

A Longitudinal Model of Internalized Stigma, Coping, and Post-release Adjustment in  
Criminal Offenders

by

Kelly Moore  
A Dissertation  
Submitted to the  
Graduate Faculty  
of  
George Mason University  
in Partial Fulfillment of  
The Requirements for the Degree  
of  
Doctor of Philosophy  
Psychology

Committee:

\_\_\_\_\_ Director

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Department Chairperson

\_\_\_\_\_ Program Director

\_\_\_\_\_ Dean, College of Humanities  
and Social Sciences

Date: \_\_\_\_\_ Summer Semester 2015  
George Mason University  
Fairfax, VA

A Longitudinal Model of Internalized Stigma, Coping, and Post-release Adjustment in  
Criminal Offenders

A Dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy at George Mason University

by

Kelly Moore  
Master of Arts in Psychology  
George Mason University, 2012

Director: June Tangney, Professor  
Department of Psychology

Summer Semester 2015  
George Mason University  
Fairfax, VA



This work is licensed under a [creative commons attribution-noncommercial 3.0 unported license](https://creativecommons.org/licenses/by-nc/3.0/).

## **ACKNOWLEDGEMENTS**

I would like to thank my advisor June Tangney for making research exciting and for encouraging me to pursue my interests. I would also like to thank my co-advisor, Jeff Stuewig, for all he taught me about statistics, and for his support. The other members of my committee, Dr. Short and Dr. King, provided a helpful perspective during my proposal and defense. My friend Jessie encouraged me every step of the way. My significant other, Steve, always pushed me to do my best.

## TABLE OF CONTENTS

	Page
List of Tables .....	viii
List of Figures .....	ix
Abstract .....	x
Chapter One: Introduction .....	1
Chapter Two: The Internalized Stigma Process in Criminal Offenders .....	6
A Theoretical Model of Internalized Stigma.....	6
Measurement Concerns .....	6
Components of Internalized Stigma: Terminology .....	7
The Internalized Stigma Process .....	9
The Effect of Perceived Stigma on the Self .....	9
Agreement vs. Disagreement with Stereotypes .....	9
Accepting Stereotypes as True of the Self: Internalized Stigma .....	10
Anticipated Stigma .....	11
Perceived and Anticipated Stigma.....	12
Summary.....	13
Criminal Offenders as a Stigmatized Group .....	13
Perceived Stigma among Offenders .....	14
Internalized Stigma among Offenders.....	15
Moderators of the Internalized Stigma Process.....	16
Moderation of the Link between Perceived Stigma and Stereotype Agreement.....	17
Moderation of the Link between Stereotype Agreement and Internalized Stigma ...	17
Moderation by Race.....	18
Present Study.....	19
Method .....	20
Participants and Procedures .....	20
Measures.....	21

Perceived Stigma, Stereotype Agreement, and Internalized Stigma .....	22
Anticipated Stigma .....	24
Control Variables .....	25
Self-esteem, Depression, Anxiety, and Treatment Status .....	25
Moderators .....	26
Race .....	26
Attitudes toward Individuals with Criminal Records .....	26
Social Identity (Criminal Identity) .....	26
Results .....	26
Measurement Model.....	28
Structural Model.....	30
Controlling for Depression, Anxiety, Self-esteem, and Treatment Status .....	33
Moderators .....	34
Moderation of the Link between Perceived Stigma and Stereotype Agreement.....	35
Moderation of the Link between Stereotype Agreement and Internalized Stigma ...	36
Moderation by Race.....	36
Exploratory Race Moderation Analyses.....	39
Discussion .....	40
Internalized Stigma Process is Replicated in Criminal Offenders .....	40
Extending the Internalized Stigma Process with Anticipated Stigma.....	41
Advancing the Research on Stigma in Criminal Offenders .....	43
Modeling the Internalized Stigma Process .....	43
Moderators of the Internalized Stigma Process.....	43
Limitations and Future Directions.....	47
Chapter Three: Social Withdrawal/Alienation Mediates the Effect of Jail Inmates’ Anticipated Stigma on Post-Release Adjustment: A Longitudinal Analysis.....	50
Conceptualizing Anticipated Stigma.....	51
Coping with Anticipated Stigma.....	52
The Impact of Coping via Social Withdrawal/Alienation.....	55
Social Withdrawal/Alienation and Mental Health Problems .....	56
Social Withdrawal/Alienation and Impairment in Community Adjustment .....	57
The Unique Relationship between Social Withdrawal and Antisocial Behavior .....	58
Moderators .....	60

Moderators of the Link between Anticipated Stigma and Social Withdrawal/Alienation .....	60
Moderators of the Link between Social Withdrawal/Alienation and Antisocial Behavior.....	63
Present Study.....	64
Method .....	65
Participants and Procedures .....	65
Measures.....	69
Independent Variable .....	70
Anticipated Stigma .....	70
Control Variables .....	72
Treatment status.....	72
Mediator .....	72
Social Withdrawal/Alienation .....	72
Dependent Variables .....	73
Community Adjustment .....	73
Recidivism.....	77
Mental Health Symptoms .....	78
Substance Use Disorder Symptoms.....	79
Moderators .....	80
Race .....	80
Optimism .....	80
Attitudes toward Individuals with Criminal Records .....	80
Stigma Resistance.....	81
Results .....	82
Measurement Model.....	84
Structural Model.....	90
Controls .....	92
Moderators .....	92
Moderation of the Link between Anticipated Stigma and Social Withdrawal/Alienation .....	94
Moderation of the Link from Social Withdrawal/Alienation to Recidivism, and Substance Use Disorder Symptoms.....	96

Moderation by Race.....	97
Discussion .....	102
Anticipated Stigma Predicts Post-release Mental Health Symptoms through Social Withdrawal/Alienation .....	102
Advancing the Stigma Research in Criminal Offenders .....	105
Anticipated Stigma and Community Adjustment, Recidivism, and Substance Use...	106
Moderators .....	107
Malleable Characteristics that Buffer the Effect of Anticipated Stigma on Social Withdrawal/Alienation. ....	108
Moderation by Race: Stigma leads to Social Withdrawal/Alienation, and Poor Community Adjustment for White Offenders. ....	109
Moderation by Attitudes Toward Criminals.....	111
Limitations and Future Directions.....	111
Clinical and Applied Implications.....	113
Chapter Four: Conclusion .....	116
References .....	121



## LIST OF TABLES

Table	Page
Table 1 Study 1 Bivariate Correlations.....	27
Table 2 Latent Variables with Parceled Items as Indicators.....	29
Table 3 Univariate Statistics.....	71
Table 4 Study 2 Bivariate Correlations.....	83

## LIST OF FIGURES

Figure	Page
Figure 1 Hypothesized Model of the Internalized Stigma Process.....	8
Figure 2 Hypothesized Moderators of the Internalized Stigma Process.....	16
Figure 3 Internalized Stigma Process .....	31
Figure 4 Internalized Stigma Process with Direct Pathway.....	33
Figure 5 Interaction of Perceived Stigma and Race Predicting Stereotype Agreement ...	38
Figure 6 Interaction of Internalized Stigma and Race Predicting Anticipated Stigma.....	40
Figure 7 Study 2 Hypothesized Model .....	60
Figure 8 Study 2 Hypothesized Model including Moderators.....	64
Figure 9 Sample Retention.....	67
Figure 10 Measurement Model for Independent Variable and Mediator .....	86
Figure 11 Measurement Model for Dependent Variables.....	89
Figure 12 Structural Model.....	91
Figure 13 Interaction of Anticipated Stigma and Stigma Resistance in Predicting Social Withdrawal/Alienation.....	95
Figure 14 Interaction of Anticipated Stigma and Optimism in Predicting Social Withdrawal/Alienation.....	96
Figure 15 Interaction of Anticipated Stigma and Race in Predicting Social Withdrawal/Alienation.....	99
Figure 16 Interaction of Social Withdrawal/Alienation and Race in Predicting Community Adjustment.....	101

## ABSTRACT

### A LONGITUDINAL MODEL OF INTERNALIZED STIGMA, COPING, AND POST-RELEASE ADJUSTMENT IN CRIMINAL OFFENDERS

Kelly Moore, Ph.D.

George Mason University, 2015

Dissertation Director: Dr. June Tangney

Upon conviction and incarceration, individuals receive the stigmatizing label “criminal offender.” Criminal offenders are exposed to stigma after being released from jail or prison, with laws that marginalize them from community participation (Pogorzelski et al., 2005) as well as stereotypes/discrimination from community members (Hirschfield & Piquero, 2010). One consequence of this experience is that stereotypes about criminal offenders may be internalized and integrated into the self-concept, a phenomenon known as *self-* or *internalized stigma*. In various stigmatized groups, internalized stigma predicts more mental health problems (Livingston & Boyd, 2010), longer duration of alcohol dependence (Schomerus et al., 2011), and poor occupational functioning (Yanos, Lysaker, & Roe, 2010). It is likely that internalized stigma occurs in criminal offenders and impacts their functioning, but this has yet to be examined. Drawing upon a sample of 111 jail inmates, two studies were conducted to examine a

comprehensive model of internalized stigma and its relation to subsequent behavioral problems in the understudied population of criminal offenders.

Study 1 evaluates a theoretical model of *how* internalized stigma occurs in criminal offenders, drawing upon Corrigan and colleagues' (2006) mediational process in which perceived stigma leads to stereotype agreement and then to internalized stigma. I extend this process by proposing that anticipated stigma occurs as a result of internalized stigma. Study 2 is an extension of Study 1, examining a theoretical model of how anticipated stigma predicts a range of behavioral outcomes longitudinally. Theory (Link et al., 1989) suggests that anticipated stigma impedes functioning when coped with in maladaptive ways, and research shows that avoidance coping strategies like social withdrawal/alienation predict deterioration in stigmatized individuals (Ilic et al., 2014; Chronister, Chou, & Liao, 2013; Link et al., 2001). I propose that anticipated stigma will predict mental health problems, poor community adjustment, recidivism, and substance use via social withdrawal and alienation from the community at large. Studies 1 and 2 examine theoretically driven moderators of this process.

Results of Study 1 show that perceived stigma is positively related to stereotype agreement, which is positively related to internalized stigma, which is then positively related to anticipated stigma. Perceived stigma had a positive direct effect on anticipated stigma, suggesting that some offenders circumvent internalized stigma altogether and still expect discrimination. Results of Study 2 showed that anticipated stigma during incarceration positively predicted social withdrawal/alienation three months post-release, which predicted more mental health problems one year post-release. Race moderated

multiple pathways in both models, suggesting these relationships are more pronounced for White offenders. Results identify avenues of intervention to target criminal offenders' thoughts about and ways of coping with stigma, which will ultimately enhance post-release community adjustment.

## CHAPTER ONE: INTRODUCTION

In the past few decades, research on stigma has shifted from examining structural and social stigma (i.e., policies that marginalize stigmatized groups, negative attitudes/discrimination from community members) to the inner, psychological experience that stigmatized people have in reaction to this, such as how it feels to be stigmatized (Link & Phelan, 2001). Specifically, the construct of *self-stigma*, or *internalized stigma* (used interchangeably), has become the focus of much of this research. Internalized stigma, defined as the acceptance of negative stereotypes as truly describing the self (Corrigan, Watson, & Barr, 2006), is consistently linked to poor functioning in a variety of areas including mental health, adjustment in the community, and maladaptive behaviors, across stigmatized groups (Livingston & Boyd, 2010). Despite the growing research in this area, the causal mechanisms in the relationship between internalized stigma and poor functioning are still unclear.

There is reason to believe that experiencing internalized stigma leads individuals to expect unfair treatment from others (i.e., *anticipated stigma*), and consequently avoid the situations in which they may experience unfair treatment. Such withdrawal from conventional community activities is accompanied by alienation from non-stigmatized others, and is thought to explain why stigmatized people have difficulty achieving adaptive levels of functioning (Link et al., 1989). There is research examining

correlations among select variables in this stigma process (Schomerus et al., 2011), but no studies include all relevant variables, and very little model-testing has been conducted. Much more research is needed to understand *how* stigmatized people come to experience internalized stigma and the impact this has on behavior in various domains.

Criminal offenders are one of the most stigmatized groups in society, yet they are very rarely considered in research on stigma. People often think of criminal offenders as being far removed from the community, in jails or prisons, but 95% of all inmates are released back into the community at some point (Bureau of Justice Statistics, 2014). Criminal offenders are community members, exposed to structural and social stigma, and required to manage it just like people in other stigmatized groups. It seems highly probable that criminal offenders experience internalized stigma, as other stigmatized groups do, and that this may have implications for their behavior and functioning while in the community. The few studies that have examined offenders' thoughts and feelings about stigma have not examined internalized stigma, and have narrowly focused on criminal behavior as the outcome of interest. Therefore, we know very little about how internalized stigma occurs, and the effect it has on behavior and adjustment more broadly in this particular stigmatized group.

The two studies presented here use theoretical and empirical research to construct a model of how internalized stigma unfolds to predict subsequent behavioral outcomes, in the understudied population of criminal offenders. This is accomplished via two distinct empirical papers, entitled *Paper 1: The Internalized Stigma Process in Criminal Offenders* and *Paper 2: Social Withdrawal/Alienation Mediates the Effect of Jail*

*Inmates' Anticipated Stigma on Post-Release Adjustment: A Longitudinal Analysis.* The models presented in Paper 1 and 2 together represent a comprehensive model of the internalized stigma process leading to behavioral outcomes, tested separately to conserve power. The constructs and relationships in these models broadly apply to all stigmatized groups, but specific elements relevant to criminal offenders are also included (i.e., recidivism).

Paper 1 examines a process through which internalized stigma occurs in the understudied stigmatized group of criminal offenders. To accomplish this, Paper 1 tests a theoretical model largely based on Corrigan and colleagues' (2006) self-stigma process, but also draws upon other stigma theory (Link et al., 1989) and research in social psychology (Quinn & Chaudoir, 2009; Earnshaw & Quinn, 2012) to consider how anticipated stigma fits into this process. Specifically, this model tests whether perceived stigma leads to agreement with stereotypes, acceptance of stereotypes (i.e., internalized stigma), and lastly to anticipated stigma. Therefore, in addition to extending current theoretical models of the internalized stigma process, this paper provides the first test of these constructs with criminal offenders. The second aim of Paper 1 is to test whether theoretically-driven moderators, drawn from clinical psychology, social psychology, and criminology literatures, influence key links in this model. Specifically, there is research suggesting that the negative effects of stigma may be attenuated for racial minorities due to previous experience coping with racial stigma, so it is included as a moderator of all pathways in the model. Additionally, attitudes about the stigmatized group and one's



social identity as a stigmatized group member are examined as moderators of the internalized stigma process.

Paper 2 is an extension of the model presented in Paper 1, examining stigma management and behavioral outcomes in criminal offenders. Here the focus is on *anticipated stigma*, which is thought to result from internalized stigma and to be a proximal cause of behavior (Quinn & Earnshaw, 2013). The first aim of Paper 2 is to examine whether anticipated stigma predicts subsequent behavioral outcomes through the use of maladaptive coping, specifically social withdrawal and alienation from non-stigmatized others. To capture the multifaceted effects of stigma, functioning in the areas of recidivism, substance abuse, mental health, and community adjustment were examined. This builds upon the very limited research on offenders' experience with stigma by measuring coping responses as well as a variety of outcome variables. Also, this paper is one of few longitudinal tests of the stigma process. The second aim of Paper 2 is to examine individual characteristics that may moderate key relationships in the model, drawing upon psychology and criminology literatures. Specifically, Paper 2 examines whether having adaptive, resistant cognitions about stigma (i.e. stigma resistance) and being more optimistic buffers the effect of anticipated stigma on social withdrawal/alienation. Similar to Paper 1, Paper 2 also examines whether each pathway in the model is attenuated for racial minorities.

Together, these studies present a significant contribution to the scientific literature on the experience of stigmatized individuals and the process of how stigma affects behavior. These studies are particularly relevant to criminal offenders as a stigmatized

group, however, the theoretical models presented herein were developed based upon research with people with mental illness, people living with HIV/AIDS, people who stutter, people who have substance dependence diagnoses, and various other stigmatized groups. Therefore, these models are thought to be broadly applicable and relevant to any population with a concealable stigmatized identity.

## **CHAPTER TWO: THE INTERNALIZED STIGMA PROCESS IN CRIMINAL OFFENDERS**

Upon conviction and incarceration, people receive the stigmatizing label “criminal offender.” Existing stereotypes about criminal offenders may be internalized and integrated into the self-concept, a phenomenon known as *self-* or *internalized stigma* (used interchangeably in the literature). The term *internalized stigma* will be used throughout this paper. Not all stigmatized people experience internalized stigma, and in fact, many score low on measures of internalized stigma (Corrigan et al., 2006; Schomerus et al., 2011). People who report high internalized stigma are found to experience more maladaptive outcomes compared to those who report low internalized stigma; this includes poor mental health and low self-efficacy (Livingston & Boyd, 2010), longer duration of alcohol dependence (Schomerus et al., 2011), perceived inability to integrate in the community (Ritsher, Otilingam, & Grajales, 2003), and poor occupational functioning (Yanos, Lysaker, & Roe, 2010), making internalized stigma an important predictor of behavior in stigmatized people. Despite this, internalized stigma has yet to be examined in the highly stigmatized group of criminal offenders.

### **A Theoretical Model of Internalized Stigma**

#### **Measurement Concerns**

Due to varied and vague conceptualizations, internalized stigma has not been operationalized clearly or consistently. For example, Ritsher, Otilingam, and Grajales

(2003, pg. 32) define internalized stigma as “devaluation, shame, secrecy, and withdrawal triggered by applying negative stereotypes to oneself.” Luoma and colleagues (2007, pg. 1332) define internalized stigma as “negative thoughts and feelings (e.g., shame, negative self-evaluative thoughts, fear) that emerge from identification with a stigmatized group and their resulting behavioral impact (e.g., treatment avoidance, failure to seek employment, avoidance of intimate contact with others).” Researchers sometimes assess the cognitive components of internalized stigma (Corrigan, Watson, & Barr, 2006), while others assess emotional (Luoma et al., 2007) or behavioral components (Ritsher, Otilingam, & Grajales, 2003). Also problematic, many measures of internalized stigma are confounded with other stigma constructs such as enacted stigma (Dickerson et al., 2002) and perceived stigma (Livingston & Boyd, 2010), or a combination of several constructs (Holzemer et al., 2009; Kanter, Rusch, & Brondino, 2008). As a result, there is a lack of conceptually clear models of internalized stigma.

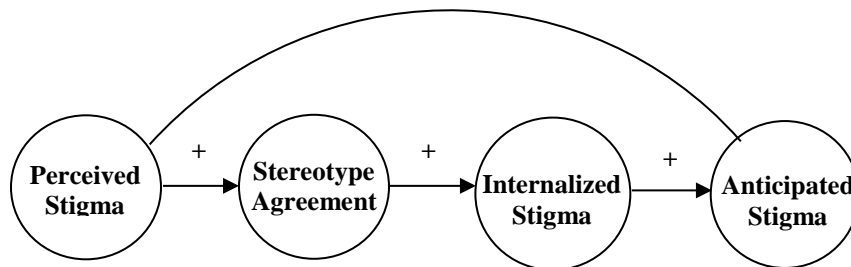
### **Components of Internalized Stigma: Terminology**

I propose a theoretical model of how internalized stigma unfolds. To be consistent with the literature, widely-used terminology is used here to describe components of the internalized stigma process. The proposed model is based heavily on Corrigan, Watson, and Barr’s (2006) conceptualization of internalized stigma<sup>1</sup>, which assumes that there are ways of thinking and feeling about stereotypes (prerequisites) that cause internalized

---

<sup>1</sup> Low self-esteem (referred to as *self-esteem decrement* by Corrigan et al. 2006) is sometimes conceptualized as a component of internalized stigma (Luoma et al., 2007; Corrigan, Watson, & Barr, 2006), however, researchers have concerns about measuring self-esteem as a part of self-stigma (Corrigan & Calabrese, 2005). I conceptualize low self-esteem as one of many psychological outcomes resulting from internalized stigma rather than a component of the process of internalized stigma. Therefore, self-esteem was not assessed in this study.

stigma. The process proposed here begins with *perceived stigma*, the perception that others hold negative stereotypes about one's group (i.e., referred to as *stereotype awareness* by Corrigan et al., 2006 and *discrimination/devaluation* by Link, 1987). After perceiving stigma, people can agree or disagree that negative stereotypes truly reflect the group, referred to as *stereotype agreement* (Corrigan et al., 2006). This leads to *internalized stigma*, the acceptance of negative stereotypes as being true of the self (i.e., referred to as *stereotype concurrence* by Corrigan et al., 2006). Internalized stigma can then lead to *anticipated stigma*, the expectation of being discriminated against by others (Quinn & Chaudoir, 2009). This model is displayed in Figure 1.



**Figure 1 Hypothesized Model of the Internalized Stigma Process**

As in Corrigan et al.'s (2006) process, Figure 1 is a progressive mediation model; each stigma construct leads to the other, and more distal parts of the process (i.e., perceived stigma and internalized stigma) should not be as strongly related as more proximal parts (i.e., stereotype agreement and internalized stigma; Corrigan, Rafacz, & Rusch, 2011). The current study examines a comprehensive model of how internalized stigma occurs in the understudied population of criminal offenders. Each link of the

internalized stigma process is described below, noting the points at which this process may be unique for criminal offenders.

## **The Internalized Stigma Process**

### **The Effect of Perceived Stigma on the Self**

Despite the structural and social stigma that exists for stigmatized groups (Link & Phelan, 2001), researchers consistently state that stigma's effect on the self begins with *perceived stigma*, the perception that others hold negative stereotypes about the stigmatized group (Link, 1987; Corrigan et al., 2006; Thoits, 2011). Perceived stigma in itself puts the self at risk: stigmatized people who believe a great deal of stigma exists in society are at a greater risk of experiencing damage to their self-concept (Link et al., 2001).

Research supports an association between perceived stigma and harmful effects on the self (Link et al., 1989). Decades of cross-sectional research shows that the more people perceive stigma toward their group, the more mental health symptoms they experience. This is mainly true of people with concealable stigmatized identities (i.e., stigma that is not readily apparent by looking at someone), including people who use drugs (Semple et al., 2005; Ahern, Stuber, & Galea, 2007), people with HIV (Greeff et al., 2010), and people with various physical illnesses (Else-Quest et al., 2009), as well as sexual minorities (Lewis et al., 2003). Perceived stigma also longitudinally predicts low self-esteem in people with mental illness (Link et al., 2001).

### **Agreement vs. Disagreement with Stereotypes**

Stigmatized people who perceive stigma toward their group can either agree or disagree with stereotypes, referred to as *stereotype agreement* (Corrigan, Watson, & Barr,

2006). In general, people are primed to agree with negative stereotypes. Society is inundated with stereotypes about stigmatized groups which people are exposed to throughout the life-course (Link, 1987). Research on the relationship between perceived stigma and stereotype agreement is mixed. These variables are unrelated in some samples of people with mental illness (Corrigan, Watson, & Barr, 2006) and people who stutter (Boyle, 2013), but are modestly correlated in other samples of people with mental illness (Corrigan, Rafacz, & Rusch, 2011), and people diagnosed with alcohol dependence (Schomerus et al., 2011).

These mixed results may depend on the nature of the stigmatized attribute. Specifically, having a mental illness, or stuttering, is generally not seen as resulting from wrongdoing on the part of the stigmatized person. Therefore, people in these groups may perceive a great deal of stigma from others, but not agree that stereotypes are true. On the other hand, a stigmatized attribute like drug addiction may be universally viewed as bad and worthy of blame, even among people with drug addiction. Hence, people with drug dependence may perceive that others hold negative stereotypes *and* believe that the stereotypes accurately reflect drug users. Criminal offenders may be similar in this respect, in that offenders may be universally viewed as worthy of blame, even among people with a criminal record. Perceived stigma and stereotype agreement may be closely related for criminal offenders.

### **Accepting Stereotypes as True of the Self: Internalized Stigma**

When stigmatized people agree with negative stereotypes about their group, they must reconcile their negative beliefs about the group with their membership in the group.

This cognitive process is fraught with potential harm to the self. One way in which harm to the self-concept can occur is when stigmatized people believe that the negative stereotypes about the stigmatized group apply to them personally (i.e., internalized stigma). Despite conceptual confusion surrounding internalized stigma, researchers suggest that a major defining feature of internalized stigma is the acceptance of stereotypes as being personally descriptive (Corrigan, Watson, & Barr, 2006; Nabors et al., 2014; Quinn & Earnshaw, 2013).

Research on the relationship between stereotype agreement and internalized stigma shows a consistent, positive relationship in people with mental illness (Corrigan et al., 2006; Corrigan, Rafacz, & Rusch, 2011; Watson, Corrigan, Larson, & Sells, 2007), people with alcohol dependence (Schomerus et al., 2011), and people who stutter (Boyle, 2013). Because this positive relationship is found across stigmatized groups, it is also expected to occur among criminal offenders.

### **Anticipated Stigma**

Internalized stigma is related to problematic functioning, but the reason for this is not always clear. *Anticipated stigma*, the expectation of experiencing discrimination due to one's stigmatized identity (Quinn & Chaudoir, 2009), may partially explain why internalized stigma is associated with poor outcomes. Anticipated stigma is conceptually distinct from perceived and internalized stigma, as it specifies the treatment an individual *personally* expects to experience *in the future* as a result of his or her stigmatized identity (Major and Sawyer, 2009; Quinn & Earnshaw, 2013).



Early stigma theory (Link, 1987) notes the substantial impact that expectations about future discrimination can have on stigmatized individuals' adjustment. Researchers suggest that when people believe that they actually possess the negative qualities that are stereotyped in their group (i.e., internalized stigma), they may be especially likely to anticipate stigmatization in those domains, if not more generally, from outgroup members (Earnshaw & Quinn, 2012). Though little research has assessed anticipated stigma, one study supports this theoretical link. Earnshaw and Quinn (2012) found that anticipated stigma from healthcare providers explained the link between internalized stigma and low quality of life among people with chronic illnesses. People who perceive stigma, agree with stereotypes, and accept stereotypes as personally accurate would likely anticipate discrimination from community members.

### **Perceived and Anticipated Stigma**

Perceived stigma likely has a direct relationship with anticipated stigma that occurs outside of the process through which stereotypes are internalized. Not all stigmatized people internalize negative stereotypes (Corrigan et al., 2006; Schomerus et al., 2011). Specifically, perceived stigma may not always lead to agreement with negative stereotypes, and therefore may not threaten the self and cause internalized stigma (i.e., "People think criminals are dangerous, but I don't think that about criminals and I don't think that about myself."). Despite this, people who perceive a great deal of stigma from others can still recognize that discriminatory treatment is a real possibility, and anticipate discriminatory treatment (i.e., "People think criminals are dangerous and even though I do not buy into this, I expect people to discriminate against me because of it."). This idea

originates from early stigma theory (i.e., Labeling Theory; Link, 1987), which describes how perceptions that others hold negative stereotypes about a stigmatized group turn into expectations of rejection from others upon joining that stigmatized group. The only two studies examining both perceived and anticipated stigma (Moore, Stuewig, & Tangney, 2013; Moore, Stuewig, & Tangney, in press) show a positive relationship between perceived and anticipated stigma among criminal offenders.

### **Summary**

In sum, internalized stigma is thought to occur in a causal process (Figure 1) in which stigmatized people perceive that others hold negative stereotypes (i.e., *perceived stigma*), agree with these stereotypes about the group (i.e., *stereotype agreement*), accept that these stereotypes truly reflect the self (i.e., *internalized stigma*), and in turn expect unfair, discriminatory treatment by community members (i.e., *anticipated stigma*). Perceived stigma is also expected to directly cause anticipated stigma, even if stereotypes are not internalized.

### **Criminal Offenders as a Stigmatized Group**

Criminal offenders are a highly stigmatized group of people (LeBel, 2012). Sanctions placed on offenders marginalize them from their communities, and severely restrict their participation in community activities. Offenders can be permanently banned from employment in public sector jobs and public schools. Many job applications, regardless of the field, ask applicants to report criminal convictions, and employers are less likely to hire people with a criminal record than those without one (Pager, 2003). In some states, offenders with drug distribution convictions can be permanently banned

from receiving public assistance, and those with a violent offense can be banned from receiving public housing (Pogorzelski et al., 2005). As of 2012 in Virginia, people with felony convictions are banned from voting for life (The Sentencing Project, 2012). Offenders can also be banned from obtaining loans, holding a driver's license, enrolling in college, and having custody of or adopting a child (Pogorzelski et al., 2005).

In addition to structural sanctions, offenders endure a great deal of social stigma (i.e., negative attitudes and discrimination from community members). Offenders are often blamed for their status as a "criminal," increasing the likelihood of stigmatization from others (Dijker & Koomen, 2007). A poll of 2,000 people in the public showed that about half of respondents agreed with negative stereotypes about ex-offenders (Hirschfield & Piquero, 2010) and other studies show that the public supports structural sanctions against criminal offenders (Dhami & Cruise, 2013), though college students seem to have less negative attitudes toward offenders (Moore, Stuewig, & Tangney, 2013). Taken together with structural stigma, this presents a significant level of stigmatization that has the potential to impact offenders' self-concept.

### **Perceived Stigma among Offenders**

There are three studies examining offenders' perceived stigma; one study showed that former prisoners agree that others deny offenders work, think they are less trustworthy and smart, think they are dangerous, and view them as failures (Winnick & Bodkin, 2008; LeBel, 2012), and another (Moore, Stuewig, & Tangney, 2013) showed that most jail inmates agreed with statements that "most people think that criminals cannot change" and "are bad people." Therefore, offenders believe that others hold

negative stereotypical beliefs about criminals, which is the first component of the internalized stigma process.

### **Internalized Stigma among Offenders**

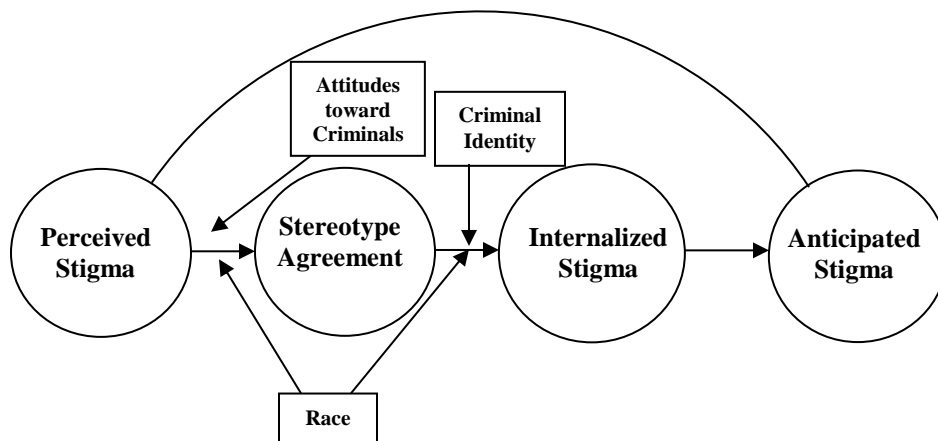
There has been very little research on internalized stigma in criminal offenders, despite internalized stigma being prominent in criminological theory. Labeling Theory (Lemert, 1951) asserts that primary deviance occurs when individuals do not necessarily view their offending behavior as part of themselves, and secondary deviance occurs when offenders view themselves as others in society view them. Secondary deviance is explained as a “looking-glass self-concept” reaction to societal stigma (Maruna, LeBel, Mitchell, & Naples, 2006), mirroring conceptualizations of internalized stigma in the psychology literature.

There have only been two studies of internalized stigma in offenders, both qualitative. Schneider and McKim (2003) attempted to assess internalized stigma (referred to as *self-stigma*) in 97 offenders on probation by asking about the offenders’ experience since being released from jail. Most participants reported feeling better about themselves and participating in more activities since being released, though these experiences are expected after release from jail and do not seem to capture internalized stigma. In another study, Chui and Cheng (2013) interviewed 16 recently released inmates in Hong Kong, asking about the cognitive, emotional, and behavioral components of internalized stigma, such as negative self-evaluation, shame, embarrassment, and avoidance of community activities. Six participants reported negative self-evaluation and shame about their identity, and half reported

cautiousness/suspiciousness during social interactions. Results must be interpreted cautiously due to the small sample size and cultural differences between the U.S. and Hong Kong.

### **Moderators of the Internalized Stigma Process**

To date, research has focused on examining links in the internalized stigma process at the bivariate level, and very little research has examined moderators of these links. Because there is a great deal of variation in how people experience stigma (Watson & River, 2007), it is plausible that certain characteristics will moderate the process through which internalized stigma occurs. This study extends the literature by testing several theoretically driven moderators that apply to stigmatized groups more broadly, not just criminal offenders. The hypothesized model, including proposed moderators, is displayed in Figure 2.



**Figure 2 Hypothesized Moderators of the Internalized Stigma Process**

### **Moderation of the Link between Perceived Stigma and Stereotype Agreement**

People who generally have positive attitudes toward others in their stigmatized group are likely to reject the veracity of stereotypes about the group (Rusch et al., 2009). Therefore, having positive attitudes about one's stigmatized group likely weakens the relationship between perceived stigma and stereotype agreement.

### **Moderation of the Link between Stereotype Agreement and Internalized Stigma**

The relationship between stereotype agreement and internalized stigma may depend on several factors. Agreeing with stereotypes may cause internalized stigma when stigmatized people strongly identify as a member of the stigmatized group (Baretto, 2014; Thoits, 2011). For people who identify strongly as a member of the stigmatized group, agreement with stereotypes about that group is relevant to the self. On the contrary, when stigmatized people do not want the stigmatized group to comprise a large role in their social identity, or do not see themselves as similar to others in the stigmatized group (i.e., "I'm not like other criminals"), they may actively distance themselves from the group or excel in stereotyped domains, which helps avoid internalizing stereotypes (Baretto, 2014). Also, people who simply do not see themselves as a member of the stigmatized group at all (i.e., "I'm not a criminal") would not be at risk of accepting stereotypes because the stereotypes would not be self-relevant. Therefore, identifying strongly with the stigmatized group should strengthen the relationship between stereotype agreement and internalized stigma.

### **Moderation by Race**

In general, the internalized stigma process may vary for racial minorities vs. racial majorities. Racial stigma is a visible or obvious stigma, which leaves individuals open to more experiences of discrimination than those with concealable stigmas (Pinel, 1999). Through experiences of discrimination, people with obvious stigmas develop coping strategies to deflect perceived stigma away from the self (Branscombe, Schmitt, & Harvey, 1999; Major, 2012). This may involve blaming the outgroup for being unjustified in their prejudice, or attributing failures on unfair discrimination rather than personal faults (Major, 2012). Consistent with this notion, Crocker and Major (1989) found that racial minorities had higher self-esteem compared to their non-minority (e.g., non-stigmatized) counterparts. Other evidence to support this coping hypothesis shows that people with both obvious *and* concealable stigmas have better mental health on average compared to individuals with solely concealable stigmas (Frible, Platt, & Hooey, 1998). Therefore, because racial minorities may be more skilled at deflecting stigma away from the self than their racial majority counterparts, being a racial minority may buffer the effect of stereotype agreement on internalized stigma.

A competing hypothesis is that racial minorities may be more hypervigilant to stigma as a result of experiencing discrimination. Such hypervigilance about racial stigma has been associated with higher levels of psychological symptoms (Carter & Forsyth, 2010). Therefore, racial minorities may actually be more prone to the negative effects stigma can have on the self-concept, strengthening the relationship between stereotype agreement and internalized stigma.

Race may influence additional relationships in the internalized stigma process for criminal offenders. Unique to criminal offenders as a stigmatized group, Blacks are a highly stigmatized type of offender. The prototypical image of the dangerous “Black criminal” is prevalent in the media (Welch, 2007). As a result, for Black offenders, perceiving stigma toward criminals may be especially threatening to the self, even at this early stage in the internalized stigma process, and therefore not lead to stereotype agreement. Therefore, the link between perceived stigma and stereotype agreement may be attenuated for Black offenders. Further, there is reason to believe that Black inmates may experience other aspects of the internalized stigma process differently than White inmates, causing different implications for the self. Therefore, race will be tested as an exploratory moderator of all of the relationships in the proposed model (i.e., perceived stigma to stereotype agreement, stereotype agreement to internalized stigma, internalized stigma to anticipated stigma, perceived stigma to anticipated stigma).

### **Present Study**

This paper uses structural equation modeling to examine a process of internalized stigma that draws upon Corrigan et al.’s (2006) conceptualization in the understudied population of criminal offenders. This study extends the literature by testing a model of these variables at the multivariate level, which has yet to be done. In addition to examining perceived stigma, stereotype agreement, and internalized stigma, I examine anticipated stigma to create a comprehensive model of internalized stigma that brings us closer to understanding how these variables ultimately lead to maladaptive behavior. Finally, I test theoretically driven moderators that should influence the links in this



model, an approach that has rarely been used in stigma research. Certain types of psychological functioning (i.e., levels of self-esteem, depression, and anxiety symptoms) are expected to influence the degree to which individuals report perceiving, agreeing with, and accepting stereotypes, as well as anticipating stigma, and will therefore be controlled for in the model.

## **Method**

### **Participants and Procedures**

Participants were 111 male inmates recruited from an adult detention center in 2008-2010 as part of a randomized controlled trial of a restorative justice intervention (Folk et al., 2015). Female inmates were not included because too few were incarcerated at any given time to allow randomization into a group intervention. Demographic and moderator data were collected at Time 1 (baseline assessment) and at Time 2 (post-intervention assessment). Stigma measures were all administered concurrently at Time 3, just prior to release into the community. Inmates received a \$20 honorarium for participating in the baseline assessment, and \$25 for participating in the Time 3 assessment (see Folk et al., 2015 for a complete description of the study).

Only inmates who had already been sentenced were eligible to participate in order to reduce uncertainty about release dates throughout the duration of the study. Inmates were excluded if they were not likely to serve their sentence at the host jail (i.e., likely to be transferred to DOC, sentenced to electronic incarceration), or if they had ICE detainees because of the difficulty in following up with deported individuals. Only inmates housed in the general population areas of the jail were eligible to participate in order to exclude

those with serious psychopathology or medical problems. Inmates were informed that participation was voluntary and that data were confidential, protected by a Certificate of Confidentiality from DHHS.

Of the eligible inmates who consented to participate ( $N = 230$ ), 213 were successfully randomized to the intervention (108 in treatment group, 105 in control group). Of the inmates who were randomized, three participants withdrew from the study, four were dropped, two were unexpectedly transferred, and one person refused, leaving 203 participants who completed the Time 3 pre-release assessment. Of these individuals, 111 inmates completed measures of perceived stigma, stereotype agreement, and internalized stigma due to this measure being added into the study late. Further, only 79 participants completed the assessment of anticipated stigma because this measure was added into the study even later. Participants ( $N = 111$ ) were male, about 33 years old on average ( $range = 18 - 65$ ), and were racially/ethnically diverse (43.8% Black, 38.4% White, 4.4% Hispanic, 9.9% Mixed race/other race, 2.5% Asian/Pacific Islander, and 1.0% Middle Eastern). Attrition analyses showed that participants who completed stigma measures ( $N = 111$ ) were not significantly different from those who did not complete these measures ( $N = 92$ ) on key variables (i.e., age, race, criminal identity, levels of self-esteem, anxiety symptoms, depression symptoms, treatment status).

## **Measures**

All stigma measures were assessed at Time 3, just prior to release from jail. Demographics and moderators were assessed either at baseline or other points during incarceration (specified below).

### **Perceived Stigma, Stereotype Agreement, and Internalized Stigma**

The Self-Stigma of Mental Illness scale (SSMI; Corrigan, Watson, & Barr, 2006)

was adapted for use with individuals involved in the criminal justice system, and entitled the Self-Stigma of Individuals with Criminal Records scale (SSICR). The SSMI scale assesses four aspects of stigma: perceived stigma, stereotype agreement, internalized stigma, and self-esteem decrement. Self-esteem decrement was not assessed in this study, so the self-esteem decrement scale was not included.

Research on criminal offender stereotypes (Maclin & Herrera, 2006) and anecdotal information from clinical work in the criminal justice system were used to adapt the SSMI for criminal offenders. Many of the stereotypes on the SSMI about people with mental illness were also applicable to criminal offenders (e.g., dangerous, untrustworthy, disgusting, below average in intelligence, unpredictable, to blame, unable to keep a regular job, dirty). Some items, such as the inability to care for oneself and likelihood of not recovering/getting better, were changed to more common stereotypes for criminal offenders: “unable to be rehabilitated” and “are bad people.” These stereotypes are very similar to other assessments of stereotypes with criminal offenders; items referring to employability, trustworthiness, and generally thinking poorly of criminal offenders are mentioned in both Winnick and Bodkin (2008) and LeBel (2012), items referring to dangerousness are included in LeBel (2012), and items referring to intelligence and ability to be rehabilitated are included in Winnick and Bodkin (2008). Following the format of the SSMI scale, the SSICR used different clauses to capture perceived stigma (“The public thinks most people with a criminal record are...”), stereotype agreement (“I think most people with a criminal record are...”), and

internalized stigma (Because I have a criminal record, I am...). Responses range from “1” Strongly Disagree to “4” Strongly Agree.

Each scale of the Self-Stigma of Individuals with a Criminal Record (SSICR) originally had 10 items (30 items total), but upon examination of inter-item correlations and reliability, we found that the item “(The public thinks most people with a criminal record are/I think most people with a criminal record are/Because I have a criminal record, I am) to blame for their/my problems” reduced internal consistency on all scales. For example, on the stereotype agreement scale, the alpha with all items was .79, but was considerably higher (.84) if the blame item was removed. Similarly, on the internalized stigma scale, the alpha was .65, but was higher (.73) if the blame item was removed. Even in the perceived stigma scale, which already had a high alpha of .91, rose to .92 when the blame item was removed. Further, the blame item had the lowest item-scale correlation for two of the three scales; the blame item was correlated with the total perceived stigma scale at .48 when all other item-scale correlations ranged from .69 to .80, and with the total stereotype agreement scale at .40 when all other item-scale correlations ranged from .60 to .75.

The concept that criminal offenders are to blame for their behavior may not be the best indicator of a negative stereotype in offender samples. This is because most people, even offenders themselves, likely believe that criminal offenders are at fault for their law-breaking behavior, and additionally, taking responsibility and accepting blame for one’s behavior is valued in this population. This can be contrasted with people with mental illness (or any stigmatized attribute with an organic nature) in which being blamed for

their mental illness would constitute a negative stereotype. Therefore, this item was dropped from each of the three scales, resulting in 9 items on each scale. Reliabilities ranged from excellent to acceptable for these scales: perceived stigma  $\alpha = .92$ , stereotype agreement  $\alpha = .84$ , internalized stigma  $\alpha = .73$ . perceived stigma and stereotype agreement scales were normally distributed, and the internalized stigma scale was negatively skewed (*skew* = 2.54, *S.E.* = .23, *kurtosis* = 6.58, *S.E.* = .46), with the majority of responses being in the lower end of the range.

### **Anticipated Stigma**

Anticipated stigma was assessed by adapting select items from the Discrimination Experiences subscale of the Internalized Stigma of Mental Illness scale (ISMI; Ritsher, Otilingam, & Grajales, 2003). The ISMI is a widely used, reliable measure capturing a variety of stigma experiences. Four out of five items on the Discrimination Experiences subscale were used; one item, “People often patronize me, or treat me like a child, just because I have a mental illness” was not used because it did not apply to offenders. Content of the other four items was relevant to criminal offenders. Items were reworded to reflect an expectation about future treatment rather than past discrimination experiences. For example, the ISMI item “People discriminate against me because I have a mental illness” was reworded to “I expect people to discriminate against me because I have a criminal record.” This adapted scale was entitled Personal Expectations of Discrimination (PED). Responses ranged from “1” Strongly Disagree to “4” Strongly Agree. Reliability was good ( $\alpha = .87$ ).

## **Control Variables**

### **Self-esteem, Depression, Anxiety, and Treatment Status**

Levels of self-esteem, depression, and anxiety were assessed at Time 2 (post-intervention). Self-esteem was assessed using the Rosenberg Self-Esteem scale (Rosenberg, 1965). This scale contains 10 items assessing global self-worth with both positively and negatively worded items ( $\alpha = .87$ ). Responses are rated on a Likert scale rated from “1” Strong Disagree to “4” Strongly Agree. This variable was slightly positively skewed ( $M = 3.27$ ,  $S.D. = .58$ ,  $range = 1.20 - 4.00$ ). Depression and anxiety symptoms were assessed using a shortened version of the Personality Assessment Inventory (PAI; Morey, 2007). The PAI is a widely used, well-validated measure for assessing Axis I and II psychopathology (Morey, 2007). Item responses ranged from 1 = “False, not at all true” to 4 = “Very true.” The PAI uses T-scores, which are normed on a sample of average adults; the ranges for each scale were 35T - 97T for depression (24 items,  $\alpha = .89$ ) and 34T - 89T for anxiety (24 items,  $\alpha = .89$ ).

Because the sample analyzed in this study was drawn from a randomized controlled trial of an intervention, treatment status was also controlled for in analyses. Treatment status was coded as ‘0’ if participants were assigned to the treatment as usual condition, and ‘1’ if participants were assigned to the restorative justice intervention. In the sample of participants who completed the stigma measures ( $N = 111$ ), 55 participants were in the treatment as usual group and 56 were in the treatment group.

## **Moderators**

### **Race**

Race was assessed upon entry into the jail with a demographic questionnaire asking participants to report their race. Race was coded as “0” White ( $N = 38$ ) and “1” Black ( $N = 51$ ). There were too few participants from other racial/ethnic groups to analyze separately.

### **Attitudes toward Individuals with Criminal Records**

Attitudes toward the stigmatized group were assessed at Time 3 just prior to release using a single item to determine how positively or negatively participants felt about other people in their stigmatized group (i.e., criminal offenders). The question asked, “In general, my attitudes toward people with a criminal record are \_\_\_\_\_?” Response options ranged from “1” Very Negative and “7” Very Positive. This variable was normally distributed ( $M = 4.85$ ,  $S.D. = 1.40$ ,  $range = 1 - 7$ ), with only 0.9% of participants reporting very negative attitudes and 18% reporting very positive attitudes.

### **Social Identity (Criminal Identity)**

Social identity as a “criminal” was assessed at Time 2 (post-intervention). Participants were asked to what degree they agreed with the statement “I am a criminal” on a 6-point Likert scale from “1” “totally disagree” to “6” “totally agree.” This variable was slightly skewed ( $M = 2.75$ ,  $S.D. = 1.84$ ,  $range = 1 - 6$ ), with 40% of participants totally disagreeing that they were a criminal.

## **Results**

Overall levels of internalized stigma were low in this sample. The internalized stigma range was restricted, as many people disagreed with internalized stigma items

altogether. The levels of internalized stigma found here mimic what is found in other stigmatized groups (Corrigan, Watson, & Barr, 2006). Bivariate correlations of all variables in the model are displayed in Table 1.

**Table 1 Study 1 Bivariate Correlations**

	<i>Perceived Stigma</i>	<i>Stereotype Agreement</i>	<i>Internalized stigma</i>	<i>Anticipated Stigma</i>
<b>Model Variables</b>				
<i>Perceived Stigma</i>	1.0	.28**	.23*	.33**
<i>Stereotype Agreement</i>	.28**	1.0	.48***	.02
<i>Internalized Stigma</i>	.23*	.48***	1.0	.25*
<i>Anticipated Stigma</i>	.33**	.02	.25*	1.0
<b>Controls</b>				
<i>Self-esteem</i>	-.003	-.16	-.22*	-.48***
<i>Anxiety</i>	.20*	.19	.21*	.39***
<i>Depression</i>	.07	.17	.32**	.40***
<i>Treatment Status</i>	-.25**	.00	-.01	.14
<b>Moderators</b>				
<i>Race</i>	.001	-.11	-.13	-.05
<i>Attitudes toward Criminals</i>	-.06	-.25**	-.07	.13
<i>Criminal Identity</i>	.03	-.07	.05	.03
Note. $p < .05^*$ , $p < .01^{**}$ , $p < .001^{***}$				

Structural equation modeling via Mplus was used to analyze the data. The measurement model and basic structural models were tested on the sample of 111 people who completed the stigma measures. Full Information Maximum Likelihood (FIML) was used to handle missing data. FIML is strongly encouraged over listwise deletion when data are missing at random, which means that the participants are not missing on items/variables for a reason that is relevant to the phenomenon being measured (Schafer & Graham, 2002; Wothke, 2000; Little, Jorgensen, Lang, & Moore, 2014). In our data, the stigma measure was added into the study part way through, so about half of our



participants had already completed data collection before the stigma measure was introduced into our interview packet. This was confirmed by analyses indicating that people who completed stigma measures ( $N = 111$ ) were not significantly different from those who did not ( $N = 92$ ) on all relevant variables. Because this reason for missing data is unrelated to the phenomena being studying, it can be considered missing at random.

### **Measurement Model**

Latent variables were created for Perceived Stigma, Stereotype Agreement, Internalized stigma, and Anticipated Stigma. Latent variable names are capitalized throughout the rest of the paper. The Anticipated Stigma latent variable used the four items from the PED scale as indicators. Because certain items on the internalized stigma scale had low variance, they were not strong indicators on their own. Instead, I used parceled items as indicators (Little, Cunningham, Shahar, and Widaman, 2009). Parceling involves combining (sum or average) multiple items; this technique simplifies structural equation models by decreasing the number of parameters that must be estimated (Little, Cunningham, Shahar, and Widaman, 2009; Little et al., 2013). Parcels were created for Perceived Stigma, Stereotype Agreement, and Internalized Stigma using the respective 9 items in each of those scales of the SSICR.

To create the parcels, I used a technique described in Little, Cunningham, Shahar, and Widaman (2009). A one-construct model was created in Mplus for each scale (i.e. Perceived Stigma, Stereotype Agreement, and Internalized Stigma) using the 9 respective items as indicators. Factor loadings were inspected, and the highest three were chosen as anchors for three parcels. Items with the next-highest loadings were selected, and out of

those, the highest loading item was assigned to the parcel with the lowest loading, the next-highest loading was assigned to the parcel with the next-lowest loading, etc. until each parcel had three indicators. This resulted in three balanced parcels each for Perceived Stigma, Stereotype Agreement, and Internalized Stigma that served as indicators for latent variables (see Table 2).

**Table 2 Latent Variables with Parcelled Items as Indicators**

	<b>Parcel 1</b>	<b>Parcel 2</b>	<b>Parcel 3</b>
<b>Perceived Stigma</b>  <i>“The Public Believes most people with a criminal record...”</i>	1. cannot be trusted.  3. are unwilling to get or keep a regular job. 9. are dangerous.	4. are dirty and unkempt. 6. are below average in intelligence. 10. are bad people.	2. are disgusting.  7. are unpredictable.  8. cannot be rehabilitated.
<b>Stereotype Agreement</b>  <i>“I think most people with a criminal record...”</i>	1. cannot be trusted.  6. are below average in intelligence. 8. cannot be rehabilitated.	2. are disgusting.  3. are unwilling to get or keep a regular job. 9. are dangerous.	4. are dirty and unkempt. 7. are unpredictable.  10. are bad people.
<b>Internalized Stigma</b>  <i>“Because I have a criminal record...”</i>	1. I cannot be trusted.  4. I am dirty and unkempt.  10. I am a bad person.	2. I am disgusting.  3. I am unwilling to get or keep a regular job. 8. I cannot be rehabilitated.	6. I am below average in intelligence. 7. I am unpredictable.  9. I am dangerous.

The measurement model included latent variables for Perceived Stigma, Stereotype Agreement, Internalized Stigma, and Anticipated Stigma. All latent variances were set to 1 to identify the model, freeing all factor loadings to be estimated. This model

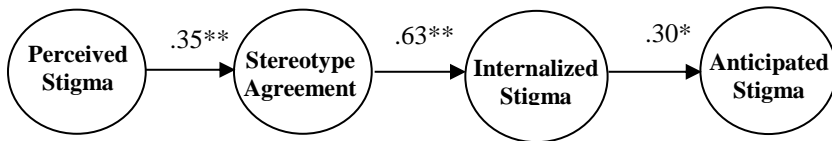
fit the data very well ( $\chi^2(59) = 79.09, p = .04; RMSEA = .06, CI = .01 - .09; CFI = .97, SRMR = .06$ ), and all indicators loaded significantly onto their respective factors above the accepted value of .40.

Correlations between latent variables were examined in order to determine whether Corrigan and colleagues' (2006) "progressive" model was supported here (i.e., variables next to each other in the model should be more highly correlated than those that are farther apart in the model). This is mostly supported here; Perceived Stigma is more strongly associated with Stereotype Agreement ( $r = .34, p < .001$ ) than it is with Internalized Stigma ( $r = .30, p = .005$ ). Further, Stereotype Agreement was more highly correlated with Internalized Stigma ( $r = .64, p < .001$ ) than it was with Anticipated Stigma ( $r = .07, p = .57$ ). It is not uncommon for stereotype agreement to be uncorrelated with other variables in the model, as this is found in other research (Schomerus et al., 2011). Further, Internalized Stigma and Anticipated Stigma were highly correlated ( $r = .39, p = .001$ ). Anticipated Stigma, which was not included in Corrigan and colleagues' (2006) original model, was surprisingly most highly correlated with Perceived Stigma ( $r = .43, p < .001$ ), the variable it is farthest away from in the model.

### **Structural Model**

Structural paths were added into the model, reflecting the sequential mediation model in Figure 1, with the exception of the direct pathway from perceived stigma to anticipated stigma, which was tested separately. This model fit the data well ( $\chi^2(62) = 91.84, p = .01; RMSEA = .07, CI = .03 - .09; CFI = .96, SRMR = .11$ ). Perceived Stigma was significantly related to Stereotype Agreement ( $\beta = .35, p < .001$ ), which was

significantly related to Internalized Stigma ( $\beta = .63, p < .001$ ), which in turn was significantly related to Anticipated Stigma ( $\beta = .30, p = .02$ ). The indirect pathway from Perceived Stigma to Anticipated Stigma was marginally significant ( $\beta = .07, p = .06$ ), indicating mediation from Perceived Stigma through Stereotype Agreement and Internalized stigma, to Anticipated Stigma (see Figure 3a). This model was bootstrapped to determine robustness of the indirect effect. When bootstrapped, the pathway between Internalized and Anticipated Stigma became marginally significant ( $\beta = .25, p = .08$ ) and the indirect effect became nonsignificant ( $\beta = .07, p = .12$ ). This suggests that the pathway between Internalized and Anticipated Stigma, and the indirect effect from Perceived to Anticipated Stigma may not be robust. This model explained 12.4% of the variance in Stereotype Agreement, 40.2% of the variance in Internalized Stigma, and 9.1% of the variance in Anticipated Stigma.



$p < .10+, p < .05*, p < .01**, p < .001***$

$\chi^2(62) = 91.84, p = .01, RMSEA = .07, CI = .03 - .09, CFI = .96, SRMR = .11, AIC: 1518.13$

Indirect effect (Perceived Stigma to Anticipated Stigma):  $\beta = .07, p = .06$

$R^2$  Internalized stigma: 40.2%

$R^2$  Anticipated Stigma: 9.1%

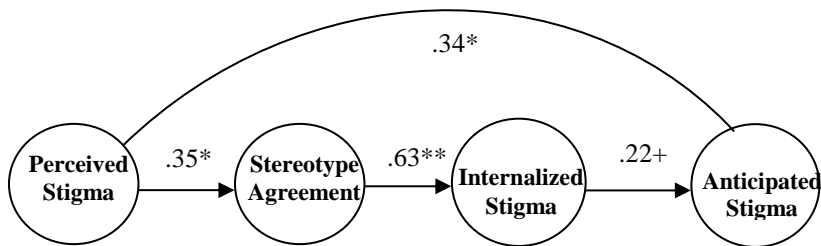
**Figure 3 Internalized Stigma Process**

When the hypothesized direct pathway was added into the model from Perceived Stigma to Anticipated Stigma (see Figure 4), model fit improved significantly ( $\chi^2(61) =$

84.82,  $p = .02$ ;  $RMSEA = .06$ ,  $CI = .02 - .09$ ;  $CFI = .96$ ,  $SRMR = .08$ ;  $\chi^2(1) \Delta = 7.02$ ,  $p < .05$ ). Further, results showed that when modeling the effect of Perceived Stigma on Anticipated Stigma ( $\beta = .34$ ,  $p = .004$ ), all pathways remain significant with the exception of the path between Internalized Stigma and Anticipated Stigma, which dropped to marginal significance ( $\beta = .22$ ,  $p = .09$ ). Therefore, the relationship between Internalized Stigma and Anticipated Stigma is largely accounted for by the effects of Perceived Stigma. Further, the indirect effect from Perceived Stigma to Anticipated Stigma was no longer significant ( $\beta = .05$ ,  $p = .13$ ) when the direct pathway was added into the model, most likely because Internalized Stigma was only marginally associated with Anticipated Stigma in this model. This model explained 12% of the variance in Stereotype Agreement, 40% of the variance in Internalized Stigma, and 19.6% of the variance in Anticipated Stigma.

Figure 4 was tested again, just specifying an indirect effect remained from Perceived Stigma to Internalized Stigma (i.e., instead of Perceived Stigma to Anticipated Stigma). This does not change any parameters or fit statistics, but simply specifies that the indirect effect stops at Internalized Stigma and does not go through Anticipated Stigma. Results showed a significant indirect effect from Perceived Stigma to Internalized Stigma ( $\beta = .22$ ,  $p = .001$ ), which remained significant after bootstrapping ( $\beta = .28$ ,  $p = .01$ ) and for which the confidence interval did not include 0 ( $CI = .13$  to  $.58$ ). Taken together, these results suggest a) full mediation from Perceived Stigma to Internalized Stigma, through Stereotype Agreement, and b) that Anticipated Stigma is

uniquely associated with perceived stigma, and may not always follow from internalized stigma.



$p < .10+$ ,  $p < .10+$ ,  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$

$\chi^2(61) = 84.82$ ,  $p = .02$ , RMSEA = .06 CI = .02 - .09, CFI = .96, SRMR = .08, AIC: 1513.11

Indirect effect (Perceived Stigma to Anticipated Stigma):  $\beta = .05$ ,  $p = .13$

R<sup>2</sup> Internalized stigma: 39.6%

R<sup>2</sup> Anticipated Stigma: 19.6%

**Figure 4 Internalized Stigma Process with Direct Pathway**

### **Controlling for Depression, Anxiety, Self-esteem, and Treatment Status**

Depression symptoms, anxiety symptoms, and self-esteem were controlled for in analyses to rule out their influence on stigma variables. For example, endorsement of internalized stigma may be explained by depressed mood or low self-esteem rather than perceived stigma and stereotype agreement. For control variable analyses, FIML was used to capitalize on the full sample of people who completed Time 3 data collection ( $N = 203$ ), which includes participants who completed stigma measures ( $N = 111$ ) as well as those who missed those measures but completed either depression, anxiety, or self-esteem measures ( $N = 92$ ).

Depression symptoms, anxiety symptoms, and level of self-esteem were analyzed as observed variables, in separate models. Each control was entered as a predictor of each variable in Figure 4 (i.e., Perceived Stigma, Stereotype Agreement, Internalized Stigma, Anticipated Stigma). When controlling for depression, anxiety, and self-esteem, despite several main effects of these controls on the variables in the model, all pathways remained significant that were previously significant, and the pathway from Internalized Stigma to Anticipated Stigma was nonsignificant.

Because all variables in this model were assessed post-intervention in a randomized controlled trial of an intervention, treatment status (i.e., intervention vs. control) was controlled for in the model. Treatment status was entered as a predictor of each variable in the model displayed in Figure 4. Same as above, even when controlling for treatment status, all previously significant effects remained, as did the nonsignificant path from Internalized Stigma to Anticipated Stigma.

### **Moderators**

Interactions (see Figure 2) were analyzed using the Latent Moderated Structural equations (LMS) method, which multiplies two latent variables (Klein & Moosbrugger, 2000; Maslowsky, Jager, and Hempken, 2014). Using this method, two models are tested: Model 0 contains the baseline model (see Figure 4) plus the main effect of the moderator on the variable of interest, and Model 1 contains everything in Model 0 plus the latent interaction. Unlike typical nested model comparison, Model 1 does not include fit statistics, precluding chi square difference testing (Maslowsky et al., 2014). Instead, the log-likelihood ratio test ( $D = -2[(\log\text{-likelihood for Model 0}) - (\log\text{-likelihood for Model$

1)] is used to compare Model 0 and Model 1 (Maslowsky et al., 2014). Significance is determined using the chi square table and appropriate difference in degrees of freedom between Model 0 and Model 1 (Maslowsky et al., 2014).

Each moderator was analyzed in a separate model. Moderators were analyzed as observed variables because they were all one-item constructs<sup>2</sup>. In accordance with testing LMS models, all variables were standardized in order to aid with interpretation of parameter estimates.

### **Moderation of the Link between Perceived Stigma and Stereotype Agreement**

I first examined whether attitudes toward criminals moderated the relationship between Perceived Stigma and Stereotype Agreement. I tested Model 0, which is the baseline model (Figure 4) with the addition of the main effect of attitudes toward criminals on Stereotype Agreement ( $\chi^2(73) = 110.82, p = .003; RMSEA = .07, CI = .04 - .09; CFI = .95, SRMR = .08$ ). There was a main effect suggesting that having more positive attitudes toward criminals was related to less Stereotype Agreement ( $\beta = -.22, p = .02$ ). I then examined Model 1, which adds the latent interaction between Perceived Stigma and attitudes toward criminals in predicting Stereotype Agreement. The interaction was not significant ( $\beta = -.16, p = .12$ ).

---

<sup>2</sup> When constructs are assessed with just one item, the latent variable must have its residual variance set to 0, and its loading set to 1, which constitute the exact same assumptions that observed variables have. So, there is no difference in analyzing the observed and latent variables of one-item constructs. The exception to this is if there is existing literature noting the reliability of the construct because the reliability can inform latent variable parameters. However, there is no such information available for the moderators used in this study (i.e., attitudes toward criminals, criminal identity).



### **Moderation of the Link between Stereotype Agreement and Internalized Stigma**

I then examined whether criminal identity strengthened the relationship between Stereotype Agreement and Internalized Stigma. I performed a log transformation of the criminal identity variable to reduce positive skew. I examined Model 0, which is the baseline model (Figure 4) with the addition of the main effect of criminal identity on Internalized Stigma ( $\chi^2(73) = 104.97, p = .01; RMSEA = .07, CI = .03 - .09; CFI = .95, SRMR = .08$ ). There was no main effect of criminal identity on Internalized Stigma ( $\beta = .09, p = .38$ ). I then examined Model 1, which adds the latent interaction between Stereotype Agreement and criminal identity in predicting Internalized Stigma. The interaction was not significant ( $\beta = .30, p = .48$ ).

### **Moderation by Race**

Race (Black,  $N = 38$  vs. White,  $N = 51$ ) was analyzed using the LMS method rather than a multigroup method because there were fewer participants than parameters being estimated in the multigroup model. Though analyzing a binary variable violates the assumption of normality in the LMS method, the LMS method is one of the limited approaches for examining the interaction of an observed categorical variable and a latent continuous variable (Woods & Grimm, 2011). Further, Muthen and Muthen (2015) recommend using either a multigroup or LMS method to estimate this type of interaction. The risk of using the LMS method for this type of interaction is that Type 1 error can be

inflated. Therefore, results must be interpreted with caution. Preliminary analyses show no significant differences in Black and White inmates' mean levels of stigma<sup>3</sup>.

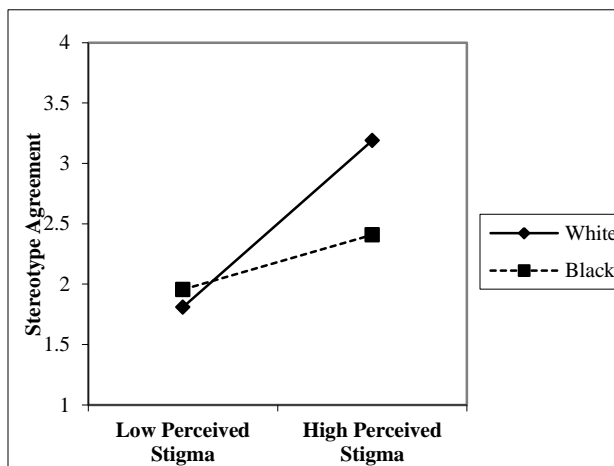
To examine the interaction of Perceived Stigma and race in predicting Stereotype Agreement, I first tested Model 0 (baseline model in Figure 4 plus main effect of race on Stereotype Agreement). This model fit the data acceptably ( $\chi^2(73) = 108.79, p = .004$ ;  $RMSEA = .07, CI = .04 - .10$ ;  $CFI = .94, SRMR = .08$ ). There was no main effect of race on Stereotype Agreement ( $\beta = -.14, p = .18$ ). I then examined the latent interaction between Perceived Stigma and race in predicting Stereotype Agreement in Model 1. The interaction marginally predicted Stereotype Agreement ( $\beta = -.46, p = .06$ ). Figure 5 shows that for White inmates, Perceived Stigma was strongly positively related to Stereotype Agreement, whereas this relationship was weaker in magnitude for Black inmates.

Several steps were taken to test the robustness of this interaction effect. Examination of bivariate correlations was consistent with the interaction graph, showing that perceived stigma and stereotype agreement were highly correlated for White inmates ( $r = .49, p = .002$ ), but were not significantly correlated for Black inmates ( $r = .14, p = .32$ ); in conducting a significance test of correlation coefficients (Fischer, 1921), these correlations were significantly different from one another ( $Z = 2.50, p = .01$ ). Further, in comparing the two models using the log-likelihood ratio test ( $D = -2[(\log\text{-likelihood for Model 0}) - (\log\text{-likelihood for Model 1})]$ ); Maslowsky et al., 2014), Model 1 was just

---

<sup>3</sup> Preliminary analyses showed no significant differences in Black ( $M = 2.40, S.D. = .75$ ) and White ( $M = 2.40, S.D. = .70$ ) inmates' levels of perceived stigma ( $t(87) = -.01, p = .99$ ), stereotype agreement ( $M$  for Blacks = 1.51,  $S.D. = .41, M$  for Whites = 1.60,  $S.D. = .41$ ;  $t(87) = 1.02, p = .31$ ), or internalized stigma ( $M$  for Blacks = 1.10,  $S.D. = .21, M$  for Whites = 1.16,  $S.D. = .28$ ;  $t(87) = 1.23, p = .22$ ).

below the cutoff (3.84) for a significant degrees of freedom difference of 1 in the chi square table ( $D = -2[(-533.40) - (-531.60)]$ ,  $D = 3.6$ ). This suggests that the model without the latent interaction represented a marginal loss in fit compared to the model with the latent interaction.



**Figure 5 Interaction of Perceived Stigma and Race Predicting Stereotype Agreement**

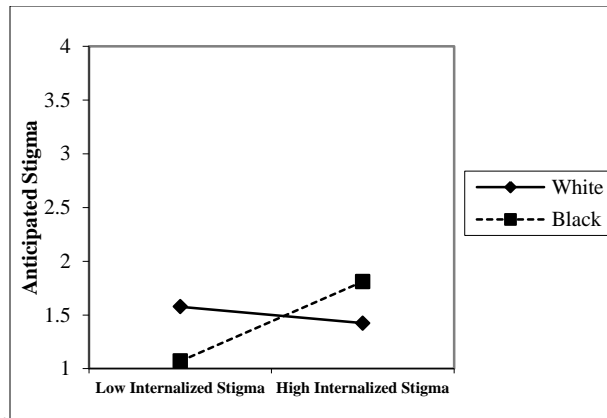
To examine the interaction of Stereotype Agreement with race in predicting Internalized Stigma, I first examined Model 0 (baseline model in Figure 4 plus the main effect of race on Internalized Stigma;  $\chi^2(73) = 109.54$ ,  $p = .004$ ;  $RMSEA = .08$ ,  $CI = .04 - .10$ ;  $CFI = .94$ ,  $SRMR = .09$ ). Race did not have a significant main effect on Internalized Stigma ( $\beta = -.11$ ,  $p = .31$ ). I then examined the latent interaction between Stereotype Agreement and race in predicting Internalized Stigma in Model 1. The interaction was nonsignificant ( $\beta = -.43$ ,  $p = .131$ ). Examination of bivariate correlations was consistent, showing that stereotype agreement and internalized stigma were strongly positively

correlated for both White ( $r = .53, p = .001$ ) and Black ( $r = .44, p = .001$ ) inmates.

Further, there was no significant difference between these correlations ( $Z = .74, p = .46$ ).

### **Exploratory Race Moderation Analyses**

In addition to the hypothesized moderators above, I also explored whether race moderated other pathways in the model (i.e., path from Internalized to Anticipated Stigma, and from Perceived to Anticipated Stigma). I first examined the interaction of Internalized Stigma and race in predicting Anticipated Stigma. Model 0 ( $\chi^2(73) = 110.52, p = .003; RMSEA = .08, CI = .05 - .10; CFI = .94, SRMR = .09$ ) showed no main effect of race on Anticipated Stigma ( $\beta = -.03, p = .81$ ). In Model 1, the interaction of Internalized Stigma and race marginally predicted Anticipated Stigma ( $\beta = .22, p = .09$ ). Figure 6 shows that for Black inmates, Internalized Stigma is positively related to Anticipated Stigma, whereas for White inmates, Internalized Stigma is unrelated to Anticipated Stigma. Examination of bivariate correlations was consistent, showing that internalized stigma and anticipated stigma were positively correlated for Black inmates ( $r = .34, p = .05$ ), but essentially unrelated for White inmates ( $r = .07, p = .74$ ); these correlations are marginally different ( $Z = -1.80, p = .07$ ). Using the log-likelihood ratio test, results showed that Model 1 just fell short of the cutoff (3.84) necessary to conclude that Model 0 was a significant loss in fit compared to Model 1. Therefore, we can conclude that the model without the latent interaction represents a marginal loss in fit compared to the model with the latent interaction ( $D = -2[(-534.26) - (-532.69)], D = 3.14$ ).



**Figure 6 Interaction of Internalized Stigma and Race Predicting Anticipated Stigma**

I also examined the interaction of Perceived Stigma and race in predicting Anticipated Stigma. Model 0 (same fit indices as noted in previous paragraph) indicated no main effect of race on Anticipated Stigma (see above). Model 1 included the latent interaction of Perceived Stigma and race in predicting Anticipated Stigma, and this interaction was not significant ( $\beta = .11, p = .46$ ). Examination of bivariate correlations did show differences in these relationships between Blacks and Whites. Specifically, for White inmates, perceived stigma was positively, but not significantly, related to anticipated stigma ( $r = .27, p = .18$ ), whereas these variables were significantly positively correlated for Black inmates ( $r = .41, p = .02$ ). However, there was no significant difference between these correlations ( $Z = -1.00, p = .31$ ).

## **Discussion**

### **Internalized Stigma Process is Replicated in Criminal Offenders**

This study provides the first quantitative examination of internalized stigma in criminal offenders, and importantly, shows that a model of the internalized stigma process (based on Corrigan et al., 2006's conceptualization) is supported in this

population. Specifically, model-testing demonstrated that perceived stigma led to agreement with stereotypes, which led to internalized stigma. There was a significant indirect effect from Perceived Stigma to Internalized Stigma through Stereotype Agreement, suggesting full mediation. Therefore, similar to other stigmatized groups (Corrigan, Watson, & Barr, 2006; Schomerus et al., 2011; Boyle, 2013), perceiving stigma and agreeing with stereotypes about criminal offenders appear to be prerequisites for internalizing stigma among criminal offenders as well.

One important difference in criminal offenders, compared to other stigmatized groups, is that perceived stigma and stereotype agreement are positively correlated in this population, as hypothesized. Studies of these variables in people with mental illness and people who stutter show that they are not related (Corrigan, Watson, & Barr, 2006; Boyle 2013). However, similar to studies with people who are dependent on drugs (Schomerus et al., 2011), perceiving stigma is closely linked to agreeing with stereotypes about this particular stigmatized group. Unlike people with mental illness or people who stutter, people who use drugs and commit crimes became stigmatized due to a choice they made; they are considered responsible for their stigmatized identities. Therefore, for culpable stigmatized groups such as these, perceiving more stigma may incline even members of the stigmatized groups themselves to agree with negative stereotypes about the group.

### **Extending the Internalized Stigma Process with Anticipated Stigma**

By including anticipated stigma in this model, we extended Corrigan's conceptualization of the internalized stigma process. Perceiving stigma from community members was strongly related to anticipated stigma, and accounted for much of the effect

that internalized stigma had on anticipated stigma. Contrary to our prediction, anticipated stigma did not always follow from internalized stigma. When a direct effect from perceived stigma to anticipated stigma was included in the model, the link between internalized stigma and anticipated stigma was attenuated, but still marginally positive. This indicates that even when the self is protected from internalizing stereotypes (e.g., stereotypes are deflected away from the self, not internalized), offenders may still anticipate discriminatory treatment from others.

For many offenders, perceiving stigma from the community certainly generates predictions of experiencing discriminatory treatment by community members, even though they may believe discriminatory treatment is unjustified. Perceiving and anticipating stigma in the absence of internalized stigma may have different implications for post-release adjustment than the internalized stigma process does. For example, if a stigmatized person does not internalize stigma and hence does not believe discrimination toward them is justified, but still expects discrimination, this may incline that person to prepare for obstacles and develop a plan for overcoming them. This is in contrast to a stigmatized person who internalizes stereotypes, and hence likely thinks discrimination toward him/her is justified, which may be more likely to lead to avoidance or withdrawal from domains involving the potential for discrimination.

In sum, the model analyzed in the current study builds upon the stigma literature, as most studies of internalized stigma do not include anticipated stigma, and this lays the groundwork for incorporating this important variable into other models.

## **Advancing the Research on Stigma in Criminal Offenders**

### **Modeling the Internalized Stigma Process**

These results greatly expand the research on the psychological experience of stigma in criminal offenders. The only studies to date of internalized stigma in offenders (Chui & Cheng, 2013; Schneider & McKim, 2003) used qualitative methods with small idiosyncratic samples. The current study used quantitative methods in a larger, more representative sample of offenders to examine internalized stigma, and performed advanced multivariate analyses of these constructs, providing a model of internalized stigma. This study shows that internalized stigma does exist in this population and occurs through a similar process as has been observed in other stigmatized groups. Specifically, perceiving that community members hold stereotypical beliefs about offenders directly leads to the anticipation of being discriminated against, and also indirectly leads to the anticipation of being discriminated against through agreement with stereotypes about offenders and acceptance of stereotypes as being personally descriptive.

### **Moderators of the Internalized Stigma Process**

The relationship between perceived stigma and stereotype agreement generalized across inmates, regardless of how positive or negative their attitudes were toward others with a criminal record. This means that offenders who perceive stigma from community members, in general, also agree with negative stereotypes about criminal offenders, even if they feel positively toward offenders on the whole. Thus, the hypothesis that feeling positively about offenders would buffer this relationship was not supported. This may reflect the notion that having a criminal record is an extremely socially unacceptable



marker that involves a great deal of stigma and blame, even among people involved in the criminal justice system.

The relationship between stereotype agreement and internalized stigma generalized across inmates, regardless of how strong their social identity as a “criminal” was. This suggests that identifying strongly with other offenders does not increase the chances that stereotype agreement will be harmful—it is harmful to the self regardless of whether people identify with the label “criminal.” So, contrary to my hypothesis, the strength of one’s social identity did not affect this link in the internalized stigma process. It is also possible that inmates interpreted our single-item measure of criminal identity in different ways. For example, for one inmate, strongly agreeing that he is a “criminal” may mean that he feels similar to other offenders, and believes he possesses typical qualities of an offender. For another inmate, strongly agreeing that he is a “criminal” may represent taking responsibility for his illegal behavior. Yet for another inmate, strongly agreeing with this item may reflect literal interpretation of the item rather than a consideration of one’s social identity. Therefore, differences in item interpretation could cancel out an interaction effect.

Participants’ race emerged as a moderator of key pathways in this model. The relationship between perceived stigma and stereotype agreement was strong and positive for White inmates but nonsignificant for Black inmates. So, as hypothesized, for Black inmates, perceiving stigma toward criminal offenders did not lead to agreement with stereotypes. This may be because agreeing with negative stereotypes about the stigmatized group is especially threatening to Black individuals’ self-concept. They must

reconcile that they are Black individuals involved in the criminal justice system against the very negative, stereotypical portrayal of Black “criminals.” If they agree that most criminal offenders do possess negative stereotypical traits, then they are that much closer to believing they indeed fit that mold. So, even though Black inmates perceive stigma toward criminals, they may possess a self-protective mechanism that protects their racial identity and sense of self by disagreeing with stereotypes about criminal offenders. There is evidence that Black inmates possess coping skills that protect the self from stigma and discrimination. Due to already possessing one stigmatized identity (i.e., racial minority), Black individuals are thought to possess cognitive strategies that reframe negative stereotypes, or deflect negative stereotypes away from the self-concept. White individuals, who may not have been exposed to previous stigma experiences, may not have any sort of buffering cognitions that would lead one to disagree with stereotypes, or deflect stereotypes away from the self.

On the other hand, Black individuals are disproportionately represented in the criminal justice system due to bias in various steps of the criminal justice process (i.e., profiling, arrest, conviction). So, it is entirely plausible that Black inmates have indeed had more frequent contact with other criminal offenders, which we know from research reduces stereotypical beliefs about a group. So, though Black inmates perceive a great deal of stigma, they may be more accepting of criminal offenders, and more likely to disagree with stereotypes about criminal offenders because of personally knowing many people who have had criminal justice contact. However, there were no differences in

mean, range, or variance in stereotype agreement for White ( $M = 1.60$ ,  $S.D. = .41$ ,  $range = 1.00 - 2.33$ ) vs. Black ( $M = 1.51$ ,  $S.D. = .41$ ,  $range = 1.00 - 2.67$ ) offenders.

There were also race differences in the pathway between Internalized Stigma and Anticipated Stigma. For Black inmates, internalized stigma was positively related to anticipated stigma, but there was no relationship between these variables for White inmates. So, for White inmates, believing that stereotypes truly described the self did not lead to expectations about being treated unfairly by the community. For White offenders, the relationship between internalized and anticipated stigma may be completely explained by perceived stigma, leaving no variance to be explained by internalized stigma. In other words, the stigma of having a criminal record may be so devastating for White offenders that the more stigma they perceive, the more they will anticipate, regardless of whether they agree with stereotypes or internalize stereotypes. To analyze whether the entire internalized stigma process occurs differently for White offenders would require a multigroup approach that compared a model of the process for Whites vs. Blacks. However, this was not possible due to the sample size available in the current study.

This study did not show a significant interaction between Perceived Stigma and race in predicting Anticipated Stigma. This is inconsistent with findings from an earlier study conducted with a separate sample of criminal offenders (Moore, Stuewig, & Tangney, 2013). Moore et al. (2013) found that perceived stigma interacted with race to predict anticipated stigma, such that perceived and anticipated stigma were strongly positively correlated for Whites, and less strongly correlated for Blacks. However, the current study includes an indirect path from Perceived to Anticipated Stigma through

Internalized Stigma in addition to the direct path from Perceived to Anticipated Stigma. This changes the meaning of the direct relationship from perceived to anticipated stigma because it removes variance explained by internalized stigma. Therefore, the direct relationship between Perceived and Anticipated Stigma in the current study reflects those offenders who did not internalize stigma (i.e., accept that negative stereotypes are personally accurate), and who rather expect reasonable obstacles and challenges to community reentry in response to perceived stigma. It is plausible that this relationship does not vary between Black and White offenders. Further, though the current study did not find an interaction between Perceived Stigma and race in predicting Anticipated Stigma, the patterns of correlations between Black and White inmates were consistent in both papers. Specifically, perceived and anticipated stigma were positively correlated for Whites and Blacks in both papers.

### **Limitations and Future Directions**

A major limitation is that the model is cross-sectional, so causality among perceived stigma, stereotype agreement, internalized stigma, and anticipated stigma cannot be determined. Other limitations involve the generalizability of this research. This sample was all male, and from one specific jail. Therefore, generalizability to female inmates, and inmates in different kinds of correctional facilities, is yet to be determined. In particular, this research may not generalize to prison inmates, who are typically incarcerated for longer periods of time, and in facilities more removed from their communities of origin than jail inmates. Because there were too few participants of other racial/ethnic groups to analyze separately, we were unable to examine race differences

across a range of races and ethnicities. It is possible that people of other races/ethnicities experience criminal offender stigma differently than Blacks and Whites. This is a direction for future research.

There is a chance that not all relevant variables were captured in this model. For example, in regards to social identity, even if someone identifies as a member of a stigmatized group, that does not mean that concerns about their identity take up a great deal of cognitive resources (stigma consciousness), or that the identity is a large a part of the overall social identity (identity magnitude; Earnshaw & Quinn, 2012). These nuanced constructs are an important direction for future research. Finally, this study had a small sample size, with 111 participants included in the general model analyses, and only 89 in the race analyses. Despite obtaining good model fit and having sufficient power to detect meaningful main and interaction effects, there may have been insufficient power to detect small interaction effects.

In conclusion, prior research with other stigmatized groups would suggest that offenders who accept criminal stereotypes as true of the self and expect discriminatory treatment may be at risk of hopelessness, withdrawal from the community, or maladaptive behavior. Offenders may be more inclined than other stigmatized populations to use illegal substances to cope with the psychological experience of stigma. This can have significant consequences for offenders, such as being reincarcerated and more severe marginalization from the community at large. Future research is needed to examine whether the internalized stigma process in offenders predicts such psychological and behavioral outcomes (Moore, Stuewig, & Tangney, in preparation).



### **CHAPTER THREE: SOCIAL WITHDRAWAL/ALIENATION MEDIATES THE EFFECT OF JAIL INMATES' ANTICIPATED STIGMA ON POST-RELEASE ADJUSTMENT: A LONGITUDINAL ANALYSIS**

Upon release from jail, criminal offenders face many challenges to successful community reentry including securing housing, staying out of jail, staying sober, reconnecting or initiating connections with employers, supporting themselves and their families, taking care of their mental health needs, and finding transportation to and from work. Navigating the community after incarceration is no easy feat. Before offenders even encounter these real obstacles, they face the challenge of their own thoughts, expectations, and fears about reentering the community. Will I be discriminated against because of my record? Will I be given a fair chance by others in the community? Will I be taken less seriously because of my record? Decades of research in clinical psychology shows that pessimistic predictions and expectations about the future can be just as detrimental to functioning as the obstacles themselves.

Research and theory suggest that *anticipated stigma*, the expectation of personally being discriminated against by others because of one's stigmatized identity (Quinn & Chaudoir, 2009), is not only linked to psychological distress (Quinn & Chaudoir, 2009), but it may ultimately predict poor functioning for stigmatized people. Anticipated stigma mediates the relationship between internalized stigma and avoidance of treatment in people with chronic illnesses (Earnshaw & Quinn, 2012), and mediates the relationship

between perceived stigma and poor community adjustment in people with a criminal record (Moore, Stuewig, & Tangney, in press). In these studies, thoughts about stigma (i.e., perceived stigma, internalized stigma) negatively impacted behavior *through* the anticipation of experiencing discrimination. Anticipated stigma is thought to be proximally related to future behavior (Quinn & Chaudoir, 2009), providing a roadmap for navigating through one's environment.

Simply anticipating stigma may not cause behavioral problems in itself. After all, most stigmatized people likely anticipate stigma to some degree, and research shows that having negative expectations about the future can motivate people to perform instead of deter them. According to Modified Labeling Theory (Link et al., 1989), anticipated stigma likely causes deterioration in functioning when it is coped with in unhealthy, maladaptive ways. For a high-risk group like criminal offenders, maladaptive coping could have implications not only for community adjustment, but also for risky behaviors. This paper examines whether anticipated stigma predicts a variety of behavioral outcomes, through one particular form of maladaptive coping (i.e., social withdrawal/alienation), in the understudied population of criminal offenders.

### **Conceptualizing Anticipated Stigma**

Because people are inundated with negative stereotypes about stigmatized groups throughout the life-course, they develop expectations about how stigmatized people are and should be treated (Link, Mirotznick, & Cullen, 1991). When someone becomes a member of a stigmatized group, his or her expectations about treatment of stigmatized people become personally relevant (Link, Mirotznick, & Cullen, 1991). The degree to



which someone anticipates stigma from others varies depending on how much that person feels like a member of the stigmatized group, and how much that person thinks he/she possesses the negative stereotyped qualities of the group (internalized stigma) (Earnshaw & Quinn, 2012). Individuals who anticipate more stigma, and hence expect to be treated unfairly and discriminated against to a great extent, are at risk of having more difficulty functioning.

Anticipated stigma is distinct from other stigma constructs, such as *perceived stigma*, the belief that others hold negative stereotypes about one's group, and *internalized stigma*, the acceptance of negative stereotypes into the self-concept. Anticipated stigma (also referred to as *anticipated enacted stigma* by Blais & Renshaw, 2014) specifies the treatment an individual personally expects to experience in the future (Major & Sawyer, 2009; Quinn & Chaudoir, 2009; Quinn & Earnshaw, 2013). This is more broad than anticipated stigma in the sense of stereotype threat (Aronson & Steele, 2005); stereotype threat involves being primed about one's stigmatized identity while in a situation involving the potential for discrimination, which interferes cognitively (i.e., anxiety, stress) to the point of decreasing performance in that situation (Aronson & Steele, 2005). Anticipated stigma here refers to the expectation of personally being discriminated against by others because of one's stigmatized identity (Quinn & Chaudoir, 2009).

### **Coping with Anticipated Stigma**

Early stigma theory (i.e. Labeling Theory; Lemert, 1951) proposed that all stigmatized individuals experience difficulties functioning because receiving a

stigmatizing label was considered universally harmful. However, current theory emphasizes that not all stigmatized people respond to stigma in the same way. Modified Labeling Theory, for example, highlights the different ways in which people cope with the anticipation of discrimination. Coping strategies include secrecy or in other words, “passing as normal,” withdrawing from social interactions except for close friends/family, and being open about one’s identity and educating others about it (Link et al., 1989). Further, the coping literature underscores that stigmatized people vary greatly in the ways they cope with stressors, some of which can be problematic (Miller & Kaiser, 2001). Therefore, anticipated stigma likely impairs functioning when people cope with it in maladaptive ways.

Certain coping responses have the potential to impede functioning. Stigma literature categorizes coping responses as being emotion-focused cognitive strategies (i.e., changing one’s thoughts/emotions in response to stigma, not aimed at reducing stigma experiences), active behavioral strategies (i.e., changing one’s environment and life, not aimed at reducing stigma experiences), or defensive behavioral strategies (i.e., avoiding stigma-related stressors, aim is to reduce stigma experiences) (Ilic et al., 2014). Similarly, coping literature more broadly categorizes responses as either engagement coping, directly confronting the stressors with emotional or cognitive techniques, or disengagement coping, withdrawing either physically or mentally from situations in which one anticipates rejection, and instead interacting with people who are not prejudiced (Miller & Kaiser, 2001).

Disengagement/defensive behavioral coping strategies, such as secrecy, selective disclosure, and social withdrawal, can be problematic because they involve avoiding experiences in order to reduce distress (Ilic et al., 2014). This can include avoidance of important social or community activities necessary to maintain healthy functioning. Further, social withdrawal occurs hand in hand with alienation, feeling different from or inferior to non-stigmatized others (Ritsher, Otilingam, & Grajales, 2003). Therefore, the term “social withdrawal/alienation” is used to describe the experience of avoiding interactions and situations that involve the potential for discrimination, as well as feeling alienated from the broader community, throughout the rest of the paper. Miller and Kaiser (2001) suggest that *complete* social withdrawal and isolation can occur when stigmatized people cannot find a social group of people who are not prejudiced.

Anticipated stigma may increase the likelihood of disengagement/defensive behavioral coping responses, especially social withdrawal/alienation. From a cognitive standpoint, if stigmatized people expect a great deal of discrimination from others, they are less apt to participate in activities that have the potential for discrimination. Hence, the larger the threat of discrimination, the more likely stigmatized individuals are to feel the need to protect themselves from those experiences. In fact, correlational studies show that perceived stigma, which is closely related to anticipated stigma, is associated with social withdrawal coping (Kleim et al., 2008). From an emotional standpoint, anticipated stigma may cause a variety of emotional responses, including defensive behavior, distress, fear, and the urge to escape (Link et al., 2001) that are associated with avoidance and withdrawal coping. In fact, correlational studies show that anticipated stigma is

correlated with depression and anxiety in people with various concealable stigmatized identities (e.g. mental illness, criminal records), and with low life satisfaction in people with chronic illnesses (Earnshaw, Quinn, & Park 2012). Anticipated stigma may occur in tandem with psychological distress, which may incline stigmatized people to reduce that feeling via avoidance of stressors (Link et al., 2001).

Among stigmatized individuals, criminal offenders may be especially likely to withdraw socially and feel alienated in response to anticipated stigma. The pervasive structural and social stigma toward people with a criminal record, for example the threat of being discriminated against when applying for jobs or housing, may weigh heavy on criminal offenders during incarceration as they anticipate release back into the community. Anticipated stigma during incarceration may cause avoidance of situations in which the potential for discrimination exists upon release. Indeed, research among 450 former offenders showed that perceiving more stigma was associated with a higher likelihood of anticipating that one would withdraw to cope with stigma (Winnick & Bodkin, 2008).

### **The Impact of Coping via Social Withdrawal/Alienation**

Defensive behavioral coping/disengagement coping is (with any type of stress/problems) generally associated with poor functioning, physical illness, and psychological distress (Kaiser & Miller, 2001; Major et al., 1998) and longitudinally predicts poor mental health (Roubinov & Luecken, 2013). Of the disengagement/defensive behavioral strategies, social withdrawal/alienation has received the most attention in stigma research (Miller & Kaiser, 2001). This may be due to the

multifaceted, harmful effects that social withdrawal/alienation in particular can have on functioning. Anticipated stigma, paired with social withdrawal and alienation from others, likely causes poor functioning in a variety of areas.

### **Social Withdrawal/Alienation and Mental Health Problems**

Strategies such as social withdrawal/alienation are thought to have a negative effect on mental health because avoidance of stigma creates a persistent cycle of distress about stigma and avoidance of that stressor, which prevents learning and adapting to stressors and creates negative thoughts and feelings about oneself and one's environment (Ilic et al., 2014). Further, social withdrawal/alienation can lead to isolation if one's social support is severely diminished, which itself can have negative effects on mental health (Miller & Kaiser, 2001). Research has documented this effect longitudinally. In a longitudinal study of 367 people in treatment for various mental health problems, the use of social withdrawal to manage stigma at Time 1 predicted poor mental health at Time 2 (Ilic et al., 2014).

Research also supports social withdrawal/alienation as a *mediator* of the link between stigma and mental health problems. Though not longitudinal, Chronister, Chou, and Liao (2013) found that social withdrawal coping mediated the relationship between perceived stigma and poor mental health recovery. In longitudinal studies, perceived stigma and withdrawal tendencies predicted low self-esteem at 6 and 24 month follow-up points when controlling for baseline levels of self-esteem and depression (Link et al., 2001). Among people with bipolar disorder, perceived stigma predicted poor social interactions with non-family members at a 7-month follow-up through avoidance and

psychological isolation (Perlick et al., 2001). These studies examined perceived stigma rather than anticipated stigma, which is considered more proximal to behavior (Quinn & Earnshaw, 2013). There may be an even stronger relationship among *anticipated stigma*, social withdrawal/alienation, and subsequent mental health problems.

There is only one study that has examined anticipated stigma, coping, and outcomes; Earnshaw, Lang, Lippitt, Jin, and Chaudoir (2015) examined whether adaptive coping (actively confronting stigma stressors) moderated the association between anticipated stigma and stress, but found that adaptive coping did not buffer this relationship. In this study, they examined adaptive coping rather than maladaptive coping, which may have a different role in the stigma process.

### **Social Withdrawal/Alienation and Impairment in Community Adjustment**

In addition to causing mental health problems, social withdrawal/alienation is thought to have a serious impact on participation in the community. Researchers note that withdrawal from important activities or from too many areas can lead to failure to fulfill responsibilities (i.e., paying bills, attending work/school) (Miller & Kaiser, 2001). Further, researchers have noted that coping with stigma via social withdrawal/alienation may have the most serious impact on employment and community participation because it inhibits participation in activities with community members (Link et al., 1989). Research has documented such harmful effects of using social withdrawal/alienation to cope with stigma. In one study, Link, Mirotnick, and Cullen (1991) assessed perceived stigma and coping strategies in 164 people with mental illness. They found that perceived

stigma and social withdrawal were both significantly associated with unemployment in regression analyses, controlling for demographic factors.

### **The Unique Relationship between Social Withdrawal and Antisocial Behavior**

For criminal offenders, responding to anticipated stigma via social withdrawal and alienation from the community may not only impair participation in key aspects of the community and cause mental health problems, but it may increase maladaptive, illicit behaviors. Labeling Theory suggests that social withdrawal from the conventional community is the reason people continue to engage in criminal behavior (Lemert, 1951). This theory suggests that because the conventional society/community at large is held responsible for stigma, offenders are likely to anticipate stigma from various community domains that would normally provide them with opportunities for rehabilitation and participation as law-abiding citizens. Instead of participating in these activities, which involve the potential for discrimination, offenders are more likely to surround themselves with other people in their stigmatized group, in this case criminal offenders. Research shows that having a peer group of offenders is associated with higher rates of illegal behavior and substance use (Malouf, Stuewig, & Tangney, 2012; Cottle, Lee, & Heilbrun, 2001). Sometimes referred to as “criminal embeddedness,” social withdrawal/alienation from the community at large and subsequent association with antisocial peers may mean engaging in high rates of illegal behaviors and substance use (Bernburg, Krohn, & Rivera, 2006).

There is research support for a model in which having the stigmatizing label of “criminal offender” predicts higher associations with criminal peers, which in turn

predicts subsequent participation in illegal activities and substance use in juveniles. Bernburg, Krohn, and Rivera (2006) assessed 870 adolescents at risk for delinquency, and found that being officially involved in the juvenile justice system (as opposed to no involvement) predicted subsequent involvement in delinquent peer networks, controlling for prior delinquent peer networks. Involvement in delinquent peer networks then predicted future delinquent behavior, and the mediation through peer delinquency was significant. Social withdrawal and alienation from the community at large may not only mediate the relationship between anticipated stigma and poor community integration, but it may also mediate the effect between anticipated stigma and illegal behaviors/substance use in criminal offenders.

In sum, anticipated stigma may cause stigmatized people to feel the need to protect themselves from discrimination experiences, or may cause distressing emotional states, both of which may prompt the use of social withdrawal/alienation as a coping strategy. Social withdrawal/alienation is found to be harmful for subsequent mental health and community functioning, and may explain the link between anticipated stigma and poor functioning in these areas. For offenders, anticipated stigma and social withdrawal/alienation from the community may also lead to illegal behaviors and substance use, due to increased involvement with criminal peers. The hypothesized model appears in Figure 7.



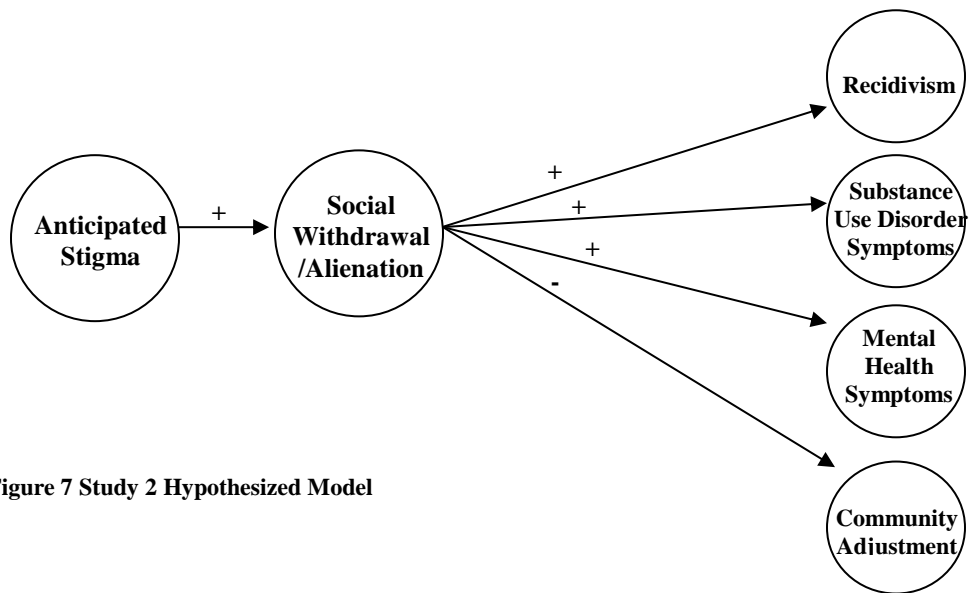


Figure 7 Study 2 Hypothesized Model

## Moderators

### Moderators of the Link between Anticipated Stigma and Social Withdrawal/Alienation

People with certain personality characteristics, or who possess certain attitudes, may be less likely to cope with anticipated stigma in maladaptive ways. *Stigma resistance*, believing that one is not stunted by the negative effects of stigma (Thoits, 2011), is considered a positive way of thinking that is associated with adaptive coping and functioning in stigmatized people. Stigma resistance resembles cognitively reframed ways of thinking about one’s experience as a stigmatized person, as well as self-efficacy beliefs that one can accomplish meaningful goals, which research shows is generally adaptive for persevering through adversity (Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012). Ritsher, Otilingam, and Grajales’s (2003) stigma resistance subscale includes items such as “In general, I am able to live life the way I want to” and “People with mental illness make important contributions to society.”

The relationship between anticipated stigma and social withdrawal/alienation is hypothesized to be attenuated for people with high stigma resistance attitudes. Research shows that stigma resistance is associated with having less mental health symptoms and higher self-esteem in stigmatized people (Sibbetz, Unger, Woppmann, Ridek, & Amering, 2011). Stigmatized people who possess these resistance attitudes are thought to have more self-efficacy about being able to deal with the discrimination they encounter from others (Thoits, 2011). This is in direct contrast to the active avoidance of social situations involving the potential for discrimination as is seen in social withdrawal/alienation. Similarly, people who do not have these resistant attitudes about stigma may be more likely to withdraw from others upon anticipating stigma; they would not believe they could actually overcome discrimination to live the way they wanted to, and hence would stay away from situations potentially involving discrimination. Therefore, for people with lower stigma resistance attitudes, the relationship between anticipated stigma and social withdrawal/alienation is expected to be strengthened.

Similar to stigma resistance, the relationship between anticipated stigma and social withdrawal/alienation is likely attenuated for highly optimistic people. Optimism, defined as a worldview in which people generally expect positive outcomes for themselves, even when faced with adversity and real barriers (Carver, Scheier, & Segerstrom 2010), is thought to buffer the negative effects of stigma. Research shows that optimism is associated with using active, engagement coping and problem-solving strategies (Carver, Scheier, & Segerstrom, 2010). Being highly optimistic likely inclines people to cope with anticipated stigma via engagement rather than disengagement coping

strategies, such as social withdrawal/alienation, because highly optimistic people likely believe they can overcome unfair treatment from others. In the same vein, people low in optimism may not believe that they can overcome discrimination and stigma-related stressors, possibly strengthening the relationship between anticipated stigma and social withdrawal/alienation.

Competing hypotheses are offered regarding the moderating effect of race/ethnicity on the link between anticipated stigma and social withdrawal/alienation. The relationship between anticipated stigma and social withdrawal/alienation may be attenuated for racial/ethnic minorities. Racial stigma is a visible or obvious stigma, which means that racial minorities likely encounter more discrimination than people with solely concealable stigmas (Pinel, 1999). Therefore, people with obvious stigmatized identities, such as race, may end up developing a repertoire of more active, engagement coping responses because they have had to adapt to discrimination regarding their readily apparent racial identity (Branscombe, Schmitt, & Harvey, 1999; Major, 2012). On the contrary, people who only have concealable stigmatized identities do not have to disclose their identity to others, and therefore development of active, engagement coping may depend on whether they have actually disclosed their identity or not. In addition to possibly having a repertoire of more adaptive coping skills, racial/ethnic minorities may also feel less threatened by anticipated stigma, possibly not experiencing the same degree of emotional turmoil that ethnic majorities may when anticipating stigma, and hence not needing to avoid and withdraw from stressors. Managing racial stigma over one's lifetime may eventually result in less emotional reactivity to other stigma-related threats.

Alternatively, some research suggests that experiences with previous discrimination can lead racial minorities to be hypervigilant for experiences of stigma and discrimination (Carter & Forsyth, 2010). Therefore, for racial/ethnic minorities, anticipated stigma may be especially threatening, increasing the likelihood of withdrawing from situations involving the potential for discrimination. Thus, an alternative hypothesis is that the relationship between anticipated stigma and social withdrawal/alienation will be stronger for racial minorities than for White offenders.

### **Moderators of the Link between Social Withdrawal/Alienation and Antisocial Behavior**

Specific to criminal offenders, the relationship between social withdrawal/alienation and illicit behaviors may depend on attitudes about the stigmatized group. Withdrawal and alienation from others who may possess stigmatizing beliefs theoretically causes closer ties with the stigmatized group (Branscombe, Schmitt, & Harvey, 1999). Having positive attitudes toward other offenders would likely increase the relationship between social withdrawal/alienation and engaging in illegal behavior and substance use. On the other hand, offenders who do not have positive attitudes toward other offenders may withdraw socially from community members and offenders alike, weakening the link between social withdrawal/alienation and criminal behavior/substance use.

Finally, because minority offenders may be more aware of, and even hypervigilant to, stereotypes about “black criminals,” the experience of anticipating stigma, coping with it, and engaging in different behaviors may differ, in general, in this stigmatized group. Race will be examined as an exploratory moderator of all other

pathways in the model. The model including hypothesized moderators appears in Figure 8.

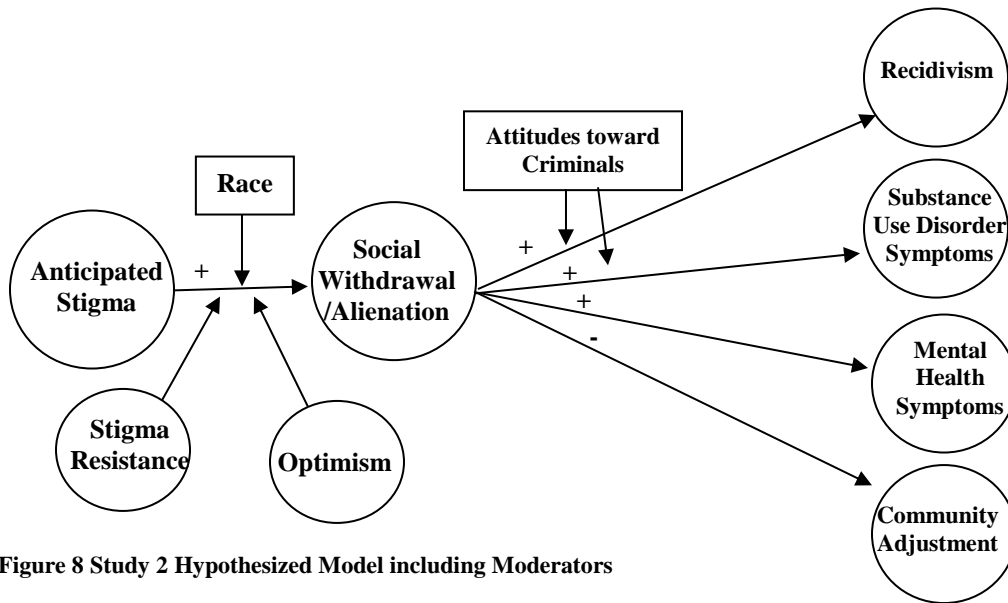


Figure 8 Study 2 Hypothesized Model including Moderators

### Present Study

This study examines a mediational model in which anticipated stigma predicts various domains of functioning through social withdrawal/alienation. The effect of anticipated stigma on these areas of functioning is hypothesized to be fully explained by social withdrawal/alienation, so direct relationships between anticipated stigma and subsequent functioning are not tested. This model is applicable to all stigmatized groups, though certain aspects are only relevant to criminal offenders (i.e., recidivism). This study provides the first test of these variables in criminal offenders, and extends the few studies on offenders' perceived stigma and anticipated use of withdrawal as a coping strategy (Winnick & Bodkin, 2008). Not only does this study use a longitudinal design, but it utilizes advanced model-testing techniques, both of which are rare in stigma

research. Finally, this study tests theoretically driven moderators of this process to pinpoint which types of offenders are vulnerable to the effects of anticipated stigma on subsequent functioning.

## **Method**

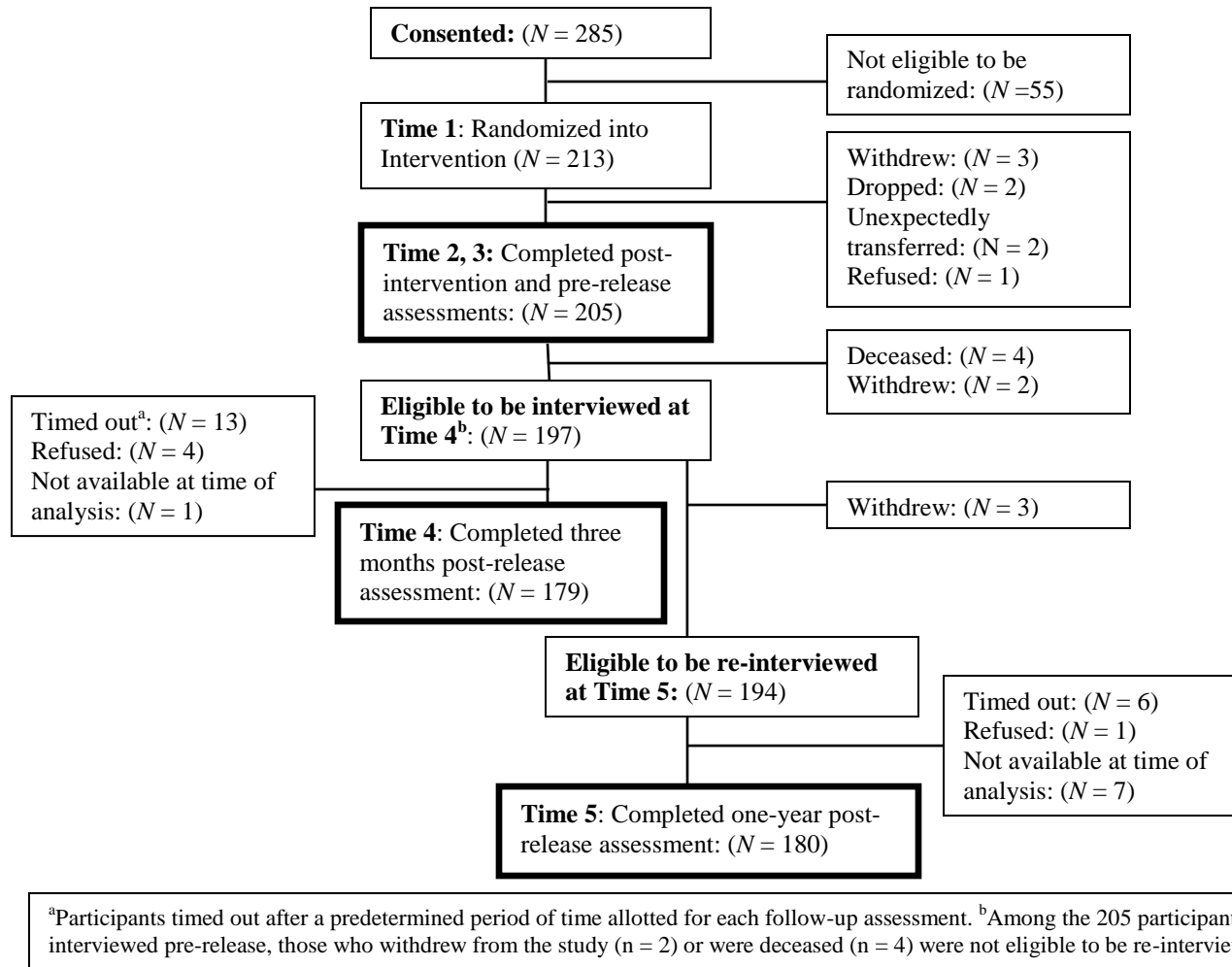
### **Participants and Procedures**

Participants were 79 male inmates recruited from an adult detention center in 2008-2010 as part of a randomized controlled trial of a restorative justice intervention (Folk et al., 2015). Female inmates were not included in this study because too few were incarcerated at any given time to allow randomization into a group intervention. Relevant data for this study were collected before the intervention (Time 1), post-intervention (Time 2), just prior to release (Time 3), three months post-release (Time 4), and one year post-release (Time 5). Participants received a \$20 honorarium for completing Time 1 assessments, a \$25 honorarium for completing Time 3, a \$50 honorarium for Time 4, and a \$100 honorarium for Time 5. Post-release assessments were completed over the phone or in correctional facilities (if reincarcerated).

Only inmates who had already been sentenced were eligible to participate in order to reduce uncertainty about release dates throughout the duration of the study. Inmates were excluded if they were not likely to serve their sentence at the host jail (i.e., likely to be transferred to DOC facility, sentenced to electronic incarceration), or if they had ICE detainers because of the difficulty in following up with deported individuals. Only inmates housed in the general population areas of the jail were eligible to participate in order to exclude those with serious psychopathology or medical problems. Inmates were

informed that participation was voluntary and that data were confidential, protected by a Certificate of Confidentiality from DHHS.

Sample retention is diagrammed in Figure 9. Of those eligible inmates who consented to participate ( $N = 285$ ), 213 were successfully randomized to the intervention (108 in treatment group, 105 in control group). Of these, three participants withdrew from the study, four were dropped, two were unexpectedly transferred, and one person refused, leaving 205 inmates who completed the Time 3 assessment prior to release. Of these 205 participants, only 79 completed the anticipated stigma measure at Time 3. This measure was added into the study late, and therefore a large proportion of participants did not receive it. Participants ( $N = 79$ ) were male, about 32 years old on average ( $range = 18 - 65$ ), and were racially/ethnically diverse (41.8% African American, 34.2% Caucasian, 5.1% Hispanic, 13.9% Mixed race/other race, and 5.1% Asian/Pacific Islander).



**Figure 9 Sample Retention**



This paper utilizes pre- and post-release data to achieve a longitudinal design. Full Information Maximum Likelihood (FIML) was used to handle missing data. FIML is strongly encouraged over listwise deletion when data are missing at random, which means that the participants are not missing on items/variables for a reason that is relevant to the phenomenon being measured (Schafer & Graham, 2002; Wothke, 2000; Little, Jorgensen, Lang, & Moore, 2014). Stigma measures were added into the study late, so about half of our participants had already completed data collection before the stigma measure was introduced into our interview packet. Because this reason for missing data is unrelated to the variables being analyzed, it is considered missing at random. Listwise deletion can bias results because it deletes all participants who do not have complete data, which is not representative of the true population. FIML uses all of the data available about a participant, including other measures at that timepoint, to estimate model parameters. Data values are not imputed. FIML allowed analysis of the full sample of participants who completed outcome measures rather than being limited to the sample who completed the anticipated stigma measure.

The 205 participants who completed Time 3 (pre-release) were followed up with longitudinally after release from jail. Of these participants, 4 passed away before the next phase of data collection and 2 withdrew from the study altogether before the next wave of data collection, leaving 197 participants who were eligible to be re-interviewed at Time 4 (three months post-release). Of these, 13 were unable to be reached within the allotted period to collect Time 4 data, 4 participants refused to complete the Time 4 assessment, and 1 was not available at the time of analysis, leaving 179 participants who completed

the Time 4 assessment. Of 197 people who were eligible to complete Time 4 data collection, 194 were eligible to complete Time 5 (one year post-release), as 3 additional participants withdrew from the study altogether between Time 4 and Time 5. Of these 194 participants, 6 were unable to be reached in the allotted time frame to collect Time 5 data, 1 refused to participate in the Time 5 assessment, and 7 were not available at the time of analysis, leaving a final sample of 180 people who completed Time 5 data. A total of 53 participants completed the stigma measures at Time 3, the social withdrawal/alienation measure at Time 4, and the outcome measures at Time 5.

The sample analyzed in FIML ( $N = 197$ ) included all people who completed a Time 5 interview ( $N = 180$ ), plus those participants who completed the stigma measures but did not complete the Time 5 interview ( $N = 12$ ) as well as participants who completed a Time 4 interview but did not complete the Time 5 interview ( $N = 5$ ). This sample was descriptively similar to the sample of 79 people who completed the anticipated stigma measure (*Mean age* = 33, *S.D.* = 10.89, *range* = 18 – 65; 45.7% African American, 37.1% Caucasian, 10.1% Mixed/Other race; 3.6% Hispanic, 2.5% Asian/Pacific Islander, and additionally there were 1.0% Middle Eastern participants in this larger sample).

## **Measures**

Descriptive statistics for each variable included in the model are displayed in Table 3.

## **Independent Variable**

### **Anticipated Stigma**

Anticipated stigma was assessed by adapting select items from the Discrimination Experiences subscale of the Internalized Stigma of Mental Illness scale (ISMI; Ritsher, Otilingam, & Grajales, 2003). The ISMI is a widely used, reliable measure capturing a variety of stigma experiences. Four out of five items on the Discrimination Experiences subscale were used; one item, “People often patronize me, or treat me like a child, just because I have a mental illness” was not used because it did not apply to offenders. Content of the other four items was relevant to criminal offenders. Items were reworded to reflect an expectation about future treatment rather than past experience. For example, the ISMI item “People discriminate against me because I have a mental illness” was reworded to “I expect people to discriminate against me because I have a criminal record.” This adapted scale was entitled the Personal Expectations of Discrimination (PED). Responses ranged from “1” Strongly Disagree to “4” Strongly Agree. This variable was normally distributed and reliability was excellent ( $\alpha = .87$ ).

**Table 3 Univariate Statistics**

	N	M	SD	Skew	SE	Kurtosis	SE	Possible Range	Actual Range
<b>IV and Mediator</b>									
Anticipated Stigma	79	1.99	.72	.20	.27	-.11	.54	1.00-4.00	1.00-4.00
Social Withdrawal/ Alienation	107	2.15	.51	.32	.23	1.69	.46	1.00-4.00	1.00-4.00
<b>Moderators</b>									
Stigma Resistance	107	2.91	.65	-.41	.23	.25	.46	1.00-4.00	1.00-4.00
Optimism Attitudes Tow. Criminals	190	3.05	.68	-.39	.18	-.14	.35	1.00-4.00	1.00-4.00
	111	4.85	1.40	-.03	.23	-.41	.46	7.00	7.00
<b>DVs</b>									
<b>Recidivism</b>									
SR Arrests	175	.42	.68	2.02	.18	5.47	.37	0-16.00	0-4.00
SR Offenses <sup>a</sup>	172	.74	1.38	2.76	.19	9.75	.37	0-16.00	0-9.00
<b>Substance Use Sxs<sup>b</sup></b>									
Alcohol	145	.39	.72	2.17	.20	4.78	.40	0-4.00	0-3.87
Marijuana	149	.16	.42	3.23	.20	10.86	.40	0-4.00	0-2.39
Cocaine	149	.10	.49	5.35	.20	30.35	.40	0-4.00	0-3.70
Opiates	149	.14	.69	5.03	.20	24.12	.40	0-4.00	0-4.00
Hard drugs <sup>c</sup>	149	.24	.83	3.61	.20	12.10	.40	0-4.00	0-4.00
<b>Mental Health Sxs</b>									
Cognitive Anxiety	172	52.41	10.01	.79	.19	1.08	.37	30-110T	36-91T
Affective Anxiety	172	51.32	10.91	1.11	.19	2.24	.37	30-110T	34-96T
Physiological Anxiety	172	50.90	10.25	1.30	.19	2.38	.37	30-110T	38-97T
Cognitive Depression	172	51.76	11.86	1.60	.19	4.19	.37	30-110T	37-107T
Affective Depression	172	54.41	11.58	1.45	.19	2.81	.37	30-110T	39-99T
Physiological Depression	172	52.26	10.97	.68	.19	.35	.37	30-110T	36-86T
<b>Community Adjust.</b>									
# Hrs Employed	178	1222.11	1223.55	1.37	.18	3.90	.36	0-7843	0-7843
Community Function. Index	177	.32	.19	.26	.18	-.25	.36	0-1.00	0-0.83

<sup>a</sup>SR = Self-reported, arrests and offenses do not include possession of drugs. <sup>b</sup>30 participants who were incarcerated the entire time period before the Time 5 interview were not given substance use questions, causing missing data. Due to interviewer error, four participants were not asked alcohol use questions, causing missing data. <sup>c</sup>Cocaine and opiate variables were skewed due to few participants reporting symptoms, so they were combined (*hard drugs*) and analyzed. Note: 79 participants completed the anticipated stigma measure because it was added late.

## **Control Variables**

### **Treatment status**

Because the sample analyzed in this study was drawn from a randomized controlled trial of an intervention, treatment status was also controlled for in analyses. Treatment status was coded as '0' if participants were assigned to the treatment as usual condition, and '1' if participants were assigned to the restorative justice intervention. In the sample of participants who completed the anticipated stigma measure ( $N = 79$ ), 40 participants were in the treatment as usual group and 39 were in the treatment group.

### **Mediator**

#### **Social Withdrawal/Alienation**

Social withdrawal/alienation was assessed at Time 4, three months post-release, by adapting select items from the Social Withdrawal and Alienation subscales from the Internalized Stigma of Mental Illness Scale (ISMI; Ritsher, Otilingam, & Grajales, 2003). Only certain items considered to be applicable to criminal offenders were selected and adapted. Items from the Social Withdrawal subscale included "I avoid getting close to people who don't have a criminal record to avoid rejection" and "I stay away from social situations in order to protect my family and friends from embarrassment." Items from the Alienation subscale included "I feel inferior to others who don't have a criminal record" and "I feel out of place in the world because I have a criminal record." Social Withdrawal (3 items) and Alienation (3 items) subscales were combined to form one scale ( $\alpha = .70$ ), which was normally distributed.

## Dependent Variables

### Community Adjustment

Community adjustment was assessed at Time 5, one-year post-release.

Community adjustment was conceptualized as involving both employment as well as participation in other aspects of the community such as residential stability, having a valid driver's license, supporting one's children, being legally married, and volunteering in the community. Employment and community adjustment indicators were chosen from a measure of detailed demographic information given at the one-year post-release assessment and attempted to replicate a recent independent study of jail inmates Moore, Stuewig, & Tangney (in press)<sup>4</sup>. Community adjustment data included employment and community activities that occurred from three months post-release (i.e., since Time 4) up until the date of the Time 5 interview. This time span was at least 9 months long (i.e.,

---

<sup>4</sup> Employment in the current study differed from Moore et al. (in press) because there was more specific information available about this sample's employment. The *total hours employed* variable used here is considered more precise in comparison to that used in Moore, Stuewig, and Tangney (in press). For example, in Moore et al. (in press) participants reported whether they held mostly full-time, part-time, or odd-jobs across the period of one year, and hourly estimates were assigned to these categories in order to estimate how many hours participants were employed. In the current study, participants reported the specific hours worked for each job they held in the time frame being studied, so each participants' precise number of hours worked was computed. The community adjustment indicators analyzed here are different from Moore et al. (in press) in the following ways: 1) the index used in Moore et al. (in press) included homeownership and largest source of financial support, however, these indicators were not included here because there was too little variance in homeownership in this sample (i.e. 99% of participants did not own their own home), and participants in this study were not asked about their largest source of financial support as they were in Moore et al. (in press). Among the indicators that were replicated (i.e., residential stability, marital status, driver's license, educational/vocational upgrades, support of kids, volunteerism), marital status, driver's license, and educational/vocational upgrades were parallel in both studies. Residential stability was more precise in the current study because participants provided every address they lived at throughout the time frame studied, and these were summed, whereas participants only self-reported the number of residences they had in the previous study. Support of children in the previous study was based on the number of children participants self-reported being responsible for vs. the number of children they reported supporting, but in the current study, this variable was created based on the number of children participants reported supporting and whether they paid their required child support payments. Finally, volunteerism in this study referred to that which was not required by the court, a distinction not made in the previous study.

~270 days), and could have been up to 21 months long (i.e., ~636 days) depending on when the Time 5 interview was completed.

Employment was assessed by asking participants about legal employment during the time frame starting at 3 months post-release up until the date of the Time 5 interview. Participants reported information about all of the employment they held during that time period, including type of work, dates of employment, hours worked, and reason for leaving. To quantify employment, I calculated the number of days participants were employed in each separate period of employment, and multiplied the number of days employed by the average number of hours worked at each job per day during that time period, resulting in a variable for each job (i.e., Job1, Job2) that is the total number of hours worked at that job. I added these values together for each person to obtain a final score of the total number of hours employed, at any job, during the time frame (*range* = 0 hours to 4847.86 hours, *M* = 1036.71 hours, *S.D.* = 1016.64). Only 48 participants of the 180 who completed the Time 5 assessment had been unemployed for the entire time period, three of whom were incarcerated for the entire time period. Each person's unique amount of time spent in the community (i.e., time not incarcerated, able to work) was accounted for by multiplying the total hours employed variable by a ratio of employability (number of days in time period / number of days in community). This prevents employment from being confounded with recidivism/incarceration, which is a separate outcome of interest. The final variable represented the total hours employed, while in the community from three months post-release to approximately one year post-release (*range* = 0 to 7843.33, *M* = 1222.11, *S.D.* = 12223.55).

The second aspect of community adjustment was involvement in various prosocial community institutions and activities from the three months post-release date to Time 5 (one year post-release interview). Indicators included 1) residential stability, 2) current marital status, 3) valid driver's license, 4) financial support of children, 5) educational and vocational upgrades (e.g., taking vocational or college courses, graduating high school, getting GED), and 6) volunteerism in the community. Participant responses on each of the six items were evaluated in terms of the level of adaptive functioning. These decisions were based on criminology research deeming which types of community integration are prosocial and most beneficial for desistance from crime. Responses deemed to be the most adaptive were given a score of 1, and the remaining responses were given a score of 0. No value judgments are used in determining which responses were adaptive.

For residential stability, participants were asked where they lived (i.e., street address) starting at the three month post-release date up until the date of the Time 5 interview. The type of address participants lived at were categorized as either single family home/townhouse, apartment/condo, mobile home/trailer, rehabilitation facility for substance use problems, hospital, mental health facility, homeless (in street or shelter), or incarcerated. The total number of addresses participants lived at (including periods of homelessness, but excluding incarceration) were counted to capture how many times they changed addresses, and hence, how residentially stable they were. Living in 2 or fewer places since the 3-month post-release date was considered the most adaptive response and was scored 1 (79.3%). Living in more than 2 places (17.9%) or being homeless for the



entire time period (2.8%) was considered maladaptive. Regarding marital status, participants responded whether they were legally married, divorced, separated, widowed, never married, or other; being legally married was considered the most adaptive marital status for the purposes of the index (Sampson & Laub, 1997). Eleven participants (6.2%) were legally married at the Time 5 interview.

Participants were asked how many kids they were currently financially supporting at Time 5, whether they were required to pay child support, and if so, how many payments they were required to make and how many of those payments they made. Participants who reported financially supporting any of their children received a score of 1 on this item, and those who denied supporting any children received a 0. Also, participants who were required to pay child support, and made all of their required payments maintained a score of 1 on this item, whereas participants who were required to pay child support and did not make all of their required payments lost credit and received a score of 0 on this item. About 40.1% of participants reported supporting children at Time 5 and either were not required to pay child support, or if they were required, made all of the required payments.

Participants were asked whether they participated in a number of educational/vocational upgrades in the time between their three month post-release follow-up until their Time 5 interview. Participating in any vocational or educational upgrades, including graduating from high school, completing a vocational or technical training program, completing the GED, working on the GED or any vocational/technical training, taking college classes, or completing college, in the time frame was considered

adaptive and was scored 1 (23.9%). Not participating in any upgrades was scored as 0 (76.1%). Participants who reported having a valid driver's license at the Time 5 interview were given a score of 1 (26.6%), and those who did not were scored 0. Finally, participants were asked whether they engaged in any non-required volunteer work after their release from jail (i.e., since Time 3 interview). Participants who reported participating in non-required volunteer work or community service between their three month post-release date and their Time 5 interview were given a score of 1 (18.5%), and those who did not were scored 0.

Three participants who were incarcerated for the entire time frame from their three month post-release date up to the date of the Time 5 interview were made missing on all index items. Scores were averaged across the six dichotomous community functioning indicators to create a total functioning score (*range* = 0 to .83, *M* = .32, *S.D.* = .19). Because this is a formative construct composed of different areas of functioning that are not necessarily expected to be correlated with one another (i.e., having a valid driver's license may not necessarily be linked to financially supporting one's children), Cronbach's alpha was not calculated. The variable was normally distributed (see Table 3).

### **Recidivism**

Recidivism was assessed at the Time 5 interview (one-year post-release) via self-report of detected and undetected offenses. Recidivism data referred to the same time period as community adjustment data, which was the three month post-release date up until the date of the Time 5 interview. Participants were asked whether they had been

arrested for (self-reported arrests) and whether they had committed without being arrested (self-reported offenses) each of 16 types of crime (i.e., theft, robbery, assault, murder, domestic violence, weapons offenses, major driving offenses, prostitution, drug offenses, sex offenses, fraud, kidnapping, arson, resisting arrest, miscellaneous, and other) from the three month post-release date to the date of the interview. A versatility variable (the number of different types of crimes) was created for arrests and for offenses. Versatility is used rather than frequency of arrest/offense because the latter is confounded by the type of crime (e.g., illegal substance use vs. violent offenses). Versatility of arrests ranged from 0 to 5 types of crimes, and from 0 to 10 types of crimes for undetected offenses. Because many participants reported/were found to have zero arrests (62.9%) and reported committing zero offenses (52.3%), each variable was skewed.

### **Mental Health Symptoms**

Levels of mental health symptoms were assessed at Time 5, one-year post-release, with a shortened version of the Personality Assessment Inventory (PAI; Morey, 2007), which included the cognitive, affective, and physiological subscales of the Anxiety (ANX) and Depression (DEP) clinical scales. Item responses ranged from 1 = “False, not at all true” to 4 = “Very true.” The PAI is a widely used, well-validated measure (Morey, 2007). These scales use T-scores, which are normed on a sample of average adults; the ranges for each scale were 35T-103T for Depression (24 items,  $\alpha = .89$ ) and 34T-91T for Anxiety (24 items,  $\alpha = .86$ ). These scales were all normally distributed (see Table 3).

### **Substance Use Disorder Symptoms**

Substance use disorder symptoms were assessed at Time 5, the one-year post-release timepoint, using Simpson and Knight's (1998) Texas Christian University: Correctional Residential Treatment Form, Initial Assessment (TCU-CRTF). Questions referred to substance use in the past three months prior to the Time 5 interview. A total of 30 participants were incarcerated for the entire three months prior to their Time 5 interview, and were therefore were not administered TCU substance use questions.

Four substance use disorder scales were created to capture symptoms of dependency and abuse of alcohol, marijuana, cocaine, and opiates in the past three months before the Time 5 interview. Each variable was composed of items that assess each of the DSM-V substance use disorder domains (i.e., tolerance, withdrawal, substance taken in larger amounts, persistent desire to cut down, excessive time spent obtaining/using substance, giving up important activities to use substance, continued use despite health problems, failure to fulfill major roles, engage in physically hazardous situations due to substance use, and social/interpersonal problems as a result of substance use), with the exception of the new DSM-V domain cravings, which was not included in the measure. Item responses ranged from 0 = "Never" to 4 = "7 or more times." Responses were averaged within domain and a total score was computed by taking the mean across the 10 domains (9 in the case of marijuana because withdrawal is not considered part of the criteria). The TCU-CRTF has been shown to be reliable with jail inmates (Stuewig et al., 2009). Each scale had excellent reliability (alcohol, 10 items,  $\alpha = .93$ ; marijuana, 9 items,  $\alpha = .86$ ; opiates, 10 items,  $\alpha = .99$ ; cocaine, 10 items,  $\alpha = .97$ ). Given the similarities between cocaine and opiates (illegal, highly addictive) and the low

rate of opiate and cocaine use in this sample, opiates and cocaine were combined into a category of hard drugs. Dependence and abuse of cocaine/opiates was defined as the higher of the two ratings for either cocaine or opiates. As there were a large number of people with very few substance use disorder symptoms, each variable was skewed (see Table 3).

## **Moderators**

### **Race**

Race was assessed upon entry into the jail with a demographic questionnaire asking participants to report their race. Race ( $N = 79$ ) was coded as “0” White ( $N = 27$ ) and “1” Black ( $N = 33$ ). There were too few participants from other racial/ethnic groups to analyze separately.

### **Optimism**

Optimism was assessed at Time 3, just prior to release, using items from the Values in Action inventory (VIA; Peterson and Seligman, 2001). This 4-item scale has been shown to be reliable and valid with inmates (Heigel, Stuewig, & Tangney, 2010). The items assessed trait optimism (e.g. “I can always find the positive in what seems negative to others”). Responses were rated on a 4-point Likert scale where “1” was “False, not at all true” and “4” was “Very true.” This scale had good reliability ( $\alpha = .87$ ), and was normally distributed (see Table 3).

### **Attitudes toward Individuals with Criminal Records**

Attitudes toward the stigmatized group were assessed at Time 3 just prior to release using a single item to determine how positively or negatively participants felt about other people in their stigmatized group (i.e., criminal offenders). The question

asked, “In general, my attitudes toward people with a criminal record are \_\_\_\_\_?”

Response options ranged from “1” Very Negative and “7” Very Positive. This variable was normally distributed ( $M = 4.85$ ,  $S.D. = 1.40$ ,  $range = 1 - 7$ ), with 9.4% of participants reporting very positive attitudes.

### **Stigma Resistance**

Stigma resistance was assessed at Time 4 (three months post-release) using the stigma resistance subscale from the Internalized Stigma of Mental Illness scale (ISMI; Ritsher, Otilingam, & Grajales, 2003). Item content in the stigma resistance subscale was retained for the most part. An example item is “I can have a good fulfilling life, despite my criminal record.” One item was changed because it did not apply to criminal offenders (“I feel comfortable being seen in public with an obviously mentally ill person”). This item was found to have questionable reliability in Ritsher, Otilingam, and Grajales (2003); it was changed to “Having a criminal record has made me more determined to work hard” to maintain similar scale content. This subscale is found to have adequate test-retest reliability (Ritsher, Otilingam, & Grajales, 2003). Responses were rated on a 5-point Likert scale where “1” was “not at all like me” and “5” was “very much like me.” This scale had low internal consistency in this sample ( $\alpha = .47$ ). However, this construct is composed of items that capture different types of stigma resistance that may not necessarily be correlated with each other; for example, some items reflect being able to live life uninhibited by one’s criminal record, where others reflect being more determined to work hard after having had a criminal record, and thinking of oneself as having persevered through adversity due to one’s criminal record.

## Results

Bivariate correlations of all variables in the model are displayed in Table 4.

Structural equation modeling via Mplus was used to analyze the data. Missing data was handled using Full Information Maximum Likelihood (FIML). FIML is strongly encouraged over listwise deletion when data are missing at random, which means that the participants are not missing on items/variables for a reason that is relevant to the phenomenon being measured (Schafer & Graham, 2002; Wothke, 2000; Little, Jorgensen, Lang, & Moore, 2014). In our data, the stigma measure was added into the study part way through, so more than half of our participants had already completed data collection before the stigma measure was introduced into our interview packet. Therefore, there are no obvious variables that are related to this reason for missing data, and it can be considered missing at random. This was confirmed by analyses indicating that people who completed stigma measure ( $N = 79$ ) were not significantly different from those who did not ( $N = 101$ ) on demographics (i.e., age, years of education), the mediator, moderators, and all outcome variables.

**Table 4 Study 2 Bivariate Correlations**

	Anticipated Stigma	Optimism	Attitudes Toward Criminals	Stigma Resistance	Social Withdrawal /Alienation
<b>IV and Moderators<sup>a</sup></b>					
Anticipated Stigma	1	-.22+	-.13	-.07	.16
Optimism	-.22+	1	.25**	.17+	-.11
Attitudes Toward Criminals	-.13	.25**	1	.16	-.24*
Stigma Resistance	-.07	.17+	.16	1	-.42**
<b>Mediator (3 months post- release)</b>					
Social Withdrawal/ Alienation	.16	-.11	-.24*	-.42**	1
<b>DV's (1 year post-release)</b>					
<i>Recidivism</i>					
SR <sup>b</sup> Arrests	-.23+	.04	.05	.07	-.09
SR Offenses	-.10	-.13+	-.10	.08	-.12
<i>Substance Use Sxs</i>					
Alcohol	.13	-.17+	-.09	-.07	.01
Marijuana	.01	-.16+	.03	-.01	.13
Hard drugs <sup>c</sup>	-.11	-.13	.07	.07	.03
<i>Mental Health Sxs</i>					
Cognitive Anxiety	.21+	-.33**	-.24*	-.12	.32**
Affective Anxiety	.19	-.38**	-.10	-.13	.25*
Physiological Anxiety	.17	-.29**	-.09	-.18+	.31**
Cognitive Depression	.16	-.42**	-.31**	-.29**	.31**
Affective Depression	.17	-.35**	-.24*	-.22*	.25*
Physiological Depression	.03	-.24**	-.06	-.27*	.35**
<i>Community Adjust.</i>					
Total # Hours Employed	-.26*	.20*	-.01	.20*	-.10
Community Functioning Index	.04	-.00	-.08	.04	.02

<sup>a</sup>Anticipated stigma, optimism, and attitudes toward criminals were assessed at Time 3, prior to release from jail. Stigma resistance was assessed at Time 4, three months post-release. <sup>b</sup>SR = Self-reported. <sup>c</sup>Cocaine and opiate variables had low variance and were skewed due to few participants reporting dependency symptoms, so they were combined (*hard drugs*) and analyzed. Note: 79 participants completed the anticipated stigma measure; N's ranged from 54 to 178.



## Measurement Model

Latent variables were created for all variables with the exception of single-item moderators (i.e., attitudes toward criminals)<sup>5</sup> and dichotomous variables (i.e., race, treatment status), which were analyzed as observed variables. Latent variable names are capitalized throughout the rest of the paper. The measurement model (i.e., confirmatory factor analysis) was fitted for core variables in the model first, and then for moderators separately.

Regarding core model variables, the Anticipated Stigma latent variable was created using the four items from the PED scale as indicators. The Social Withdrawal/Alienation latent variable was created using the 6 items from the ISICR Social Withdrawal and Alienation subscales, which were parceled using a technique described in Little, Cunningham, Shahar, and Widaman (2002). Parceling involves combining (sum or average) multiple items; this technique simplifies structural equation models by decreasing the number of parameters that must be estimated (Little, Cunningham, Shahar, and Widaman, 2002). To create parcels, a one-construct model was created in Mplus using the 6 Social Withdrawal and Alienation items as indicators. Factor loadings were inspected, and the highest three were chosen as anchors for three parcels. Items with the next-highest loadings were selected, and out of those, the highest loading item was assigned to the parcel with the lowest loading, the next-highest loading was assigned to the parcel with the next-lowest loading, etc. until each parcel had two

---

<sup>5</sup> When constructs are assessed with just one item, the latent variable must have its residual variance set to 0, and its loading set to 1, which constitute the exact same assumptions that observed variables have. So, there is no difference in analyzing the observed and latent variables of one-item constructs. The exception to this is if there is existing literature noting the reliability of the construct because the reliability can inform latent variable parameters. However, there is no such information for the moderators used in this study (i.e., attitudes toward criminals).

indicators. This resulted in three balanced parcels that served as indicators for the Social Withdrawal/Alienation latent variable.

The measurement model for the Anticipated Stigma and Social Withdrawal/Alienation latent variables was fit first, prior to fitting the measurement model for the latent outcomes. This approach is used so that fit can be determined for smaller pieces of the model prior to combining all latent variables in one measurement model (Kline, 2005). The model was identified using the marker variable method, which sets the first factor loading of each latent variable to 1. This model ( $N = 132$ ) demonstrated excellent fit ( $\chi^2(13) = 12.23, p = .51; RMSEA = .00, CI = .00 - .08; CFI = 1.0, SRMR = .03$ ). All indicators and parcels loaded significantly onto their respective factors above the accepted value of 0.4 (see Figure 10).

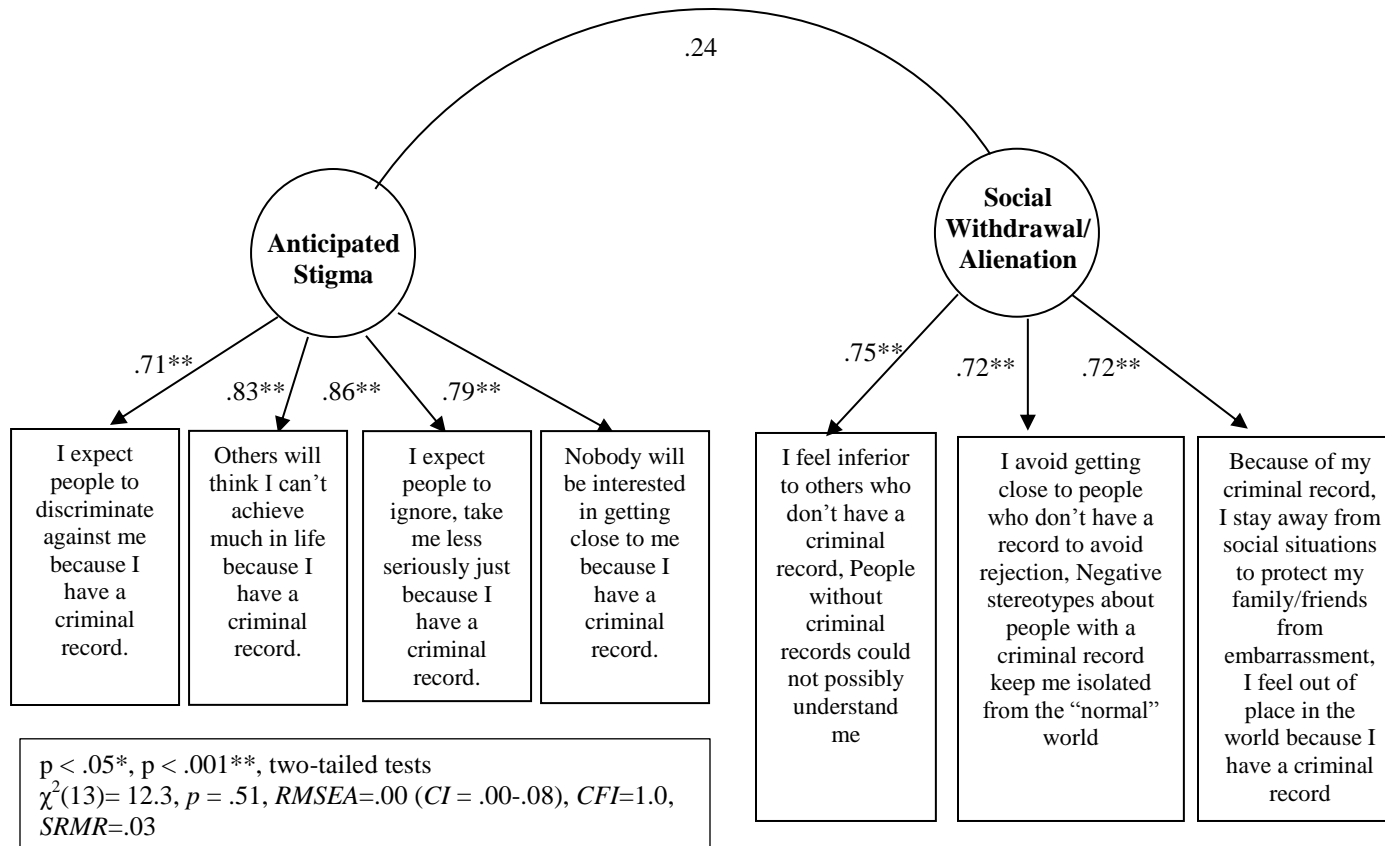


Figure 10 Measurement Model for Independent Variable and Mediator

Regarding the latent outcomes, I attempted to replicate latent variable structures used in a recent independent sample of jail inmates (Moore, Stuewig, & Tangney, in press). The latent variable structures used in Moore, Stuewig, and Tangney (in press) are as follows: Recidivism: self-reported arrests, self-reported undetected offenses, and official records of arrests; Substance Dependence Symptoms: alcohol dependence symptoms, marijuana dependence symptoms, and hard drug dependence symptoms (cocaine and opiate dependence symptoms combined); Mental Health Symptoms: anxiety, depression, BPD features, and stress; and Community Adjustment: employment and an index of community functioning. There were several changes to these latent variable structures: (1) official records of arrests were not available for this sample of inmates, and therefore the Recidivism latent variable was composed of only self-reported arrests and self-reported undetected offenses; (2) the Substance Use Disorder Symptoms latent variable in the current study used both dependence and abuse symptoms in order to be consistent with DSM-V criteria for substance use disorders; (3) the Mental Health Symptoms latent variable was created as a higher order factor composed of two latent variables: Depression, defined by cognitive, affective, and physiological depression subscales, and Anxiety, defined by cognitive, affective, and physiological anxiety subscales, and (4) the Community Adjustment latent variable was composed of the same indicators in the current study (i.e., employment and index of community functioning), but these variables were created slightly differently in the current study (see Methods section).

The measurement model including all latent outcomes (i.e., Recidivism, Substance Use Disorder Symptoms, Mental Health Symptoms, Community Adjustment,  $N = 180$ ) was then fitted. Latent variables were identified using the marker variable method, which sets the first factor loading of a latent variable to 1. Initially, the model produced a nonpositive definite error because there was a linear dependency among the Substance Use Disorder Symptoms and Recidivism latent variables. These variables were too highly correlated ( $r = .87, p < .001$ ), in part reflecting the fact that cocaine, opiate, and marijuana substance use disorder symptoms (loading on Substance Use Disorder Symptoms) necessarily entail possession of illegal substances, contributing substantial duplicate variance to Recidivism. This was corrected by removing possession of drugs from arrest and undetected offense indicators; the resulting correlation among Substance Dependence and Recidivism was .77 and the model ran with no errors. This model demonstrated excellent fit ( $\chi^2(57) = 101.51, p < .001$ ; RMSEA = .07, CI = .04 - .09; CFI = .95, SRMR = .05), and all indicators loaded significantly onto their respective factors above the recommended value of .40 with the exception of one indicator, the community functioning index, which had a loading of .26. Upon examination of model statistics, this was determined to result from low variance in this indicator. Because this indicator still loaded significantly onto the Community Adjustment latent variable, this was considered acceptable. All correlations among latent outcomes were modeled (see Figure 11).

A final measurement model, containing the Anticipated Stigma, Social Withdrawal/ Alienation, and all latent outcomes (i.e., Anticipated Stigma, Social Withdrawal/Alienation, Recidivism, Substance Use Disorder Symptoms, Mental Health

Symptoms, and Community Adjustment) was fitted. This model fit the data well ( $\chi^2$  (153) = 220.26,  $p < .001$ ; RMSEA = .05, CI = .03 - .06; CFI = .94, SRMR = .08). Model modification indices were examined to determine whether the model should be adjusted prior to entering and testing structural paths. No model modification indices appeared theoretically relevant, so no adjustments to this measurement model were made.

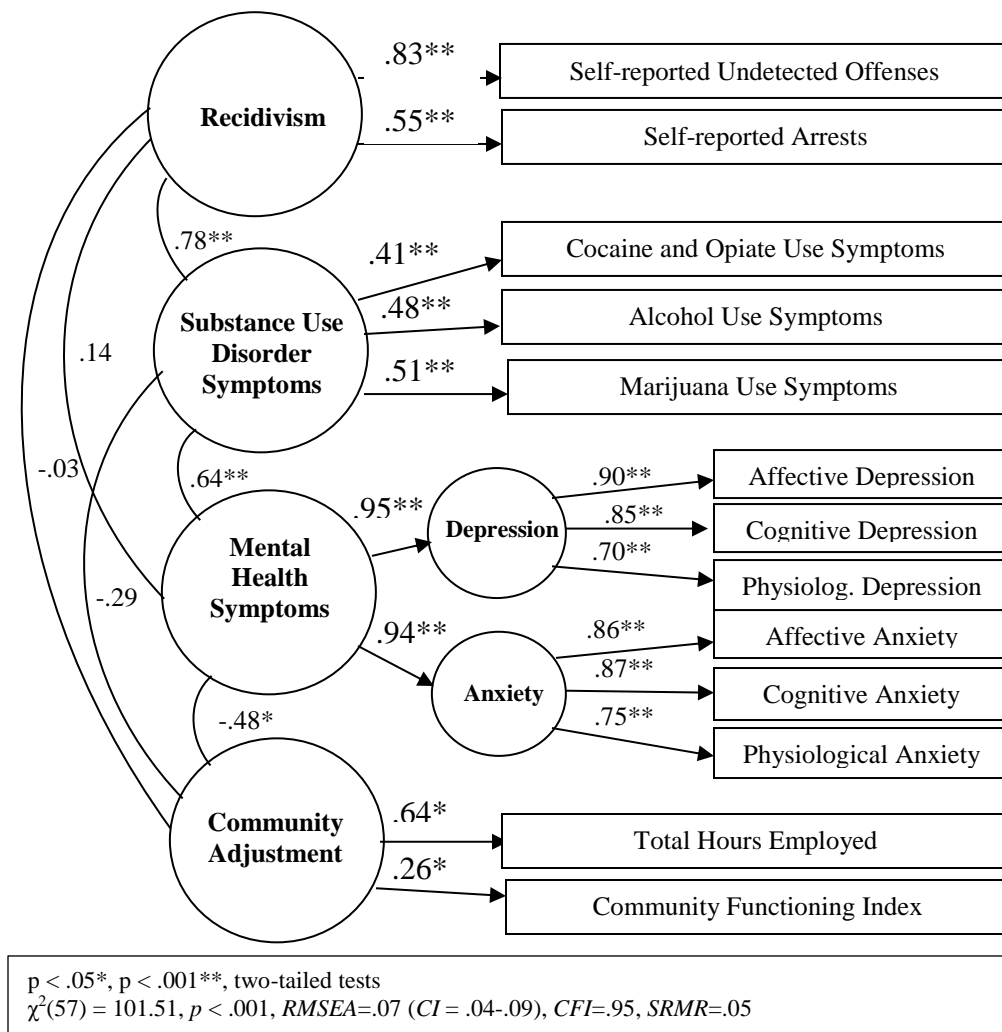


Figure 11 Measurement Model for Dependent Variables

### **Structural Model**

Structural paths from Anticipated Stigma to Social Withdrawal/Alienation, and from Social Withdrawal/Alienation to each latent outcome were added to the model (see Figure 6). This model showed that Anticipated Stigma during incarceration positively predicted Social Withdrawal/Alienation three months post-release ( $\beta = .36, p = .03$ ), which positively predicted Mental Health Symptoms one year post-release ( $\beta = .52, p < .001$ ). The indirect pathway from Anticipated Stigma to Mental Health Symptoms was marginally significant ( $\beta = .19, p = .06$ ), suggesting an indirect effect from Anticipated Stigma to Mental Health Symptoms through Social Withdrawal/Alienation. The indirect effect was bootstrapped to determine robustness, and the confidence interval did include 0, which means that the effect may not be different from 0. Due to the small sample size, parameter estimates are less stable and there was less power available to detect a significant indirect effect after bootstrapping.

The pathways from Social Withdrawal/Alienation to Recidivism, Substance Use Disorder Symptoms, and Community Adjustment were nonsignificant, though two out of three of these path coefficients were in the hypothesized direction. Specifically, though nonsignificant, Social Withdrawal/Alienation three months post-release predicted more Substance Use Disorder Symptoms and less Community Adjustment one year post-release as hypothesized; however, Social Withdrawal/Alienation predicted less Recidivism, contrary to the hypothesis. Because these pathways were nonsignificant, the

indirect effects from Anticipated Stigma to these outcomes, via Social Withdrawal/Alienation, were also nonsignificant.

The structural model fit the data well ( $\chi^2(157) = 224.60, p < .001; RMSEA = .05, CI = .03 - .06; CFI = .94, SRMR = .08$ ), and predicted 12.6% of the variance in Social Withdrawal/Alienation, 1.7% of the variance in Recidivism, 3.9% of the variance in Substance Use Disorder Symptoms, 27.3% of the variance in Mental Health Symptoms, and 5.2% of the variance in Community Adjustment. Modification indices did not suggest any direct paths from Anticipated Stigma to any of the outcomes, and because these pathways were not hypothesized au priori, they were not examined.

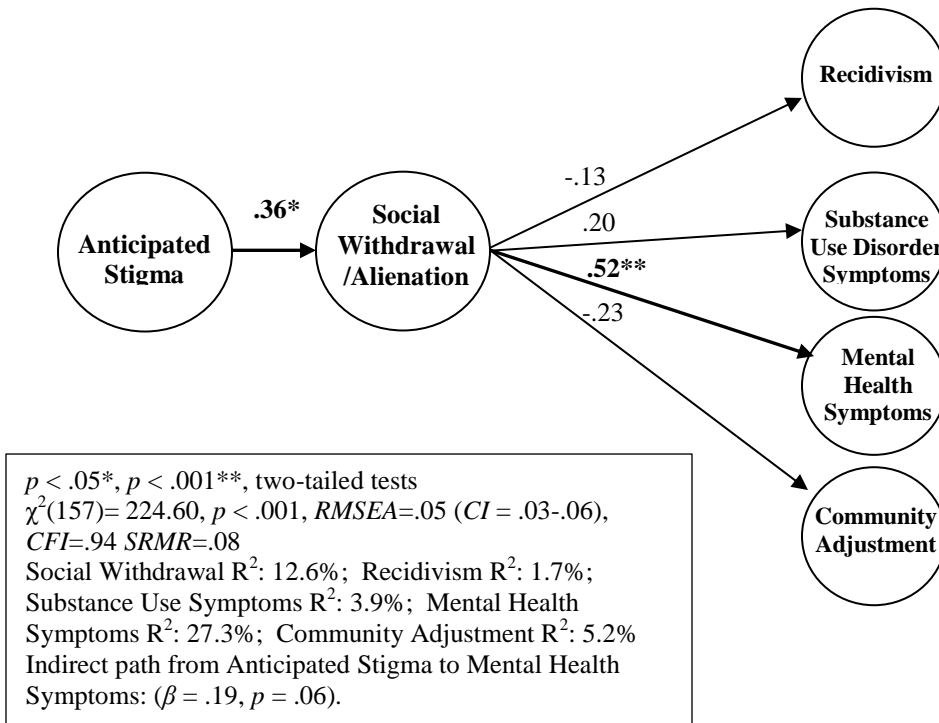


Figure 12 Structural Model



## **Controls**

Because all variables in this model were assessed post-intervention in a randomized controlled trial of an intervention, treatment status (i.e., intervention vs. control) was controlled for in the model. Treatment status was analyzed as an observed, dichotomous variable and was entered as a predictor of each variable in the model. Treatment status did not have a main effect on any variables in the model, and all pathways remained the same when controlling for treatment status.

## **Moderators**

Regarding moderators, a latent variable was attempted for Stigma Resistance using the five items from the ISICR stigma resistance subscale. However, none of these items loaded significantly onto one factor. This is consistent with the stigma resistance subscale having low reliability when analyzed as an observed variable. Upon examining the content of the items, “I can have a good life, despite my criminal record” and “In general, I am able to live life the way I want to, despite my criminal record” seemed the most consistent with the construct. One of the other three items, “People with criminal records can make important contributions to society,” referred to criminal offenders in general, not the self, so it was considered to be fundamentally different from the other items. The two remaining items, “Living with a criminal record has made me a tough survivor,” and “Having a criminal record has made me more determined to work hard” seemed to be capturing different content. Therefore, these three items were dropped from analyses. A latent variable was tested with just the first two items as indicators, set to be equal to each other in order to identify the model (Kline, 2005). When doing this, the items loaded at .57 and .67 respectively. This measurement model was just identified

(completely saturated, no degrees of freedom) resulting in perfect fit. A latent variable was created for optimism using the 4 items of the VIA scale as indicators. The measurement model for the Optimism latent variable fit well ( $\chi^2(2) = 5.94, p = .05$ ;  $RMSEA = .10, CI = .00 - .20$ ;  $CFI = .99, SRMR = .02$ ). Attitudes toward criminals, a single item, was analyzed as an observed variable.

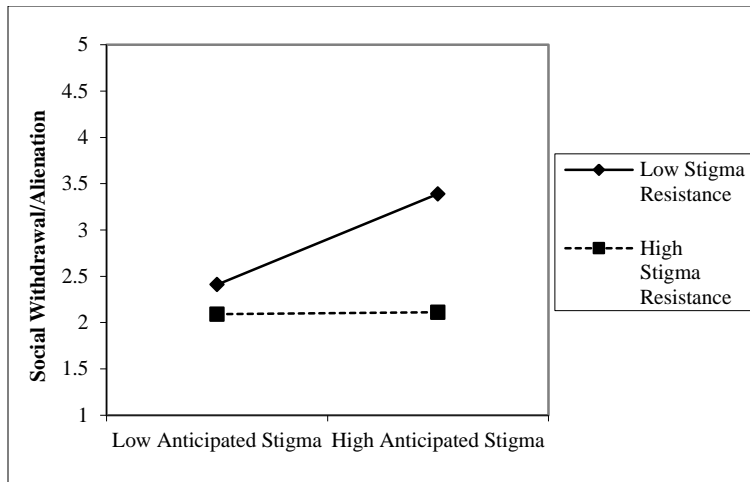
Each continuous moderator (i.e., Optimism, attitudes toward criminals, Stigma Resistance) was analyzed separately. Moderation by race is described in a later section. Interactions (see Figure 8) were analyzed using the Latent Moderated Structural equations (LMS) method, which multiplies two latent variables (Klein & Moosbrugger, 2000; Maslowsky, Jager, & Hempken, 2014). Using this method, two models are tested: Model 0 contains the baseline model (see Figure 7) plus the main effect of the moderator on the variable of interest, and Model 1 contains everything in Model 0 plus the latent interaction. Unlike typical nested model comparison, Model 1 does not include fit statistics, precluding chi square difference testing (Maslowsky et al., 2014). Instead, the log-likelihood ratio test ( $D = -2[(\log\text{-likelihood for Model 0}) - (\log\text{-likelihood for Model 1})]$ ) is used to compare Model 0 and Model 1 (Maslowsky et al., 2014). Significance is determined using the chi square table and appropriate difference in degrees of freedom between Model 0 and Model 1 (Maslowsky et al., 2014). In accordance with testing LMS models, all variables were standardized in order to aid with interpretation of parameter estimates.

### **Moderation of the Link between Anticipated Stigma and Social Withdrawal/Alienation**

I first examined whether Stigma Resistance moderated the relationship between Anticipated Stigma and Social Withdrawal/Alienation. I tested Model 0, which is the baseline model (Figure 7) with the addition of the main effect of Stigma Resistance on Social Withdrawal/Alienation ( $\chi^2(195) = 270.03, p < .001; RMSEA = .04, CI = .03 - .06; CFI = .94, SRMR = .09$ ). There was a significant main effect of Stigma Resistance on Social Withdrawal/Alienation ( $\beta = -.68, p < .001$ ). I examined Model 1, which adds the latent interaction between Anticipated Stigma and Stigma Resistance in predicting Social Withdrawal/Alienation. A negative residual variance for the Depression latent variable was fixed to 0 because too much variance was being explained (Dillon, Kumar, & Mulani, 1987)<sup>6</sup>. The interaction was significant ( $\beta = -.35, p = .01$ ). Figure 13 shows that, as predicted, for offenders high in Stigma Resistance, Anticipated Stigma was unrelated to Social Withdrawal/Alienation, but for those low in Stigma Resistance, Anticipated Stigma was highly related to Social Withdrawal/Alienation. Further, in comparing the two models using the log-likelihood ratio test (Maslowsky et al., 2014), Model 1 surpassed the cutoff for a significant degrees of freedom difference of 1 (3.84) in the chi square table ( $D = -2[(-3084.71) - (-3079.95)], D = 9.52$ ). This suggests that the model without the latent interaction represented a significant loss in fit compared to the model with the latent interaction.

---

<sup>6</sup> The confidence interval for the Depression latent variable's residual variance was examined to determine whether it included 0, in which case the negative residual variance can be attributed to random sampling variation and set to 0 (Dillon, Kumar, & Mulani, 1987). This confidence interval ranged from -.19 to .13. Therefore the negative residual variance was attributed to random sampling variation and set to 0.



**Figure 13 Interaction of Anticipated Stigma and Stigma Resistance in Predicting Social Withdrawal/Alienation**

I then examined whether Optimism moderated the relationship between Anticipated Stigma and Social Withdrawal/Alienation. I tested Model 0, which is the baseline model (Figure 7) with the addition of the main effect of Optimism on Social Withdrawal/Alienation ( $\chi^2(237) = 367.95, p = .003; RMSEA = .05, CI = .04 - .06; CFI = .91, SRMR = .10$ ). There was a main effect of Optimism on Social Withdrawal/Alienation ( $\beta = -.26, p = .01$ ). I then examined Model 1, which adds the latent interaction between Anticipated Stigma and Optimism in predicting Social Withdrawal/Alienation. The interaction was significant ( $\beta = -.54, p = .01$ ). Figure 14 shows that, as hypothesized, similar to stigma resistance, Anticipated Stigma was unrelated to Social Withdrawal/Alienation for highly optimistic offenders, but Anticipated Stigma was highly related to Social Withdrawal/Alienation for offenders low in Optimism. Further, in comparing the two models using the log-likelihood ratio test (Maslowsky et al., 2014), Model 1 surpassed the cutoff for a significant degrees of freedom difference of 1 (3.84) in the chi square table ( $D = -2[(-3576.72) - (-3573.61)], D = 6.22$ ). This suggests that the

model without the latent interaction represented a significant loss in fit compared to the model with the latent interaction.

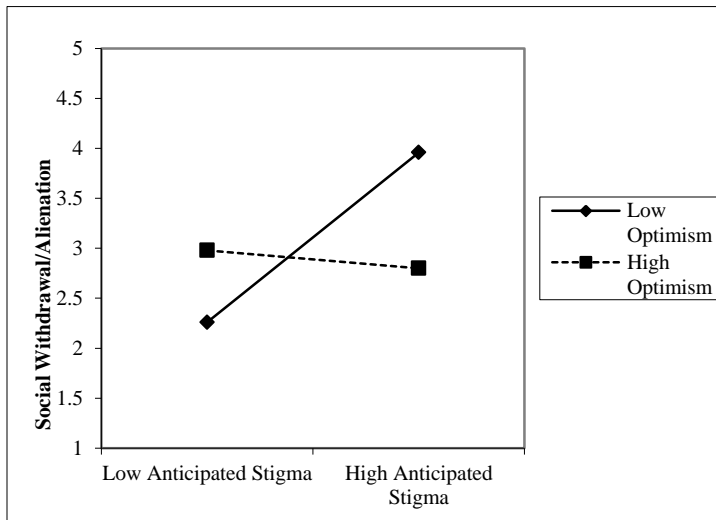


Figure 14 Interaction of Anticipated Stigma and Optimism in Predicting Social Withdrawal/Alienation

### Moderation of the Link from Social Withdrawal/Alienation to Recidivism, and Substance Use Disorder Symptoms

I examined whether attitudes toward criminals (observed variable) moderated the relationship between Social Withdrawal/Alienation and Recidivism by testing Model 0, which is the baseline model (Figure 7) with the addition of the main effect of attitudes toward criminals on Recidivism ( $\chi^2(176) = 270.42, p < .001; RMSEA = .07, CI = .05 - .09; CFI = .87, SRMR = .10$ ). There was no main effect of attitudes toward criminals on Recidivism ( $\beta = -.10, p = .35$ ). I then examined Model 1, which adds the latent interaction between Social Withdrawal/Alienation and attitudes toward criminals in predicting Recidivism. The interaction was not significant ( $\beta = -.04, p = .76$ ).

I repeated the above steps, but with Substance Use Disorder Symptoms as the outcome rather than Recidivism. In Model 0 ( $\chi^2(176) = 270.92, p < .001; RMSEA = .07, CI = .05 - .09; CFI = .87, SRMR = .10$ ), there was no main effect of attitudes toward criminals on Substance Use Disorder Symptoms ( $\beta = .07, p = .56$ ). In Model 1, a negative residual variance for the marijuana use disorder indicator was fixed to 0 because too much variance was being explained in this variable (Dillon, Kumar, & Mulani, 1987)<sup>7</sup>. The interaction between Social Withdrawal/Alienation and attitudes toward criminals in predicting Substance Use Disorder Symptoms was not significant ( $\beta = .08, p = .18$ ).

### **Moderation by Race**

Race (Black,  $N = 90$  vs. White,  $N = 73$ ) was analyzed as an observed, dichotomous variable via the LMS method. Typically, a multigroup method is used to examine dichotomous moderators because it allows for comparison of both the measurement and structural models between groups. However, there were fewer participants in each racial group than parameters being estimated in the model, so it could not be analyzed. Though analyzing a binary variable in the LMS method violates the assumption of normality, the LMS method is one of the limited approaches for examining the interaction of an observed categorical variable and a latent continuous variable (Woods & Grimm, 2011). Further, Muthen and Muthen (2015) recommend using either a multigroup or LMS method to estimate this type of interaction. The risk of using the

---

<sup>7</sup> The confidence interval for the marijuana use disorder indicator's residual variance was examined to determine whether it included 0, in which case the negative residual variance can be attributed to random sampling variation and set to 0 (Dillon, Kumar, & Mulani, 1987). This confidence interval ranged from -3.33 to 2.15. Therefore the negative residual variance was attributed to random sampling variation and set to 0.

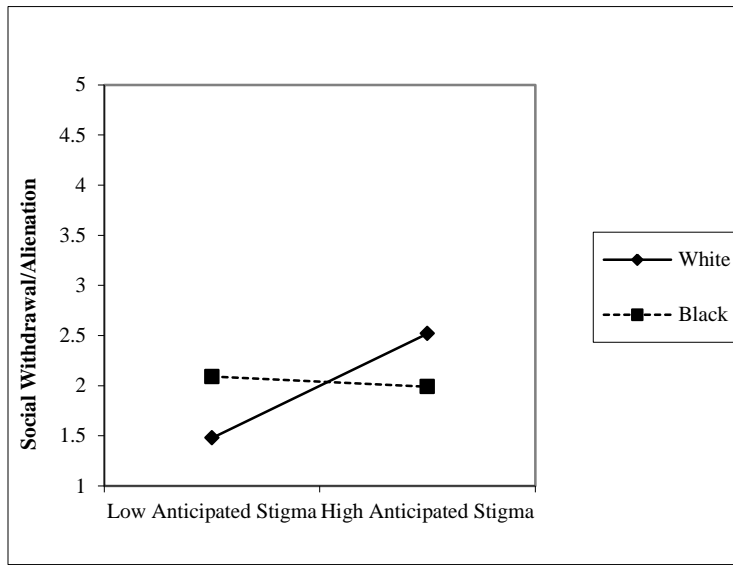
LMS method for this type of interaction is that Type 1 error can be inflated. Therefore, results must be interpreted with caution.

I first examined whether race moderated the relationship between Anticipated Stigma and Social Withdrawal/Alienation<sup>8</sup> by testing Model 0, which is the baseline model (Figure 7) with the addition of the main effect of race on Social Withdrawal/Alienation ( $\chi^2(176) = 261.20, p < .001; RMSEA = .05, CI = .04 - .07; CFI = .91, SRMR = .10$ ). There was no main effect of race on Social Withdrawal/Alienation ( $\beta = .02, p = .89$ ). I then examined Model 1 (includes latent interaction between Anticipated Stigma and race in predicting Social Withdrawal/Alienation) and the interaction was significant ( $\beta = -.39, p = .04$ ). Figure 15 shows that for Black offenders, Anticipated Stigma was unrelated to Social Withdrawal/Alienation whereas for White offenders, these variables were strongly positively related. Correlations are consistent, showing that anticipated stigma and social withdrawal are strongly positively correlated for Whites ( $r = .45, p = .04$ ) but not significantly correlated for Blacks ( $r = -.18, p = .46$ ). A test for the difference between independent correlation coefficients showed that these correlations are significantly different from one another ( $Z = -4.15, p < .001$ ). Further, in comparing the two models using the log-likelihood ratio test (Maslowsky et al., 2014), Model 1 exceeded the cutoff for a significant degrees of freedom difference of 1 (3.84) in the chi square table ( $D = -2[(-2308.306) - (-2306.189)], D = 4.23$ ). This suggests that the model

---

<sup>8</sup> There were no significant differences between Black and White offenders' mean levels of anticipated stigma (Black *Mean* = 1.88, *S.D.* = .80; White *Mean* = 1.95, *S.D.* = .69;  $t(58) = -.38, p = .70$ ) or social withdrawal (Black *Mean* = 2.11, *S.D.* = .52; White *Mean* = 2.13, *S.D.* = .55;  $t(84) = -.19, p = .85$ ).

without the latent interaction represented a significant loss in fit compared to the model with the latent interaction.



**Figure 15 Interaction of Anticipated Stigma and Race in Predicting Social Withdrawal/Alienation**

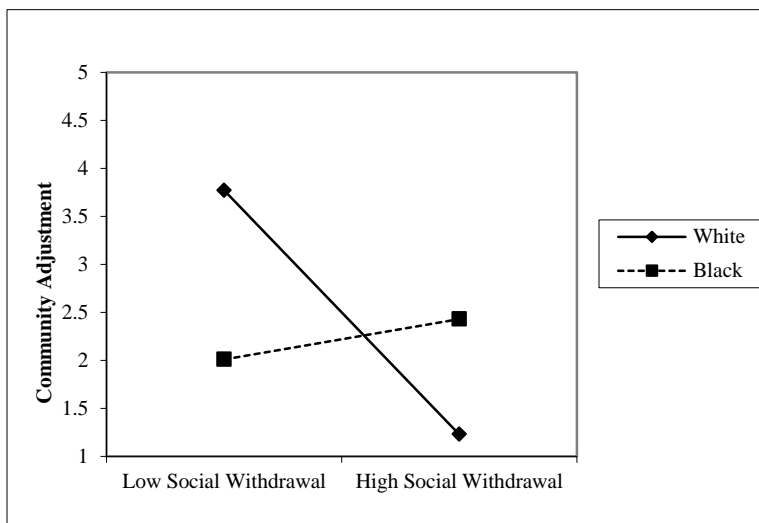
Race was hypothesized to potentially influence all pathways in the model, so it was also tested as an exploratory moderator of the pathway from Social Withdrawal/Alienation to Recidivism, Substance Use Disorder Symptoms, Mental Health Symptoms, and Community Adjustment. I examined whether race moderated the relationship between Social Withdrawal/Alienation and Recidivism by testing Model 0, which is the baseline model (Figure 7) with the addition of the main effect of race on Recidivism ( $\chi^2(176) = 260.47, p < .001; RMSEA = .05, CI = .04 - .07; CFI = .91, SRMR = .10$ ) and there was no main effect of race on Recidivism ( $\beta = -.07, p = .37$ ). I then examined Model 1, which adds the latent interaction between Social



Withdrawal/Alienation and race in predicting Recidivism. The interaction was not significant ( $\beta = -.05, p = .68$ ). I used the same approach to test whether race moderated the relationship between Social Withdrawal/Alienation and the other latent outcomes. Regarding the interaction of Social Withdrawal/Alienation and race in predicting Substance Use Disorder Symptoms ( $\chi^2(176) = 261.06, p < .001; RMSEA = .05, CI = .04 - .07; CFI = .91, SRMR = .10$ ), there was no main effect of race on Substance Use Disorder Symptoms ( $\beta = .04, p = .70$ ), nor was the interaction in Model 1 significant ( $\beta = .05, p = .65$ ). Regarding the interaction of Social Withdrawal/Alienation and race in predicting Mental Health Symptoms ( $\chi^2(176) = 260.58, p < .001; RMSEA = .05, CI = .04 - .07; CFI = .91, SRMR = .10$ ), there was no main effect of race on Mental Health Symptoms ( $\beta = -.06, p = .42$ ), and the interaction was not significant ( $\beta = -.03, p = .81$ ).

Finally, regarding the interaction of Social Withdrawal/Alienation and race in predicting Community Adjustment, Model 0 ( $\chi^2(176) = 259.92, p < .001; RMSEA = .05, CI = .04 - .07; CFI = .91, SRMR = .10$ ) showed no main effect of race on Community Adjustment ( $\beta = -.18, p = .23$ ), but there was a significant interaction of Social Withdrawal/Alienation and race in predicting Community Adjustment ( $\beta = .38, p = .01$ ). Figure 16 shows that for Whites, Social Withdrawal/Alienation was negatively related to Community Adjustment, but for Blacks, these variables were unrelated. Bivariate correlations were consistent, showing that for White offenders, social withdrawal/alienation was negatively related to the community functioning index ( $r = -.21, p = .25$ ) and employment ( $r = -.42, p = .02$ ) whereas for Black offenders, social withdrawal/alienation was unrelated to the community functioning index ( $r = .10, p =$

.53) and employment ( $r = .11, p = .46$ ). The bivariate correlation between social withdrawal/alienation and the community functioning index was significantly different for Whites and Blacks ( $Z = -4.15, p < .001$ ), as was the correlation between social withdrawal/alienation and employment for Blacks and Whites ( $Z = -3.48, p < .001$ ). Further, in comparing the two models using the log-likelihood ratio test (Maslowsky et al., 2014), Model 1 exceeded the cutoff for a significant degrees of freedom difference of 1 (3.84) in the chi square table ( $D = -2[(-2307.667) - (-2304.141)], D = 7.05$ ). This suggests that the model without the latent interaction demonstrated a significant loss in fit compared to the model with the latent interaction.



**Figure 16 Interaction of Social Withdrawal/Alienation and Race in Predicting Community Adjustment**

Because race moderated the pathway from Anticipated Stigma to Social Withdrawal/Alienation, as well as the pathway from Social Withdrawal/Alienation to

Community Adjustment, a separate model was examined including both of these latent interactions in order to determine whether a model including both interactions was a significantly better fitting model compared to one without both latent interactions. First, Model 0 included the baseline model plus the main effects of race on Social Withdrawal/Alienation, and on Community Adjustment. Model 0 ( $\chi^2(175) = 259.92, p < .001; RMSEA = .06, CI = .04 - .07; CFI = .91, SRMR = .10$ ) had about the same fit as was seen in the Model 0's examining each of these main effects separately. As was described earlier, these main effects were not significant. Model 1 was examined, which included both latent interactions of Anticipated Stigma and race in predicting Social Withdrawal/Alienation, as well as the interaction of Social Withdrawal/Alienation and race in predicting Community Adjustment. Again, this model showed the significant interaction of Anticipated Stigma and race in predicting Social Withdrawal/Alienation ( $\beta = -.35, p = .06$ ) and the significant interaction of Social Withdrawal/Alienation and race on Community Adjustment ( $\beta = .35, p = .02$ ). The log-likelihood ratio test comparison showed that Model 0 represented a significant loss in fit compared to Model 1 containing both latent interactions, for a degrees of freedom difference of 2 ( $D = -2[(-2307.665) - (-2302.325)], D = 10.68$ ).

## **Discussion**

### **Anticipated Stigma Predicts Post-release Mental Health Symptoms through Social Withdrawal/Alienation**

Criminal offenders who report anticipating stigma just prior to release from jail are more likely to experience depression and anxiety symptoms one year post-release through social withdrawal/alienation. Specifically, the more stigma offenders anticipated

during incarceration, the more likely they were to withdraw from social interactions with non-offenders and feel isolated from people without a criminal record three months post-release, which then led to more subsequent mental health problems. This was demonstrated by a marginally significant indirect effect from Anticipated Stigma to Mental Health Symptoms through Social Withdrawal/ Alienation. Offenders who expect unfair treatment would certainly avoid situations involving the potential for discrimination, which over time may diminish social support and self-efficacy and in turn lead to more symptoms of depression and anxiety.

Results of this study are consistent with theoretical conceptualizations of the stigma process. Modified Labeling Theory (MLT; Link et al., 1989) emphasizes that stigmatized individuals who cope with stigma in maladaptive ways will experience detriments to functioning. Specifically, MLT states that secrecy about one's identity and/or withdrawal from important domains can be harmful for mental health. These results also support the coping literature (Miller & Kaiser, 2001) which states that experiencing a stressor such as stigma is not inherently harmful; stressors such as stigma become problematic when they lead people to withdraw, avoid, and potentially keep their stigmatized identity a secret from others.

The indirect effect found from anticipated stigma to mental health problems, through social withdrawal/alienation is consistent with the empirical research in other stigmatized groups. Research among people with various concealable identities shows that anticipated stigma is concurrently associated with psychological distress (Quinn & Chaudoir, 2009; Earnshaw et al., 2015). The current study extends this research first by

showing that anticipated stigma predicts psychological problems longitudinally, which has never been examined in any stigmatized group. Demonstrating these relationships via a longitudinal design allows us to be more confident that anticipated stigma causes poor coping, which causes mental health problems. Second, this study suggests a causal mechanism through which this relationship occurs (i.e. social withdrawal/alienation).

The unique use of anticipated stigma as a predictor in this study builds upon the existing theoretical conceptualizations of the stigma process. Specifically, studies on people with mental illness show that perceived stigma is associated with poor coping and mental health problems (Denton, Rostosky, & Danner, 2014), and that social withdrawal and feelings of alienation/isolation mediate the relationship between perceived stigma and poor functioning (Chronister, Chou, and Liao, 2013; Link et al., 2001; Perlick et al., 2001). Where these studies examined the relationship between perceived stigma, maladaptive coping, and outcomes, no studies have examined mediational relationships between anticipated stigma, maladaptive coping, and outcomes. Because anyone, even non-stigmatized people, can perceive stigma, perceived stigma may be less relevant to behavior than anticipated stigma, which involves actual predictions about how one will be treated by others. It may be that perceived stigma, which is thought to initiate the stigma process (i.e., the effect of stigma on the self), leads to anticipated stigma, and this then predicts coping and subsequent functioning. Previous research indeed demonstrates a positive association between perceived and anticipated stigma (Moore, Stuewig, & Tangney, 2013). Therefore, expecting to be discriminated against by others (i.e.,

anticipated stigma) is theoretically more proximal to behavior, and demonstrates predictive utility in this study.

Although there was evidence of a significant indirect effect in the current study, the effect did not withstand bootstrapping so we cannot be confident that the indirect effect is different from 0. However, because the sample of people who completed all three time points of data was small ( $N = 53$ ), power was limited to detect a strong indirect effect, and increases confidence in the indirect effect that was observed. Additional research is needed to replicate this effect.

### **Advancing the Stigma Research in Criminal Offenders**

Just as is seen in other stigmatized groups, expecting to be treated unfairly because of one's stigmatized identity, paired with feeling alienated and isolated from non-stigmatized individuals, is harmful for mental health. This is consistent with findings from other stigmatized groups showing that thoughts and predictions about being stigmatized that lead people to isolate themselves generally impede functioning. This finding substantially extends the research on offenders' experience with and management of the stigma associated with having a criminal record in several ways. First, this study is one of very few to examine the psychological experience of stigma in criminal offenders, and none of the research on offender stigma (except Moore et al., in press) has included mental health or psychological variables as outcomes. So, it was unclear up until now whether thoughts and feelings about stigma had the same detrimental effect on mental health, such as psychological distress and withdrawal, as they did in other stigmatized groups. This study shows that they do. Therefore, interventions targeting stigma in this

population are warranted. Second, the results of this study are consistent with and replicate the limited research that has been done on *criminal offenders*' experience with stigma. Specifically, a study with former prisoners showed that perceived stigma was associated with anticipated use of withdrawal as a way to cope with stigma (Winnick & Bodkin, 2008); this study showed offenders who expect to be discriminated against during incarceration are more likely to avoid interactions with non-offenders once released into the community. This replication increases confidence in the effects found in the current study.

A recent paper by Moore et al. (in press) did not find a direct path from anticipated stigma to mental health symptoms post-release, possibly because anticipated stigma in itself does not always lead to mental health problems. Anticipated stigma for some offenders may lead them to over-prepare for discrimination challenges, either cognitively or behaviorally, which would be described as an active behavioral coping technique. Such coping techniques bolster rather than impede functioning. Anticipated stigma may only cause mental health problems through the experience of withdrawing from others and feeling alienated and inhibited from participating in the community.

### **Anticipated Stigma and Community Adjustment, Recidivism, and Substance Use**

This study showed that Anticipated Stigma did not predict Community Adjustment, Recidivism, or Substance Use Disorder Symptoms via Social Withdrawal/Alienation. It was hypothesized that anticipating discriminatory treatment from others and resulting social withdrawal/alienation from the community at large would lead offenders to engage in more illegal activities via a more antisocial peer group.

However, there was a nonsignificant indirect pathway from Anticipated Stigma to Recidivism, and from Anticipated Stigma to Substance Use Disorder Symptoms. If anything, the results of this study showed that Anticipated Stigma and Social Withdrawal/Alienation led to less Recidivism post-release, as there was a negative, but nonsignificant, relationship between Social Withdrawal/Alienation and Recidivism.

The few existing studies of criminal offenders' stigma (LeBel, 2012; Winnick & Bodkin, 2008; Winnick & Bodkin, 2009) have found positive, concurrent relationships between perceived stigma and having a more extensive criminal history (LeBel, 2012) and having a violent felony (Winnick & Bodkin, 2008). Further, Moore, Stuewig, and Tangney (2013) found that perceived stigma predicted violent recidivism. It is possible that some offenders who anticipate stigma and withdraw from the community may be deterred from engaging in future criminal behavior, and that these distinct pathways from anticipated stigma to social withdrawal/alienation, and then to recidivism cancel each other out. This concept may also apply to substance use problems.

The indirect relationship from Anticipated Stigma to Community Adjustment through Social Withdrawal/Alienation was nonsignificant when examined in the full sample, but seemed to be moderated by race, which is discussed below.

### **Moderators**

This study found evidence of several important individual characteristics that influence the effect of anticipated stigma on coping and subsequent functioning.



### **Malleable Characteristics that Buffer the Effect of Anticipated Stigma on Social Withdrawal/Alienation.**

The effect of Anticipated Stigma on Social Withdrawal/Alienation was buffered by optimism and possessing attitudes that one could persevere despite having a criminal record (i.e., Stigma Resistance) as hypothesized. Anticipated stigma strongly predicted Social Withdrawal/Alienation for inmates low in optimism and low in stigma resistance. This relationship was attenuated for inmates high in optimism and among those who felt they could persevere despite their offender status. People who possess stigma resistance attitudes may in general be more self-efficacious or optimistic, and therefore believe that they can overcome any adversity they experience. Or, they may be people who actively engage in cognitive strategies in which they reframe negative predictions about discrimination.

These interaction findings are consistent with research showing that optimism is a protective factor for many forms of adversity, and that optimism is more likely to incline active, engagement coping such as problems solving or cognitive reframing (Carver, Scheier, & Segerstrom, 2010). Also, these findings support previous research showing that stigma resistance is associated with adaptive psychological functioning in stigmatized individuals (Sibbetz et al., 2011). This study provides the first test of stigma resistance and optimism as moderators of stigma and poor coping. Both optimism and stigma resistance appear to be important in buffering the negative effects of stigma on maladaptive coping, and represent an important set of beliefs to bolster in stigmatized people.

**Moderation by Race: Stigma leads to Social Withdrawal/Alienation, and Poor Community Adjustment for White Offenders.**

As hypothesized, race moderated the pathway from Anticipated Stigma to Social Withdrawal/ Alienation, as well as the pathway from Social Withdrawal/Alienation to Community Adjustment. Follow up analyses suggested that these pathways were moderated in similar fashions, such that these variables were strongly positively related for White offenders, and unrelated for Black offenders. Specifically, anticipating discrimination from community members strongly predicted withdrawal from activities and feelings of alienation, and experiencing social withdrawal and feelings of alienation due to having a criminal record three months post-release predicted worse community adjustment one year post-release for White offenders. For Black offenders, anticipating discrimination was unrelated to social withdrawal/alienation, and social withdrawal/alienation did not predict community adjustment.

Regarding the relationship between Anticipated Stigma and Social Withdrawal/Alienation, Black offenders may be more likely to use active, engagement coping skills rather than disengagement coping like social withdrawal or alienation. Because Black offenders have experienced and had to cope with racial stigma, they may have a larger repertoire of coping skills than White offenders do. Regarding the relationship between Social Withdrawal/Alienation and Community Adjustment, for White offenders, who may not possess the coping skills that Black offenders have built to manage stigma, withdrawing socially may have more devastating behavioral consequences. White offenders who withdraw socially may feel too ashamed, embarrassed, nervous, or hopeless about applying for the same types of jobs that they

held prior to incarceration, or about going to the DMV to get their license reinstated, preventing them from doing these things. Black offenders may be able to navigate these painful feelings more successfully having had to cope with prior discrimination. Research demonstrates that Black stigmatized individuals are able to maintain high levels of self-esteem compared to their nonstigmatized counterparts (Crocker & Major, 1989). So, even if they are avoiding situations that involve the potential for stigma, believing that they are isolated from the normal world because of criminal stereotypes, this may not negatively effect their sense of self, and hence their ability to get a job and participate in the community. These race interactions are consistent with a recent finding in Moore, Stuewig, and Tangney (in press) in which anticipated stigma predicted worse community adjustment only for White offenders, whereas this relationship was nonsignificant for Black offenders.

An alternative explanation for this finding is that Black offenders have poorer community adjustment one year post-release compared to White offenders on average, and have less variance in Community Adjustment, causing no relationship between Black offenders' social withdrawal/alienation and community adjustment (i.e. floor effect). This is plausible considering research suggests that White offenders have an advantage over Black offenders in obtaining employment after release from prison (Pager, Western, and Sugie 2009). I examined this by conducting t-tests of the difference in variance by race in the Community Adjustment indicators (i.e., employment and community functioning index). Whites and Blacks had equal amounts of variance in the Community Adjustment indicators, and their mean levels of employment and community functioning were about

the same. This lends more support to differential effects of social withdrawal/alienation on post-release community adjustment found in this study.

### **Moderation by Attitudes Toward Criminals**

The relationship between Social Withdrawal/Alienation and Recidivism, as well as the relationship between Social Withdrawal/Alienation and Substance Use Disorder Symptoms, generalized across offenders with varying attitudes toward criminal offenders on the whole. This was demonstrated by nonsignificant interaction effects of attitudes toward criminals and Social Withdrawal/Alienation in predicting Recidivism and Substance Use Disorder Symptoms. The rationale behind this analysis was that for offenders who are closer and more ingrained in a criminal peer group, there may be a stronger relationship between Social Withdrawal/Alienation and Recidivism (or Substance Use Disorder Symptoms) compared to those who do not feel close to other offenders. However, it may be more likely that only certain types of offenders, such as those high in antisocial or psychopathic traits, engage in more criminal behavior as a result of anticipated stigma and social withdrawal/alienation.

### **Limitations and Future Directions**

A major limitation of this paper is the sample size. A large proportion of participants (60%) did not complete the anticipated stigma measure due to the measure being added into the study late. Therefore, only 53 participants completed the anticipated stigma, social withdrawal/alienation, and outcome measures. Even though FIML increased the sample size, there were still too few participants to analyze the larger, comprehensive process of how stigma ultimately affects behavior. A full model should

theoretically include perceived stigma, stereotype agreement, and internalized stigma (Moore et al., in preparation) in addition to the variables examined in the current study. With a larger sample size, this full model could be examined, and the relationships among multiple aspects of the stigma process (i.e., perceived stigma, internalized stigma) with outcomes could be determined. This is an important direction for future research, not only with offender populations, but with stigmatized groups in general.

Also, there was evidence that multiple relationships in the model varied for Black and White offenders. Ideally, this model would have been analyzed using a multigroup method to determine whether the entire model varied between Black and White offenders. For example, the interaction results obtained in this study suggested that there may be a significant indirect relationship between Anticipated Stigma and Community Adjustment via Social Withdrawal/Alienation for White offenders, but I was unable to test this separately because there were too few White participants. This is an important direction for future research. Further, because there were too few participants of other racial/ethnic groups to analyze separately, I was unable to examine race differences across a range of races and ethnicities. Considering the variation observed between Black and White offenders, it is likely that other racial/ethnic groups experience the stigma of having a criminal record differently as well. This is also a direction for future research.

Other limitations involve the generalizability of this research. This sample was all male, and from one specific jail. Therefore, generalizability to female inmates, and inmates in different kinds of correctional facilities, is yet to be determined. Further, this research may not generalize to prison inmates, who are typically incarcerated for longer

periods of time, and in facilities more removed from their communities of origin than jail inmates. A final limitation is that some stigma variables that are relevant to understanding this process were not assessed here. For example, the decision to conceal versus disclose one's stigmatized identity is deemed important in research on anticipated stigma (Quinn & Chaudoir, 2009). Keeping one's identity a secret may cause more psychological distress (Newheiser & Baretto, 2014) and explain why some people decide to withdraw socially and feel alienated because of their stigmatized identity. Research suggests that disclosing one's stigmatized identity can have psychological benefits (Chaudoir & Quinn, 2010), however, this is unknown for offender populations, who may face significant consequences, such as on the job market or in higher education, after disclosing their identity. This is an important direction for future research.

### **Clinical and Applied Implications**

Results showed that anticipated stigma indirectly predicted mental health problems in this sample. Psychological interventions that can bolster mental health in jail inmates are greatly needed, as inmates with mental health problems are more likely to cycle in and out of the criminal justice system than those without mental health problems (Pogorzelski et al., 2005). Anticipated stigma just prior to release from jail may be a worthy point of intervention, especially for White offenders. Expectations about being discriminated against, and ways of coping with these expectations, are malleable and can be manipulated. In fact, internalized stigma interventions often target cognitions about stigma in order to reduce the impact of stigma on one's self-concept, self-efficacy, and behavior (Mittal et al., 2012). For example, cognitive-behavioral interventions that

challenge discrimination expectancies have been shown to successfully reduce internalized stigma in people with mental illness (Lucksted et al., 2011).

In addition to (or potentially in place of) cognitive interventions, interventions that emphasize adaptive, behavioral engagement coping techniques, such as regulating emotions and changing maladaptive behavioral responses, may be especially helpful in buffering the effects of anticipated stigma. Anticipated stigma (i.e., negative expectancies about the future) may be difficult to intervene directly with because there may not be much evidence to contradict negative expectations, which is often how cognitive interventions attempt to challenge unrealistic thoughts. Especially for criminal offenders, the anticipation of future discrimination may be difficult, if not impossible, to challenge; the community does stigmatize criminal offenders, and offenders will certainly face laws that marginalize them, and will most likely face problems getting a job and completing other activities in the community. Further, a therapist's attempt to cognitively restructure anticipated stigma may raise defensiveness in offender populations.

One example of an intervention that moves away from challenging cognitions, and focuses more on behavior and adaptive coping, is Dialectical Behavior Therapy (DBT). DBT teaches clients to intervene directly with their negative emotion or maladaptive behavior by utilizing various healthy coping skills. Though traditional DBT is a lengthy, intensive intervention (Linehan, 1993), an adapted, brief intervention focused on responding to emotions and maladaptive behaviors that arise as a result of anticipated stigma may be useful.





## CHAPTER FOUR: CONCLUSION

Despite the growing research on stigma in the past few decades, there have been very few studies examining criminal offenders' psychological experience with stigma. Further, until now, there were no quantitative studies of internalized stigma in this population. The conceptual framework used in the current studies was developed based upon research on in other stigmatized groups, and was refined using knowledge of criminal offender populations and the barriers they face post-release. The result is a comprehensive theoretical model of how internalized stigma occurs in criminal offenders, how they cope with it, and ultimately what the consequences are for functioning.

The current studies show that perceived stigma directly led to anticipated stigma, and indirectly led to anticipated stigma through stereotype agreement and internalized stigma. This suggests different pathways from perceived stigma, the initial step in the stigma process, to the anticipation of discriminatory treatment. One route involves the internalization of stereotypes and the other does not. Therefore, the more stigma criminal offenders perceive, the more discriminatory treatment they will anticipate, regardless of whether they internalize stereotypes or not. Results also showed that anticipated stigma predicted social withdrawal/alienation, which predicted mental health problems. Therefore, the more discriminatory treatment offenders anticipate, the more likely they are to withdraw from social interactions and alienate themselves from the community at

large, which in turn leads to more symptoms of depression and anxiety. The sample size in the current study was too small to examine these models together, in one large model.

In thinking of these models as a whole, it may be helpful to clarify the role of internalized stigma in predicting behavioral outcomes. For example, the effect of anticipated stigma on subsequent maladaptive coping and adjustment may be stronger for people who internalize stigma. Someone who expects to be discriminated against, and also believes that he possesses negative stereotyped traits may be especially likely to withdraw/alienate himself from non-stigmatized others. In future research, when a full, comprehensive model of internalized stigma can be tested, this interaction may be important to examine.

Although anticipated stigma did not directly predict recidivism or substance use in this sample, the internalized stigma process may still put people at risk of perpetual involvement in the criminal justice system. Anticipated Stigma and social withdrawal/alienation did predict mental health symptoms, and research shows that mentally ill offenders tend to cycle in and out of the criminal justice system. Therefore, anticipated stigma may indirectly contribute to continued legal problems via social withdrawal and resulting mental health problems.

Upon examining race interactions across studies, it appears that the internalized stigma process varies greatly between Black and White offenders. Perceived stigma was positively associated with stereotype agreement in Whites, whereas this relationship was attenuated for Blacks. Internalized stigma was unrelated to anticipated stigma for Whites, whereas it was positively related to anticipated stigma for Blacks. White offenders had a

positive relationship between anticipated stigma and social withdrawal/alienation, whereas Black offenders did not. Finally, social withdrawal/alienation predicted poor community adjustment for White offenders, whereas it did not for Black offenders.

The sample size in these studies was too small to examine race differences via a multigroup method (i.e., in which every pathway is compared for Whites and Blacks). However, the patterns of interactions suggest where the internalized stigma process varies for Whites vs. Blacks. White offenders *may not* be at a greater risk of internalizing stereotypes or anticipating stigma than Black offenders. Specifically, though the relationship between perceived stigma and stereotype agreement was stronger for Whites than Blacks, there were no differences in the relationship between stereotype agreement and internalized stigma, suggesting both racial groups are equally at risk of internalizing stereotypes as a result of perceived stigma and stereotype agreement. However, White offenders *may* be at a greater risk of coping with internalized stigma in maladaptive ways than Black offenders. When it comes to coping with anticipated stigma, Whites were more likely than Blacks to cope via social withdrawal/alienation. This is meaningful because social withdrawal/alienation led to poor community adjustment for Whites. Interventions that target thoughts and feelings about stigma may be the most beneficial when tailored to minority race vs. majority race offenders.

Results of these papers have implications for clinical intervention. Criminal offenders experience internalized stigma and negative outcomes as is seen in other groups, which is a worthy of intervention. Regarding the process through which internalized stigma occurs, stereotype agreement may be the first point of intervention, as

this is positively associated with internalized stigma for both Black and White offenders. If treated the same as a community member who holds stereotypical beliefs toward criminal offenders, criminal offenders themselves who hold stereotypical beliefs about offenders may benefit from public stigma interventions, such as increasing positive interactions with other people in the stigmatized group (Rusch, Angermeyer, & Corrigan, 2005). Criminology research also supports the idea of having an ex-offender “mentor” who can serve as a positive role model and facilitate rehabilitation (Cook, McClure, Koutsenok, & Lord, 2009). In addition to stereotype agreement, internalized stigma-reduction interventions are being pilot-tested (Lucksted et al., 2011), and these often involve cognitive approaches to challenge the acceptance of negative stereotypes as well as the expectation of being discriminated against (Mittal et al., 2012). Regardless of whether offenders internalize stereotypes, the majority anticipate stigma, which may mean that anticipated stigma is a broadly applicable area of intervention for all offenders. For White offenders especially, behavioral interventions teaching adaptive coping techniques in response to stigma-related stressors may be especially beneficial in preventing declines in mental health.

The experience of stigma in any group, not just criminal offenders, warrants a discussion of policy implications. Many of the policies in place against former criminal offenders severely marginalize them from conventional community members and functions. Structural barriers can contribute to maladaptive cognitive and behavioral patterns, such as internalized stigma, that make it even harder to become productive, law-abiding citizens. It is worth considering how policies affect individuals in the criminal

justice system, and whether such policies actually serve to foster reintegration in the community and reduce reoffense.

## REFERENCES

- Ahern, J., Stuber, J., & Galea, S. (2007). Stigma, discrimination, and the health of illicit drug users. *Drug and Alcohol Dependence*, 88, 188-196.
- Aronson, J. & Steele, C. M. (2005). Stereotypes and the fragility of academic competence, motivation, and self-concept. In C. Dweck & E. Elliot (Eds.), *Handbook of competence and motivation* (pp. 436-456). New York, NY: Guilford Publications.
- Baretto, M. (2014). Experiencing and coping with social stigma. In M. Mikulincer, P. R. Shaver, J. F. Dovidio, & J. A. Simpson (Eds.), *APA handbook of personality and social psychology* (Vol. 2) (pp. 473-506). Washington, D.C.: American Psychological Association.
- Bernburg, J. G., Krohn, M. D., & Rivera, C. J. (2006). Official labeling, criminal embeddedness, and subsequent delinquency: A longitudinal test of labeling theory. *Journal of Research in Crime and Delinquency*, 43, 67-88.
- Blais, R. K. & Renshaw, K. D. (2014). Self-stigma fully mediates the association of anticipated enacted stigma and help-seeking intentions in National Guard Service members. *Military Psychology*, 26, 114-119.
- Boyle, M. P. (2013). Assessment of stigma associated with stuttering: Development and evaluation of the self-stigma of stuttering scale (4S). *Journal of Speech, Language, and Hearing Research*, 56, 1517-1529.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, 77, 135-149.
- Carter, R. T., & Forsyth, J. (2010). Reactions to racial discrimination: Emotional stress and help-seeking behaviors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2, 183-191.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review*, 30, 879-889.

- Chaudoir, S. R., Quinn, D. M. (2010). Revealing concealable stigmatized identities: The impact of disclosure motivations and positive first-disclosure experiences on fear of disclosure and well-being. *Journal of Social Issues, 66*, 570-584.
- Chronister, J., Chou, C., & Liao, H. (2013). The role of stigma coping and social support in mediating the effect of societal stigma on internalized stigma, mental health recovery, and quality of life among people with serious mental illness. *Journal of Community Psychology, 41*, 582-600.
- Chui, W. H. and Cheng, K. K. (2013). The mark of an ex-prisoner: perceived discrimination and self-stigma of young men after prison in Hong Kong. *Deviant Behavior, 34*, 671-684.
- Cook, J., McClure, S. E., Koutsenok, I., & Lord, S. (2009). An innovative approach to prison-based substance use treatment: The implementation of inmate peer mentor programs. In Browne-Miller, A. (Ed), *The Praeger International Collection on Addictions: Characteristics and Treatment Perspectives. Praeger Perspectives: Abnormal psychology*, (pp. 349-358), Santa Barbara, CA: Praeger/ABC-CLIO.
- Corrigan, P. W. & Calabrese, J. D. (2005). Strategies for assessing and diminishing self-stigma. In Corrigan, Patrick W. (Ed), *On the stigma of mental illness: Practical strategies for research and social change* (pp. 239-256). Washington, DC: American Psychological Association.
- Corrigan, P. W., Michaels, P. J., Vega, E., Gause, M., Watson, A. C., & Rusch, N. (2012). Self-stigma of mental illness scale—short form: Reliability and validity. *Psychiatry Research, 199*, 65-69.
- Corrigan, P. W., Rafacz, J. D., & Rusch, N. (2011). Examining a progressive model of self-stigma and its impact on people with serious mental illness. *Psychiatry Research, 189*, 339-343.
- Corrigan, P. W., Watson, A. C., & Barr, L. (2006). The self-stigma of mental illness: Implications for self-esteem and self-efficacy. *Journal of Social and Clinical Psychology, 25*, 875-884.
- Cottle, C. C., Lee, R. J., Heilbrun, K. (2001). The prediction of criminal recidivism in juveniles: A meta-analysis. *Criminal Justice and Behavior, 28*, 367-394.
- Crocker, J. & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608-630.

- Denton, F. N., Rostosky, S. S., & Danner, F. (2014). Stigma-related stressors, coping self-efficacy, and physical health in lesbian, gay, and bisexual individuals. *Journal of Counseling Psychology, 61*, 383-391.
- Dhami, M., and Cruise, P. A. (2013). Prisoner disenfranchisement: Prisoner and public views of an invisible punishment. *Analyses of Social Issues and Public Policy, 13*, 211-227.
- Dijker, A. J. M. & Koomen, W. (2007). *Stigmatization, tolerance, and repair: An integrative psychological analysis of responses to deviance*. New York, NY: Cambridge University Press.
- Dillon W. R., Kumar A., & Mulani N. (1987). Offending estimates in covariance structure analysis: Comments on the causes of and solutions to Heywood cases. *Psychological Bulletin, 101*, 126-135.
- Earnshaw, V. A., Lang, S. M., Lippitt, M., Jin, H., & Chaudoir, S. R. (2015). HIV stigma and physical health symptoms: Do social support, adaptive coping, and/or identity centrality act as resilience resources? *AIDS and Behavior, 19*, 41-49.
- Earnshaw, V. A. & Quinn, D. M. (2012). The impact of stigma on healthcare in people living with chronic illnesses. *Journal of Health Psychology, 17*, 157-168.
- Earnshaw, V. A., Quinn, D. M., & Park, C. L. (2012). Anticipated stigma and quality of life among people living with chronic illnesses. *Chronic Illness, 8*, 79-88.
- Else-Quest, N. M., LoConte, N. K., Schiller, J. H., Hyde J. S. (2009). Perceived stigma, self-blame, and adjustment among lung, breast, and prostate cancer patients. *Psychology and Health, 24*, 949-964.
- Fisher, R. A. (1921). On the probable error of a coefficient of correlation deduced from a small sample. *Metron, 1*, 3-32.
- Folk, J., Blasko, B., Warden, R., Schafer, K., Ferssizidis, P., Stuewig, J., & Tangney, J. (2015). Feasibility and acceptability of the impact of crime group intervention with jail inmates.
- Frable, D. E. S., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal of Personality and Social Psychology, 74*, 909-922.
- Greeff, M., Uys, L. R., Wantland, D., Makoae, L., Chirwa, M., Dlamini, P., Kohi, T. W., Mullan, J., Naidood, J. R., Cuca, Y., & Holzemer, W. L. (2010). Perceived HIV stigma and life satisfaction among persons living with HIV infection in five



- African countries: A longitudinal study. *International Journal of Nursing Studies*, 47, 475-486.
- Heigel, C. P., Stuewig, J., & Tangney, J. P. (2010). Self-reported physical health of inmates: Impact of incarceration and relation to optimism. *Journal of Correctional Health Care*, 16, 106-116.
- Hirschfield, P. J. and Piquero, A. R. (2010). Normalization and legitimation: Modeling stigmatizing attitudes toward ex-offenders. *Criminology: An Interdisciplinary Journal*, 48, 27-55.
- Holzemer, W. L., Human, S., Arudo, J., Rosa, M. E., Hamilton, M. J., Corless, I., Robinson, L., Nicholas, P. K., Wantland, D. J., Moezzi, S., Williard, S., Kirksey, K., Portillo, C., Sefcik, E., Rivero-Mendez, M., & Maryland. (2009). Exploring HIV stigma and quality of life for persons living with HIV infection. *JANAC: Journal of the Association of Nurses in AIDS Care*, 20, 161-168.
- Ilic, M, Reinecke, J., Bohner, G., Rottgers, H., Beblo, T., Driessen, M., Frommberger, U., & Corrigan, P. W. (2014). Managing a stigmatized identity—Evidence from a longitudinal analysis about people with mental illness. *Journal of Applied Social Psychology*, 44, 464-480.
- Kanter, J. W., Rusch, L. C., & Brondino, M. J. (2008). Depression self-stigma: A new measure and preliminary findings. *Journal of Nervous and Mental Disease*, 196, 663-670.
- Kleim, B., Vauth, R., Adam, G., Stieglitz, R., Hayward, P., & Corrigan, P. (2008). Perceived stigma predicts low self-efficacy and poor coping in schizophrenia. *Journal of Mental Health*, 17, 482-491.
- Kline, R. (2005). *Principles and Practice of Structural Equation Modeling*. New York, NY: Guilford Press.
- LeBel, T. P. (2012). Invisible stripes: Formerly incarcerated person's perceptions of stigma. *Deviant Behavior*, 33, 89-107.
- Lemert, E. M. (1951). *Social pathology*. New York: McGraw-Hill.
- Lewis, R. J., Derlega, V. J., Griffin, J. L., & Krowinski, A. C. (2003). Stressors for gay men and lesbians: Life stress, gay-related stress, stigma consciousness, and depressive symptoms. *Journal of Social and Clinical Psychology*, 22, 716-729.
- Linehan, M. M. (1993). *Cognitive Behavioral Treatment of Borderline Personality Disorder*. New York: NY: Guilford Press.

- Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review*, 52, 96-112.
- Link, B. G., Cullen, F. T., Struening, E. L., Shrout, P.E., & Dohrenwend, B. P. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54, 400-423.
- Link, B. G. & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385.
- Link, B. G., Struening, E. L., Neese-Todd, S., Asmussen, S., Phelan, J. C. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illness. *Psychiatric Services*, 52, 1621-1626.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9, 151-173.
- Little, T. D., Jorgensen, T. D., Lang, K. M, & Moore, E. W. (2014). On the joys of missing data. *Journal of Pediatric Psychology*, 39, 151-162.
- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the item versus parcels controversy needn't be one. *Psychological Methods*, 18, 285-300.
- Little, R. J. A. & Rubin, D. B. (1989). The analysis of social science data with missing values. *Sociological Methods and Research*, 18, 292-326.
- Livingston, J. D. and Boyd J. E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. *Social Sciences and Medicine*, 71, 2150-2161.
- Lucksted, A., Drapalski, A., Calmes, C., Forbes, C., Deforge, B., & Boyd, J. (2011). Ending self-stigma: Pilot evaluation of a new intervention to reduce internalized stigma among people with mental illnesses. *Psychiatric Rehabilitation*, 35, 51-54.
- Luoma, J. B., Twohig, M. P., Waltz, T., Hayes, S. C., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32, 1331-1346.
- Maclin, K. M. & Herrera, V. (2006). The criminal stereotype. *North American Journal of Psychology*, 8, 197-208.

- Major, B. (2012). Self, social identity, and stigma: Through Kay Deaux's lens. In S. Wiley, G. Philogene, T. A. Revenson (Eds.), *Social categories in everyday experience: Decade of behavior* (pp. 11-30). Washington, D.C.: American Psychological Association.
- Major, B., Richards, C., Cooper, L. M., Cozarelli, C., & Zubek, J. (1998). Personal resilience, cognitive appraisals, and coping: An integrative model of adjustment to abortion. *Journal of Personality and Social Psychology*, *74*, 735-752.
- Major, B. & Sawyer, P. J. (2009). Attributions to discrimination: Antecedents and consequences. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 89-110). New York, NY: Psychology Press.
- Malouf, E., Stuewig, J., & Tangney, J. (2012). Self-control and jail inmates' substance misuse post-release by friends' substance use and moderation by age. *Addictive Behaviors*, *37*, 1198-1204.
- Maruna, S., LeBel, T. P., Mitchell, N., & Naples, M. (2004). Pygmalion in the reintegration process: Desistance from crime through the looking glass. *Psychology, Crime, and Law*, *10*, 271-281.
- Maslowsky, J., Jager, J., & Hempken, D. (2015). Estimating and interpreting latent interactions: A tutorial for applying the latent moderated structural equations method. *International Journal of Behavioral Development*, *39*, 87-96.
- Miller, C. T., & Kaiser, C. R. (2001). A theoretical perspective on coping with stigma. *Journal of Social Issues*, *57*, 73-92.
- Mittal, D., Sullivan, G., Cherkuri, L., Allee, E., & Corrigan, P. W. (2012). Empirical studies of self-stigma reduction strategies: A critical review of the literature. *Psychiatric Services*, *63*, 974-981.
- Moore, K., Stuewig, J., & Tangney, J. (in press). The effects of stigma on criminal offenders' functioning: A longitudinal mediational model. *Deviant Behavior*.
- Moore, K., Stuewig, J., & Tangney, J. (2013). Jail inmates' perceived and anticipated stigma: Implications for post-release functioning. *Self and Identity*, *12*, 527-547.
- Morey, L. C. (2007). *Personality Assessment Inventory: Professional Manual* (2nd ed.). Odessa, FL: Psychological Assessment Resources.
- Muthen, B. & Muthen, L. (2015). <http://statmodel.com/cgi-bin/discus/discus.cgi>.
- Nabors, L. M., Yanos, P. T., Roe, D., Hasson-Ohayon, I., Leonhardt, B. L., Buck, K. D., & Lysaker, P. H. (2014). Stereotype endorsement, metacognitive capacity, and

- self-esteem as predictors of stigma resistance in persons with schizophrenia. *Comprehensive Psychiatry*, 55, 792-798.
- Newheiser, A. & Baretto, M. (2014). Hidden costs of hiding stigma: Ironic interpersonal consequences of concealing a stigmatized identity in social interactions. *Journal of Experimental Social Psychology*, 52, 58-70.
- Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108, 937-975.
- Pager, D., Western, B., & Sugie, Naomi. (2009). Sequencing disadvantage: Barriers to employment facing young Black and White men with criminal records. *Annals of the American Academy of Political and Social Science*, 623, 195-213.
- Perlick, D., Rosenheck, R. A., Clarkin, J. F., Sirey, J. A., Salahi, J., Struening, E. L., & Link, B. G. (2001). Stigma as a barrier to recovery: Adverse effects of perceived stigma on social adaptation of persons diagnosed with bipolar affective disorder. *Psychiatric Services*, 52, 1627-1632.
- Peterson, C., & Seligman, M. E. P. (2001). Values in Action Inventory of Strengths (VIA-IS). University of Pennsylvania.
- Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76, 114-128.
- Pogorzelski, W., Wolff, N., Pan, K., & Blitz, C. L. (2005). Behavioral health problems, ex-offender reentry policies, and the Second Chance Act. *Public Health Consequences of Imprisonment*, 95, 1718-1724.
- Quinn, D. M. & Chaudoir, S. R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. *Journal of Personality and Social Psychology*, 97, 634-651.
- Quinn, D. M. & Earnshaw, V. A. (2013). Concealable stigmatized identities and psychological well-being. *Social and Personality Psychology Compass*, 7, 40-51.
- Ritsher, J. B., Otilingham, P. G., & Grajales, M. (2003). Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Research*, 121, 31-49.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

- Roubinov, D. S. & Luecken, L. J. (2013). Family conflict in childhood and adolescence and depressive symptoms in emerging adulthood: Mediation by disengagement coping. *Journal of Divorce & Remarriage*, 54, 576-595.
- Rusch, N., Angermeyer, M. C., & Corrigan, P. W. (2005). Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry*, 20, 529-539.
- Rusch, N., Corrigan, P. W., Wassel, A., Michaels, P., Larson, J. E., Olschewski, M., Wilkniss, S., & Batia, K. (2009). Self-stigma, group identification, perceived legitimacy of discrimination, and mental health service use. *The British Journal of Psychiatry*, 195, 551-552.
- Sampson, R. J. & Laub, J. (1997). A life-course theory of cumulative disadvantage and the stability of delinquency." *Advances in Criminological Theory*, 7, 133-161.
- Schafer, J. L. & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7, 147-177.
- Schneider, A. & McKim, W. (2003). Stigmatization among probationers. *Journal of Offender Rehabilitation*, 38, 19-31.
- Schomerus, G., Corrigan, P. W., Klauer, T., Kuwert, P., Freyberger, H. J., & Lucht, M. (2011). Self-stigma in alcohol dependence: Consequences for drinking refusal self-efficacy. *Drug and Alcohol Dependence*, 114, 12-17.
- Semple, S. J., Grant, I., & Patterson, T. L. (2005). Utilization of drug treatment programs by methamphetamine users: The role of social stigma. *The American Journal on Addictions*, 14, 367-380.
- Sibbetz, A., Unger, A., Woppmann, A., Zidek, T., & Amering, M. (2011). Stigma resistance in patients with schizophrenia. *Schizophrenia Bulletin*, 37, 316-323.
- Simpson, D. D. & Knight, K. (1998). TCU Data Collection Forms for Correctional Residential Treatment (TCU-CRTF). Fort Worth, TX: Texas Christian University, Institute of Behavioral Research.
- Stuewig, J., Tangney, J. P., Mashek, D., Forkner, P., & Dearing, R. (2009). The moral emotions, alcohol dependence, and HIV risk behavior in an incarcerated sample. *Substance Use and Misuse*, 44, 449-471.
- Tangney, J. P. (1991). Moral affect: The good, the bad, and the ugly. *Journal of Personality and Social Psychology*, 61, 598-607.

- The Sentencing Project: Research and Advocacy for Reform. Annual Report. (2012). Retrieved from <http://www.thesentencingproject.org/publications/AR%202012%20FINAL.pdf>.
- Thoits, P. A. (2011). Resisting the stigma of mental illness. *Social Psychology Quarterly*, 74, 6-28.
- Vrieze, S. (2012). Model selection and psychological theory: A discussion of the differences between the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC). *Psychological Methods*, 17, 228-243.
- Watson, A. C., Corrigan, P. W., Larson, J. E., & Sells, M. (2007). Self-stigma in people with mental illness. *Schizophrenia Bulletin*, 33, 1312-1318.
- Watson, A. C., & River, P. L. (2005). A social-cognitive model of personal responses to stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research and social change* (pp. 145-164). Washington, D.C.: American Psychological Association.
- Welch, K. (2007). Black criminal stereotypes and racial profiling. *Journal of Contemporary Criminal Justice*, 23, 276-288.
- Winnick, T. A. & Bodkin, M. (2008). Anticipated stigma and stigma management among those to be labeled "ex-con." *Deviant Behavior*, 29, 295-333.
- Woods, C. M., & Grimm, K. J. (2011). Testing for nonuniform differential item functioning with multiple indicator multiple cause models. *Applied Psychological Measurement*, 35, 339-361.
- Wothke, W. (2000). Longitudinal and multigroup modeling with missing data. In T. D. Little, K. U., Schnabel, & J. Baumert (Eds.), *Modeling longitudinal and multilevel data: Practical issues, applied approaches, and specific examples* (pp. 219-240, 269-281). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

## **BIOGRAPHY**

Kelly Moore received her Bachelor of Science in Psychology from George Mason University in 2010. She received her Master of Arts in Psychology from George Mason University in 2012, and is expected to receive her doctorate in Clinical Psychology from George Mason University in 2016.