difference between these two groups on the variable persistent incidents.
The fifth independent samples t-test (10) compared the means between a SAMI-SO individual that had previous mental health or substance abuse treatment and a SAMI-SO individual with no previous treatment during an active period of community supervision. Results of the statistical test indicate that a SAMI-SO individual that had previous treatment had a lower mean, but no discernable difference in persistent incidents than a SAMI-SO individual with no previous treatment and had a higher mean, but no discernable difference in persistent incidents. There was no significant statistical difference between these two groups on the variable persistent incidents.

Five separate independent samples t-tests (2, 4, 5, 9, and 10) were conducted to test the above research hypotheses 1-5. The mean difference between persistent incidents and the predictor variables for 2, 4, 5, and 9 was statistically different at the .05 level (p ≤ .001). Therefore, the researcher rejected all four null hypotheses that there is no significant statistical difference in the number of persistent incidents. However research hypothesis 10, was not statistically different in the number of persistent incidents at the .05 level (p ≤ .086), which resulted in the researcher failing to reject the null hypothesis that there is no significant statistical difference in the number of persistent incidents.

One-Way Analysis of Variance (ANOVA)

Three separate analyses of variance (ANOVA) statistical tests (7, 11, and 12) and one Kruskal-Wallis version of a chi-square nonparametric statistical test (1) was conducted to compare the statistical difference between the means of two independent groups.
The first Kruskal-Wallis version of a chi-square nonparametric statistical test (1) was used to compare the four supervision classification group means (intensive, basic, basic low, and monitored time) on persistent incidents during a period of active community supervision. Results of the statistical test indicated that a SAMI-SO individual that was supervised at the intense supervision classification had a significantly lower mean of persistent incidents and was more desistant than a SAMI-SO individual that was supervised at the basic, basic low or monitored time supervision classification and had a significantly higher mean of persistent incidents. There was a significant statistical difference between these four groups on the variable persistent incidents.

The first analysis of variance (ANOVA) statistical test (7) was used to compare the three ethnic groups’ means (African American, European American, and Latin American) on persistence during a period of active community supervision. However, due to the limited number of case samples (9) needed for each cell, the ethnic group Latin Americans was excluded from the final analysis and only African Americans and European Americans were compared. Results of the statistical test indicate that the means between African Americans and European Americans was not significantly different on the variable persistent incidents.

The second analysis of variance (ANOVA) statistical test (11) was used to compare the two mental health classifications (C1 individuals and C2 individuals) group means on persistent incidents during a period of active community supervision. Results of the statistical test indicated that C1 individuals had a significantly lower mean of persistent incidents and was more desistant than C2 individuals who had a significantly
higher mean of persistent incidents. Results of the statistical test indicate that there was a statistically significant difference in the means between C1 individuals and C2 individuals on the variable persistent incidents.

The third analysis of variance (ANOVA) statistical test (12) was used to compare the three housing classifications (permanent, temporary, and homeless) group means on persistent incidents during an active period of community supervision. Results of the statistical test indicated that SAMI-SO individuals who were placed in permanent housing had a significantly lower mean of persistent incidents and were more desistant than SAMI-SO individuals who were placed in either temporary housing or in a homeless shelter who had a significantly higher mean of persistent incidents. Additionally, results of the statistical test indicate that there is a significant statistical difference in the means between all three housing classifications on the variable persistent incidents.

Three separate analyses of variance (ANOVA) statistical tests (7, 11, and 12) and one Kruskal-Wallis version of a chi-square nonparametric statistical test (1) was conducted to test the above research hypotheses. The mean difference between persistent incidents and the predictor variables (1, 11, and 12) resulted in a significant statistical difference in the number of persistent incidents at the .05 level ($p \leq .001$). Therefore, the researcher rejected the null hypotheses that there is no significant statistical difference. One analyses of variance (ANOVA) statistical test (7) was not statistically different in the number of persistent incidents at the .05 level ($p \leq .102$), resulting in the researcher failing to reject the null hypothesis that there is no significant statistical difference.
Pearson product-moment correlation coefficient

Three separate Pearson product-moment (3, 6, and 8), and two Spearman’s rank-order correlation coefficient statistical tests (13 and 14) was conducted to compare the statistical difference in relationship or association between the means of two continuous groups on persistent incidents.

The first Pearson product–moment correlation coefficient statistical test (3) was used to determine if a relationship existed between the amount of time (months) that a SAMI-SO individual spends on active community supervision and persistent incidents. Results of the statistical test indicated that the more months a SAMI-SO individual spends on active community supervision, the higher the number of persistent incidents during an active period of community supervision.

The second Pearson product–moment correlation coefficient statistical test (6) was used to determine if a relationship existed between the age of a SAMI-SO individual and persistent incidents. Results indicate that the higher the chronological age of a SAMI-SO individual, the lower the number of persistent incidents during an active period of community supervision.

The third Pearson product–moment correlation coefficient statistical test (8) was used to determine if a relationship existed between the number of years of educational experience and the number of persistent incidents. Results indicate that the more educational experience a SAMI-SO individual has, the lower the number of persistent incidents during an active period of community supervision.
The first Spearman’s rank-order correlation coefficient statistical test (13) was used to determine if a relationship existed between the amount of time (months) a SAMI-SO individual has spent in a correctional institution and the number of persistent incidents. Results indicate that the more months a SAMI-SO individual was incarcerated, the higher number of persistent incidents during an active period of community supervision.

The second Spearman’s rank-order correlation coefficient statistical test (14) was used to determine if a relationship existed between the number of positive drug screens or intoximeter tests and the number of persistent incidents. Results indicate that a SAMI-SO individual that has a high number of positive drug alcohol screens would tend to have a high number of persistent incidents during an active period of community supervision.

Three separate Pearson product-moment (3, 6, and 8), and two Spearman’s rank-order correlation coefficient statistical tests (13 and 14) were conducted to test the above research hypotheses. The mean difference between persistent incidents and the predictor variables resulted in a significant difference in the number of persistent incidents at the .05 level ($p \leq .001$). Even though, the researcher rejected the null hypotheses for the first four statistical tests because there was no significant difference, no strong conclusions or practical significance could be made for hypotheses 3, 6, 8, and 13, because of the small effect sizes, which was below the minimum cutoff of .10. In any event, the results of the second Spearman’s rank-order correlation coefficient statistical test (14) indicated that a SAMI-SO individual that has a high number of positive drug alcohol screens would tend to have a high number of persistent incidents.
Multiple Regressions

Both a multiple regression analysis and simultaneous multiple regressions was conducted to determine how well the relationship between the above fourteen predictor variables predicts persistent incidents in the SAMI-SO population. The results of the multiple regressions indicate that a combination of the above variables (1-14) are a good predictor of persistent incidents and were statistically significant at the .05 level (\( p \leq .001 \)). A comparison of the simultaneous multiple regressions to determine the best fitting model in predicting persistent incidents indicate that seven of the fourteen predictor variables (supervision classification, months on supervision, active treatment, age, years of education, mental health class, and positive drug or alcohol screens) was statistically significant at the \( p \leq .05 \) and \( p \leq .001 \) level, and are strong predictors of persistent incidents.

Chapter IV introduced the results section of this study. A description of the case samples, descriptive demographics of the samples, and discussion of each research question was discussed. Each research question including statistical test and their results was provided. Finally, a brief summary of the results of each research question and hypotheses was also provided. Further discussion of the results and interpretation of this research study is provided in Chapter V.
CHAPTER V

DISCUSSION

This chapter provides a summary of the research findings including the results of the null hypotheses. Conclusions developed from this research study concerning their implications relative to the development of protocols and policies for the substance abusing mentally ill -supervised offender (SAMI-SO) population will be discussed. Limitations of this study are presented including recommendations and directions for future research. This study makes a significant contribution to the research literatures because, as previously indicated, it represents the first empirical study of its kind that focuses exclusively on the relationship social controls and individual factors have as a potential catalyst on desistance or persistence behaviors specific to the SAMI-SO population.

The purpose of this study was to examine the relationship between fourteen predictor variables, relative to social controls and individual factors, on the criterion variable persistent related behaviors in the SAMI-SO population during a monitored period of active community supervision. As such, the researcher was interested in identifying specific markers relative to the fourteen-predictor variables that could positively influence the SAMI-SO population in reducing the number of arrest and incarcerations.
The SAMI-SO Population’s Sample Characteristics

Out of the 4,340 available cases sampled consisting of persons classified as meeting the criteria for severely mentally ill (SMI), were significantly impaired, had some impairment in functioning or acuity (C1 individuals), and persons that did not meet the criteria for SMI, had a diagnosed mental disorder, no impairment in functioning, and received mental health services (C2 individuals). This resulted in the researcher proportionally sampling 505 C1 individuals or 20% of 2,467 and 381 C2 individuals, which is 20% of 1,873 cases from 6 out of 7 Adult Parole Authority (APA) regions, see APPENDIX C. The total number of cases sampled for purposes of this research study was 886. Case selection criteria consisted of only adult male offenders eighteen years or older that were previously incarcerated in a correctional institution, had a previous or current history of mental illness, substance use or dependence, a previous history of treatment, and were no longer on active community supervision. The reason for only selecting adult male offenders was due to their substantial representation in both the correction’s system and community supervision, which is important when trying to achieve a significant effect size. The APA’s linkage referral files were used to both select and identify SAMI-SO individuals with a mental health classification as a C1 individual or C2 individual.

A significant portion of the information needed to complete this research study was extracted from the community linkage referral case files, which provided the mental health classification, previous mental health history and treatment, medical history, corrections history, and demographics. The information gathered from these sources,
especially the institution number, was used to access an additional data source to investigate and validate the existence of the criterion and predictor variables through the Ohio Department of Rehabilitation and Correction’s (ODRC) provisional databases system, which is commonly referred to as the departmental offender tracking system portal (DOTS-Portal).

Summary and Discussion of the Null Hypotheses

This researcher completed numerous statistical tests in order to determine if a meaningful relationship existed between social controls and individual factors on persistence. Since the focus of this study was the number of persistent incidents of SAMI-SO individuals while on active community supervision, the researcher set an unadjusted alpha of .05 for all inferential procedures.

Supervision Classification Null Hypothesis

The results of the first statistical analysis, a Kruskal-Wallis version of the chi-square nonparametric statistical test, allowed the researcher to reject the null hypothesis. The predictor variable “supervision classification” and criterion variable “persistent incidents” were compared. The results of this analysis revealed a statistically significant difference between the four supervision classifications (intense, basic, basic low & monitored time) and indicated that the results had a large effect size relative to the number of persistent incidents. The results of this analysis suggest that SAMI-SO individuals supervised at the basic classification had a higher incidence of persistence and were less desistant than SAMI-SO individuals supervised at the other three classifications levels. Moreover, SAMI-SO individuals supervised at the intense classification were
more desistant and less persistent than SMAI-SO individuals supervised at the basic, basic low and monitored time classification. These differences in persistence may be due to an increase in the number of face-to-face contacts during a one-month period (4x) with their supervising officer. The reduced number of supervision contacts with in a one-month period for SAMI-SO individuals supervised at the basic (3x), basic low (2x), and monitored time (1x), could explain the reason for the increase in persistent incidents. These findings are consistent with previous literature (Lurigio, 2001; National Research Council, 2006; Skeem et al., 2003), which suggest that increased supervision contacts can deescalate persistent behavior once it is identified by the supervising officer and, more importantly, prevent persistent behavior from continuing or becoming unmanageable during an active period of community supervision.

**Supervision by a Mental Health Caseload Specialist Null Hypothesis**

The results of the second statistical analysis, an independent samples t-test, allowed the researcher to reject the null hypothesis. The predictor variable “supervision by a mental health caseload specialist versus no supervision by a mental health caseload specialist” and the criterion variable “persistent incidents” were compared. The results of this analysis revealed a statistically significant difference between SAMI-SO individuals that were supervised by a mental health caseload specialist and SAMI-SO individuals that were not, and indicated that the results were small to medium in effect size relative to the number of persistent incidents. These results suggest that SAMI-SO individuals supervised by a mental health caseload specialist had significantly lower means in persistent incidents and were more desistant than SAMI-SO individuals that were
supervised by a general caseload specialist. These findings are consistent with previous literature and research (Lurigio, 2001; National Research Council, 2006; Skeem et al., 2003; Skeem et al., 2006). Previous literature and research suggest that specialized caseload supervision involving a mental health caseload specialist may be more effective in reducing the number of persistent related incidents in the SAMI-SO individual population.

*Number of Months on Active Community Supervision Null Hypothesis*

The results of the third statistical analysis, a Pearson product–moment correlation coefficient allowed the researcher to reject the null hypothesis. Rejection of the null hypothesis was attributable to a statistically significant difference at the .05 level between the amounts of time (months) that SAMI-SO individuals serve on active community supervision and persistent incidents. The results indicate that the predictor variable months on supervision was positively skewed (skewness = .890), and did not violate the assumption of normality, which means that the more months a SAMI-SO individual spends on active community supervision the higher the number of persistent incidents. The results of the test were statistically significant, $r (884) = .12, p \leq .001$. Due to the negligible effect size of .01%, however, no practical significance or strong conclusions can be made.

*Community Linkage Null Hypothesis*

The results of the fourth statistical analysis, an independent samples $t$-test, allowed the researcher to reject the null hypothesis. The results of the test indicate that there is a significant statistical difference between SAMI-SO individuals that were linked
and SAMI-SO individuals that were not linked on the criterion variable persistent incidents, and indicated that the results were small to medium in effect size relative to the number of SAMI-SO individuals that were typically linked to a community-based linkage service provider. This suggests that SAMI-SO individuals that were linked had significantly fewer persistent incidents and were more desistant than did the non-linked SAMI-SO individuals. These results are consistent with Jacoby and Kozie-Peak’s (2003) post-prison social support research, which reported a statistically significant difference (83%) and positive relationship between SAMI-SO individuals that were linked versus those that were not linked in relation to persistent incidents. Jacoby and Kozie-Peak continued that the benefit of community based social support linkages for SAMI offenders could potentially have a lasting positive effect on the SAMI population by facilitating a higher quality of life, promote social adjustment, and decrease their propensity to recycle through the correction’s system.

*Active Treatment Involvement Null Hypothesis*

The results of the fifth statistical analysis, an independent samples *t*-test, allowed the researcher to reject the null hypothesis. The results of the test indicate a significant statistical difference in persistent incidents between SAMI-SO individuals that were actively involved in treatment and SAMI-SO individuals that were not actively involved in treatment. The resulting test suggest a large effect size. This suggests that SAMI-SO individuals that were actively involved in treatment had significantly fewer persistent incidents and were more desistant than SAMI-SO individuals with a higher incidence of persistence. These results are consistent with previous research and controlled trials.
literature (Bond et al., 2001; Hartwell, 2006; Chwastiak et al., 2006; Morrissey et al., 2007; Rich et al., 2001), which suggested that SAMI participants in an active structured treatment program had better outcomes than non participants. Better outcomes resulted in a significant reduction in psychiatric hospitalization, patient symptoms, and illegal substances use. Better outcomes were also associated with an increase in community supervision compliance, an overall improvement in quality of life, and better social adjustment, which this researcher sees as a positive approach relative to persistent behaviors in the SAMI-SO population while they are active community supervision.

**Age Null Hypothesis**

The results of the sixth statistical analysis, a Pearson product–moment correlation coefficient statistical test, allowed the researcher to reject the null hypothesis. The predictor variable “age” was positively skewed (skewness = .418), but did not violate the assumption of normality. The results of the test were statistically significant, $r (884) = -.20, p \leq .001$. The direction of the correlation was negative, which means that the higher a SAMI-SO individual’s age, the lower the number of persistent incidents during an active period of community supervision. However, due to the negligible effect size of .04%, no practical significance or strong conclusions can be made regarding the results of this statistical test. This statistical analysis neither confirms nor disputes previous research by Laub and Sampson (2001) in the development of their age-graded informal social control theory, which posits that a change in either desistance or persistence becomes more salient with age.
Ethnicity Null Hypothesis

The results of seventh statistical analysis, an analysis of variance (ANOVA) statistical test, was non-significant, $F(2, 883) = 1.415, p \leq .243$. Based on this finding, the researcher failed to reject the null hypothesis. Additionally, a test of Homogeneity of Variances using the Levene statistic resulted in a $p$-value of .019, which is not significant enough to say the variances between the three ethnic categories are significantly different. Even though no statistically significant difference existed, the predictor variable ethnicity means for African American (1.27), European American (1.47), and Latin American (1.11) on criterion variable persistent incidents were reviewed by the researcher for purposes of determining the number of persistent incidents between these three groups. A review of the means suggests that European Americans had a higher incidence of persistence and was less desistant then African Americans and Latin Americans. However, due to the limited number of Latin American case samples (9) needed for each cell, an additional analysis of variance (ANOVA) statistical test was conducted consisting of only African Americans and European Americans. The results of the second analysis of variance (ANOVA) statistical test did not reveal a statistically significant difference between the two ethnic categories, $F(1, 875) = 2.682, p \leq .102$, which is consistent with the previous analysis involving all three ethnic categories. There was only a slight difference in the $p$-value using the Levene statistic between the first and second analysis from .243 to 1.02. A comparison between the means of the two ethnic categories was consistent with the first analysis. Therefore, the researcher failed to reject the null hypothesis of the second analysis of variance (ANOVA) statistical test. Even
though the researcher failed to reject the null hypotheses for both analyses, the researcher was interested in the persistence rate between the two ethnic categories as a measure of determining which group was in most need of mental health or substance abuse services for stabilization purposes during a period of active community supervision. The researcher concluded that both groups were equally in need of mental health or substance abuse related services.

*Formal Educational Experience Null Hypothesis*

The results of the eighth statistical analysis, a Pearson product–moment correlation coefficient statistical test, allowed the researcher to reject the null hypothesis. The researcher concluded that the predictor variable formal educational experience was negatively skewed (skewness = -.952), but did not violate the assumption of normality. The result of the test was statistically significant, $r(884) = -.17, p \leq .001$, which means that more years of educational experience would be associated with lower persistence. However, due to the negligible effect size of .03%, no practical significance or strong conclusions can be made regarding the results of this statistical test. This statistical analysis neither confirms nor disputes previous literature (Bradizza & Stasiewicz, 2003; Hagar et al., 2008; McCollister et al., 2003), which suggest that formal educational experience acts as a protective factor in reducing recidivism and contributes to maintaining desistance or controlling persistent behavior in the SAMI-SO population during an active period of community supervision.
Employment Status Null Hypothesis

The results of the ninth statistical analysis, an independent samples t-test, allowed the researcher to reject the null hypothesis. The results of this test indicated that there is a significant statistical difference in persistence between SAMI-SO individuals that were employed and SAMI-SO individuals that were not employed while on active community supervision. Moreover, the magnitude of this difference fell between the effect sizes of small to medium. This suggests that SAMI-SO individuals that were employed had significantly lower means in persistent incidents (M = .84) and were more desistant then SAMI-SO individuals with higher means (M = 1.57) in persistent incidents. These results are consistent with previous research by Jacoby and Kozie-Peak (1997), which suggests that meaningful employment after being released from a correctional institution can be efficacious in relation to desistance during an active period of community supervision.

Previous Mental Health Treatment Null Hypothesis

The result of the tenth statistical analysis, an independent samples t-test, was non-significant. Because of this finding, the researcher failed to reject the null hypothesis. The result of this test indicate that there was no significant statistical difference in persistence between SAMI-SO individuals with previous mental health or substance abuse treatment and SAMI-SO individuals that had not received previous treatment. Additionally, the results indicated a small to medium effect size relative to the number of SAMI-SO individuals that typically had a previous history of treatment while on community supervision. A comparison of the means suggest that SAMI-SO individuals that had a previous history of treatment had a lower means in persistent incidents (M
and was more desistant than SAMI-SO individuals with no history of treatment and a higher means (M =1.57) of persistent incidents. Even though the researcher failed to reject the null hypothesis, previous research by Gagliardi et al. (2004), and Hagar et al. (2008), proposed that prior mental health or substance abuse treatment could have a long-term protective effect in maintaining desistance or reducing persistent behaviors in the SAMI population during an active period of community supervision.

**Mental health Classification Null Hypothesis**

The results of the eleventh statistical analysis, an analysis of variance (ANOVA) statistical test, allowed the researcher to reject the null hypothesis. The statistical test revealed that persistent incidents differed statistically, $F (1, 884) = 710.37, p \leq .001$, between the two mental health classifications. These results indicate that C2 individuals (2.72 persistent incidents) were more persistent and less desistant than C1 individuals (.38 persistent incidents).

**Housing Classification Null Hypothesis**

The results of the twelfth statistical analysis, an analysis of variance (ANOVA) statistical test, allowed the researcher to reject the null hypothesis. The analysis and statistical test revealed that rejection of the null hypothesis was attributable to a statistically significant difference in the persistence means, $F (2, 883) = 20.29, p \leq .001$, between the three housing classifications (permanent, temporary, homeless) at the .05 level. Because an ANOVA does not reveal which mean is more significant and the assumption of equal variances cannot be justified, the researcher conducted a post hoc analysis test to determine which means were significantly different. The researcher
performed a Games-Howell post hoc test, the results of which indicated that there was a significant difference ($p < .05, d = 1.00$) in persistence between the three housing classifications. The mean scores for each housing category were 1.05 for permanent (low), 1.52 for temporary (medium), and 2.12 (high) for homeless. The Games-Howell post hoc test indicated that SAMI-SO individuals who were placed in permanent housing after being released from a correctional institution were more likely to be less persistent and more desistant than SAMI-SO individuals who were placed in temporary housing or in a homeless shelter. Conversely, SAMI-SO individuals who were placed in a homeless shelter were more likely to be persistent than SAMI-SO individuals who were placed in temporary or permanent housing.

**Number of Months Incarcerated Null Hypothesis**

The results of the thirteenth statistical analysis, a Spearman’s rank-order correlation coefficient statistical test, allowed the researcher to reject the null hypothesis. The researcher determined that the predictor variable “months spent in a correctional institution” was positively skewed (skewness $= 2.664$), which is greater than $+1.0$ and violates the assumption of normality. This means that the more months a SAMI-SO individual was incarcerated, the higher number persistent incidents. The result of the Spearman’s rank-order correlation coefficient was statistically significant, $r_s (884) = .09, p \leq .001$. However, due to the negligible effect size of .01%, no practical significance or strong conclusions can be made regarding the results of this statistical test.
**Number of Positive Drug Screens or Intoximeter Test Null Hypothesis**

The results of the fourteenth statistical analysis, a Spearman’s rank-order correlation coefficient statistical test, allowed the researcher to reject the null hypothesis. The researcher observed that the predictor “number of positive drug screens or intoximeter tests” was positively skewed (skewness = 1.917), which is greater than +1.0 and violates the assumption of normality. The results of the test were statistically significant, $r_s (884) = .57, p \leq .001$. This result suggests that the more positive drug screens or intoximeter tests produced by SAMI-SO individuals were associated with higher incidence of persistence. The $r_s$ indicates that approximately 32% of the variance in persistent incidents can be predicted from positive drug alcohol screens, which is medium or typical for the number of positive drug screens or intoximeter tests produced by SAMI-SO individuals during a period of active community supervision.

**Multiple Regression and Simultaneous Multiple Regressions Analysis**

Finally, the researcher conducted a multiple regression analysis and simultaneous multiple regressions to determine how well the relationship between the above fourteen predictor variables predicts persistent behavioral patterns in the SAMI-SO population. The results of the multiple regression analysis indicate that combinations between the above variables (1-14) and persistent incidents are good predictors in evaluating the SAMI-SO population during an active period of supervision and were statistically significant at the .05 level ($p \leq .001$). Additionally, the results of a simultaneous multiple regressions indicate that seven of the fourteen-predictor variables (supervision classification, months on supervision, active treatment, age, years of education, mental
health class, and positive drug or alcohol screens) were statistically significant at the $p \leq .05$ and $p \leq .001$ level, and are very strong indicators in measuring desistance or persistent behaviors. These statistical results suggest that a combination of all fourteen predictor variables are a good model for purposes of evaluating or researching the SAMI-SO population during an active period of community supervision.

Summary

This research study focused on fourteen predictor variables that may be good indicators for determining the relationship between desistance and persistent behaviors in the SAMI-SO population during a period of active community supervision. These hypotheses were chosen based on current literature and this researcher’s interest in identifying specific markers that can be used in evaluating desistance or persistence measures in the SAMI-SO population.

An analysis of two statistical tests (ethnicity and previous mental health or substance abuse treatment) resulted in a failure by the researcher to reject the null hypotheses due to no statistical significant difference. However, a lack of statistical difference does not reduce their importance as potential markers in evaluating the efficacy of previous mental health or substance abuse treatment relative to the three ethnic classifications. As previously suggested in the literature (Ho et al., 1999; Lurigio, 2001; Swartz et al., 1998), determining previous mental health or substance abuse treatment while a SAMI-SO individual is engaged in the criminal justice system can adversely affect their ability to remain abstinent from mind-altering chemicals, engaging in mental health services, and more importantly, remain desistant from all criminal
behaviors. The researcher’s rationale for focusing on ethnic classification was to
determine which ethnic group was most adversely affected by the lack of mental health or
substance abuse services on persistence. Lack of mental health or substance abuse
services for any ethnic group is considered by Lurigio (2001) and Farabee and Shen
(2004) to be the biggest hindrance in reducing the number of persistent incidents in the
SAMI-SO population.

Even though four of the hypotheses were determined to be statistically significant
(months on active community supervision, age, educational experience, and months
incarcerated), no practical significance or conclusions could be made regarding their
results due to a negligible effect size. Regardless of the negligible effect size, the
researcher was interested in months on active community supervision as a measure of
functioning and adjustment of the SAMI-SO population outside of the correctional
environment. The researcher surmised from analyzing numerous supervision cases that a
shorter period of active community supervision (12 to 24 months) coincided with
effective active treatment involvement, intense supervision, and successful community
linkages as a potential catalyst in remaining desistant. Additionally, the researcher was
interested in the average age of the SAMI-SO population in comparison to the number of
persistent incidents. An analysis of numerous cases suggested that the older a SAMI-SO
individual is, the more desistant they are in comparison to the younger SAMI-SO
individual, especially during an initial period of active community supervision. This
supposition coincidently is consistent with previous research by Laub and Sampson’s
(2001) in developing their age-graded informal social control theory. Their theory posits
that desistance stems from a variety of complex processes, which are developmental, psychological, and sociological. As such, these complex processes act as catalyst in conjunction with numerous individual characteristics or factors that have a relationship with the process of desistance, especially when considering maturation as a key element in maintaining desistant behaviors. Additionally, previous research and literature by McCollister et al. (2003), Bonta et al. (1998), and Farabee and Shen (2004) suggest that the level of education has a protective effect in reducing relapse and increasing compliance with prescribed medication among the SAMI-SO population. That is, the more education a SAMI-SO individual has, the more likely he, or she will internalize their treatment programming, desist from using mind-altering chemicals, and stay active in their mental health treatment program. The researcher was interested to see if these previous findings were consistent with the current group in this research study, but due to a negligible effect size, a large experimental two-group research design comparing the educational differences between SAMI-SO individuals on persistent incidents would probably produce results that are more practical. As previously suggested, the researcher was interested in the relationship between months of incarceration on persistent incidents. An analysis of numerous supervision cases suggests that length of incarceration (short vs. long) has no bearing on whether a SAMI-SO individual will desist or persist while on active community supervision. There are other factors outside of the institutional environment that can possibly influence a SAMI-SO individual’s ability desist or persist such as any of the above social controls or individual factors identified in this research study.
Eight out of the fourteen hypotheses analyzed (supervision classification, supervision by a mental health caseload specialist, community linkage, active treatment involvement, employment, mental health classification, housing classification, and number of positive drug or intoximeter test) were found to be statistically significant and good markers in measuring persistent incidents in the SAMI-SO population.

After individually analyzing each research hypotheses, the researcher was interested in determining what specific hypotheses would encompass a good model in conducting future research on desistance or persistence. The results of the multiple regression analysis indicate that combinations between all fourteen variables on persistent incidents are good predictors in evaluating the SAMI-SO population during an active period of supervision. The results of a simultaneous multiple regressions indicate that seven of the fourteen-predictor variables (supervision classification, months on supervision, active treatment, age, years of education, mental health class, and positive drug or alcohol screens) are very strong predictors in predicting desistance or persistent incidents in the SAMI-SO population during a period of active supervision.

Finally, the researcher deduced from reviewing numerous case samples that the crucial difference between SAMI-SO individuals that desisted versus SAMI-SO individuals that persisted was linkage continuity. The researcher hypothesize that linkage continuity involves a continuation of supportive services during incarceration, while on community supervision, and after final release from community supervision. Case analysis suggest that SAMI-SO individuals that were successfully linked and stayed actively engaged in programming, consisting of case management services, psychiatric...
care, medication management, and routine follow-up appointments appeared to adjust and function much better while on active community supervision than SAMI-SO individuals who discontinued their supportive services. The researcher arrived at this concept after comparing numerous field officer case notes indicating routine clinical case staffings with community treatment providers, monitoring of treatment appointments and compliance with prescribed psychotropic medications, and routine interventions throughout the SAMI-SO individual’s entire period of active community supervision. From this researcher’s perspective, maintaining linkage continuity seems to be an effective approach in managing the SAMI-SO population.

**Implications**

The results of this study offer implications for mental health specialists, criminologists, and social scientists in altering their perspective on studying the SAMI-SO population. This change in perspective could shift their attention from looking at recidivism as the single marker for determining success or failure to focusing on individual characteristics of the SAMI-SO population relative to social controls and individual factors in determining individual needs that contribute to success. An additional implication is a change in how customers such as the courts and corrections systems measure the success or failure of community-based treatment services. That is, how well community-based treatment programs contribute to maintaining desistance or controlling persistent behaviors in the SAMI-SO population while they are involved in treatment. One of the main benefits of measuring the viability of a community treatment program on desistance or persistence measures instead of recidivism could be to alter the
funding streams from less viable treatment programs to treatment programs that have
better outcomes in providing services to the SAMI-SO population. Additional
implications resulting from altering how the SAMI-SO population is studied includes
increased insight into developing new treatment models that encompass the whole human
concept of providing services by bridging the gap between mental health and substance
abuse services, psychiatric care, case management services, employment, housing,
education, and most important, linkage continuity. By bridging these gaps, mental health
specialists, criminologists, and social scientists might be able to develop an effective
therapeutic model that can meet the specific needs of the SAMI-SO population. Such a
model could potentially improve this population’s overall functioning in the community,
and interrupt their propensity to repeatedly cycle through the criminal justice system.
Since, the multiple regression method used in this study resulted in a statistical
significance, $F(14, 871) = 170.68, p \leq .001$, and indicated that 73% of the variance in the
criterion variable persistent incidents can be predicted from any combination of the
fourteen predictor variables, the regression model developed from this research study can
be incorporated as a formula for numerous applications. Applications can involve
making clinical recommendation for SAMI-SO individuals engaged in treatment,
evaluating the success or failure of a mental health or substance abuse treatment program.
Potential users of this model are mental health practitioners, mental health and substance
abuse treatment programs, and case managers. Additionally, federal, state, and municipal
courts, including corrections systems such as parole or probation can use this model in
developing reentry programs or outcome studies in measuring program effectiveness in
assessing SAMI-SO individual needs and program usefulness. Finally, this regression model has applications relative to grant writing and developing request for programs (RFPs), which can be an invitation for suppliers of treatment services to submit a proposal to provide treatment services integrating the above variables used in this model as an evaluation tool.

Limitations

There exist numerous limitations of this research study. First, it only includes a 3 to 5 year analysis of persistent incidents in the SAMI-SO population after their termination from community supervision. This approach is dissimilar to Laub and Sampson’s (2003) longitudinal study of offender males, which incorporates a quantitative analysis of secondary data and qualitative analysis of individual interviews relative to the relationship between social controls on the desistance and persistence rate of juvenile offenders to age 70. This study is limited in scope to only an analysis of secondary data from the Ohio Department of Rehabilitation and Correction’s (ODRC) database of SAMI-SO individual released from community supervision, which differs from Laub and Sampson’s work in that no follow-up interviews were conducted.

The second limitation includes sampling and methodology. The population of interest is limited to only offenders classified in the database as either a C1 individual or C2 individual with a history of mental health or substance abusing behavior, and excludes other offender with dissimilar characteristics on community supervision. The researcher’s ability to generate a random sample of current SAMI-SO individuals was limited because of their status as a protected class, lack of accessibility due to their being
released from active community supervision, low population sample size in comparison to the large offender population, and lack of accuracy of institutional and supervision records. Because of these limitations, the researcher was restricted to conducting a proportional sampling of offenders classified in the database as a C1 individual or C2 individual with a history of mental illness or substance abusing behavior within the last 3 to 5 year period. This approach is consistent with the state of Ohio’s period for maintaining accessible records on this population. Although this method was adequate for the current study, a true random sampling across multiple states involving the SAMI-SO population together with a pre and post- structural clinical follow-up interview would have been ideal. While a proportional sampling approach is the preferred method for this study, using this method will restrict generalizability of the data only to SAMI-SO individual under the supervision of the state of Ohio.

Moreover, using a retrospective correlational research approach is an appropriate research design for this study since interpretation of the results is restricted from implying causation due to the variation of interest has already occurred and according to Fraenkel & Wallen (2003) “correlational studies do not in and of themselves, establish cause and effect” (p.339). Because of this limitation, the researcher could not control all confounding variables, and consequently could not always draw a firm conclusion between the predictor variables and criterion variable. However, a relationship between the previously identified fourteen variables could establish markers that may provide information for further research comparative to measuring desistance or persistent
incidents among the SAMI-SO population while they are on active community supervision (Fraenkel & Wallen).

The researcher took every precaution in anticipating potential issues in conducting this research study including staying cognizant of the limitations associated with biased sampling of cases including potential biases in reporting, which may be reflected in some of the cases reviewed. According to Frankel and Wallen (2003), proportional sampling has the potential to be biased based upon review of certain cases in attempting to extract the criterion and predictor variables. However since this is the only choice available, the researcher was careful to include all information relative to demographics and every other characteristics of the sample that is actually being studied, including replication, which is, repeated reviews of similar and dissimilar cases throughout the study to reduce the likelihood that the results obtained, is not a one-time occurrence.

The third limitation was the homogeneity of the case samples reviewed on the predictor variable ethnicity, as the majority of the case samples reviewed was composed mainly of African Americans and European Americans. These two ethnic groups makeup the majority of inmates in Ohio’s correctional system and community supervision, and results of this research study are less likely to be generalizable to other ethnic groups outside of these two ethnic groups studied.

The fourth limitation of this research study was community supervisor variability, which could have an influence on the effectiveness of community supervision and a SAMI-SO individual’s ability to remain desistant or in some extreme cases contribute to persistent behaviors. Since no two-community supervisors manage their caseload the
same way, successful or unsuccessful outcomes relative to supervision compliance, community linkages, or treatment engagement will vary from SAMI-SO individual to SAMI-SO individual.

Another limitation is that there are no immediate benefits for the research subjects whose cases were reviewed due to their termination from active community supervision. However, results from this research study may benefit existing SAMI-SO individuals presently on active community supervision by identifying specific markers (social controls and individual factors) that could potentially increase their success while on active community supervision and subsequent to being released to the community. Identification of potential markers for success can involve a reduction or maintenance of violation type behaviors (persistence), psychological and emotional stabilization through linkage services, and identification of specific needs during the active community supervision process. Identification of specific needs could potentially enable the SAMI-SO individual to successfully adjust in the community, and more importantly reduce their likelihood of relapse or resumption of mood altering illegal substances as a mechanism to self medicate.

Directions for Future Research

This study provides some recommendations for researchers interested in studying the SAMI-SO population and in identifying specific makers that can assist future researchers in determining what works in measuring desistance or persistent behaviors during an active period of community supervision. The results of this research study suggest that a relationship does exist between numerous predictor variables on the
criterion variable persistence. Moreover, both multiple regression analysis and simulations regressions suggest a combination of all fourteen predictor variables on the criterion variable (persistence) is a good model for evaluating either desistance or persistence behaviors. Because of a lack of literature or research, the following explanations require further research:

First, in measuring the amount of time (months) that a SAMI-SO individual serves on active community supervision relative to persistent incidents, the researcher assumes that the insignificant effect size may be the result of statistical extremes. Statistical extremes can vary such as numerous outliers, which can be effected by several factors such as a SAMI-SO individual’s continual persistence or sporadic offending “zigzagging” in and out of the correctional institution over the life course (Laub & Sampson, 2003, p.196), and an extension of community supervision resulting from a violation of supervision conditions. The amount of time a SAMI-SO individual spends on active community supervision can be effected by their age, a lack of community support, permanent housing, and employment to name a few. After analyzing a significant number of cases concerning a SAMI-SO individual’s age, the researcher hypothesize that the younger a SAMI-SO individual is, the more community based linkage services they require in order to stabilize while on active community supervision. In addition, the researcher assumes that the difference in persistent incidents and effect size relative to age may be the result of statistical extremes such as numerous outliers, which can be effected by great differences in age of offenders released from the correctional institution after serving extensively long periods of incarceration.
Second, in measuring mental health classifications on persistence, the researcher hypothesizes that the difference in persistent incidents between C1 individuals and C2 individuals is due to C1 individuals being identified early in prison or after being released to community supervision, which resulted in a linkage and active treatment involvement in the community. Early referral and active treatment involvement appears to positively influence the number of persistent incidents involving the SAMI-SO population during an active period of community supervision. Besides the low number of persistence incidents involving the C1 population, the effectiveness of specialized caseload supervision is more likely due to their primary focus on psychological and emotional stability of the C1 individual, increased case management services, and brokering of mental health services specific to the needs of the C1 population.

Third, in measuring housing classification on persistent incidents, the researcher hypothesizes that the difference in persistent incidents relative to the housing classifications are a result of the stability versus instability associated with the three housing classifications. That is, SAMI-SO individuals that are residing in a permanent residence are more likely to be mentally, emotionally, and socially stable than SAMI-SO individuals who are residing in either temporary housing or a homeless shelter, which is less stable and inconsistent.

Fourth, in measuring the amount of time (months) a SAMI-SO individual spends in a correctional institution on persistence, the researcher hypothesizes that the difference in persistent incidents relative to the effect size may be the result of statistical extremes such as numerous outliers. Statistical extremes such as numerous outliers can be affected
by disparities in sentencing by the various courts or institutional parole boards. This results in some SAMI-SO individuals serving longer sentences than the norm for offences that carry stiffer sentences.

Fifth, in measuring positive drug screens or intoximeter tests produced by SAMI-SO individuals on persistence, the researcher hypothesizes that the difference in persistent incidents may be closely associated with active treatment involvement, supervision status and other predictor variables that may have a positive impact on maintaining desistance.

Finally, based upon the significant findings in this study, future studies could broaden desistance research by incorporating other statistical methods such as surveys involving both SAMI-SO individuals and community supervision staff. Surveying SAMI-SO individuals while they are on active community supervision can identify specific needs that can improve upon their ability to function normally in society. In addition, surveying community supervision staff can assist in the development of policies or procedures that assist them in becoming more effective community supervisors with hard to supervise SAMI-SO individuals. Future research does not necessarily have to focus on the fourteen variables identified in this study, because there are other areas of interest in desistance research that could be examined. These areas of interest could be supervision relationships, cultural transference, transference associated with SAMI-SO individuals that have an alternate life style, treatment provider and patient relationships, and medication and treatment compliance concerns. The list of markers that can influence a SAMI-SO individual’s ability to function normally in society is endless.
Even though there exist a plethora of research studies and literature on the recidivism rate of the offender population, incorporating desistance and persistence theory as a potential indicator in measuring the effectiveness of treatments programs and correctional policies can have long-term implications in altering the SAMI-SO population from recycling through the correctional system. Since neither, this research study nor the multiple regressions model used in creating this dissertation is a panacea in developing effective policies or treatment protocols for the SAMI-SO population, the fourteen variables and regressions model developed in this research study provides tangible markers for conducting future research. Additionally, this researcher feels that this research study provides a good foundation for exploring desistance or persistence research involving the SAMI-SO population. Finally, approaching desistance or persistence research using an experimental approach will always have practical implications in developing a clearer understanding of the specific needs of the SAMI-SO population.

Conclusion

This study investigated the relationship social controls and individual factors have on the persistence rate in the substance abusing mentally ill-supervised offender (SAMI-SO) population as measured by the number of persistent related incidents during a 3 to 5 year monitored period of active community supervision. The social controls predictor variables in this study were the type of community supervision, supervision by a mental health caseload specialist, length of time on active community supervision, linkage to a community-based linkage provider(s), and active treatment involvement. The individual factors predictor variables were chronological age, ethnicity, years of educational
experience, employment, previous mental health and substance abuse treatment, mental health classification, housing classification, number of months spent in a correctional institution, and the number of positive drug screens or intoximeter tests. The criterion variable in this study was persistence, which was measured by the number of persistent related incidents during an active period of community supervision. The research involved a proportional sampling and analysis of 886 closed supervision cases from the Ohio Department of Rehabilitation and Correction’s (ODRC) database of offenders released from community supervision with the Adult Parole Authority (APA).

Independent samples t-tests revealed that SAMI-SO individuals who were supervised by a mental health caseload specialist, were linked to a community treatment provider, were actively involved in a treatment program, or were employed had significantly lower means of persistent incidents and were more desistant than SAMI-SO individuals who lacked these factors. An independent samples t-test revealed that a SAMI-SO individual who had previous treatment had a lower mean, but no discernable difference in persistent incidents than a SAMI-SO individual who had no previous treatment. A Kruskal-Wallis version of the chi-square nonparametric statistical test revealed that a SAMI-SO individual supervised at the intense supervision classification had a lower mean in persistent incidents and was more desistant then a SAMI-SO individual supervised at either the basic, basic low or monitored time classification. A one-way analysis of variance used to compare two ethnic groups revealed that the persistence means between African Americans and European Americans was not significantly different. A one-way analysis of variance used to compare the means between two mental health classifications
revealed that C1 individuals had significantly lower means in persistent incidents and were more desistant than C2 individuals were. A one-way analysis of variance used to compare the means between three housing classifications revealed that SAMI-SO individuals placed in a permanent residence had a significantly lower mean of persistent incidents and were more desistant then SAMI-SO individuals placed in either a temporary or homeless shelter. Three separate Pearson product-moment correlation coefficients and one Spearman’s rank-order correlation coefficient revealed no practical significance because of the small effect sizes, which were below Cohen’s (1988) minimum cutoff of .10. However, one Spearman’s rank-order correlation coefficient revealed that a relationship existed between high positive drug screens or intoximeter tests and high persistent incidents. Finally, a multiple regression and simultaneous multiple regressions to determine the best fitting model revealed that the fourteen predictor variables together are a good predictor in determining persistent incidents during an active period of community supervision.

The main contribution of this research study to the literature and desistance research is the identification of potential markers that could lead to the development of new policies and treatments procedures in measuring desistance or persistent behaviors in the SAMI-SO population.
REFERENCES


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Appendix A: University of Toledo Human Subjects Review Board Approval Letter

The University of Toledo
Department for Human Research Protections
Social, Behavioral & Educational Institutional Review Board
Office of Research, Rm. 2308, University Hall
2801 West Bancroft Street, Mail Stop 944
Toledo, Ohio 43666-3390
Phone: 419-530-2844 Fax: 419-530-2841
(FWA0001066)

To: John Laux, Ph.D. and Rodney B. Delaney
Department of Counselor Education and School Psychology

From: Barbaras K. Chesney, Ph.D., Chair
Wesley A. Bullock, Ph.D., Vice Chair

Signed: 
Date: 07/22/09

Subject: IRB #106555
Title: A Retrospective Study on the Relationship among Social Controls and Individual Factors as Indicators in Predicting Desistance or Persistence in the Substance Abusing Mentally II Supervised Offender Population

On 07/22/09, the above research was reviewed and approved as exempt (category #4) by the Chair and Chair Designee of the University of Toledo (UT) Social Behavioral & Educational Institutional Review Board (IRB). The requirement to obtain a signed consent/authorization for use and disclosure of protected health information form has been waived as this research is determined to be minimal risk and a signed consent/authorization document would be the only record linking the subject to the data. It was determined that this waiver for signed consent/authorization will not adversely affect the rights and welfare of the participants. This action will be reported to the committee at its next scheduled meeting.

Please Note: A consent form is not required for this study. However an Information Sheet regarding the study should be distributed to potential participants. This Information Sheet should include the name and telephone number of a contact person in case the subjects need additional information. It is also strongly encouraged that the study be explained verbally to potential subjects.

Items Reviewed:
- IRB Application Requesting Exempt Review
- Survey(s)

Designated as EXEMPT RESEARCH on: 07/22/09

Please read the following attachment detailing Principal Investigator responsibilities.
Appendix B: Ohio Department of Rehabilitation and Corrections (ODRC) Human Subjects Research Review Committee Research Proposal Approval

Research Proposal Approval

I. Proposal Information

Title: A Retrospective Study on the Relationship among Social Controls and Individual Factors as Indicators in Predicting Desistance or Persistence in the Substance Abusing Mentally Ill Supervised Offender Population

Submitted by: Rodney B. Delaney
Name
2137 Miami Rd., Euclid, Ohio 44117-2435
Address
Rodney.Delaney@odrc.state.oh.us
Telephone Number and E-mail Address (optional)

Date Submitted: July 9, 2009

II. Research Agreement

The individual submitting this research proposal has read and agrees to the following conditions:

- Confidentiality of subjects' identity will be maintained
- Obtain the signature of subjects on Informed Consent Form, if needed.
- A copy of the results will be provided to the Human Subjects Research Review Committee.
- The signature of the research advisor will be obtained if research is part of an educational requirement.
- The research design is in accordance with accepted standards regarding human subjects’ rights.
- No compensation of any kind will be given to inmates for their participation in the research.

Researchers: Rodney B. Delaney, M.Ed., LPC-5, LCCDC
(Title)

ODR&C (APA) and University of Toledo
(Academic Institution or Other Agency Affiliation)

Advisor: John Laux, Ph.D., LPCC-S, LICDC
(If Applicable) (Signature) (Title)

University of Toledo
(Academic Institution or Other Agency Affiliation)

III. Approval Signatures

Lee Norton
Research Review - Central Office
Date

Edward Rhine
Deputy Director, Office of Policy
Date

Linda Janes
Managing Officer/Field Supervisor
Date

DRC1877 (6/64)
Appendix C: Ohio Department of Rehabilitation and Corrections (ODRC) Adult Parole Authority Regional Map

Adult Parole Authority Regions & Units

Cincinnati Region
Cleveland Region
Columbus Region
Chillicothe Region
Akron Region
Lima Region
Mansfield Region

Rev. 08/11/06