PRISON AS TRAUMA: THE ROLE OF OPPRESSION IN PREDICTING PTSD RESULTING FROM THE PAINS OF IMPRISONMENT

A Dissertation

Presented to

The Graduate Faculty at The University of Akron

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

Marisa Norton

August 2023

PRISON AS TRAUMA: THE ROLE OF OPPRESSION

IN PREDICTING PTSD RESULTING FROM THE PAINS OF IMPRISONMENT

Marisa Norton

Dissertation

Approved:	Accepted:
_____ Advisor Dr. Dawn Johnson	_____ Interim Department Chair Dr. Jennifer Stanley
_____ Committee Member Dr. John Queener	_____ Dean of the College of Buchtel Arts and Sciences Dr. Mitchell McKinney
_____ Committee Member Dr. Suzette Speight	_____ Dean of the Graduate School Dr. Suzanne Bausch
_____ Committee Member Dr. Ingrid Weigold	_____ Date
_____ Committee Member Dr. Stacey Nofziger	

ABSTRACT

Incarceration is a difficult experience, and research has well documented how trauma exposure and posttraumatic stress disorder are highly relevant for justice-involved populations. Traumatic stress can predict justice system involvement, as well as result from trauma exposure while incarcerated. However, minimal research has yet explored how the deprived environment of prison can result in symptoms of traumatic stress. The current study examined the mechanisms by which prison may be traumatic. Specifically, the pains of imprisonment were translated to psychological constructs (internalized stigma, autonomy, resource loss, and personal safety anxiety) and examined as predictors of posttraumatic stress disorder symptoms. Results offered support for how the pains of imprisonment are significantly associated with PTSD symptoms post-release, even when controlling for several relevant control variables. A high rate of probable PTSD diagnosis was observed. Internalized stigma, resource loss, and personal safety anxiety all predicted PTSD symptoms positively and significantly. Autonomy predicted PTSD symptoms negatively and significantly. Time since release, sentence length, pre-prison trauma exposure, trauma exposure while in prison, and trauma exposure post-release all significantly predicted PTSD symptoms and were included as controls. When examined collectively, trauma exposure during incarceration, autonomy, and resource loss emerged as the most important unique predictors of post-release PTSD symptoms. Additionally, the role of oppression was explored, given the justice-system's historic oppression of

minorities. Oppression was found to moderate the relationship between internalized stigma and PTSD symptoms; among those with less history of oppression, internalized stigma significantly and positively predicted PTSD symptoms, but among those with more oppression, internalized stigma significantly and negatively related to PTSD symptoms. Additionally, oppression moderated the relationship between personal safety anxiety, such that there was only a significant relationship between the constructs among those with less reported oppression. Due to limitations in sampling, full conclusions are limited regarding the role of oppression, but findings indicate that for those with higher levels of oppression-based trauma, some of the effects of the pains of imprisonment were attenuated. Results highlight the relevance of considering a sub-type of PTSD: post-incarceration syndrome. Research, clinical, and advocacy implications are discussed.

ACKOWLEDGEMENTS

I would like to offer a sincere thank you to the many people that supported me along the way to this accomplishment. To my advisor who has been with me since undergraduate honor's project days: Thank you for your support of my passions and allowing me to be creative in my professional development. To my cohort: Thank you for the many years of long days, deep laughs, and growth together. To my family: Thank you for understanding, patience, and cheerleading to keep me motivated. To my husband: Thank you for your comfort on the hard days, your encouragement to keep me focused, and your humility to allow me to chase after my goals. This dissertation truly feels like the culmination of my academic career over the past decade or so and I am so thankful to celebrate it's completion along side so many who mean so very much to me. Thank you.

TABLE OF CONTENTS

Page

LIST OF FIGURES

Figure Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

Incarceration has become an epidemic in the United States. Research documents the many negative outcomes associated with time spent in prison, such as poor mental health or economic disenfranchisement. Additionally, the criminal justice system in the United States is rife with racial inequality and oppression. Recent research suggests that imprisonment may function as a traumatic experience that results in symptoms of posttraumatic stress following release. However, most of this research relies on qualitative methods and has not explored the differential negative effects of oppression on minority populations. This study seeks to test the hypothesis that imprisonment is traumatic using a model that integrates theories from psychology, sociology, and criminology and explore the differential effects caused by the experience of oppression. In Chapter I, the problem of imprisonment and its maladaptive impact on individuals is presented. To begin, a brief review of the literature regarding trauma in the justice system is presented, with special attention devoted to the systemic oppression experienced by minorities for justice-involved populations. Then, the sociological body of literature regarding the pains of imprisonment will be presented and connected to theories and constructs in psychology, and a full model

of how imprisonment can be experienced as traumatic will be presented within the context of its relevance to the field of counseling psychology.

The Impacts of Incarceration

In 2018, more than 2 million individuals were incarcerated in state or federal prisons or local jails in the United States (Maruschak & Minton, 2020). The incarceration rate has been declining in the last decade; however, it is still more than double the rate in the early 1980s at the start of mass incarceration (Bureau of Justice Statistics, 2018; Maruschak & Minton, 2020). Not only is the rate of incarceration high, but the rate of recidivism is astronomical. Of the nearly 500,000 prisoners who were released in 2005, 83% were rearrested at least once within 9 years (Alper et al., 2018). Additionally, the criminal justice system is a major source of systemic oppression for racial minorities as evidenced by the significant difference in rates of incarceration and recidivism. In 2019, the incarceration rate of Black prisoners was 1,096 per 100,000 Black residents, compared to 214 for White residents (Carson, 2020). Among federal prisoners released in 2005, 55% of Black offenders were rearrested and 35.7% returned to prison, whereas 39.7% of White offenders were rearrested and 26.2% returned to prison (Markman et al., 2016). Similar disparities have been seen for sexual minorities as well; Meyer and colleagues (2017) report an incarceration rate of 1882 per 100,000 of self-identified lesbian, gay, or bisexual individuals. Clearly, imprisonment is not having a rehabilitative nor preventative effect on criminal behavior. Rather, it can be a major source of pain.

Incarceration is an obviously difficult experience, as it disrupts nearly all aspects of life of those who are subjected to it. In a personal essay, one individual describes his schedule (Romero, 2012):

> Prison restores order and certainty in a person's life. Meals are served according to a rigid schedule, laundry exchanged at definite times; sick call, mail call, and visits are all at fixed hours on designated days. We are accustomed to breakfast at six and lunch at twelve, supper at five. McDonald's is only a dim memory. In prison we are confronted with another certainty, a job. Everyone in prison works unless physically or mentally unable to do so. The employment ranges from factories to janitorial, kitchen, laundry, and maintenance crews. There are also vocational and educational programs. Everything is scheduled… In the prison setting we begin to understand that the most important thing we have is our set routine. Something we do every day. Our routine is the motor that drives us over the hump of time. We fine-tune it and get it down to a science. We are confined to one cellblock and not allowed in any other. From our cellblock we can go to the yard, the mess hall, or our job. Movements are allowed hourly during a ten-minute period. Many of us spend our free time in the yard, which is a precious place indeed… We live in modules—or units—new look in cellblocks. Each houses about 120 convicts. This prison was constructed 50 years ago to hold some 500 men in single cells. Now there's over 1000 of us here, and the cells are doubled up. We refer to our cell partners as "cellies." My cellie and I live on the second tier of a four-tier module. Below us, on the first floor, is a dayroom that contains a pool table, four card tables, and some chairs. The unit guard has a small office near the outside door of the dayroom. Our cell is about six feet by twelve feet, with a wooden double bunk at the rear, next to a large window that looks out onto the compound… Two large fiberboard lockers, one with a writing desk attached, and a sink, toilet, and mirror complete the furnishings… At 4:00 p.m. each day, we are locked in for a standing count. We must remain on our feet until two counting guards go by. This is to prevent the dummy-in-the-box trick. Mail call is immediately after count, and we gather around the pool table as the officer calls names. Then we settle down to wait an hour or so until our unit is called for supper. We spend a lot of time in here waiting for doors to open.

While the typical day in prison varies depending on security level, employment status, location, and more, many inmates share similar routines to the one described above.

Despite one's personal convictions of what types of treatment those who commit crime "deserve," incarceration can have maladaptive social, psychological, physical, and economic effects. The prevalence of mental illness among prisoners is significantly

elevated (Di Lorito et al., 2018; Facer-Irwin et al., 2019; Gottfried & Christopher, 2017; Prins, 2014), and rates of both completed and attempted suicide are also elevated and suicide is the leading cause of death among prisoners worldwide (Fazel & Baillargeon, 2011; Fazel et al., 2017; Stinson & Gonsalves, 2014). Despite these elevated rates, mental health treatment in correctional settings is fraught with barriers to care (Gottfried & Christopher, 2017), which can lead to even worse quality of life (Muller, 2020). Inmates' physical health is also affected by incarceration. The prevalence of infectious diseases and the prevalence of chronic disorders are both substantially elevated in prison (Fazel & Baillargeon, 2011; Massoglia & Pridemore, 2015). Following release, former prisoners continue to experience detrimental effects from incarceration. Their rates of mental illness continue to be elevated post-release (Bebbington et al., 2021). A substantial degree of research shows how former prisoners experience discrimination in their attempts to obtain employment (Decker et al., 2015; Holloway & Weiner, 2021; Sugie et al., 2020) and housing (Berry & Weiner, 2020; Keene et al., 2018). Additionally, the risk of mortality is elevated among released prisoners, especially due to drug-use, suicide, or homicide (Massoglia & Pridemore, 2015; Zlodre & Fazel, 2012). In addition to these problematic outcomes, trauma exposure and traumatic stress are highly relevant for current and former prisoners.

PTSD, Trauma, and the Justice System

Existing research regarding trauma and posttraumatic stress in the criminal justice system generally falls into one of three categories. First is evidence that trauma exposure and posttraumatic stress disorder (PTSD) symptoms function as risk factors for justice

system involvement. Trauma exposure and rates of PTSD are extraordinarily overrepresented in justice-involved populations, with some prevalence estimates of PTSD as high as 55% (Briere et al., 2016; Crisanti & Frueh, 2011; Kubiak, 2004; Maschi et al., 2010). Researchers link PTSD symptoms and trauma exposure to critical outcomes such as recidivism (Maschi et al., 2019; Sadeh & McNiel, 2015) and criminalized behaviors, such as violence and use of illegal substances (Facer-Irwin et al., 2019; Jackson et al., 2017; Marotta, 2017). Hypotheses have been offered to explain this relationship, such as how individuals' responses to traumatic events may be criminalized (e.g., Baumle, 2018) or that in unstable environments, trauma responses may be more likely to manifest as conduct disorder symptoms (Roach, 2013). The second major category of trauma research in this population centers on exposure to traumatic events during incarceration resulting in PTSD symptoms. For example, research documents how solitary confinement, witnessing or experiencing violence while incarcerated, and neglect or abuse from staff predicts PTSD symptoms post-release (Bennion, 2015; Cloud et al., 2015; Dierkhising et al., 2014; Hochstetler et al., 2004; Listwan et al., 2010; Piper & Berle, 2019).

The third subset of literature is the small body of research that suggests the deprived environment of prison can result in PTSD symptoms specific to this population. Post-incarceration syndrome (PICS) has been offered as a potential subtype of PTSD for the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*; American Psychiatric Association, 2013). PICS was first proposed by Gorski (2001) to explain a set of symptoms returning citizens experience following the deprivation of imprisonment (Bogaerts & Polak, 2013). He initially proposed four clusters of symptoms, which included typical

PTSD symptoms, antisocial personality, social-sensory deprivation, and institutionalized traits. Social-sensory deprivation is a result of social isolation and reduced sensory stimulation, resulting in overstimulation and social impairment following release. Symptoms may include poor impulse control, headaches, and isolation. Institutionalized traits are a result of the extreme routine and control imposed on prisoners, resulting in difficulties making decisions or engaging in critical thinking (Bogaerts & Polak, 2013). Despite Gorski's proposal in 2001, no serious attention was paid to PICS in the literature until recently, and this literature tends to be predominantly qualitative in nature; empirical explorations are lacking.

Thus, trauma exposure and traumatic stress are relevant at several points for justice-involved populations (see Figure 1). This study aims to address the identified gaps in research and focus specifically on the deprivation of imprisonment piece of the larger theoretical model (Figure 1). Given this appears to be the first study to do so and PICS is not an established diagnosis with empirically supported assessment or measurement strategies, the current study focused on PTSD symptoms as an outcome of prison rather than the full cluster of symptoms within PICS. In sum, incarcerated individuals have extremely elevated trauma exposure and rates of PTSD. There is ample evidence that traumatic stress is a risk factor for criminal justice system involvement as well as a likely result following trauma exposure in prison. However, the same level of research and investigation is lacking regarding how incarceration is trauma exposure and can result in traumatic stress. Relatedly, research regarding the role of oppression in traumatic stress and the unique differences in the criminal justice system for minority individuals is needed.

Oppression, Trauma, and the Justice System

As mentioned above, glaring disparities exist for minorities within the criminal justice system regarding arrest, sentencing, and recidivism. Critical Race Theory (CRT) is a framework that began as a legal approach to understanding racism and oppression at a systemic level (Bell, 1992; Crenshaw, 1989; Delgado & Stefancic, 2017; Gotanda, 1991; Peller, 1990). CRT asserts that racism is a commonplace experience for racial minorities and persists due to its embeddedness within systems, such as the criminal justice system (Bell, 1992; Delgado & Stefancic, 2017; Gotanda, 1991; Varghese et al., 2019). Adherence to myths of "color-blindness" also help to uphold racism by preventing critical analysis of how minority groups experience systems differently than the majority (Crenshaw, 1989). CRT also posits that because racism benefits the White majority group, members are unmotivated to challenge the status quo, especially those in power. In order to work towards social justice and true equality and equity, the unique experiences of minorities must be examined (Delgado & Stefancic, 2017). Furthermore, the criminal justice system is historically rooted in anti-Black racism and the oppression of formerly enslaved citizens (Westcott, 2015). Following emancipation, the 13th amendment was drafted to eradicate slavery. However, this freedom did not extend to those convicted of a crime. Convict leasing became a practice wherein prisons would force prisoners to work for little to no wages, recreating the system of slavery by a new name (Marks, 2019; Westcott, 2015). More recently, the era of mass incarceration began following the harsh War on Drugs policies in the 1980s and disproportionately targeted Black Americans (Graff, 2015; Mauer, 2011).

Evidence of the systemic issue of racism continues to be well-documented within the criminal justice system. Black Americans are highly overrepresented in the prison population (Appel et al., 2020; Carson, 2020; Stewart et al., 2020). One contributor to this disparity is the well-documented problem of racial profiling in policing. Research documents how Black drivers are more likely to be stopped by police for investigation (Epp et al., 2017; Pierson et al., 2020; Warren et al., 2006). This disadvantage faced by Black individuals continues when they are seen in court, as they are more likely to be sentenced to prison than White defendants (Freiburger & Sheeran, 2020). This is also seen among young Black offenders, as rates of juvenile incarceration are also disproportionately high (Blankenship et al., 2018). In contrast, young White offenders are more likely to receive probation (Freiburger & Sheeran, 2020). These sentencing differences have also been observed when controlling for crime type and criminal history (Kim & Kiesel, 2018). Additionally, Black offenders' first incarceration tend to be longer than White offenders (Blankenship et al., 2018). These disparities are most pronounced in states that have larger income and employment disparities by race, which provides support for the assertions of CRT and the deeply intertwined nature of systemic inequalities (Durante, 2020).

These disparities go beyond sentencing, as differences in the impact of incarceration have also been reported. For example, more time served has been associated with worse mental health symptoms for Black prisoners, whereas time served was associated with positive mental health outcomes for White prisoners (Porter et al., 2021). Relatedly, Black prisoners may also be overrepresented in those diagnosed with mental illness (Appel et al., 2020). This inequity continues post release. While incarceration is

associated with poor outcomes in general, these tend to be more pronounced for racial minorities (Blankenship et al., 2018; Stewart et al., 2020). For example, Black formerly incarcerated persons experience slower wage growth following release (Lyons & Pettit, 2011). This is significant because higher wealth is associated with a reduced likelihood of incarceration (Zaw et al., 2016). This could potentially explain some of the discrepancies in recidivism. Additionally, qualitative research has revealed that Black formerly incarcerated persons identify that the reentry system is intentionally designed to fail (Ortiz & Jackey, 2019; Williams, 2019).

The problem of oppression in prison and the justice system also impacts gender and sexual minorities. Minority stress theory (Meyer, 2003) posits that minorities are more likely to experience both internal and external stressors and in turn have more negative health outcomes. These health outcomes can be impacted by not only interpersonal and individual discrimination, but also structural oppression (Meyer, 2003). Like CRT, minority stress theory emphasizes the importance of system-level variables to explain negative outcomes experienced by minorities in order to correctly identify the source: oppression. The systemic oppression of gender and sexual minorities is also well-evident in the criminal justice system. While women make up a small percentage of incarcerated individuals, their rates of incarceration are growing faster than men; between 2005-2014, rates increased by .2% for men, compared to .5% for women (Bureau of Justice Statistics, 2016). In addition, justice-involved women are more likely to be diagnosed with a drug use disorder (Fazel et al., 2017; Kubiak, 2004), report trauma exposure or have a diagnosis of PTSD (Green et al., 2005; Kubiak, 2004; Radatz & Wright, 2017), and report more overall

mental health needs (Anumba et al., 2012; Green et al., 2016; Green et al., 2005). Similarly, sexual minorities have been found to have disproportionate rates of incarceration, as well as report more sexual victimization, solitary confinement, and rule infractions while incarcerated compared to heterosexual inmates (Meyer et al., 2017). Inmates who identify as lesbian, gay, or bisexual have been found to have a higher prevalence of mental health diagnoses, need for treatment, and overall psychological distress (Meyer et al., 2017; Srivastava et al., 2022). Furthermore, gender and sexual minorities tend to be punished more harshly for rule infractions (Baskin et al., 1989; Pemberton, 2013), rejected by peers (de Viggiani, 2012; Jewkes, 2005), or generally perceived to be more difficult to work with by staff (Curtis, 2014; Galardi & Settersten, 2018). The criminal justice system also punishes non-traditional gender expression, including non-conforming or transgender individuals (Caraves, 2018; Graham, 2014). Thus, a combined lens of CRT and minority stress theory emphasizes the importance system-level oppression for disadvantaged groups within the prison system.

Observed rates of PTSD and trauma exposure are also disproportionate for minority groups. Important to consider is the experience of oppression unique to minorities, which is often experienced as traumatic. Many researchers have recently called for oppression and discrimination to be included in the current conceptualization of trauma, especially within the DSM (e.g., Carter, 2007; Holmes et al., 2016; Kira, 2001). This unique form of trauma exposure may increase the likelihood of justice system involvement for racial, sexual, and gender minorities (Caraves, 2018; Dogan et al., 2021; Gibbons et al., 2020; Graham, 2014; Harvey et al., 2021; Robinson, 2020). However, this research is

significantly limited and tends to focus on pre-prison experiences rather than post-incarceration. As such, this study attempts to begin filling the gap in the literature by using a CRT and minority stress theory framework to examine the impact of oppression in a way that allows for a more nuanced understanding of how incarceration may be traumatic.

The Pains of Imprisonment

The argument that incarceration can be a generally traumatic experience is well supported by a body of literature in the fields of criminology and sociology regarding the "pains of imprisonment." This literature was first introduced in 1958 when Gresham Sykes published his book *The Society of Captives* which detailed his three-year study of a maximum-security prison in which he conducted qualitative and observational research with the goal of understanding how inmates adjust to prison life. Sykes (1958) argued that punishment in the United States has evolved past harsh physical punishment and has instead been replaced by more psychological pains, which he describes as "deprivations or frustrations" (p. 64). He acknowledges that these pains may be "acceptable or unavoidable implications of imprisonment," but that they still can damage inmates' sense of self or well-being (p. 64). Sykes (1958) identified five aspects of life which prisoners are deprived of: liberty, autonomy, goods and services, security, and heterosexual relationships. These deprivations were translated to the following psychological constructs respectively: stigma, autonomy, resource loss, and continuous traumatic stress. The deprivation of heterosexual relationships will not be included in the present study due to its assumption of heteronormativity as well as methodological concerns, which are addressed below.

Together, these four identified constructs represent the characteristics of imprisonment that may cause traumatic stress in general due to the profound pain they inflict.

Deprivation of Liberty: Stigma

Sykes' (1985) description of the deprivation of liberty for inmates is focused on the social rejection and isolation that imprisonment causes. Meaningful relationships with significant others are terminated and prisoners are highly stigmatized, which Sykes (1958) argues is the worst result of the deprivation of liberty: "But what makes this pain of imprisonment bite most deeply is the fact that the confinement of the criminal represents a deliberate, moral rejection of the criminal by the free community" (p. 65). Sykes' (1958) description of this pain is well-captured by the psychological concept of stigma, especially as presented by Goffman (1963) as a spoiled identity. He argues that to have a stigmatized identity is to possess "an undesired differentness from what we had anticipated" (p. 5). This perception of difference is so extreme that the stigmatized individual is not perceived as human. Identities that Goffman (1963) referenced in his theory of stigma are wide ranging, including physical deformities, sexuality, religion, race, mental health status, and imprisonment. His conceptions of stigma are very relevant to former prisoners. In fact, some of Goffman's early work on total institutions, such as prisons, predicated his work on stigma and its management.

The consequences of stigma can be severe. Internally, stigmatization can lead to negative impacts on mental health, such as lowered self-worth, a heightened sense of shame or embarrassment, feelings of hopelessness, and loneliness (Chui & Cheng, 2013; Moore et al., 2016; Tewksbury, 2012; Turney et al., 2013; West et al., 2015). External

consequences of the stigmatization of having a criminal record include difficulty obtaining housing (Berry & Wiener, 2020; Keene et al., 2018) and employment (Decker et al., 2015; Holloway & Wiener, 2021; Sugie et al., 2020). Additionally, former prisoners often face the difficult decision of whether to disclose their history while searching for these resources following release (Ricciardelli & Mooney, 2018). Thus, stigma as a result of the deprivation of liberty is painful consequence of incarceration.

Deprivation of Autonomy: Autonomy

Another considerably painful aspect of incarceration is the deprivation of autonomy. Prisoners are "subjected to a vast body of rules and commands which are designed to control [their] behavior in minute detail" (Sykes, 1958, p. 73). The totality of this control by authorities as well as the lack of rationale for rules are what make the deprivation so painful. Prisoners are not allowed to make small or large decisions. The result is a "profound threat to the prisoner's self-image because they reduce the prisoner to the weak, helpless, dependent status of a child" (Sykes, 1958, p. 75). Indeed, perceived afforded choice has been associated with quality of life among incarcerated populations (Van der Kaap-Deeder et al., 2017), but the importance of autonomy continues post-release; Birgden (2015) argues that autonomy is a critical part of desistance from crime, as it is an active process of making decisions to change former patterns of criminal behavior. Thus, it is important to attend to the effects that imprisonment has on feelings on autonomy post-release.

Throughout imprisonment, the deprivation of autonomy may be unnoticeable or at least manageable. Research has shown how prisoners engage in various methods of coping

skills for their loss of power, such as engaging in positive social interactions or participating in programs (Dhami et al., 2007; Van der Laan & Eichelsheim, 2013). This adaptation to deprivation is often referred to as "prisonization," a term first used by Clemmer (1940) to describe how inmates acquired and assimilated to prison culture. However, following release, prisonization as a result of the deprivation of autonomy becomes obvious and can cause distress. Former prisoners often report in qualitative studies that decision-making becomes very difficult following release, even for minor activities such as grocery shopping (Liem & Kunst, 2013). Similarly, the lack of control over a daily schedule such as wake time leads some former prisoners to unintentionally replicate prison life upon release, which can be distressing (Agboola, 2017; Martin, 2018). Some have even reported a change in taste preferences in food because of the lack of choice in diet while incarcerated (Martin, 2018). Thus, the lack of choice and control experienced in prison can have long-lasting impact on autonomy and agency following release.

Deprivation of Goods and Services: Resource Loss

During incarceration, prisoners are unable to access a wide range of goods and services available to the free population. Basic material needs are met, including food and shelter. However, prisoners experience a very poor quality of life due to this deprivation of goods and services. Many see this as a justified pain due to a prisoner's criminal behavior, but Sykes (1958) argues that it is painful nonetheless because of the cultural significance of material possessions. Additionally, he calls attention to the forced poverty from the justice system and the economic exploitation of requiring inmates to work for subpar wages (Sykes, 1958). Inmates are deprived of resources, both external and internal, the loss of

which may result in distress (Hobfoll, 1989; Holmgreen et al., 2017). Externally, prisoners lose most of their personal possessions, their finances, their homes, and more. Internally, prisoners lose their ability to use coping skills, experience significant relational strain, and are subjected to a great deal of stigma as discussed above. While prisoners' basic needs are met including food and shelter, the significant and instant degree of their resource loss is likely to produce extreme psychological distress. It is possible that over time prisoners adapt to this resource deprivation and can adjust to their initial distress. However, resource loss continues to be relevant post-release, as reentry is a time where formerly incarcerated individuals are exposed to significant stress as they attempt to compensate for their losses. Their initial deprivation of resources caused by imprisonment requires a substantial degree of resource gain following release. They must obtain basic needs such as housing or employment, but also must attempt to make gains among symbolic resources, such as status or self-esteem. Thus, after release, prisoners are once again reminded of their significant resource loss and are likely to experience extreme psychological distress.

Deprivation of Security: Personal Safety Anxiety

Another aspect of imprisonment that Sykes (1958) identified as painful is the deprivation of security. He points out that the function of prison is to keep those which society deems as "criminals" in one place, which can result in a violent and volatile environment. As a result, prisoners are likely to experience anxiety about their safety, which manifests as a constant need to remain on guard against potential attacks (Sykes, 1958). Modern scholars have labeled this reaction as continuous traumatic stress (CTS), first introduced in 1987 by researchers in South Africa examining the impacts of Apartheid

trauma among political activists (Straker & the Sanctuaries Counselling Team, 1987). CTS refers to the unique reactions to trauma exposure that is ongoing (Eagle & Kaminer, 2013). CTS exposure can result in constant anxiety about one's personal safety due to the perceived need to always be prepared to face dangerous situations (Eagle & Kaminer, 2013). Recent advances in Objectification Theory provide support for this. Objectification Theory is a model that presents the negative consequences of the sexual objectification of women, especially when internalized (Fredrickson & Roberts, 1997). A full overview of this theory is beyond the scope of the current project. However, a recent introduction to the model effectively captures the impacts of the deprivation of security for inmates. Calogero and colleagues (2020) introduced the construct of personal safety anxiety, a pervasive and constant concern for safety generated by a nonspecific sense of threat, just as with CTS environments. Personal safety anxiety represents a measurable construct that conceptually captures potential reactions to the prison environment.

Unfortunately, no research has explicitly examined personal safety anxiety in prisoners or former prisoners due to its very recent introduction to the literature. However, existing research with prisoners does demonstrate the negative effect of perceived safety in prison on psychological outcomes. Higher levels of anxiety and anxiety disorders are consistently reported in incarcerated populations as compared to the public (Reising et al., 2019; Schnittker, 2014; Xu et al., 2019). Additionally, higher levels of paranoia have been reported in incarcerated populations (Tiegreen & Combs, 2017), especially for those involved in gangs (Wood & Dennard, 2017). Participants in qualitative studies report a general uneasiness around others following release, even to the extent of constantly

identifying nearby objects as potential weapons if needed (e.g., Martin, 2018). Additionally, some of these outcomes have been directly linked to the violent environment of prison. For example, Steiner and Meade (2016) found that prison environments characterized by more violence predicted inmate maladjustment, including higher levels of misconduct as well as mental health symptoms. Being exposed to violence predicts emotional distress and antisocial behavior upon release (Boxer et al., 2011), which can in turn increase the likelihood of recidivism (Daquin et al., 2016). Thus, there is support that personal safety anxiety results in fear post-release.

Deprivation of Heterosexual Relationships

The final pain of imprisonment identified by Sykes (1958) is that of the deprivation of heterosexual relationships. He identifies that this might be frustrating physically, but ultimately it is a psychological pain. Specifically, he connects the lack of sexual relationships with women to the inability to full perform traditional conceptions of masculinity while in prison. This pain of imprisonment is rooted in heteronormative assumptions and does not consider those who do not identify as heterosexual. Additionally, it is focused on male inmates and hegemonic conceptions of masculinity. The way prison affects the gender identity or expression of women, transgender, or non-binary individuals is not mentioned. Because of these concerns, the current project will not include the deprivation of heterosexual relationships as a variable. The participants of the current project are not being restricted to only cisgender men and therefore masculinity will not be relevant to all subjects. However, this is not to suggest that the way in which prison affects

gender identity or expression may not be traumatic. Further research should examine this possibility.

Summary of Gaps in the Literature

Several gaps exist in the literature regarding the painful impact of incarceration. One major limitation is the lack of interdisciplinary integration of relevant constructs; minimal research has linked the pains of imprisonment literature base from sociology and criminology to the trauma and PSTD literature based in psychology. However, there are clear theoretical connections between the constructs that warrant further investigation. Additionally, research with correctional populations is lacking or non-existent for several of the concepts and theories presented in this chapter. The other major limitations in the literature include the lack of quantitative studies that link incarceration generally to the development of PTSD symptoms. Existing qualitative research supports this hypothesis and qualitative researchers have called for the addition of a sub-type of PTSD for former prisoners to be added to the DSM (e.g., Liem & Kunst, 2013). However, no quantitative research has yet directly connected incarceration to PTSD. There is research supporting the development of PTSD symptoms based on specific aspects of prison, such as solitary confinement or witnessing violence (e.g., Listwan et al., 2010; Piper & Berle, 2019), but no quantitative evidence has yet been offered to support qualitative findings that the general experience of incarceration is traumatic. Thus, research is needed to bridge this gap between qualitative and quantitative findings.

Finally, there has been a lack of attention to how the experience and effects of imprisonment may be exacerbated by oppression. Few, if any, researchers have explored

how the pains of imprisonment may have differential effects when considered alongside experiences of oppression. Some qualitative studies inquire about group differences in experiences of imprisonment, but there is typically no exploration of how systemic oppression is the source of this discrepancy. Among quantitative studies that have attended to demographics in analysis, race, gender, or sexual orientation are typically used as a control variable. This not only precludes researchers from observing nuanced differences, it also does not attend to the likely underlying source of these differences: systemic oppression.

Relevance to Counseling Psychology

The current study aligns well with several core values of the counseling psychology profession and therefore represents a beneficial addition to the literature base. One major core value of counseling psychology is that of a commitment to social justice (Lichtenberg et al., 2018; Vera & Speight, 2003). This commitment entails analyzing and dismantling systems in society that perpetuate injustice and create inequalities between groups (Vera & Speight, 2003). As mentioned above, the criminal justice system is one of these vastly oppressive systems that has disproportionate impacts on disadvantaged groups. Varghese et al. (2019) recently presented a counseling psychology framework for justice system advocacy, which includes creating and disseminating research that can help to reform the justice system. This study aligns well with this framework, as it will potentially identify the traumatic effect the justice system may have on individuals. As a result, the findings may help to contribute to the argument for criminal justice and prison reform with the goal

of reducing its harm on those who are involved. Results may have important policy implications, for which counseling psychologists can advocate (Varghese et al., 2019).

Relatedly, core values of counseling psychologists include multiculturalism and diversity within research and practice (Goodyear et al., 2016; Lichtenberg et al., 2016; Lichtenberg et al., 2018). The aforementioned counseling psychology framework for justice system advocacy (Varghese et al., 2019) is informed by CRT and calls for research that better attends to racial differences in the justice system. Additionally, minority stress theory will offer an additional important perspective for attending to differences in the system for gender and sexual minorities. This study aims to utilize this value in attending to how prison may differ in its impact due to the role of oppression experienced by minority individuals. By analyzing the hypothesized exploratory models with attention to the effects of oppression, the possible nuanced differences will contribute to the understanding of the psychological effects of imprisonment.

A final core value of counseling psychologist that this study aligns well with is a focus on person-environment interactions, rather than isolating just the individual or just the environment (Goodyear et al., 2016; Lichtenberg et al., 2018). This study aims to explicitly examine the person-environment interaction that occurs within the context of imprisonment. This also helps to avoid pathologizing individuals, as the source of their distress and maladaptive outcomes can be attributed to external, environmental outcomes. Additionally, the role of the environment on the individual can be used to further advocate for prison reform in alignment with the value of social justice (Varghese et al., 2019; Vera & Speight, 2003). In sum, this study corresponds well with the values of counseling

psychologists and will ideally contribute important information that will aid in advocacy and intervention efforts for justice-involved individuals.

Current Study

The current study aims to address identified gaps in the literature regarding the aspects of incarceration that make prison inherently traumatic and how this relationship may be differentially impacted by oppression. Specifically, four multiple hierarchical regressions based on the hypothesis that prison is traumatizing will be tested, positing that the consequences of incarceration will result in PTSD symptoms. For pains of imprisonment that are found to have significant impacts on PTSD symptoms, moderation analysis will be utilized to observe the potential qualifying role of oppression. The rationale for these models is presented in greater detail in Chapter II. In summation, the research questions of the current project include:

Research Question 1: How do the pains of imprisonment relate to PTSD symptoms in formerly incarcerated individuals?

Research Question 2: Does the experience of oppression qualify the relationship between the pains of imprisonment and PTSD symptoms?

CHAPTER II

LITERATURE REVIEW

Chapter I presented an overview of the impacts of incarceration, along with the relevant theories that support the hypothesis that incarceration can result in traumatic stress symptoms. In this chapter, a more in-depth review of the research regarding trauma exposure and PTSD in justice-involved populations is provided. Special attention is paid to the existing literature supporting my hypothesis that traumatic stress symptoms can result from imprisonment is discussed, including the small literature base in support of PICS. The chapter then summarizes the literature regarding each of the pains of imprisonment that have been translated to psychological constructs from chapter I: stigma, autonomy, resource loss, and personal safety anxiety. For each construct, the relevant theoretical and empirical research regarding their relationship to traumatic stress will be evaluated, with close attention paid to any impact of oppression that has been documented. The chapter will conclude with the specific research aims and hypotheses.

Traumatic Stress and the Justice System

Traumatic Stress as a Risk Factor for Justice-System Involvement

Overrepresentation of exposure to trauma and rates of post-traumatic stress has been well-documented as a potential risk factor for justice system involvement (Briere et al., 2016; Crisanti & Frueh, 2011; Facer-Irwin et al., 2019; Jackson et al., 2017; Kubiak,

2004; Marotta, 2017; Maschi et al., 2019; Maschi et al., 2010; Sadeh & McNiel, 2015). Martin and colleagues (2015) reported a direct relationship between trauma exposure during childhood and violence risk in a large sample of inmates (n = 5,154). Similarly, in a national survey of Black Americans, trauma exposure predicted criminal justice involvement, with more traumatic experiences increasing the risk (Jäggi et al., 2016). Latent class analysis performed by Roos and colleagues (2016) indicated that offending populations may be characterized by five typologies made up of varying levels of trauma. Compared to those with lower levels of adversity, typologies with higher levels of victimization and neglect had higher odds for incarceration (Roos et al., 2016). A more recent latent class analysis among incarcerated participants resulted in only four typologies, but also indicated that typologies with higher levels of trauma exposure were at increased risk for mental health disorders and substance use disorders (Henry, 2020). Research done by Cusack and colleagues (2013) suggests that this relationship between trauma and illegal substance use is mediated by PTSD symptoms. Additionally, emotional neglect may relate to illegal substance use (Saddichha et al., 2015). In general, research provides evidence that PTSD and trauma exposure can increase the risk of justice-system involvement.

Several explanations for the link between PTSD or trauma exposure and offending behavior have been proposed and investigated (see Figure 1). Most of this research exists within samples of girls and women due to feminist scholarship emphasizing the importance of the role of victimization in their pathways to crime (e.g., DeHart, 2008). For example, Baumle (2018) posits that a "trauma-to-prison pipeline" exists because of the criminalization of girls' responses to traumatic experiences such as running away or

substance use. Support for this has been found among women offenders, as PTSD and victimization are strongly correlated with offending behavior and justice-system involvement (Brennan et al., 2012; Howard et al., 2017). Additionally, over-policing in communities that are disproportionately minorities exponentially increases the risk for girls of color (Baumle, 2018). Further, girls who identify as a sexual minority or present as gender non-conforming may get additionally criminalized and rejected by peers, family, or justice-system professionals (Caraves, 2018; Graves, 2014). Women and girls also face an increased risk of being arrested as a direct result of their victimization, as in the case of sex trafficking (Baumle, 2018; Saar et al., 2015). Other explanations for the link between traumatic experiences and incarceration relate to how symptoms of PTSD are expressed in individuals. For example, Roach (2013) proposed that PTSD may manifest differently for some, specifically as a predominantly callous or conduct disorder. He suggests that when an individual is exposed to continuous traumatic stress, hypervigilance and anxiety are not protective due to the chronicity of the stressors. As a result, those in stressful environments tend to resort to substance use or anger for emotional expression. Continuous traumatic stress may also result in desensitization, which may resemble traits of callousness (Roach, 2013). Thus, substantial evidence points to how trauma exposure functions as a risk factor. However, drastically less research exists examining how trauma may result from criminal justice involvement.

Trauma Exposure in Prison

The predominant focus of research considering traumatic stress because of criminal justice system involvement centers on specific aspects of the incarceration experience. For

example, solitary confinement can trigger PTSD symptoms, and some suggest it is cruel and unusual punishment (Bennion, 2015; Cloud et al., 2015; Hagan et al., 2018; Haney, 2012; Piper & Berle, 2019). Experiencing and witnessing violence while in prison is associated with PTSD symptoms post-release (Hochstetler et al., 2004; Listwan et al., 2010; Piper & Berle, 2019; Schappell et al., 2016). PTSD symptoms can also result from sexual and emotional abuse, or neglect from staff (Dierkhising et al., 2014). Victimization is also associated with poor adjustment post-release, which may be due to the resulting emotional distress (Boxer et al., 2009; Daquin et al., 2016). Additionally, false imprisonment and wrongful conviction also are traumatic and cause significant distress (DeShay, 2016; Kukucka et al., 2022). Given the high rates of trauma exposure and PTSD among justice-involved populations, it is possible that such aspects of prison re-traumatize individuals who previously came from traumatic environments (Haney, 2001, 2012). Some support has been offered from some research, such as a study that found that pre-prison trauma exposure indirectly predicted PTSD symptoms through prison victimization (Hochstetler et al., 2004). Thus, there is support for how traumatic events experienced in prison can result in traumatic stress following release. However, a growing body of research suggests that incarceration and justice-system involvement can be generally traumatizing, even without exposure to violence or solitary confinement.

Prison as Trauma: Post-Incarceration Syndrome

As introduced in Chapter I, the theory that prison can result in traumatic stress was first proposed by Gorski (2001) as PICS to explain a set of symptoms returning citizens experience following the deprivation of imprisonment (Bogaerts & Polak, 2013). Since this

introduction, little attention has been devoted in the literature to identifying traumatic stress symptoms following release. Several researchers have identified this lack of support and interest in investigating PICS or PTSD symptoms resulting from incarceration and emphasize the importance of the topic (e.g., Bogaerts & Polak, 2013; van Willigenburg, 2020). Scholars who have once themselves been incarcerated have also offered personal accounts of how incarceration has traumatic psychological effects that endure following release (DeVeaux, 2013; van Willigenburg, 2020). Even professionals who work in the justice system recognize the trauma inherent in the system; a recent qualitative study with social workers documented their observations of trauma in the justice system (Davis & Francois, 2020). Specifically, participants reported a triphasic experience of justice-system involvement and the unique traumatic stress experienced in each phase, to include the continued traumatic stress during reintegration following incarceration (Davis & Francois, 2020).

The existing support that has been provided for PICS is significantly limited. The primary study that provides support for prison-induced traumatic stress symptoms comes from Liem and Kunst (2013). They conducted a qualitative study with formerly incarcerated individuals which was a part of a larger international project regarding the long-term effects of incarceration. Through a set of open-ended questions, participants reported on how incarceration influenced their mental health. Results provided support for Gorski's (2001) proposal of PICS but displayed slightly different symptom clusters. Specifically, the authors arrange results in a set of four symptoms: PTSD symptoms, institutionalized traits, social-sensory deprivation syndrome, and social/temporal

alienation. Regarding PTSD symptoms, participants reported experiencing nightmares about prison, sleep disturbances, elevated startle responses, fear of public spaces, emotional numbing, and extreme anxiety. Institutionalized traits included paranoia or feeling constantly distrustful of others, inability to engage in social relationships, and difficulty making decisions. Social-sensory deprivation syndrome was characterized by difficulty with spatial orientation and difficulty with assessing others in social relationships. Finally, social/temporal alienation included a strong feeling of not belonging and thoughts that their freedom was temporary (Liem & Kunst, 2013).

These resulting symptom clusters are similar to Gorski's (2001) proposal: PTSD symptoms, institutionalized traits, social-sensory deprivation syndrome, and social/temporal alienation. However, the sample was very small, and participants were recruited in one geographic area which could bias results. Additionally, all the participants had been convicted of homicide and therefore their sentences were very long, averaging 18.8 years. It may be that the emergence of PICS was so clear in this sample because they had spent so much time in prison. A third limitation is that the symptoms were not quantitatively measured. A factor analysis would be necessary to clarify the distinct symptom clusters. However, despite all the limitations, the study is still a landmark contribution to the literature. It is the first to concretely measure the existence of traumatic stress symptoms in former offenders and provide a framework for future researchers to elaborate on and examine. The authors call for further research and advocacy to integrate PICS as a subtype of PTSD in the *DSM* (Liem & Kunst, 2013).

The only other study identified that has provided explicit evidence of prison-induced traumatic stress symptoms among former offenders was conducted by Harris and Levenson (2020). This study was also a qualitative design wherein 74 formerly incarcerated men completed in-depth interviews. All the participants had been incarcerated for sex offenses. Using a narrative approach, researchers found themes that supported the existence of PICS symptoms, although the authors preferred to use the term "post-conviction traumatic stress," as findings were framed predominantly within the *DSM-5* framework of PTSD symptoms rather than including the additional components of PICS; no mention was made of social-sensory deprivation, institutionalized personality traits, or social/temporal alienation. Participants reported having intrusive thoughts and flashbacks, avoidance, negatively altered thoughts and emotions, and hyperarousal (Harris & Levenson, 2020). For each symptom cluster of PTSD, participants described symptoms explicitly related to their conviction or imprisonment. Regarding intrusive thoughts, participants reported flashbacks and nightmares about prison and extreme fear resulting from symbols of their crime. Avoidance was also highly reported, including avoidance of relationships or general avoidance of social situations. Several participants reported avoidance to the extreme of complete isolation, not even leaving the house to go grocery shopping. Negative alterations in mood and cognitions were reported, including peri-suicidal thoughts or a constant belief that every situation is dangerous. Finally, arousal symptoms reported by participants included constant hypervigilance. These symptoms were not linked to specific aspects of incarceration that prior research has found to correlated with post-release PTSD, but rather were a result of the "inability to meet basic

human needs" caused by the disruption of imprisonment (Harris & Levenson, 2020, p. 12). Thus, Harris and Levenson (2020) also provide evidence that traumatic stress symptoms can result from general justice system involvement.

Despite this support, this study is limited by lack of generalizability, use of predominantly qualitative analysis, and failure to attend to issues of oppression or diversity. While the sample was larger, all participants were men. Additionally, the offense type was limited to only those with sexual offenses. However, this does provide some initial support that traumatic stress following incarceration is a general experience and not limited to one type of offender. However, unlike Liem and Kunst (2013), Harris and Levenson (2020) do not report details regarding participants' sentence length or time since release, as this study was a secondary analysis from an earlier study. Finally, this study does not provide any statistical or quantitative analysis regarding traumatic stress symptoms following incarceration. General limitations to the existing literature on symptoms of traumatic stress following release are also worth noting. Primarily, the current literature is completely lacking any attention to the role of oppression. Liem and Kunst's (2013) sample was racially diverse, with 48% Black participants, 44% White participants, and 8% Hispanic participants. However, only two participants were women, and no information was provided regarding the sample's sexual orientation. Additionally, it appears that participants were not asked about how their experiences of oppression related to their post-release traumatic stress. Harris and Levenson's (2020) participants were 88% White, but no further details were provided regarding the other 12% of the sample. The sample was also entirely men, and their sexual orientations are not reported. No discussion regarding

oppression was included either. Thus, further research is needed to confirm how prison can induce symptoms of traumatic stress and how systemic oppression may alter this relationship.

Other qualitative studies provide more general support for traumatic stress following incarceration, but do not label the responses as PICS symptoms. For example, Agboola (2017) conducted a set of interviews with 13 formerly incarcerated women in South Africa. Participants reported consequences of their incarceration, which included avoidance and intrusion symptoms that interfered with their ability to function (Agboola, 2017). Similarly, a recent qualitative study from Smoyer and colleagues (2019) with 31 formerly incarcerated older adults resulted in themes of prison-induced traumatic stress. Participants in the study describe several symptoms including flashbacks, nightmares, irritability, and intense anxiety. These symptoms were described as a result of the general experience of incarceration, as opposed to outcomes of specific traumatic experiences while incarcerated. One participant directly compared her experience following release to PTSD symptoms: "it's just traumatic, and it's just stayed with me… it's like going to war" (Smoyer et al., 2019, p. 231). However, the authors did not label participants' responses symptoms of traumatic stress or PICS symptoms. Rather the theme for the section wherein participants described symptoms of traumatic stress was titled "life after release." Additionally, this study is limited regarding generalizability. Race, gender, sexual orientation, and age are reported as demographics, but there is no information about length of participants' sentences or how long they had been released for. Also, despite the sample being predominantly (61%) Black and having some small representation of non-

heterosexual participants (9%; no further information provided regarding the specifically identified sexual orientation of participants), there is no discussion of the role of oppression in the article.

In sum, recent literature provides preliminary support for prison-induced traumatic stress among formerly incarcerated individuals. However, this literature has been limited in many ways. No quantitative studies have been conducted that estimate the prevalence of symptoms of traumatic stress resulting from incarceration. As such, no research has examined the mechanisms by which symptoms occur. Additionally, attention to the role of systemic oppression has been minimal at best. Thus, further research is needed that examines this hypothesis. Next, the existing literature that supports the connection of the deprivations of imprisonment to symptoms of traumatic stress is reviewed. Additionally, attention is paid to any existing research regarding the role of oppression for each construct.

The Role of Oppression

As identified in Chapter I, CRT and minority stress theory emphasize that is crucial to examine how prison and the pains of imprisonment may uniquely affect racial, gender, and sexual minorities through the experience of oppression. However, given the novelty of the present research, there is minimal evidence to inform hypotheses regarding exactly how oppression impacts the relationship between the pains of imprisonment and post-release traumatic stress. Some preliminary research has explored the differences in trauma exposure and PTSD as a result of oppression among minorities; however, this has focused predominantly on pre-incarceration rather than post-incarceration. For example, one longitudinal study found that experiences of racial discrimination in childhood was

associated with incarceration as an adult (Gibbons et al., 2020). Additionally, race-based stress has been associated with cannabis use in black men (Dogan et al., 2021), which is still criminalized at the federal level and is illegal for recreational use in 32 states (Garber-Paul & Bort, 2021). However, no research has yet investigated the prevalence or rates of oppression-based traumatic exposure in incarcerated or formerly incarcerated populations.

Research regarding exposure to other traumas and rates of PTSD for racial, gender, and sexual minority justice-involved populations is varied. In a nationally representative sample of 5008 Black Americans, PTSD and trauma exposure were significantly associated with incarceration (Anderson et al., 2016). While in prison, Black inmates may be more likely compared to White inmates to experience sexual victimization perpetrated by staff members (Wolff et al., 2008). However, several studies report that rates of exposure to traumatic events before and during incarceration are lower for minority groups (Carlson & Shafter, 2010; Henry, 2020; Wolff et al., 2008). Similarly, some have found a lower likelihood of PTSD among Black participants (Listwan et al, 2010), while the relationship between trauma and recidivism appears to be consistent across racial groups (Maschi et al., 2019). Despite these mixed results, studies with large samples of the wider population suggest that African Americans tend to have the highest rates of PTSD and more exposure to interpersonal trauma, especially violence (i.e., Asnaani & Hall-Clark, 2011; Roberts et al., 2011). Similarly, in sample of 24,848 incarcerated individuals, lesbian, gay, and bisexual participants had a rate of PTSD of 38.6% compared to 15.3% in heterosexual participants (Srivastava et al., 2022). Furthermore, sexual minority inmates have been found to be more likely to be exposure to traumatic events while in prison, including sexual

victimization and solitary confinement (Meyer et al., 2017). Additionally, these studies do not tend to include measures of oppression-based traumatic stress or consider discrimination as trauma exposure.

Thus, some studies do report differences in minority populations in trauma exposure and PTSD symptoms in the justice system. However, existing research tends to either criminalize and pathologize Black, transgender, gender non-conforming, and LGBTQ+ reactions to traumatic stress or fails to account for broader trauma exposure such as oppression or imprisonment. On the other hand, gender tends to be much more effectively attended to in the literature, with several large-scale studies or literature reviews presenting gender differences yet ignoring race or sexual orientation entirely (e.g., Facer-Irwin et al., 2019; Goff et al., 2007; Wolff & Shi, 2010). Among studies that do examine race or sexual orientation, it is often used as a control variable to remove any effects that oppression may have on the variables in the study. This illustrates a color-blind approach to research, which CRT posits is a tool of the hegemonic group to uphold systemic racism and oppression within the justice system (Haskins & Lee, 2016; Williams, 2019). Ortiz and Jackey (2019) argue that the specific omission of race or controlling for its effects is a deliberate choice by researchers to avoid discussing the topic. Similarly, Haskins and Lee (2016) posit that researchers view race as a difficult topic and intentionally avoid it and theories that center race, such as CRT.

Despite this lack of empirical evidence, theoretical constructs suggest the relevance of the hypothesis that racial, gender, and sexual minorities may be disproportionately negatively impacted by the pains of imprisonment. Minority stress theory (Meyer, 2003)

posits that minority groups, such as gender, sexual, racial, or ethnic minorities, are more likely to experience negative outcomes because of their increased exposure to distal, or external, stressors such as discrimination and oppression. Proximal, or internal, stressors are also more likely to be experienced, such as self-doubt or rumination. Additionally, because of these experiences, minority members engage in coping processes to attempt to alleviate the distress caused by both external and internal stressors, including identity concealment. Many minority stress theory researchers have argued that individuals who have multiple marginalized identities experience compounding negative effects as a result. For example, Cyprus (2017) argues that lesbian, gay, bisexual, transgender, queer people of color (LGBTQ-POC) are at risk for more negative mental health outcomes because of the unique discrimination they experience. Not only do they experience homophobia, heterosexism, and racism from outgroup members, but also from other ingroup members that share their racial identity (Cyprus, 2017). Hayes and colleagues (2011) attempted to quantify this double jeopardy by sampling a large group of college students who had sought treatment at their university's counseling center. Results indicated that racial minority and LGB students experienced higher levels of negative mental health outcomes when compared to White and heterosexual students respectively. However, they did not find evidence for increased levels of distress among LGB students of color (Hayes et al., 2011).

A more recent student from Everett and colleagues (2019) tested a minority stress model with a sample of 612 sexual minority women. The researchers examined how self-perceived masculinity and femininity related to the women's experiences of discrimination, victimization, stigma consciousness, and internalized homophobia. Results

indicated that racial identity moderated the relationships between these variables. Specifically, for racial minority participants, relationships were opposite of how the variables were related among the White participants. For example, among White sexual minority women, self-perceived masculinity predicted higher levels of victimization, discrimination, and stigma consciousness. However, among sexual minority women of color, self-perceived masculinity predicted lower levels of victimization, discrimination, and stigma consciousness (Everett et al., 2019). Overall, minority stress theory has been found to have ample support in existing literature.

Applications of minority stress theory to justice-involved populations have been minimal, but some preliminary support has been found. For example, Harvey and colleagues (2021) conducted a qualitative study with 20 bisexual and gay men to explore the role of minority stress at all stages of incarceration. Participants identified that minority stress functioned as a route to incarceration, labeling it as traumatic and described using substances to cope. Similarly, rejection from family often resulted in participants resorting to criminalized activities to survive, such as sex work. Results also indicated disclosure of their identities while incarcerated often resulted in sexual, physical, and verbal violence. The influence of minority stress also persisted post-release, as some participants experienced social rejection from family or peers that hindered the reentry process. Furthermore, participants discussed the stress and challenges of having to manage an additional stigmatized identity as formerly incarcerated (Harvey et al., 2021).

Thus, the underlying theory that distal and proximal stressors are more pronounced and cause higher levels of distress when compared to majority populations is clearly

relevant. As described above, minority stress theory research has shown the nuanced way distress may be experienced by racial, gender, and sexual minorities. As Cyprus (2017) argues, it is possible that the pains of imprisonment will result in higher levels of distress because of already existing distress from distal and proximal stressors because of oppression. However, as displayed in research from Everett and colleagues (2019), the pains of imprisonment may interact with distal and proximal oppression-based stressors uniquely and have an intersectional effect on distress instead. As such, no specific hypotheses will be presented regarding how oppression will moderate the relationships between the pains of imprisonment and post-incarceration traumatic stress. In the next section, the existing literature that suggests a connection between the pains of imprisonment and traumatic stress are reviewed. Any documented impact of oppression in these constructs is reviewed as well.

The Pains of Imprisonment & Traumatic Stress

Stigma

As introduced in chapter I, stigma is a highly relevant experience for formerly incarcerated persons. Goffman (1963) identifies the importance of the visibility of stigma, as some stigmatized identities are visible and obvious to an observer, but others are not immediately known. Goffman argues that there are differences in how stigma can impact a person based on this concept of visibility. He offers the term "discredited" for those whose stigma is obvious, and the term "discreditable" for those whose stigma is concealable (1963). He describes several ways "discredited" stigmatized individuals manage their identities, to include coping with social rejection. Common reactions to this

rejection include shame, attempts to remove the stigma, isolation, depression, anxiety, and self-consciousness. Coping often entails attempting to seek out social support. Alternatively, Sykes and Matza (1957) identify how offenders may attempt to rationalize or "neutralize" their negative reactions to stigma by denying responsibility for their criminal behavior. Identity management for the discreditable, however, is quite different. The discreditable person is unique in that their stigma is not immediately observable to others. Thus, Goffman (1963) claims that "the issue is not that of managing tension generated during social contacts, but rather that of managing information of his failing" (p. 42). Thus, the possible emotional consequences of holding a discreditable identity can include insecurity, vigilance, feeling as those one is living a double life, and general fear or anxiety.

During incarceration, prisoners are discredited. Their stigma is obvious, as evidenced by the uniform one is required to wear, handcuffs or chains used during transport, and physical separation from society. This is partially a result of the fact that a prison is a "total institution," which Goffman (1961) describes as establishments whose primary characteristic is that of extreme separation from the outside world, especially when represented physically through aspects "such as locked doors, high walls, barbered wire, cliffs, water, forests, or moors" (p. 4). Total institutions are likely to result in stigmatization due to the "mortification of the self" experienced by residents, wherein personal identity is significantly altered (Goffman, 1961). However, following release, former prisoners become discreditable. Their stigmatized status as formerly incarcerated is not immediately knowable to most others, and therefore the information management techniques become

more relevant than ever (Goffman, 1963). Arguably, the stigmatization of the label of "criminal" becomes most painful after release. Stigma is also nuanced in that there are theorized to be several different components including perceived stigma, anticipated stigma, internalized stigma, self-stigma, enacted stigma, and public stigma. While each of these can have implications on psychological functioning, for the current project, self-stigma is the most relevant.

According to Modified Labeling Theory (Link et al., 1989), when individuals come to be labeled with a stigmatized identity, societal perceptions of devaluation become personally relevant. This can result in the internalization of public attitudes and several negative consequences, increasing the likelihood of negative coping skills or vulnerability to mental illnesses (Link et al., 1989). Research with justice-involved populations has provided support for Modified Labeling Theory, especially regarding the consequences of stigma. As Moore et al. (2016) point out, the terms self-stigma and internalized stigma are often used interchangeably but are conceptually distinct. Self-stigma is a process that is comprised of several components (Corrigan et al., 2006), whereas internalized stigma is one of the components that contributes to the process of self-stigma (Moore et al., 2016). Self-stigma entails first perceived stigma (Corrigan et al., 2006; Link et al., 1989). Stigmatized individuals must first be aware that public attitudes regarding their identity are negative in nature. Perceiving stigma is then likely to lead to stereotype agreement, wherein a stigmatized individual believes that the existing public opinions regarding their group identity are true (Corrigan et al., 2006). This in turn predicts the internalization of stigma, which occurs when one accepts these negative opinions as true about oneself (Bos et al.,

2013; Corrigan, 1998; Goffman, 1963; Link et al., 1989; Vogel et al., 2013). Finally, internalized stigma is then likely to lead to anticipated stigma, as one believes themselves likely to be discriminated against (Moore et al., 2016). Many identities can trigger the self-stigmatization process, including conviction and incarceration. Below is a review of the literature supporting self-stigma because of incarceration.

Stigma as a Result of Imprisonment

Research regarding the process of self-stigmatization within justice-involved populations is limited. However, a recent set of studies that were a part of a larger randomized controlled trial about a restorative justice intervention (see Folk et al., 2016) provides support for how self-stigma results from incarceration. The first study from Moore, Tangney, and Stuewig (2016) provides support for the full process of self-stigmatization in a group of 203 jail inmates. Specifically, structural equation modeling revealed that perceived stigma had an indirect effect on internalized stigma through stereotype agreement. This remained true when controlling for anxiety, depression, and self-esteem (Moore, Tangney, et al., 2016). However, this study did not support the hypothesized link between internalized stigma and anticipated stigma. Results indicated that perceived stigma directly predicted anticipated stigma rather than indirectly (Moore, Tangney, et al., 2016). Moreover, self-stigmatization may vary for different racial groups; results indicated that among Black inmates, perceived stigma did not significantly predict stereotype agreement. Additionally, internalized stigma was positively related to anticipated stigma among Black inmates, whereas there was no significant relationship between the two for White inmates (Moore, Tangney, et al., 2016). Moore and colleagues

(2016) attribute this difference to the fact that Black individuals already experience stigma due to their racial minority status. As such, they may have existing cognitive strategies to protect their own self-concept from stigmatizing beliefs from society, whereas the White individuals in the study may have no experience defending their identity from stereotypes (Moore, Tangney, et al., 2016). However, this was not directly tested by measuring the potentially protective cognitive strategies. All participants in this study were still incarcerated and had not been released. However, since the larger project was longitudinal, future research allowed for investigation into the outcomes of stigma on post release functioning.

Due to drop out rates and other research challenges, the next sample contained 197 participants. In this sample, anticipated stigma predicted social withdrawal which in turn predicted mental health concerns post release (Moore & Tangney, 2017). However, the impact of social withdrawal was not significant among Black offenders. Results were contextualized similarly to as described above, as Moore and Tangney (2017) explain these results as a function of the existing protective strategies that Black individuals developed due to their experience coping with racial stigma. This suggests the experience of past oppression prepares one for future oppression. Another offered explanation is that rates of incarceration are higher in the Black community; thus, the experience of imprisonment may not trigger as much social withdrawal as it may be considered more common in Black ex-offenders' community (Moore & Tangney, 2017). However, this was not directly or quantitatively measured. The final study using this sample examined risk and protective

factors for the self-stigmatization process. Of relevance, results indicated that race did not have a main effect on any components of self-stigma (Moore et al., 2018).

However, the above studies (Moore & Tangney, 2017; Moore, Tangney, et al., 2016; Moore et al., 2018) are limited in several ways. First is that the sample that both studies utilized was entirely jail inmates from one specific facility. Results may not be generalizable to those convicted of more serious offenses who have been sent to prison and therefore likely been incarcerated for longer than the participants in these studies. Additionally, although some of the studies used the post-release data, survey and interview data that contained the stigma measures were completed while still in jail. Thus, it is unclear if the self-stigmatization process would function the same post-release. Despite these limitations, there is still strong support for how incarceration results in self-stigmatization. Unfortunately, this appears to be the only set of studies that has examined the entire process of self-stigma in this population. However, other research has explored the components of self-stigma in justice-involved populations.

A second set of studies from the same group of researchers also shows how incarceration results in stigma. These studies were also part of a larger longitudinal project (see Tangney et al., 2007), and provide further support for how perceived stigma predicts anticipated stigma. One study found that perceived stigma significantly predicted anticipated stigma while incarcerated, which in turn negatively affected community adjustment one year following release in a sample of 163 jail inmates (Moore, Stuewig, & Tangney, 2016). Variables included in community adjustment were hours employed, residential stability, volunteerism, social support, having a valid driver's license, marital

status, homeownership, educational or vocational accomplishments, and financial support of children. However, race was a significant moderator of the model. When the model was compared between Black and White participants, results showed that perceived stigma and anticipated stigma were still correlated, but only predicted negative outcomes for White individuals (Moore, Stuewig, & Tangney, 2016). This suggested again that the Black participants may have developed protective strategies against stigma due to their experience with stigma based on their racial identity (Moore, Stuewig, & Tangney, 2016). The second study using this sample also found that perceived stigma predicted violent recidivism in the sample (Moore et al., 2013). Also, this study compared stigma between a community sample and the inmate sample. Results found that the inmates had higher perceived stigma than the community sample endorsed stigmatizing attitudes toward criminals. However, the community sample was a group of university students and thus is not representative of the general community (Moore et al., 2013). Taken together, these sets of studies represent most of the quantitative research on self-stigmatization and its components following incarceration. Further support for the experience of stigma mostly comes from qualitative studies with formerly incarcerated persons.

Some qualitative studies report their findings in the context of self-stigmatization, although do not explicitly measure or identify each component as identified above. For example, a study with 16 young men who had recently been released from prisons in Hong Kong reported a resulting theme of self-stigmatization (Chui & Cheng, 2013). Participants expressed low levels of self-worth and believed themselves to be incapable of achieving desirable jobs because of their lack of qualification due to imprisonment. Additionally,

results demonstrated that the former prisoners experienced painful levels of shame or embarrassment due to their criminal record, providing evidence that the participants had internalized stigma (Chui & Cheng, 2013). Very similarly, in a sample of 24 incarcerated sex offenders, participants reported an extreme sense of shame and self-hatred, providing evidence of the internalization of stigma (Tewksbury, 2012). They also reported profound hopelessness for the future and a generalized sense of fear because of how they perceive others to feel about them (Tewksbury, 2012). Other qualitative studies rely primarily on components of the self-stigmatization process, with perceived stigma receiving the most attention.

Results from qualitative studies especially highlight how common perceived stigma is for formerly incarcerated individuals because of their history. Stigma was a major theme among a sample of 13 formerly incarcerated women in South Africa (Agboola, 2017). They reported on how they perceived stigma to affect their job prospects and resulted in painful social rejection from their communities (Agboola, 2017). Similarly, a longitudinal qualitative study with 44 formerly incarcerated individuals found that their perceived stigma functioned as a barrier and prevented them from applying for and obtaining stable housing and employment (Keene et al., 2018). Additionally, some offenders may be more likely to perceive stigma. For example, a mixed-methods study of 62 individuals who had been incarcerated for a sexual offense found that every single participant reported perceiving stigma in qualitative interviews (Huebner et al., 2018). Some reported feeling that the stigma for sexual offenses goes beyond the general stigma that other offenders perceive (Huebner et al., 2018). Another qualitative study with 56 formerly incarcerated

sex offenders in Canada provides similar results, finding that participants even perceived stigma from other prisoners during their sentence (Ricciardelli & Mois, 2013).

There may be elevated perceived stigma among Black and sexual minority offenders as well. Garcia-Hallet (2019) documents the intersectional nature of several marginalized identities lead to more perceived stigma among a sample of 37 formerly incarcerated women of color. Specifically, participants reported that finding jobs, acquiring housing, and regaining custody of their children was complicated by the stigmatization of their identities. They reported a need to work harder than others in order to overcome the multiple stigmas they experienced. Furthermore, a theme in qualitative analysis was their experience of hyper-surveillance by police in their communities, which served to reinforce their perceived stigma (Garcia-Hallet, 2019). Relatedly, Williams and colleagues (2019) used semi-structured interviews combined with critical ethnography and found perceived stigma to be a core qualitative theme in a study of nine Black men. Their perceived stigma affected meaningful relationships, even with their family and community, and therefore impeded reintegration (Williams et al., 2019). In a study of 20 bisexual and gay formerly incarcerated men, qualitative results indicated participants experienced stigma as a result of their criminal history, even among peers that previously supported them (Harvey et al., 2021). Thus, overwhelming evidence documents the stigma resulting from criminal-justice system involvement.

Stigma & Traumatic Stress

Stigma in justice-involved populations has been associated with a wide range of negative outcomes. For example, perceived and anticipated stigma have been found to

predict recidivism (Moore et al., 2013), negative mental health (Moore & Tangney, 2017), lowered quality of life (McWilliams and Hunter, 2021), and parole violations (Lebel, 2012). Internalized stigma has been found to predict lower self-esteem (West et al., 2015), mental health symptoms (Moore et al., 2018), and parole violations (Lebel, 2012). Additionally, stigma has been suggested as a potential explanation for why physical and psychological health outcomes and subjective social status are worse among formerly incarcerated individuals compared to the public (e.g., Schnittker, 2014; Schnittker & Bacak, 2013; Schnittker & John, 2007). However, minimal research connects self-stigma or its components to traumatic stress symptoms in justice-involved populations. Existing research that does support the link is predominantly qualitative. For example, a study by Harris and Levenson (2020) used semi-structured interviews to interview 74 men who had been incarcerated for sexual offenses. One organizing theme for the results was PTSD symptom clusters, and the role of stigma is clear. For example, participants report avoiding social relationships at all costs for fear of rejection. Similarly, many expressed the stigma that comes from having to be registered as a sex offender led to hypervigilance and paranoia. One man expressed "I thought the world knew my background. I was afraid to sit next to a woman on a train" (Harris & Levenson, 2020, p. 9). Another study of nine formerly incarcerated Black men reports qualitative findings of the stigmatization of prison leading to a "constant state of 'paranoia'" following release (Williams et al., 2019, p. 443). Participants in a study from Chui and Cheng (2013) also reported these concerns and felt suspicious about how others view them. The themes of paranoia, suspicion, and distrust may be examples of negative cognitions, avoidance, and arousal symptoms of PTSD.

Though the research is limited within justice-involved populations, findings with other populations support the hypothesis that self-stigma and its components can lead to traumatic stress. Several studies with samples of people living with HIV/AIDs have found both perceived and internalized HIV-stigma to predict PTSD symptoms or increase the likelihood of receiving a PTSD diagnosis (Andu et al., 2018; Breet et al., 2014; Gao et al., 2018; Gonzalez et al., 2016). Perceived racial stigma has also been associated with PTSD symptoms (Matsumoto et al., 2020). In a cross-sectional study from Kennedy and colleagues (2014), perceived stigma was found to predict PTSD symptoms above and beyond cumulative lifetime victimization among a sample of 198 young mothers between the ages of 16 and 21. However, the measure used in this study to measure perceived stigma was general and did not explicitly ask participants about a particular social identity to consider. Finally, research with veterans has shown that internalized mental illness stigma and perceived stigma towards help-seeking may predict PTSD symptoms (Bonfils et al., 2018; Kelley et al., 2014). Thus, it is highly likely that self-stigmatization and its components applied to a history of incarceration may also result in traumatic stress symptoms.

Autonomy

Unfortunately, loss of autonomy is an inevitable consequence of incarceration and is therefore to be expected. The degree of loss also varies with security level, with lower security prisons affording more autonomy to prisoners than high security. This loss impacts both small and large personal decisions, ranging from one's sleep schedule (Tracey & Hanham, 2017) to important medical decisions (Kutnick et al., 2019). The role of autonomy

in the lives of former offenders has been emphasized as critically important. Feeling autonomous and capable are important predictors of rehabilitation and desistance from crime as it provides internal motivation for success (Agnew, 2001; Birgden, 2015; Millward & Senker, 2012). According to self-determination theory (SDT), autonomy is a basic psychological need that predicts motivation for personal growth and well-being (Ryan & Deci, 2000). The basic needs of competence, relatedness, and autonomy help to facilitate motivation that results in personal well-being (Ryan & Deci, 2000). Autonomy is specifically important for the development of intrinsic motivation, wherein one pursues goals and behavior because of personal values and commitment. This stands in contrast to external motivation, wherein one is influenced to goal-directed behavior because of forces outside of them, such as by coercion, force, or reward (Ryan & Deci, 2000). Some forms of external motivation allow for more autonomous response than others, which is important for well-being. Over time, external motivation that allows for an autonomous response can result in one internalizing the motivation (Ryan & Deci, 2000). Thus, when one feels more in control of their actions, they may in turn feel more intrinsically motivated to avoid criminal behavior. Additionally, the external motivation of avoiding further punishments (i.e., parole violations) or gaining rewards (i.e., time off a sentence) may lead offenders to develop values that lead them to internalize this motivation over time.

However, imprisonment takes away one's ability to be autonomous. For some, this can be for substantial periods of time. This complete lack of ability to be autonomous may be devastating and traumatic, causing difficulties in decision-making skills when autonomy is returned upon release. As a result, formerly incarcerated persons may find it difficult to

make decisions that help them desist from crime and therefore return to prison. Research regarding the role of autonomy in justice-involved populations has predominantly focused on how it is important for rehabilitation. For example, using SDT, Petrich (2020) found that participants with more autonomous behavior were more likely to engage in behavior that helped them to desist from criminal behavior. However, there is emerging literature that emphasizes the painful consequences of losing one's autonomy during incarceration. Below is a review of this literature and the existing research that supports the hypothesis that this loss is traumatic.

Autonomy Loss as a Result of Imprisonment

Most of the research regarding autonomy related to prison focuses on how it predicts desirable outcomes during incarceration. For example, greater levels of autonomy in prisoners have been associated with well-being, quality of life, and better interactions with staff (van der Kaap-Deeder et al., 2017, 2019; van der Laan & Eichelsheim, 2013). Additionally, perceived lack of autonomy may predict misconduct, aggression, violence, and suicidal ideation during incarceration (Ellis & Bowen, 2017; Favril et al., 2017; Rocheleau, 2013; van der Kaap-Deeder et al., 2019). However, less attention has been paid to how the deprivation of autonomy can have consequences post-release. The small existing body of literature is mostly theoretical or qualitative with current prisoners but does clearly show that the loss of autonomy is painful and disruptive even following release. The literature is also significantly limited in that there are no existing studies that examine or even discuss the role of oppression on the impact incarceration has on autonomy.

Several studies document how the deprivation of autonomy is a pain of imprisonment that many prisoners experience. For example, a mixed methods study with men and women serving at least 15 years in England and Wales found that the loss of autonomy was among the top reported difficulties of imprisonment (Crewe et al., 2017). Specifically, women rated it as the most severe problem they experienced in prison, whereas men ranked it as the fourth most severe problem out of ten (Crewe et al., 2017). The personal impact of this loss was reflected in qualitative responses. For example, one woman outlined all the aspects of her life that she is unable to control due to her status, including her diet, her clothes, and her medication. She also described the impact it has on her personally, stating "I find that quite difficult, not being in control of my own life" (Crewe et al., 2017, p. 1369). Using the same sample, Crewe and colleagues (2016) found similar results in interview data regarding how the loss of personal control is especially distressing at the start of one's sentence. They found that prisoners early in their sentence with less than four years completed were more likely to report themes of having absolutely no control over their life. Those who had served more of their sentence were more likely to acknowledge their lack of control in some areas, but identify small methods of maintaining autonomy, such as by feeling in control of emotions (Crewe et al., 2016). A third study using this same sample quantitatively compared the rated severity of problems between those early in their sentence and late in their sentence. Results indicated that participants' ratings of the severity of their problems lessened over time (Hulley et al., 2016). However, it is important to contextualize these results.

As Hulley and colleagues (2016) point out in their discussion, two dominant explanations have been offered for the finding that imprisonment is experienced as less painful over time. First is that humans naturally adapt to difficult circumstances and find ways to cope with the problems that prison engenders. Following release, these constraints are removed and adjustment back to outside life is a simple and easy task (i.e., Zamble & Porporino, 1988). The second explanation is that the adaptations that prisoners make are much more profound than simply finding coping mechanisms or attitudinal shifts. Rather, prisoners may undergo fundamental changes that change their core sense of selves. As Hully and colleagues (2016) point out, "these changes are 'adaptive' in the hostile, controlled and limiting environment of the prison, [but] they may well be maladaptive on release" (p., 789). They specifically identify PICS as identified by Liem and Kunst (2013) as an example of this. Haney (2001, 2012) also supports this theoretical explanation. He posits that the deprivation of autonomy functions to create dependency in prisoners, which is maladaptive upon release. Following an extended period of time in which one's major and minor day-to-day decisions are made by others, it may be difficult to return to autonomous behavior post-release. Thus, when control is removed, "severely institutionalized persons may find that they no longer know how to do things on their own, or how to refrain from doing those things that are ultimately harmful of self-destructive" (Haney, 2001, p. 31).

This effect of the deprivation of autonomy post release has been somewhat supported by quantitative literature. For example, Meijers and colleagues (2018) conducted an experimental study with 37 male inmates in the Netherlands and found that their

performance on neuropsychological tests measuring self-control decreased significantly after spending time in prison. They hypothesized this was due to the lack of autonomy and therefore reduced opportunities for self-directed behavior as Haney (2001, 2012) suggests. However, the study did not actually test or measure the level of perceived autonomy and therefore does not confirm the relationship. Qualitative literature contains more evidence for how imprisonment has detrimental effects on autonomy post-release.

Several studies that use interviews with formerly incarcerated individuals have found complicated effects of the drastic shift from lack of autonomy to freedom post-release. For some, the lack of autonomy in prison created a drive and motivation to become self-reliant post-release. For example, Andersen and colleagues (2020) conducted in-depth life history interviews with 12 formerly incarcerated men. Results indicated that the participants conceptualized successful reentry as more complex than simply avoiding criminal behavior. Specifically, a major theme of success for most of the participants was owning their own home or business so as to not be dependent on anyone else (Andersen et al., 2020). Similarly, Ashkar and Kenny (2008) found that the lack of autonomy in juvenile facilities motivated their participants into desistance out of desire to avoid returning to prison. A longitudinal qualitative study with adult prisoners also found that the pain experienced because of the deprivation of autonomy was a motivator for post-release success (Doekhie et al., 2017). However, this motivation was not present in all participants.

Doekhie and colleagues (2017) also found a group of former offenders experienced demoralization because of their loss of autonomy during imprisonment. Additionally, they were prone to externalize their problems and blame others rather than take responsibility

for their own actions and behavior. As a result, this group was more likely to recidivate (Doehkie et al., 2017). Similarly, Tracey and Hanham (2017) conducted interviews with 15 male offenders who had previously been incarcerated in a juvenile facility. Participants reported they had been excited to regain their autonomy upon release but found the change to be more stressful than anticipated. In fact, one participant described how his newfound autonomy was preventing him from sleep as he was so accustomed to being told when to sleep (Tracey & Hanham, 2017). The extreme shift from no freedom to complete freedom is described as "culture shock" by Martin (2018) in an ethnographic study with former prisoners undergoing their first months of reentry. For example, one participant reported difficulties in social situations and stated "I didn't know what the rules were, or how to go about them. All I wanted to do was just hide" (Martin, 2018, p. 684). Martin (2018) also found results like Tracey & Hanham (2017) wherein participants unintentionally replicated the habits brought about by the controlling environment of prison, such as washing underwear in the shower or waiting for doors to be opened for them.

Despite the evidence of prison's effect on individuals' sense of autonomy post-release, there are still significant and obvious limitations. Specifically, research regarding the loss of autonomy and traumatic stress has not attended to any effect of oppression. Samples are often diverse, but discussion regarding the role of oppression is nonexistent, exhibiting color-blindness in that results are assumed to be universal across race, gender, or sexual orientation. Given this, the current assumption in the literature is that prison's impact on autonomy is equivalent and no hypotheses have been offered for why oppression would result in differential impacts of autonomy loss. Thus, albeit limited, the existing

literature mostly supports the detrimental impact that imprisonment can have on one's autonomy post-release. These negative impacts may be significant enough to cause traumatic stress symptoms in former offenders.

Autonomy Loss & Traumatic Stress

As mentioned above, Hulley and colleagues (2016) hypothesize that the deprivation of autonomy in prison can fundamentally change one's core self in a way that manifests as traumatic stress symptoms, such as PICS. However, their study was a mixed methods study with currently incarcerated individuals and did not test this proposition. Results from Martin's (2018) ethnographic study may provide support, although they are not explicitly reported as traumatic stress symptoms. For example, participants discussed intense emotional reactions upon returning home which could be examples of negative alterations in mood. One participant labeled his emotional reaction as anxiety, stating "I need that secure like jail feeling almost, where I don't have free will on everything. Because I don't know how to handle it, I don't know how to live my life yet" (Martin, 2018; p. 684). Also, some reported dissociative experiences upon release, such as one participant who reported "it was like a dream. Like I was floating in the air when I walked in my house" (Martin, 2018; p. 683). Another participant reported "You ever have those nightmares where you're trying to scream and trying to wake up but you can't? I didn't know which way to go. I didn't know what to say to anybody" (Martin, 2018, p. 684). Studies from both Martin (2018) and Tracey and Hanham (2017) also reported sleep disturbances, which could be symptoms of alterations in arousal.

Participants in Liem and Kunst's (2013) study of traumatic stress following release connected some of their symptoms to the deprivation of autonomy experienced in prison. Many of these symptoms were labeled as institutionalized personality traits, but also seem to parallel traditional traumatic stress symptoms. One participant reported feeling so overwhelmed in the grocery store because of availability of choices he was so unaccustomed to that he started to cry uncontrollably. Another participant described having to make decisions as frustrating and reported that many find it easier to be in prison and allow someone else to make decisions for them (Liem & Kunst, 2013). These emotional reactions may be illustrations of negative alterations in mood. Similarly, one quote illustrates how former prisoners may also experience negative alterations in their cognition; the participant reported "When good things happened to me, I always thought that: 'Eventually this will be taken away from me.' I thought of freedom as a temporary thing" (Liem & Kunst, 2013, p. 336). However, these studies were qualitative and did not directly measure the relationship between loss of autonomy and traumatic stress. Despite this lack of research with former offenders, some research with other populations does support the link between loss of autonomy and traumatic stress.

One major source of support comes from a nationally representative study conducted in the Netherlands with 4,911 participants from randomly selected households across the country (Maas et al., 2019). Stressful events in childhood were associated with lower levels of autonomy, which was in turn significantly predictive of traumatic stress symptoms (Maas et al., 2019). Similar results have been found with smaller samples in the United States as well. For example, Vasilopoulou and colleagues (2020) found that

childhood trauma exposure had an indirect effect on complex PTSD symptoms via impaired autonomy. Others have also reported a comparable relationship between impaired autonomy and traditional PTSD symptoms in participants with trauma exposure (Karatzias et al., 2016; Koopman et al., 1994). Impaired autonomy has also been found to predict negative posttraumatic cognitions in addition to PTSD symptoms (Kolts et al., 2004). Therefore, there is existing empirical support for the hypothesis that loss of autonomy may result in posttraumatic stress symptoms.

Resource Loss

Like autonomy, the loss of access to resources in prison is inevitable. Modern support for Sykes' (1958) theory that this deprivation is painful comes from conservation of resources (COR) theory (Hobfoll, 1989), which asserts that people are innately motivated to acquire and protect valued resources, as they are essential to survival. "Resources" is an overarching term that refers to anything that has value in each culture or society at large. Internal resources may include important personal characteristics, such as self-control or self-esteem. External resources can include material items such as housing or finances, services such as health care, or conditions such as strong relationships and social support. Given the great deal of value and importance assigned to these resources, when they are lost, psychological distress is likely to occur. When this loss is sudden or rapid, traumatic stress symptoms may result. The loss of resources is so profoundly difficult not only because of their instrumental value, but also due to their symbolic value in a given cultural context. When faced with resource loss, one is motivated to find ways to regain these resources. However, COR theory posits that resource loss has a stronger negative

effect on psychological well-being than resource gain has a positive effect. A final principle of relevance from COR theory is that individuals must use their existing resources to prevent or recover from resource loss. As a result, those with fewer resources to begin with are at a disadvantage for future resource loss or gain. This can result in loss spirals, wherein an initial lack of resources can cause further losses due to an inability to cope (Hobfoll, 1989; Hobfoll & Lilly, 1993; Holmgreen et al., 2017). COR theory is highly relevant for formerly incarcerated populations, especially during reentry.

Several studies have indicated the importance of resources for positive outcomes relevant to justice-involved populations, but the primary focus is social support. Social support has been a well-established protective factor for reentry. Much of this support comes from studies that use a database from the Serious and Violent Offender Reentry Initiative (SVORI) from the National Institute of Justice (Lattimore & Visher, 2006). The SVORI database contains longitudinal data regarding serious and violent offenders' reentry outcomes which was collected from 69 different agencies. Using the SVORI database, Griffin and colleagues (2020) examined 1,074 offenders' outcome data regarding drug use over two waves of data collection. Results indicated that both emotional and instrument support from family reduced the odds of drug use. Similarly, Mowen and colleagues (2019) found that instrumental support from family reduced the likelihood of substance use, reincarceration, and self-reported offending behavior among their subsample of 1,002 participants. Taylor (2016) used all four waves available in the SVORI database with a total of 2,150 participants. Higher levels of emotional support from family were associated with reduced self-reported offending and likelihood of arrest for all three follow-up periods

(Taylor, 2016). Support for the role of social support as a protective resource exists outside of research with the SVORI databased; for example, Duwe and Johnson (2016) found that among 16,420 prisoners released from Minnesota state prisons between 2003-2007, visitations by community volunteers while incarcerated reduced rearrests, reconvictions, and new offense reincarcerations by 25%, 20%, and 31% respectively. Qualitative research has also provided support for how formerly incarcerated individuals rely on social support from family to succeed post-release (e.g., Western et al., 2015). Thus, resources predict outcomes for justice-involved populations.

However, minimal research has explicitly examined COR theory's principles in justice-involved populations. Resources tend to be used to predict outcomes such as recidivism, as outlined above, and therefore are more focused on acquisition or possession of resources rather than the loss of resources. Some qualitative research documents resource loss in justice-involved populations and provides substantial support for the prevalence of resource loss and the experience of resource spirals. The connection between this loss has not been well-connected to traumatic stress, however. Some researchers have called for the application of COR theory principles to correctional populations, especially following solitary confinement (Pforte, 2020), but quantitative support is still lacking. Below is a review of the literature that does exist which indicates the resource loss caused by incarceration can be traumatic.

Resource Loss as a Result of Imprisonment

While it is obvious how imprisonment reduces one's access to external goods and services, research shows that even more pronounced resource loss occurs in prison. As

mentioned above, social support is an important resource for reentry success. However, research shows that imprisonment poses a serious threat to prisoners' ability to access their social support. For example, Clark and Duwe (2017) examined the visitation records of a set of 2,817 inmates who had been released from Minnesota state prisons in 2013. Results displayed that the inmates' visitors lived on average 129 miles away from the facility they visited, and a significant reduction in number of visits was observed as visitor's distance increased. Additionally, the sample represented only 41% of the inmates released in 2013, as the other 59% never received a visit while incarcerated (Clark & Duwe, 2017). Visitation is not the only source of social support available during imprisonment. However, the ability to connect with family or friends via phone or video messaging is also substantially restricted. For example, in a qualitative study with 95 incarcerated women, participants reported on how the cost of phone calls or materials to write letters was stressful, especially given the extremely low wages earned from working in prison. Among participants, wages ranged from $0.19 to $0.52 per hour, but phone calls cost women $5.15 for 15 minutes and stamped envelopes cost $0.52. Cost is also associated with having to buy notepads and writing utensils. This mismatch between wages and costs of goods prevented them from staying in contact with their loved ones (Harner et al., 2017). This study also provides an example of a resource loss spiral, as the loss of finances and the means to make sufficient wages caused the loss of social support. This in turn could also cause a further loss of financial resources, as many prisoners rely on family members to send money (Harner et al., 2017).

The lack of access to social support while incarcerated can have implications for post-release as well. When one is unable to maintain healthy relationships throughout their sentence, it may be difficult to rebuild them upon release. A qualitative study with 36 formerly incarcerated persons found that participants experienced a great deal of strain in their personal and intimate relationships following release (Kriegel, 2019). Participants preferred not to engage meaningfully in their relationships with friends and family for many reasons, such as feeling stigmatized by them, feeling like a burden, or feeling that others expected something in return for support. Additionally, some intimate relationships were unhelpful for rehabilitation because they encouraged drug use or other behavior that could increase risk of recidivism. Thus, many of the participants had to acquire the resource of social support elsewhere. Results indicated that participants instead sought support from strangers or professionals (Kriegel, 2019). However, this may vary by gender and racial identity. One study with 395 prisoners scheduled to be released from prison within 6 months found that men had more negative social support, which included social network members who were unsupportive or had negative influences on participants such as encouraging drug use (Pettus-Davis et al., 2018). However, racial minority participants were more likely to report positive social support and anticipated more social support upon release (Pettus-Davis et al., 2018). Similarly, bisexual and gay former offenders have described how rejection from family or peers due to their sexual orientation can complicate the reentry process and leave them with little support during reintegration (Harvey et al., 2021). Like research with incarcerated individuals, resource loss spirals may be likely to continue post-release if social support is lost. Strickland (2016) interviewed 20 formerly

incarcerated men and found that social support was important for acquiring other needed resources such as gainful employment. Thus, if one experienced the loss of social support, it may increase the likelihood that they lose other important resources.

In addition to the loss of social support, imprisonment causes the loss of material resources including money, financial stability, health care, and more. Glidden and Brown (2017) conducted a study comparing a group of prisoners to a sample of the public and found that incarceration predicted less asset accumulation, reduced financial security, and worse financial literacy and knowledge. Within the incarcerated sample, younger age, minority status, and education level were associated with poor financial planning, use of predatory lenders, and less financial knowledge. White inmates had significantly more asset accumulation than non-White inmates (Glidden & Brown, 2017). Additionally, homelessness is far more common among justice-involved populations than the public. Greenberg and Rosenheck (2008) report that among an incarcerated sample, the rate of homelessness in the year prior to arrest was four to six times the rate of the public. The loss of financial or housing resources is a very common precipitant for resource spirals, and often results in returning to prison which triggers further resource loss. For example, in a qualitative study of 83 incarcerated women in Canada, 56% reported that homelessness following previous incarceration contributed to their recidivism (Martin et al., 2012). Services are also a lost resource while in prison. The most consequential loss is that of quality health care. While prisoners do have access to medical care, it is not perceived as quality. Qualitative studies have revealed that incarcerated individuals perceive medical care to be a "rip off," and feel that the medical professionals in prison do not take inmates'

concerns seriously (Harner et al., 2017). Additionally, one study found that over 70% of participants reported avoiding the use of medical services because of the $5 co-pay, which is perceived to be expensive given the extremely low wages offered from jobs in prison (Wyant & Harner, 2018). This again represents a resource loss spiral, wherein the loss of financial resources causes the loss of other important services.

Losing financial resources while imprisoned has monumental consequences post-release. Harper and colleagues (2021) conducted a literature review of 31 articles regarding the impact of justice-system involvement on debt. Results show that legal financial obligations (LFOs), such as court-frees are the most common form of debt among justice-involved populations. LFOs represent another example of resource loss spirals following incarceration. Among the articles reviewed, LFOs were associated with family strain, difficulty finding housing, giving up basic needs in order to make payments, and an inability to make career advances. In addition, LFOs were found to cause long-term debt and damage credit scores. Similarly, child support debt was common, and the inability to make payments can result in reincarceration. Importantly, research has also demonstrated that Black individuals are more likely to owe debt and have it sent to collections (Harper et al., 2021). Thus, incarceration has important consequences on one's financial resources.

Finally, imprisonment can reduce access to service-based and housing resources post release. For example, one qualitative study with 18 formerly incarcerated women found that participants reported having a lack of knowledge of the resources available to them (Salem et al., 2021). They reported uncertainty of how to obtain important resources such as health insurance and a lack of support from the criminal justice system broadly in

obtaining the resources needed for reentry. Similarly, participants reported not having access to technology to facilitate their attempts to gain further resources (Salem et al., 2021). This is again an example of a resource loss spiral as a direct result of incarceration. Another qualitative study with 36 prisoners who had been released from Drug Recovery Wings in prisons in England and Wales found that a lack of access to resources resulted in poor outcomes in substance use six months after release (Lloyd et al., 2019). Specifically, employment and housing resources were lacking, and participants reported that this had direct influence on their relapse. Participants also described how the housing available to them was at times worse than prison. Interviews had also taken place before participants were released, and results revealed how the pain caused by resource loss becomes more pronounced after release. For example, one participant stated, "The problem for me has never been in here, it's always when I'm faced with reality when I leave them gates" (Lloyd et al., 2019; p. 112). In sum, the loss of resources including social support, financial stability, housing, and services are to be expected after incarceration and may be exacerbated for racial, gender, and sexual minorities. The existing support for traumatic stress following resource loss due to incarceration is reviewed next.

Resource Loss & Traumatic Stress

Unfortunately, few studies if any have directly correlated resource loss to traumatic stress symptoms among justice-involved populations. Some have connected trauma exposure and various resources. For example, Pettus-Davis (2014) conducted a study of 165 male prisoners and found that those with trauma exposure were less likely to have quality social support. Similarly, Greenberg and Rosenheck (2008) found that inmates who

had previously experienced homelessness were more likely to report trauma exposure. While these studies provide evidence of a connection between trauma and resources, thus supporting COR theory to some extent, they do not support how this occurs post-release. Additionally, qualitative literature is lacking, as many studies do not ask or report the psychological consequences of resource loss. More typically, they focus on the impact of resource loss of recidivism or reentry outcomes. However, there is a small collection of studies that do seem to provide support for how resource loss as a result of incarceration may cause traumatic stress. Several studies provide evidence that resources can have an impact on mental health defined more broadly or measured, especially regarding social support.

For example, among 943 incarcerated men in Spain, more social support was associated with decreased levels of stress and depression (Wolff & Sánchez, 2019). Research has also supported this link post-release. Using the SVORI dataset, Wallace and colleagues (2016) found that post-release support from family was associated with better mental health outcomes, with no significant variation in the relationship observed for different racial groups. Mental health was measured with an overall mental health scale that assessed well-being, distress, functioning, and vitality (Wallace et al., 2016). Similarly, Valera and Boyas (2019) conducted a study with 225 formerly incarcerated Black and Latino men, finding that perceived social support, community support, and spiritual support were all associated with better mental health outcomes. In this study, mental health was captured with a general psychological well-being measure as well as a symptom inventory (Valera & Boyas, 2019). The most direct support for COR theory comes from a

2010 study conducted by Listwan and colleagues. Using a sample of 1,616 recently released male inmates, they found that social support was associated with a reduction in posttraumatic cognitions and PTSD symptoms (Listwan et al., 2010). Thus, when social support is threatened and strained by incarceration, there is evidence to suggest that this can cause traumatic stress.

The loss of financial, material, and service resources may also impact mental health and cause traumatic stress symptoms. The clearest support for this comes from a latent class analysis of a sample of 403 women on probation and parole (Golder et al., 2015). Results suggested three classes of women based on level of distress that represented 39.8%, 34.9%, and 25.2% of the sample respectively: low distress, medium distress, and high distress. Several measures of mental health, relevant outcomes, and resource loss were included in the analysis. When comparing the three classes, the high distress class had significantly more severe PTSD symptoms with 76.7% of the women in the class meeting full criteria for PTSD. Additionally, the high distress class had a significantly higher proportion of homelessness, the least social support, and the worst levels of resource loss when compared to the other classes. However, this study is limited in that most of the sample was on probation (75.6%) rather than parole and, therefore, it is unlikely that the resource loss measured was because of incarceration. The sample did have an average of 47 days spent in a controlled environment in the 12 months prior to the study, but details about the environment were not provided (Golder et al., 2015). Despite these limitations, this study does provide support for the connection between resource loss and traumatic stress in justice-involved populations.

Finally, qualitative research has shown financial and material resource loss can cause extreme stress, with participants reporting symptoms similar to traumatic stress responses. For example, Halushka (2020) conducted a 17-month ethnographic research study along with in-depth interviews with 45 formerly incarcerated men. Results indicated that the process of accessing needed resources was extremely taxing on participants' mental health and functioning. Participants needed to access resources because of the loss they experienced as a result of incarceration. In order to gain these resources, the men had to navigate complicated and bureaucratic systems which is extremely time consuming. Participants referred to navigating these systems as a full-time job, with one man describing it as being "professionally poor" (Halushka, 2020, p. 244). The impact of extending such time and energy to gaining back lost resources was emotionally taxing on participants. Although traumatic stress is not explicitly mentioned, Halushka (2020) described symptoms that appeared to align with the alterations in mood and cognitions symptom cluster of PTSD. As a result of the stress of navigating complex systems, "former prisoners become vulnerable to interpreting what might be minor bureaucratic hassles as personal attacks or grave injustices" (Halushka, 2020; p. 242). Additionally, he described how participants were more at risk of emotional outbursts and constant feelings of irritability, which may be examples of reactivity symptoms of PTSD. Similarly, a qualitative study with 131 offenders revealed that having LFOs was highly distressing, and negatively impacted participants' emotional stability (Pleggenkuhle, 2018). Overall, although limited, some existing research does support the hypothesis that the resource loss caused by incarceration can result in traumatic stress.

Personal Safety Anxiety

Prison can be a highly volatile and unsafe environment, with high rates of exposure to indirect and direct victimization (Daquin et al., 2016; Dierkhising et al., 2014; Schappell et al., 2016). However, even when not exposed to abuse or victimization while incarcerated, most prisoners still report a general sense of mistrust of others and fear for their safety, especially in vulnerable areas of facilities such as showers, segregation units, or when interacting with many other inmates at a time (O'Donnell & Edgar, 1999). As introduced in chapter I, the prison environment can be one of CTS for inmates, as the feelings of unsafety are constant and unavoidable. Some researchers have proposed specific disorders and diagnostic criteria for when CTS reactions become extreme, such as complex PTSD (CPTSD), which is characterized by exposure to repeated traumatic events that results in somatization, dissociation, and affective changes (Herman, 1992). However, CPTSD may not fully capture the impact that the violent prison environment has on individuals; Eagle and Kaminer (2013) argue that CTS is distinct from CPTSD due to the difference between abuse in personal relationships and violence that is "faceless and unpredictable, yet pervasive and substantive" (p. 89). While abuse and victimization are possible in prison, the focus of this study is the general environment of prison, thus highlighting the relevance of CTS over CPTSD.

This ongoing nature of perceived threat from CTS exposure can result in personal safety anxiety. Personal safety anxiety, introduced by Calogero and colleagues (2020) for use in Objectification Theory, is the experience of worry related to one's physical security as a result of an unspecified threat. Earlier research has supported this idea despite not

explicitly labeling the construct as personal safety anxiety. For example, Davidson and colleagues (2016) found perceived safety to negatively predict anxiety following street harassment in a sample of women. Given that the construct of personal safety anxiety was only recently introduced, little research of its consequences or antecedents exists, and none has been conducted with justice-involved populations. Calogero and colleagues (2020) found personal safety anxiety to predict restricted freedom of movement such as intentionally changing one's routine or activities or avoiding strangers while alone out of fear. One study found personal safety anxiety to predict compliance with COVID-19 precautions (Earle et al., 2021). Thus, initial studies do provide support for how it can impact behavior. Despite the lack of research explicitly examining personal safety anxiety in prisoners, there is some indirect evidence. This is reviewed below.

Personal Safety Anxiety as a Result of Imprisonment

Safety concerns because of incarceration have been extremely well-documented in qualitative studies with former offenders. Participants tend to label this anxiety in different ways, and one typical description offered is that of paranoia. In a qualitative study with 29 formerly incarcerated individuals, the theme of paranoia was common (Binswanger et al. 2011). Participants reported that they avoided crowds as much as possible because it is impossible to watch everyone at once, a safety behavior once used during incarceration. This is similar to the freedom of movement construct that was related to personal safety anxiety in the study described above (Calogero et al., 2020). Additionally, one participant reflected that his paranoia became worse after release, thus supporting the salience of personal safety anxiety once removed from the environment (Binswanger et al., 2011).

Despite the sample being diverse (38% Black, 34% White, 17% Latino, and 10% American Indian), no discussion of role of oppression was included. It is possible that the paranoid in social situations described above would have been more pronounced among the participants of color, especially as a result of increased surveillance in communities of color (e.g., Garcia-Hallet, 2019). Additionally, the primary focus of the study conducted by Binswanger and colleagues (2011) was the healthcare experiences of former offenders. Thus, some important mental health or psychological outcomes may have not been reported.

In a similar qualitative study with 25 formerly incarcerated individuals, distrust of correctional officers and fearing other inmates were cited as stressors of incarceration (Porter, 2019). Participants clearly described how prison is characterized by CTS and results in personal safety anxiety. For example, one participant reported he had an "overwhelming sense of anxiety" and was "ready for action at all times" (Porter, 2019, p. 5). Participants also discussed the uncertainty and unpredictability of this threat, especially when they were unfamiliar with the environment. Additionally, this anxiety was a result of the general environment rather than direct victimization, as only two participants reported abuse (Porter, 2019). However, the participants did not reflect on how this environment affected them post-release and therefore is limited in its applicability. Additionally, despite the sample being predominantly Black, no discussion of how oppression may have impacted their experience was included. However, it does still provide very strong support for the experience of personal safety anxiety in the context of imprisonment.

Further strong support comes from a previously discussed study from Harris and Levenson (2020). Their qualitative study with 74 formerly incarcerated sex offenders found that safety was a major organizing theme among participants. Given the extreme stigma faced by sex offenders, their anxieties appeared to be more specific to their offense. For example, participants reported fearing that they would be exposed publicly and experience vigilantism. They were fearful that if others found out they were a sex offender, they could be at risk to be killed or harassed. Their anxiety also prompted restriction of movement, including avoiding relationships or finding new hobbies that might involve other people. Additionally, this anxiety was ever present and reported as an important aspect of their life. One participant stated, "you have to have a heightened state of awareness constantly" (p. 16). Although many of the themes were specific to sex offenders, one participant points out that "I believe that we all, offenders, have to live the rest of our lives with a low heat setting of paranoia" (Harris & Levenson, 2020, p. 16). In support of this participants' statement, studies of offenders without sexual offenses have found physical safety concerns. For example, in a longitudinal, qualitative study of 62 older preparing for release, participants reported feeling anxious about staying in half-way house-style shelters due to threats to physical safety such as being robbed by other residents. This anxiety was so extreme that some participants reported they would rather have finished their full sentence length in prison (Forsyth et al., 2015).

A final qualitative study that illustrates the salience of personal safety anxiety in formerly incarcerated individuals has also been discussed previously. Martin (2018) conducted an in-depth, ethnographic study of the reentry experiences of 15 formerly

incarcerated men. Many of the participants experienced uneasiness or discomfort in crowds or when people stood behind them. They described that prison engendered instincts to always keep them alert and aware of their surroundings (Martin, 2018). Thus, although not directly labeled, the distress experienced by participants seems to provide support for personal safety anxiety as a result of imprisonment. Also worth mentioning is that some studies have explored the role of perceived safety of the prison environment while offenders are still incarcerated. However, rarely, if ever, are these connected to mental health symptoms or post-release outcomes. For example, in a sample of 207 incarcerated juvenile offenders, perceived safety of the environment correlated with trust, perceived support, and perceived fairness (van der Laan & Eichelsheim, 2013). Similarly, in a sample of 386 incarcerated youth, higher perceived safety predicted less institutional misconduct (Lujan & Fanniff, 2019). Additionally, in adult samples, perceived safety has been found to correlate with more positive relationships with other prisoners (Bosma et al., 2020) and better psychological well-being (Van Ginneken et al., 2019). Since these studies only utilize currently incarcerated samples, they are limited in their support for personal safety anxiety post-release but provide support for the importance of the construct. In sum, personal safety anxiety is a likely outcome following incarceration. However, the role of oppression has not been well attended to. The studies that provide support for its existence also suggest that it can be a predictor of traumatic stress. This literature is reviewed next.

Personal Safety Anxiety & Traumatic Stress

To date, no research has linked the construct of personal safety anxiety to traumatic stress symptoms because the construct is relatively new to the literature. Theoretical

proposals do highlight how being exposed to unsafe, unstable environments are likely to lead to symptoms of traumatic stress, such models of CTS (Eagle & Kaminer, 2013) or CPTSD (Herman, 1992). One recent study from Facer-Irwin and colleagues (2021) found that the prevalence of CPTSD was higher than the prevalence of PTSD in a sample of 221 prisoners in England. However, this study was conducted while participants were still incarcerated and therefore did not capture how traumatic stress may persist post-release. Additionally, McCann and colleagues (1988) identify that safety is a core self-schema that can be threatened by traumatic experiences. Specifically, beliefs about the ability to protect or avoid harm may be altered and can result in self-schemas of weakness or vulnerability. Schemas regarding others are also changed following trauma, and others are viewed as dangerous (McCann et al., 1988). Also, a similar construct, anticipatory anxiety, has been identified as important in the treatment of PTSD symptoms in veterans (Fala et al., 2016). Anticipatory anxiety is a psychological reaction to continuous exposure to unsafe environments where negative events are unpredictable and is thus theoretically like personal safety anxiety. One study found that this type of anxiety was present in patients with PTSD but not those with generalized anxiety disorder (GAD), highlighting how it may be uniquely associated with symptoms of traumatic stress (Grillon et al., 2009). Thus, there is some preliminary support of the connection between personal safety anxiety and traumatic stress.

In qualitative literature that supports its existence in formerly incarcerated populations, there are also themes of symptoms of traumatic stress connected to personal safety anxiety. The clearest connection that has been offered is its prediction of alterations

of arousal symptoms, especially hypervigilance. In Martin's (2018) ethnographic study with reentering men, he explicitly comments that the participants' "hypervigilance was a product of periods in prison where they were forced to be constantly on guard to remain safe" (p. 681). Participants in Harris and Levenson's (2020) qualitative studies also reported similar hypervigilance with more extreme examples. For example, one participant reported that he would always "look over [his] own shoulders to see who's behind [him]" (Harris & Levenson, 2020, p. 13). This sample also reported that their personal safety anxiety led to symptoms of avoidance, including avoidance of relationships or public spaces in general. One participant reflected on this connection between personal safety anxiety and avoidance: "How can we go anywhere? I mean, you get out, you're afraid. We got some guys [in group] that get out and they're afraid to go grocery shopping" (Harris & Levenson, 2020, p. 12). Finally, results indicated that participants' personal safety anxiety also resulted in negative alterations in cognition and mood, including lack of positive affect and maladaptive beliefs regarding the safety of the world (Harris & Levenson, 2020).

Qualitative literature has also connected personal safety anxiety to reexperiencing symptoms. In a study of 31 formerly incarcerated older adults, one participant reported experiencing nightmares because of his anxiety. He states, "in prison, you always think somebody's going to hurt you, so sometimes I have them little nightmares of fights and stuff like that, shanks and knife fights" (Smoyer et al., 2019, p. 232). Results from Liem and Kunst's (2013) study also link personal safety anxiety to PTSD symptoms. Participants reported feeling panicky in crowded places or in small spaces, such as the subway. Therefore, they engaged in avoidance behavior or exhibited hypervigilance when in public

places. Also, negative alterations in mood were apparent, especially emotional numbing. One participant reflected that prison requires a strong front and therefore prevents genuine emotional expression, which he felt stayed with him after release (Liem & Kunst, 2013). Thus, albeit limited, there is some support that personal safety anxiety engendered by incarceration can predict symptoms of traumatic stress.

Summary

Imprisonment is a psychologically taxing experience. Qualitative literature has shown how many former prisoners conceptualize their experience in prison as traumatic, resulting in traumatic stress symptoms following release. Such traumatic stress may be a direct result of the deprived environment of prison. Researchers have also proposed theoretical accounts of how prison is traumatic. Specific consequences of incarceration that may lead to traumatic stress include stigma, reductions in autonomy, resource loss, and personal safety anxiety. Each of these factors appear to be inevitable aspects of confinement and yet are extremely stressful, especially post-release. However, minimal research has confirmed this relationship quantitatively nor in a way that examines any potential role of oppression or discrimination based on racial, gender, or sexual minority status. Additionally, research that has examined the impact of the environment of prison tends to focus on currently incarcerated populations rather than examining impacts post-release. Thus, this study offers a model explaining the mechanisms for imprisonment leading to symptoms of traumatic stress in formerly incarcerated individuals.

Based on leading theories in the literature, four hierarchical regression models were examined that combine relevant sociological, criminological, and psychological theories.

The hypothesized models posit that the psychological consequences of the deprived environment of prison predict traumatic stress symptoms. These models are based off of Sykes' (1958) pains of imprisonment, as well as qualitative research documenting traumatic stress responses following release from prison (e.g., Liem & Kunst, 2013). Additionally, several theoretically relevant variables were explored as potential covariates and included in each model to eliminate potential confounding influence of trauma at other points in the lifespan and justice system involvement (see Figure 1). Cumulative trauma from before incarceration as well as trauma experienced during incarceration were included as control variables, as some have hypothesized that posttraumatic stress reactions from incarceration are a result of retraumatization (e.g., Haney, 2001, 2012). Based on existing literature reviewed in the previous two chapters, it is highly likely that post-incarceration traumatic stress is informed by both retraumatization and the deprived environment of prison. Given the lack of attention to the latter, the current study sought to isolate its impact on PTSD symptoms post-release.

Research Questions & Hypotheses

Research Question 1: How do the pains of imprisonment relate to PTSD symptoms in formerly incarcerated individuals?

> **H1:** Stigma, as measured by the internalized stigma subscale of the Self-Stigma of Individuals with Criminal Records scale (SSICR; Moore et al., 2016), will positively and significantly relate to PTSD symptoms, as measured by the PTSD Checklist for the *DSM*-5 (PCL-5; Weathers et al. 2013).

H2: Autonomy, as measured by the autonomy subscale of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015), will negatively and significantly relate to PTSD symptoms, as measured by the PCL-5 (Weathers et al., 2013).

H3: Resource loss, as measured by the Conservation of Resource – Evaluation (COR-E; Hobfoll & Lilly, 1993), will positively and significantly relate to PTSD symptoms, as measured by the PCL-5 (Weathers et al., 2013).

H4: Personal safety anxiety, as measured by the Personal Safety Anxiety and Vigilance Scale (PSAVS; Calogero et al., 2020), will positively and significantly relate to PTSD symptoms as measured by the PCL-5 (Weathers et al., 2013).

H5: The pains of imprisonment will positively and significantly relate to PTSD symptoms collectively, and each pain will predict PTSD above and beyond the other pains.

Research Question 2: Does the experience of oppression qualify the relationship between the pains of imprisonment and PTSD symptoms?

H6: Oppression, as measured by the Discrimination subscale of the Cumulative Trauma Scale (Kira et al., 2008), will moderate the relationship between stigma and PTSD symptoms.

H7: Oppression, as measured by the Discrimination subscale of the Cumulative Trauma Scale (Kira et al., 2008), will moderate the relationship between autonomy and PTSD symptoms.

H8: Oppression, as measured by the Discrimination subscale of the Cumulative Trauma Scale (Kira et al., 2008), will moderate the relationship between resource loss and PTSD symptoms.

H9: Oppression, as measured by the Discrimination subscale of the Cumulative Trauma Scale (Kira et al., 2008), will moderate the relationship between personal safety anxiety and PTSD symptoms.

CHAPTER III

METHODOLOGY

Given the gaps identified in the literature and the hypotheses as presented in Chapter I and II, this chapter summarizes the methods utilized in the present study. An overview of the sample, recruitment procedures, survey process, measures, and statistical analyses are included. Included in Appendices A through G are all of the measures used for reference.

Participants

All 119 participants in the study were formerly incarcerated individuals aged 18 or older, with a history of incarceration in a state or federal prison for at least six months. Additionally, time since release was at least one month in order to align with PTSD criteria per the *DSM-5* (APA, 2013). A summary of the demographics of the sample are presented in Table 1. The age of the sample ranged from 22 to 85 (M = 43.41, SD = 12.80). Most participants identified as men (n = 86, 72.3%). One participant identified as a transman (0.8%), and the rest of participants identified as women (n = 32, 26.9%). The sample was also predominantly White (n = 101, 84.9%), followed by those that identified as Black (n = 12, 10.1%), and Native American (n = 4, 3.4%). Two participants reported their race as other (1.6%) and described their identity as "Mexican" and "Italian, Egyptian." The majority of the sample identified as non-Hispanic (n = 103, 86.5%), and 15 individuals

identified as Hispanic (12.6%). One participant did not report their ethnicity. Most participants identified as heterosexual (*n* = 94, 79%), and other identified sexual orientations included lesbian/gay (*n* = 10, 8.4%), and bisexual (*n* = 9, 7.6%). Six individuals identified as "other" but did not specify their sexual orientation (5%). Most participants reported current full-time employment (*n* = 70, 58.8%), followed by those that reported being unemployed (*n* = 26, 21.8%), employed part-time (*n* = 21, 17.6%), current student status (*n* = 3, 2.5%), or retired (*n* = 5, 4.2%). The education level of the sample varied widely, and most participants had at least earned their high school diploma/GED (*n* = 100, 84%).

Reported income levels was varied in the sample. The largest percentage of participants reported earning greater than $40,000 per year (*n* = 34, 28.6%), followed by those earning between $20,000-$30,000 per year (*n* = 27, 22.7%), those earning less than $10,000 per year (*n* = 25, 21%), those earning between $10,000-$20,000 per year (*n* = 20, 16.8%), and those earning between $30,000-$40,000 per year (*n* = 12, 10.1%). One participant did not report their estimated annual income. Similar variety was observed for perceived socioeconomic status; the largest percentage of participants reported they experience a difficult time buying things they need (*n* = 38, 31.9%), followed by having just enough for the things they need (*n* = 37, 31.1%), or no problem buying the things they need (*n* = 36, 30.3%). Few participants reported having enough money to buy anything they need or want (*n* = 8, 6.7%).

The average length of incarceration for participants was 86.16 months (*SD* = 97.43, range = 7 – 478). On average, participants had been out of prison for 37.59 months (*SD* =

47.94, range = 1 – 336). Most respondents reported they had spent time in solitary during their incarceration (n = 85, 71.4%). Participants reported their longest time spent in solitary confinement, which averaged 124.71 days (SD = 279.64, range = 0 – 2,372).

Procedures

First, approval was obtained from the University of Akron's Institutional Review Board. Participants were recruited through online advertisements. The researcher distributed advertising information about the study and instructions for participation on social media outlets as well as to organizations who serve formerly incarcerated populations (see Appendix H). Organizations targeted had an explicit mission statement or goal to facilitate reentry or support those returning from prison. As an incentive, a raffle was offered using $200 of available funds. A total of 20 gift cards in the amount of $10 were awarded randomly. Participants completed the study online anonymously using Qualtrics. Participants were first presented with informed consent, which outlined the purpose of the project, any potential risks or benefits, confidentiality, participants' right to withdraw at any point, and contact information. Upon consenting to the project, participants were directed to the survey. In the demographics questionnaire, if any participant did not meet criteria for the study, they were screened out and thanked for their willingness to participate. Those who met criteria were directed to the rest of the measures.

Measures

Descriptive and Potential Control Variables

Demographics. Demographic information was collected to help describe the sample and ensure inclusion criteria was met. Questions that measured inclusion criteria

were presented first so that participants who did not meet criteria for the study were screened out before accessing other demographic questions. Factors collected included age, race, ethnicity, sex, gender, sexual orientation, income, socioeconomic status (SES), and education level. Additionally, criminal history information was collected including time since most recent release and length of most recent incarceration.

Trauma history. The Brief Trauma Questionnaire (BTQ; Schnurr et al., 1999) was used to assess participants' history of trauma exposure. The BTQ is a 10-item measure that was derived from a clinical interview that assesses trauma exposure. Respondents simply indicate "yes" or "no" to ten individual potentially traumatic events. Sample questions include "Have you ever been in a serious car accident, or a serious accident at work or somewhere else?" and "Have you ever been attacked, beaten, or mugged by anyone, including friends, family members, or strangers?" The number of "yes" answers is summed into a frequency score, such that higher scores are indicative of more trauma exposure. The measure also asks participants about fear of death or injury or actual injury for each event, because the scale was original developed to assess Criterion A of PTSD in an earlier version of the DSM. Since the current study is not assessing severity of trauma, these questions were not administered for each item. Additionally, for each item, participants were asked to indicate if they experienced the potentially traumatic event before, during, and after prison given the theoretical relevance of each of these time periods (see Figure 1).

The BTQ was developed as a derivation of the Brief Trauma Interview (BTI; Schnurr et al., 1995). The questions were specifically designed to assess for Criterion A

traumatic events based on the *DSM-IV* criteria (APA, 1994). While some changes were made to Criterion A between the *DSM-IV* (APA, 1994) and the *DSM-5* (APA, 2013), it has not significantly been altered to include additional events not measured by the BTQ (American Psychiatric Association Division of Research, 2013). The BTQ has been found to have good validity, as the presence or absence of traumatic events and the number of traumatic events endorsed on the measure, have been found to predict PTSD symptoms and symptom severity (Schnurr et al., 2002). Reliability has also been established to be effective; in its initial development, interrater reliability was found between the self-report measure and the clinical interview, with Kappa coefficients ranging from .60 to 1.00 (Schnurr et al., 2002). The initial development of the BTQ was conducted with a sample of adult men recruited from Veterans Affairs and were predominantly White (99%; Schnurr et al., 2002). However, the measure has been found to be reliable and valid in diverse populations as well (e.g., Kubzansky et al., 2014; Sumner et al., 2016). Given this is a checklist measure, no reliability estimates were able to be obtained in the current sample since there was not interview data to use for interrater reliability, nor a longitudinal design that would allow for test-retest reliability estimates.

Oppression-based trauma. In order to account for the potentially traumatic impact of experiencing discrimination, the discrimination subscale from the Cumulative Trauma Scale – Short Form (CTS-S; Kira et al., 2008) was used. The CST-S is a 36-item measure that assesses seven different types of stressors. Only the discrimination subscale was used because the BTQ as described above will capture other forms of trauma exposure. The discrimination subscale is made up of 5 items that assess exposure to collective identity

trauma based on different social identities, including race, gender, and sexual orientation. The CTS-S allows for 5 different measures, including occurrence, frequency, negative appraisal, positive appraisal, and age at first occurrence. The current study will only use the occurrence, such that participants will respond to each item with "yes" or "no." Sample items from the discrimination subscale include "I was put down, threatened, or discriminated against by some others' negative attitudes, stereotypes, or actions because of my ethnicity, race, culture, religion, or national origin" or "My race has a history of being oppressed, discriminated against, or threatened by genocide." Participants' score on the CTS-S discrimination subscale will be added to their score on the BTQ to result in a total trauma exposure frequency score for pre-prison, during incarceration, and post-release where higher scores will represent higher levels of trauma exposure.

The CTS-S has shown strong internal reliability and validity. The measure was formulated based on the development-based trauma framework, which includes both criterion A traumas and non-criterion A stressors (Kira et al., 2008). The measure was originally developed in a sample of 501 Iraqi refugees in Michigan (Kira et al., 2008). In its initial development, Cronbach's alpha was .85 (Kira et al., 2008). Furthermore, it has demonstrated good evidence of predictive validity, as scores on the CTS-S have been found to correlate with PTSD, cumulative trauma-related disorders, and poor health (Kira et al., 2008). The measure has also demonstrated divergent validity through negative correlations with sociocultural adjustment and futuristic orientation (Kira et al., 2008). Samples with culturally diverse groups have also provided acceptable reliability coefficients ranging between .80 and .92 (Kira et al., 2008, 2010). For example, Kira and colleagues (2021)

found a reliability coefficient of .89 in a sample of 1,374 adults across seven Arab countries. A United States-based sample of 399 participants with diverse education levels and ages had a reliability coefficient of .98 (Kira et al., 2012). Other United States based samples have obtained similarly adequate reliability coefficients, such as a sample of emergency room nurses which reported an alpha of .73 (Gillespie & Gates, 2013). However, no studies have yet used the measure with justice-involved populations. Given a simple frequency score was utilized for the current study, no reliability estimates were able to be obtained since there was not interview data to use for interrater reliability, nor a longitudinal design that would allow for test-retest reliability estimates.

Study Variables

Stigma. The Self-Stigma of Individuals with Criminal Records scale (SSICR; Moore et al., 2016) is an adaptation of the Self-Stigma of Mental Illness scale (SSMI; Corrigan et al., 2006). The SSICR measures the process of self-stigma via three subscales: perceived stigma, stereotype agreement, and internalized stigma. Each subscale contains nine items that contain stereotypes about individuals with criminal records. Participants rate their agreement with each item on a Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Within the perceived stigma subscale, participants are asked to rate their agreement about how the public perceives those with criminal records ("The public thinks most people with a criminal record are…"). Within the stereotype agreement subscale, participants are asked to rate their agreement about how they perceived those with criminal records ("I think most people with a criminal record are…"). Within the internalized stigma subscale, participants are asked to rate their agreement about how they view themselves

("Because I have a criminal record, I am…"). The items for each subscale are the same apart from the stem and include nine negative stereotypes. For example, items include "cannot be trusted," "are unwilling to get or keep a regular job," "are dangerous," and "cannot be rehabilitated." Items are averaged to obtain both subscale scores. Higher scores indicate higher levels of self-stigma. Only the internalized stigma subscale was used in the current study. Theoretically, internalized stigma is more likely to be related to PTSD symptoms given the personalization of stigmatizing messages. Simply perceiving stigma that exists or agreeing with stereotypes about other people has minimal personal value and therefore is unlikely to cause distress. However, when one agrees with these negative messages about themselves, the potential for a traumatic stress response is more likely.

The SSICR has demonstrated good reliability and validity in samples of inmate populations. The SSICR was developed by adapting the SSMI (Corrigan et al., 2006) using research on offender stereotypes (Moore et al., 2016). One item was dropped regarding offenders being to blame for their behavior, as the researchers argue taking responsibility or blame for criminal behavior is valued in this population. Convergent and divergent validity was established as scores on the perceived stigma subscale significantly correlated with stereotype agreement, internalized stigma, and anticipated stigma (Moore et al., 2016). Alpha levels of .92, .84, and .73 were reported for the perceived stigma, stereotype agreement, and internalized stigma subscales respectively (Moore et al., 2016). However, few studies have used the measure yet with non-incarcerated samples. One article reported an alpha of .86 for the internalized stigma subscale in a sample of 198 individuals with a felony and/or misdemeanor conviction (McWilliams & Hunter, 2021). However, the study

did not use the other two subscales. Thus, the small existing base of evidence suggests that the SSICR and its internalized stigma subscale have acceptable internal reliability and validity and is appropriate for use with justice-involved populations. In the current study, the alpha level for the internalized stigma subscale of the SSICR was .93.

Autonomy. The Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015) was used to measure participants' sense of post-incarceration autonomy. The scale is 24 items and contains three subscales that measure the basic constructs from SDT (Ryan & Deci, 2000): autonomy, competence, and relatedness. Given the focus in this study on autonomy, only this subscale score was used. The autonomy subscale is made up of 8 items to which participants respond on a Likert-type scale from 1 (*not true at all*) to 5 (*completely true*). Four items measure need satisfaction, such as "I feel a sense of choice and freedom in the things I undertake." Four items measure need frustration such as "I feel forced to do many things I wouldn't choose to do." These latter four items are reversed scored and all eight items are averaged into a total score, with higher scores representing higher levels of autonomy and autonomy satisfaction. In order to capture the impact of incarceration on post-release autonomy, a stem of "As a result of incarceration…" was added to each item.

The BPNSFS has shown strong psychometric properties. The scale was developed in a set of diverse samples, with participants from Belgium, China, Peru, and the United States participating. The Cronbach's alphas for the autonomy subscale ranged from .77 to .82 between the four samples, demonstrated sufficient reliability (Chen et al., 2015). Furthermore, strong validation was found for a six-factor model using robust factor

analysis, and this model was cross-culturally equivalent between the four diverse samples; additionally, unique correlations were found with both positive and negative outcomes such as mental health symptoms and life satisfaction, thus establishing convergent and divergent validity (Chen et al., 2015). Additional research using the BPNSFS has provided further evidence of its reliability. For example, Bélanger and colleagues (2019) conducted a set of three studies using the measure and reported alphas ranging from .73 to .89. Finally, the autonomy subscale of the BPNSFS has been used in justice-involved populations. For example, van der Kaap-Deeder and colleagues (2017) used only the autonomy subscale in a sample of 156 Belgian prisoners and reported a reliability coefficient of .86. In the current study, the alpha level for the autonomy subscale of the BPNSFS was .75.

Resource loss. The Conservation of Resources-Evaluation (COR-E; Hobfoll & Lilly, 1993) is a list of 74 resources to which participants rate the extent of their recent gain and loss of on a Likert-type scale from 1 (*not at all*) to 5 *(large extent*). Given the present study's focus on resource loss caused by incarceration, participants were only asked to rate recent resource loss. Additionally, instructions were modified to prompt participants to rate how incarceration has specifically caused resource loss in their life. Specifically, participants were asked, "To what extend have you lost any of the following things as a result of incarceration?" The COR-E is made up of eight subscales with varying numbers of items: interpersonal (21 items), personal (20 items), material (20 items), work (12 items), health (5 items), children (5 items), time (4 items), and meaning (3 items). For each subscale, items are averaged for a subscale score. For the current project, only the interpersonal and material subscales were used and averaged into one score. The

interpersonal subscale was chosen because of the clear importance of social support and other interpersonal resources among justice-involved populations. The material subscale was chosen because it aligns well with Sykes' description of the deprivation of goods and services (1958).

The COR-E was developed by asking groups of college students and community members to identify important resources, which they then collaboratively finalized a list of broach resources (Hobfoll & Lilly, 1993). The final list included 74 resources and factor analysis revealed strong multifactor solutions. In the initial development, test-retest evidence was identified to be sufficient and was consistent with findings for other recent life event measures (Hobfoll & Lilly, 1993). Furthermore, validation was found through associations with relevant outcomes, including psychological distress (Hobfoll & Lilly, 1993). The COR-E has also demonstrated strong internal reliability. For example, in a sample of 147 women survivors of domestic violence, the interpersonal, financial, and work subscales of the COR-E had reliability coefficients of .88, .95, and .90 respectively (Sauber & O'Brien, 2020). In a longitudinal study of 752 Palestinian adults, the alpha coefficients for the intrapersonal resource subscale were between .81 and .90 between the four timewaves. The alpha coefficients for the interpersonal resource subscale were between .76 and .81 (Heath et al., 2012). Few studies exist that have used the COR-E in justice-involved populations, but they do indicate that the measure is still reliable. Ram and colleagues (2017) used 45 items from the COR-E in a sample of 200 justice-involved women and found a Cronbach's alpha of .97. In the current study, the alpha level for used items of the CORE-E was .96.

Personal safety anxiety. The Personal Safety Anxiety and Vigilance Scale (PSAVS; Calogero et al., 2020) is an 8-item measure that assesses participants' concerns about their general physical safety. The measure was originally developed in the context of Objectification Theory and women's fear of sexual assault. Therefore, the item was developed in a women-only sample. However, the authors later assessed the measure's performance in male samples as well and found sufficient reliability. Despite sufficient reliability, there was evidence of measurement invariance between men and women, suggesting that the measure does not assess the same construct in both populations. Given the lack of available alternative measures for the construct and lack of further research using the PSAVS, it was still included in the present study. Additionally, the final items of the measure do not contain any specific reference to sexual assault and are not gendered. Items include "I would feel uncomfortable walking along on the street at night" and "I check behind me when I am walking along to see if someone is there". Participants respond to each item on a Likert-type scale ranging from 1 (*unlike me*) to 7 (*completely like me*).In order to capture the impact of incarceration on post-release personal safety anxiety, a stem of "Because of incarceration…" was added to each item.

Since the PSAVS was only recently introduced into the literature, no studies have yet used the measure. Therefore, there is no further evidence of the reliability of the measure. However, Calogero and colleagues (2020) conducted a set of five studies to rigorously test the psychometric properties of the measure. Results indicated that reliability coefficients were similar for men and women, ranging from .79-.88 in the five studies. Furthermore, the results demonstrated construct and criterion-related validity, as personal

safety anxiety was distinguished from more specific fear of violent crime or general fearfulness. Furthermore, the construct fit in existing models of Objectification Theory (Calogero et al., 2020). In the current study, the alpha level for the PSAVS was .69.

PTSD symptoms. The PTSD Checklist for *DSM-5* (PCL-5; Weathers et al., 2013) is a 20-item measure that assesses symptoms of PTSD that align with the *DSM-5* criteria. Participants respond to items by rating how much each symptom has bothered them in the past month on a Likert-type scale from 0 (*not at all*) to 4 (*extremely*). A total symptom severity score is calculated by summing all responses. Additionally, subscale scores can be obtained that correspond to the symptom clusters from the *DSM-5*: cluster B (re-experiencing), cluster C (avoidance), cluster D (avoidance), and cluster E (negative alterations in cognition and mood). To better capture PTSD symptoms resulting from incarceration generally, the instructions were modified to specifically tell participants to rate symptoms related to incarceration given that there is no measure yet developed to assess PICS/PTSD symptoms resulting from incarceration. In order to achieve this, the phrase "the stressful experience" was replaced with "incarceration" in measure items. Additionally measure instructions were edited to prompt participants to indicate how much they have been bothered by each item in the past month "as a result of being incarcerated."

The PCL-5 was initially developed on college students with trauma exposure, and displayed strong internal reliability, with an alpha of .94. Additionally, test-retest reliability was high with a correlation of .82 (Blevins et al., 2015). Furthermore, during its initial development, convergent and discriminant validity was observed, as scores on the PCL-5 significantly correlated with other PTSD measures and distinct mental health symptoms

such as depression, and minimal association was identified between conceptually unrelated measures such as antisocial personality features (Blevins et al., 2015). Structural validity was also established using factor analysis (Blevins et al., 2015). Similar results have been found in other samples as well. For example, Wolff and colleagues (2015) found test-retest correlations to be between .77 and .82 in a sample of 532 incarcerated men. They also conducted validity evidence and found PCL-5 scores to correlate with other measures of PTSD symptoms (Wolff et al., 2015). In a study conducted with 60 male inmates, the overall reliability coefficient was .91 (Wahlstrom et al., 2015). Similarly strong reliability coefficients have been found for formerly incarcerated individuals. For example, Schappell and colleagues (2016) reported a reliability coefficient of .94 for the PCL-5 among a sample of 100 formerly incarcerated men. In the current study, the alpha level for the PCL-5 was .96.

Analyses

Before data analysis, all data was examined using SPSS for threats to normality such as skewness or kurtosis, missing data, multicollinearity, and univariate and multivariate outliers, and necessary transformations or data removal was completed. Missing data was assessed to identify if it was missing at random or not at random, and Available Item Analysis (Parent, 2013) was used to account for missing data. Participants who terminated the survey prematurely or who had greater than 20% of missing data in a single scale were removed from analysis. Potential control variables were examined by conducting bivariate correlations in SPSS. Specifically, theoretically relevant demographic variables (see Figure 1) and prior trauma exposure measured by the BTQ (Schnurr et al.,

1999) and discrimination subscale of the CTS (Kira et al., 2008) were correlated with PTSD symptoms as measured by the PCL-5 (Weathers et al., 2013). Variables examined as potential covariates included age, gender, time since release, sentence length, offense type, trauma exposure before imprisonment, trauma exposure during imprisonment, trauma exposure following imprisonment, and time spent in solitary confinement. Of these variables, those that significantly correlated with PTSD symptoms were included as covariates in main analyses. Next is outlined the used statistical analyses for each hypothesis of the current project.

Hypotheses 1 through 4 were tested using bivariate Pearson correlations in SPSS between internalized stigma and PTSD symptoms, autonomy and PTSD symptoms, resource loss and PTSD symptoms, and personal safety anxiety and PTSD symptoms. Hypothesis 5 was tested using four multiple hierarchical regressions in SPSS in order to examine the unique impact of each pain of imprisonment as measured by the change in R^2. In the first model, the control variables were entered in step one; autonomy, personal safety anxiety, and resource loss were entered into step two; and internalized stigma was entered into step three. In the second model, control variables were entered in step one; internalized stigma, personal safety anxiety, and resource loss were entered into step two; and autonomy was entered into step three. In the third model, the control variables were entered in step one; internalized stigma, autonomy, and resource loss were entered into step two; and personal safety anxiety was entered into step three. In the fourth and final model, the control variables were entered in step one; internalized stigma, autonomy, and personal safety anxiety were entered into step two, and resource loss was entered into step three.

Hypotheses 6 through 9 were tested using the PROCESS macro for SPSS version 4.0 (Hayes, 2017). Model 1 was utilized for all four hypotheses, wherein the X value was each pain of imprisonment, W was the experience of oppression, and Y was PTSD symptoms. Control variables were entered as covariates for each moderation model. Significant moderation effects were probed using the Johnson-Neyman technique.

CHAPTER IV

RESULTS

Data Screening and Missing Data

A total of 161 participants started the survey and those who did not meet inclusion criteria were removed, including those who did not report a past criminal conviction (n =4), those who had not been incarcerated in a state or federal prison (n = 8), and those who had not been incarcerated for at least 6 months (n = 1). A total of 29 participants were removed because they either terminated the survey prematurely (n = 19) or did not complete at least 80% of the primary measures (n = 10). When asked to report the length of time spent incarcerated, 20 participants reported the month and year of their admission to prison rather than the length of their sentence in months. Because participants were also asked to report the month and year of their release from prison elsewhere in the demographic questionnaire, the length of these participants' sentences was able to be calculated and reported as months; therefore, they were not removed from the database. No univariate or multivariate outliers were found. The final sample size was 119 participants.

This sample size was lower than the proposed sample size of 129; however, based on a priori power analyses, the sample size of 119 does meet requirements of the power analysis conducted at the onset of the project. Specifically, in order to determine the necessary sample size, power analyses were conducted using G*Power software. Power

analysis for linear multiple regression, fixed model, R^2 increase with a medium effect size (.15), alpha of .05, power of .80 and 11 predictors (seven possible control variables and four tested predictors) yielded a necessary sample size of 85. If no controls were needed, power analysis with the same above parameters with 4 predictors yielded a necessary sample size of 129. Finally, a power analysis for proposed moderation analyses was conducted by testing a linear multiple regression, fixed model, R^2 increase with a medium effect size (.15), alpha of .08, power of .80 and 10 predictors (7 possible control variables, 3 tested predictors – Pain of Imprisonment, Oppression, and Interaction [Pain x Oppression]). The results yielded a necessary sample size of 78.

G*Power software was also utilized to calculate observed power for the given sample. First, post hoc power analysis was conducted for linear multiple regression, fixed model, R^2 increase with a medium effect size (.15), alpha of .05, observed sample size of 119, and nine predictors (five control variables and four tested predictors). This yielded a power estimate of .93, which is above the recommended .80. Post-hoc power analysis for the moderation analyses was conducted by testing a linear multiple regression, fixed model, R^2 increase with a medium effect size (.15), alpha of .08, power of .80 and eight predictors (five control variables and three tested predictors – Pain of Imprisonment, Oppression, and Interaction [Pain x Oppression]). This yielded a power estimate of .95, which is above the recommended .80. Thus, it appears the present study had sufficient statistical power.

Data was also screened for assumptions of normality. Positive skew was evident in the distributions of oppression-based trauma (skewness = 3.61) and post-prison trauma exposure (skewness = 4.90). However, these distributions were not transformed due to their

primary use as control variables and because conceptually, some skew is expected. Especially for oppression-based trauma, most responses were in the low end of the scale, which is to be expected based on the demographic makeup of the sample. No additional threats to normality were identified. No evidence of kurtosis was identified in any variables. Collinearity diagnostics were examined, and tolerance, variance inflation factor, and condition index were all within the normal range; no evidence of multicollinearity was found for any variables.

Descriptive Statistics and Preliminary Analyses

Descriptive statistics for each primary scale (mean, standard deviation, reliability coefficients, and range) are presented in Table 2. Zero-order correlations among study variables are presented in Table 3. Significant predictors of PTSD symptoms that were identified as covariates for multivariate analyses included sentence length, r (117) = -.35, $p < .001$; time since release, r (117) = -.24, $p < .01$; pre-prison trauma exposure, r (117) = .46, $p < .001$; trauma exposure while in prison, r (117) = .52, $p < .001$; and trauma exposure after prison, r (117) = .48, $p < .001$. Mean differences for study variables (internalized stigma, autonomy, resource loss, personal safety anxiety, trauma exposure, and PTSD symptoms) were also compared across race, gender, and history of solitary confinement status. Results revealed significant mean differences in trauma exposure while in prison across gender, t (116) = -2.04, p = .04, and solitary confinement history, t (117) = -2.63, p = .01. Specifically, men (M = 4.69, SD = 3.07) reported significantly more trauma exposure while in prison than women (M = 3.41, SD = 2.92), and those who had spent time in solitary confinement (M = 4.86, SD = 3.23) reported significantly more trauma exposure while in

prison than those who had not spent time in solitary confinement (M = 3.24, SD = 2.51). Additionally, there was a significant difference in internalized stigma across solitary confinement history, t (87) = 2.21, p = .03. Specifically, those who spent time in solitary confinement (M = 1.74, SD = .80) reported more internalized stigma than those who had not spent time in solitary confinement (M = 1.45, SD = .55). No further significant mean differences were identified between groups on variables.

On average, participants reported being exposed to 5.26 traumatic events prior to prison, including combat exposure or exposure to war related imagery (25.2%, n = 30), being in a serious accident (46.2%, n = 55), experiencing a natural or technological disaster (33.6%, n = 40), experiencing a life-threatening illness (17.6%, n = 21), childhood physical abuse (54.6%, n = 65), being a victim of other physical violence (53.8%, n = 64), sexual abuse (39.5%, n = 47), other situations in which there was a fear of serious injury or death (51.3%, n = 61), traumatic losses (36.1%, n = 43), witnessing serious injury or death (42.9%, n = 51), perceived discrimination based on ethnicity, race, culture, religion, or national origin (42%, n = 50), perceived discrimination based on sexual preference (15.1%, n = 18), perceived discrimination based on gender by others (22.7%, n = 27), and perceived discrimination based on gender by family members (20.2%, n = 24).

On average, participants reported being exposed to 4.40 traumatic events while incarcerated, including combat exposure or exposure to war-related casualties (11.8%, n = 14), being in a serious accident (12.6%, n = 15), experiencing a natural or technological disaster (17.6%, n = 21), experiencing a life-threatening illness (18.5%, n = 22), being a victim of physical violence (49.6%, n = 59), sexual abuse (33.6%, n = 40), other situations

in which there was a fear of serious injury or death (49.6%, *n* = 59), traumatic losses (25.2%, *n* = 30), witnessing serious injury or death (42.9%, *n* = 51), perceived discrimination based on ethnicity, race culture, religion, or national origin (57.1%, *n* = 68), perceived discrimination based on sexual preference (21%, *n* = 25), perceived discrimination based on gender by others (26.9 %, *n* = 32), and perceived discrimination based on gender by family members (16%, *n* = 19).

On average, participants reported being exposed to 2.94 traumatic events after their incarceration, including combat exposure or exposure to war related imagery (10.1%, *n* = 12), being in a serious accident (21.8%, *n* = 26), experiencing a natural or technological disaster (21.8%, *n* = 26), experiencing a life-threatening illness (13.4%, *n* = 16), being a victim of physical violence (20.2%, *n* = 24), sexual abuse (15.1%, *n* = 18), other situations in which there was a fear of serious injury or death (25.2%, *n* = 30), traumatic losses (21.8%, *n* = 26), witnessing serious injury or death (16%, *n* = 19), perceived discrimination based on ethnicity, race culture, religion, or national origin (35.3%, *n* = 42), perceived discrimination based on sexual preference (13.4%, *n* = 16), perceived discrimination based on gender by others (26.9%, *n* = 32), and perceived discrimination based on gender by family members (20.2%, *n* = 24).

Primary Analyses

Hypotheses 1 through 4 were tested using bivariate Pearson correlations using a two-tailed test for significance. Hypothesis 1 was supported, as internalized stigma significantly and positively correlated with PTSD symptoms, $r\,(117) = .45$, $p < .001$, such that higher levels of internalized stigma predicted more PTSD symptoms. Hypothesis 2

was supported, as autonomy significantly and negatively correlated with PTSD symptoms, r (117) = - .52, p < .001, such that higher levels of autonomy predicted less PTSD symptoms. Hypothesis 3 was also supported, as resource loss significantly and positively correlated with PTSD symptoms, r (117) = .57, p < .001. The more resource loss participants reported, the more PTSD symptoms they reported. Finally, hypothesis 4 was supported, as personal safety anxiety significantly and positively correlated with PTSD symptoms, r (117) = .52, p < .001, indicating that more personal safety anxiety predicted higher levels of PTSD symptoms.

Hypothesis 5 was tested using a series of four multiple hierarchical regression models in order to examine the unique impact of each individual pain of imprisonment on PTSD symptoms controlling for identified covariates of sentence length, time since release, and trauma exposure before, during, and after incarceration (see Table 4). For step 1 of all four models, the identified control variables accounted for 39.6% of the variance in PTSD symptoms, F(5, 113) = 14.84, p < .001. Sentence length (β = -.22, p = .01), time since release (β = - .17, p = .03), and trauma exposure while in prison (β = .35. p = .001) were all unique predictors of PTSD symptoms when examined concurrently. For Model 1, in step 2, autonomy, resource loss, and personal safety anxiety were added to the model and accounted for an additional 16% of the variance in PTSD symptoms, F (3, 110) = 13.17, p < .001. In step 2, sentence length (β = -.16, p = .03), trauma exposure while in prison (β = .23, p = .01), autonomy (β = -.19, p = .01), resource loss (β = .26, p < .001), and personal safety anxiety (β = .17, p = .04) all predicted PTSD symptoms above and beyond one

another. Finally, in step 3, internalized stigma was added to the model, but did not significantly explain additional variance in PTSD symptoms, F (1, 109) = .98, p = .32.

For Model 2, in step 2, internalized stigma, resource loss, and personal safety anxiety were added to the model and accounted for an additional 13.7% of the variance in PTSD symptoms, F (3. 110) = 10.81, p < .001. In step 2, sentence length (β = -.17, p = .02), trauma exposure while in prison (β = .24, p = .02), resource loss (β = .32, p < .001), and personal safety anxiety (β = .18, p = .03) all predicted PTSD symptoms above and beyond one another. Thus, in step 2 for Model 2, internalized stigma was not a unique predictor of PTSD symptoms (β = .08, p = .36). Finally, in step 3, autonomy was added to the model and accounted for an additional 2.6% of the variance in PTSD symptoms, F (1, 109) = 6.45, p = .01.

For Model 3, in step 2, internalized stigma, autonomy, and personal safety anxiety were added to the model and accounted for an additional 11.6% of the variance in PTSD symptoms, F (3, 110) = 8.72, p < .001. In step 2, sentence length (β = -.16, p = .04), trauma exposure while in prison (β = .22, p = .03), autonomy (β = -.26, p < .001) and personal safety anxiety (β = .23, p = .01) predicted PTSD symptoms above and beyond one another. Thus, in step 2 for Model 3, internalized stigma was not a unique predictor of PTSD symptoms (β = .07, p = .42). In step 3, resource loss was added to the model and accounted for an additional 4.7% of the variance in PTSD symptoms, F (1, 109) = 11.75, p <.001.

For Model 4, in step 2, internalized stigma, autonomy, and resource loss were added to the model and account for an additional 14.9% of the variance of PTSD symptoms, F (3, 110) = 12.03, p < .001. In step 2, trauma exposure while in prison (β = .22, p = .03),

autonomy (β = -.21, p = .01), and resource loss (β = .31, p < .001) all predicted PTSD symptoms above and beyond one another. However, internalized stigma was not a unique predictor of PTSD symptoms (β = .10, p = .21). In step 3, personal safety anxiety was added to the model and did not account for a significant change in the variance of PTSD symptoms, F (1, 109) = 3.05, p = .06.

In the final step of all of the hierarchical regression models, autonomy (β = -.19, p = .01), resource loss (β = .27, p < .001), and trauma exposure while in prison (β = .20, p = .04) were all unique predictors of PTSD symptoms. Thus, hypothesis 5 was partially supported; autonomy and resources loss predicted PTSD symptoms above and beyond one another controlling for sentence length, time since release, and trauma exposure. However, personal safety anxiety and internalized stigma were not a unique predictor of PTSD symptoms when considered alongside the other pains of imprisonment. Additionally, trauma exposure while incarcerated continued to be a significant predictor of PTSD symptoms when considered alongside all of the pains of imprisonment.

Hypothesis 6 through 9 were tested using the PROCESS macro v4.3 for SPSS (Hayes, 2023). For each moderation model, sentence length, time since release, and non-oppression based trauma exposure before, during, and after incarceration were entered as controls. Table 5 presents a summary of the tested moderation models. Hypothesis 6 was tested using Model 1 in PROCESS, in which X was internalized stigma, Y was PTSD symptoms, and W was oppression-based trauma. The hypothesis was supported, as the interaction between internalized stigma and oppression-based trauma was significant, b = -2.06, SE = 0.67, p = .003, 95% CI [-3.39, -.73]. Data were also mean-centered in order to

obtain information about the main effects of variables on PTSD symptoms. Internalized stigma had a significant main effect on PTSD symptoms, b = 8.76, SE = 3.18, p = .007, 95% CI [2.43, 15.04]. This main effect indicates that internalized stigma predicts PTSD symptoms above and beyond the control variables, oppression-based trauma, and the interaction of internalized stigma and oppression-based trauma. A significant main effect was also observed for time since release, b = -0.08, SE = 0.03, p = .02, 95% CI [-.14, -.01]. The interaction between oppression and internalized stigma was then probed using the Johnson-Neyman technique. The probe revealed two significant regions; one region was below a value of 5.62 on oppression-based trauma, and the other was above a value of 12.74 on oppression-based trauma. For those with lower levels of oppression-based trauma, the conditional effect of internalized stigma on PTSD symptoms was significant and positive, such that more internalized stigma predicted higher levels of PTSD symptoms. On the contrary, for those with very high levels of oppression-based trauma, the conditional effect was negative and significant such that those with more internalized stigma predicted less PTSD symptoms. Thus, hypothesis 6 was supported, as oppression was found to moderate the relationship between internalized stigma and PTSD.

Hypothesis 7 was tested using Model 1 in PROCESS, in which X was autonomy, Y was PTSD, and W was oppression-based trauma. Oppression-based trauma was not found to moderate the relationship between autonomy and PTSD symptoms, b = .78, SE = .64, p = .23, 95% CI [-.49, 2.06]. Hypothesis 8 was tested using Model 1 in PROCESS, in which X was resource loss, Y was PTSD, and W was oppression-based trauma. Oppression-based trauma was not found to moderate the relationship between resource loss

and PTSD symptoms, b = -.67, SE = .50, p = .18, 95% CI [-1.66, .32]. Thus hypotheses 7 and 8 were not supported.

Oppression-based trauma was found to significant moderation the relationship between personal safety anxiety and PTSD symptoms, b = -1.06, SE = 0.41, p = .01, 95% CI [-1.88, -.25]. Data were also mean-centered in order to obtain information about the main effects of variables on PTSD symptoms. Personal safety anxiety had a significant main effect on PTSD symptoms, b = 5.23, SE = 1.49, p < .001, 95% CI [2.28, 8.18]. This main effect indicates that personal safety anxiety predicts PTSD symptoms above and beyond the control variables, oppression-based trauma, and the interaction of personal safety anxiety and oppression-based trauma. Significant main effects were also observed for sentence length, b = -0.04, SE = 0.02, p = .01, 95% CI [-.08, -..01]; time since release, b = -0.07, SE = 0..03, p = .03, 95% CI [-.13, -.01]; and trauma exposure while in prison b = 2.27, SE = 0.97, p = .02, 95% CI [.35, .4.20]. The interaction between personal safety anxiety and oppression-based trauma was then probed using the Johnson-Neyman technique. Results indicated that for participants with less reported oppression (less than 5.67), there was a significant and positive relationship between personal safety anxiety and PTSD symptoms, such that higher levels of personal safety anxiety predicted more PTSD symptoms. This relationship was not statistically significant for those with more reported experiences of oppression (above 5.67). Thus, hypothesis 9 was supported, as oppression was found to moderate the relationship between personal safety anxiety and PTSD. See Table 6 for a summary of the hypotheses and findings.

CHAPTER V

DISCUSSION

The purpose of the current study was to examine how the deprived environment of prison may predict PTSD symptoms post-release and add to the growing body of literature regarding post-incarceration syndrome as a sub-type of PTSD. Furthermore, this study aimed to address the role of oppression in these relationships. A discussion of the current findings follows. First, a discussion of the demographics of the sample is provided, followed by consideration of the current results in the context of existing literature. Next, clinical and research implications are discussed, as well as the strengths and limitations of the current study and future directions for research. Final conclusions from the project are also provided. Overall, this study contributes evidence for prison-induced PTSD symptoms and connects these to specific aspects of the incarceration experience.

The Current Sample

The current sample offered a great variety with regard to length of incarceration, time spent in solitary confinement, time since release, employment status, and education level. In general, the sample was highly educated compared to other samples of justice-involved populations. Specifically, more than half of the sample had at least earned their high school diploma or GED, and 67.2% of the current sample reported post-secondary education in some form. This stands in contrast to past research that estimates 41.3% of

inmates had not completed high school and only 12.7% reported any post-secondary education (Harlow, 2003). However, there is not a strong representation of minority racial identities in the current sample. Only 10.1% of the current sample identified as Black. National statistics indicated Black individuals represent 32.5% of the incarcerated population (Carson, 2022) and 29.2% of those released from federal prisons in 2021 (Motivans, 2022). Similarly, in the current sample, only 11.8% of participants identified as Hispanic compared to 42.3% of those released from federal prison in 2021 (Carson, 2022; Motivans, 2022). The only racial identity represented in the current sample with similar rates to the broader offender population was Native American/Alaskan Native, with 3.4% of the current sample. National statistics indicate Native Americans/Alaskan Natives make up approximately 1.6% of the inmate population and 2.2% of those released from federal prison in 2021 (Carson, 2022; Motivans, 2022). Women were overrepresented as they comprised 26.9% of the sample, whereas recent reports document that they represent 7% of the incarcerated population (Carson, 2022) and 10% of those released from federal prisons in 2021 (Motivans, 2022). In the current sample, 8.4% of participants identified as lesbian or gay, 7.6% identified as bisexual, and 5% identified as a different sexual orientation but did not specify further. Past studies estimate that approximately 3.8 - 5% of men in prison and 30 - 33.3% of women in prison identify as sexual minorities (Meyer et al., 2017; Stammen & Ghandnoosh, 2022).

Participants reported the most amount of trauma exposure prior to incarceration (M = 5.26), followed by trauma exposure during incarceration (M = 4.40), and trauma exposure following incarceration (M = 2.94). Reported rates of trauma exposure appear to match

similar past samples, such as a study that found on average inmate samples reported at least 6.3 different trauma types in their lifetime, both before and during prison (Briere et al., 2016). Another study reports an average of 4.73 traumatic events during incarceration (Dierkhising et al., 2014). Thus, the rates observed in the current sample seem consistent with prior findings. However, there are some conceptually illogical rates of trauma exposure reported. For example, 11.8% of participants reported exposure to combat or war-related casualties during incarceration and 10.1% reported exposure post-incarceration, which is not likely. It is possible that participants had difficulty distinguishing the time of their trauma or misunderstood measure instructions. Alternatively, this could be a result of participants interpreting the measure to include gang violence, although the measure did not include language to suggest gang violence would fall under war-related trauma. Gang members in prison report higher trauma exposure and PTSD (Wood & Dennard, 2017), and qualitative research with formerly incarcerated individuals have revealed the war-like nature of gang involvement in prison (Gaston et al., 2022).

In the present study, the scores on internalized stigma were somewhat low, as the average score was 1.65, with a possible range of one to four. Other studies have also reported similar low means of 1.12 (Moore et al., 2016) and 1.06 (McWilliams & Hunter, 2021), indicating the current sample is similar to other previous samples of justice-involved individuals. It is possible that the low observed levels of internalized stigma are indicative of protective coping in which individuals with criminal records engage. These studies also measured perceived stigma, which were more elevated than internalized stigma (McWilliams & Hunter, 2021; Moore et al., 2016). Thus, those with criminal records may

be more aware that others stigmatize them but are able to recognize the external influence on their status as offenders and do not necessarily identify their legal involvement as indicative of their self-image.

In the current sample, the average score on the PCL-5 was 41.13. This is comparable to observed means in justice-involved populations; Öğülmüş and colleagues (2020) reported an average PCL-5 score of 41.78, and Wolff and colleagues (2015) reported an average score of 44.2, both of which were samples of incarcerated men. Some research has obtained slightly lower estimates, such as a sample of male inmates in inpatient drug treatment which had an average PCL-5 score of 36.46 (Wahlstrom et al., 2015). Overall, it appears the current sample is very similar in their reported PTSD symptoms compared to past research. Furthermore, the average score in the sample was above the recommended cutoff score range of 31 – 33 for probable PTSD diagnosis (Weathers et al., 2013). In total, 66.4% of the current sample scored higher than the recommended cutoff score of 31 that indicated probable PTSD (Weathers et al., 2013). This also appears comparable to other samples of justice-involved populations. For example, Öğülmüş and colleagues (2020) observed 68.4% of their sample to meet probable PTSD diagnosis. Thus, a majority of participants reported clinically significant PTSD symptoms.

The average level of resource loss as measured by the COR-E (Hobfoll & Lilly, 1993) was above the scale's midpoint, as the mean score for the sample was 3.11 with possible scores ranging from 1 to 5. Similarly, the average level of personal safety anxiety as measured by the PSAVS (Calogero et al., 2020) was above the midpoint, with a mean

of 4.11 with possible scores ranging from 1 to 7. For both of these scales, few studies have been conducted with justice-involved populations, so comparisons of the current sample are limited. Additionally, existing studies that have used the COR-E with justice-involved populations report a sum score rather than the average resource loss (e.g., Ram et al., 2017). Participants in the current study reported above average levels of autonomy, as the average score on the BPNSFS (Chen et al., 2015) was 3.36 with a possible range of one to five. This appears comparable to past studies that have used the BPNSFS with justice-involved populations, such as a study of 156 prisoners in which the average score was 3.10 (van der Kaap-Deeder et al., 2017). It is possible the slightly higher levels of autonomy observed in this sample as a result of their release from prison, compared to samples of currently incarcerated individuals.

As a part of the preliminary data analysis, bivariate correlations and mean comparisons were conducted for PTSD symptoms. Sentence length was found to significantly predict PTSD symptoms. Interestingly, this correlation was negative such that longer sentence length correlated with less PTSD symptoms. It is possible that over time the experience of incarceration becomes perceived as easier as individuals make changes to help them function in this environment, also known as prisonization, given that humans are naturally adaptive (Clemmer, 1940; Crewe et al., 2016; Dettbarn, 2012; Porter & DeMarco, 2019; Walker et al., 2014). When external constraints are removed and individuals are back in society, they are able to return to their previous levels of functioning (Zamble & Porporino, 1988). It could also be that individuals who have been incarcerated for longer periods of time expect greater challenges post-release and therefore seek support

that may prevent the development of PTSD symptoms. However, this stands in contrast to studies that have found longer sentences to predict worse mental health outcomes (Porter & DeMarco, 2019). Similarly, research has shown longer sentences correlated with less social support post-release (Pettus-Davis, 2014). However, the role of oppression may also play a role in this relationship; Porter and colleagues (2021) found Black individuals may be more at risk for negative mental health outcomes following a longer sentence, which could be a result of the additional barriers forced by systemic oppression or cultural distrust that may prevent help-seeking behavior. The present study was predominantly White and thus may explain the apparent support for the adaptation perspective regarding sentence length.

Similarly, time since release was significantly and negatively correlated with PTSD symptoms. A higher level of PTSD symptoms was associated with less time out of prison. Some existing research has documented the improvement in mental health outcomes over time post-release (e.g., Shinkfield & Graffam, 2010). However, other studies have not found time since release to relate to significant mental health outcomes (e.g., Boxer et al., 2009). Research on individual level trajectories of mental health post-release have found that most offenders did not experience changes in psychological distress in their first 6 months after incarceration (Thomas et al., 2016). Thus, the existing research regarding time since release relating to mental health outcomes varies. The present results may also be explained by the adaptation perspective (Clemmer, 1940; Crewe et al., 2016; Dettbarn, 2012; Porter & DeMarco, 2019; Walker et al., 2014; Zamble & Porporino, 1988), in that

those who were released most recently from prison may have not yet had time to adapt as well to their reentry.

No significant differences were found on PTSD symptoms between those who had spent time in solitary confinement while incarcerated, nor did length of time spent in solitary confinement predict PTSD symptoms. This is somewhat in conflict with existing research, which has found solitary confinement to predict PTSD symptoms (Hagan et al., 2018; Piper & Berle, 2019). However, those who had spent time in solitary confinement reported significantly more trauma exposure while in prison than those who had not spent time in prison. Given the significant relationship between trauma exposure during incarceration, these findings suggest that the connection between solitary confinement and PTSD symptoms may not be a direct result of solitary confinement, but the specific experiences that occur in the context of solitary. For example, those in solitary confinement may be at more risk for physical victimization, witnessing violence, or experiencing more verbal abuse from staff (Dierkhising et al., 2014; Hochstetler et al., 2004; Listwan et al., 2010; Piper & Berle, 2019; Schappell et al., 2016).

Men in the sample reported significantly more trauma exposure while in prison compared to women. This could be a result of the dangerousness of men's prisons compared to women's prisons; past research has suggested that there are higher rates of weapons used in assaults as well as more staff-on-inmate violence in male prison's compared to women's (Wolff et al., 2007). Some researchers have estimated that male inmates are 45% more likely to be a victim of violence compared to female inmates (Teasdale et al., 2016). However, other research contradicts this finding; for example,

Caravaca-Sánchez and colleagues (2022) found higher rates of prison-based physical and sexual victimization. Despite these differences in trauma exposure, there were not observed differences in PTSD symptoms between men and women.

Summary of Findings

Hypothesis 1 aimed to explore the relationship between participants' internalized stigma regarding their status as a formerly incarcerated individual and PTSD symptoms related to imprisonment. Results indicated internalized stigma was positively correlated with PTSD symptoms, such that those with higher levels of internalized stigma had significantly more reported PTSD symptoms. This is well-supported in existing qualitative literature with released prisoners. Formerly incarcerated individuals have qualitatively described the consequences of internalized stigma post-release, such as avoiding social relationships or other public settings, such as public transportation (Harris & Levenson, 2020). Similarly, themes of paranoia and suspicion regarding how others view their status as former offenders have been reported in qualitative studies (Chui & Cheng, 2013; Williams et al., 2019). This finding is also consistent with research conducted with non-offenders that have found significant relationships between internalized stigma and PTSD symptoms, such as with veterans (Bonfils et al., 2018) or those living with HIV/AIDS (Andu et al., 2018; Breet et al., 2014; Gao et al., 2018; Gonzalez et al., 2016). Perceived stigma has also been found to predict PTSD symptoms in non-offender samples (Kennedy et al., 2014; Matsumoto et al., 2020). However, this relationship was moderated by the experience of oppression. This finding is discussed in more detail below.

Hypothesis 2 examined the relationship between autonomy and PTSD symptoms, and results supported this hypothesis as there was a significant, negative correlation. Specifically, higher levels of autonomy predicted less PTSD symptoms thus providing support for existing qualitative literature (Hulley et al., 2016; Liem & Kunst, 2013; Martin, 2018; Tracey & Hanham, 2017). This additionally is consistent with existing literature with non-offending populations that have found significant relationships between autonomy and PTSD symptoms (Karatzias et al., 2016; Kolts et al., 2004; Koopman et al., 1994; Maas et al., 2019). According to SDT, autonomy is important for motivation and well-being; thus, when this need is frustrated, psychological distress may result (Ryan & Deci, 2000). This study appears to provide support for this tenant of SDT within a formerly incarcerated sample and specifically highlights how lower levels of post-release autonomy relate to psychological distress. Given the importance of autonomy and the ability to make personal decisions in the desistance process (Petrich, 2020), this is a critical finding. This additionally could help to explain current high rates of recidivism in samples of former offenders (Alper et al., 2018). While in prison, inmates are often not required or not allowed to make many decisions which may reduce their sense of post-release autonomy (Haney, 2001). When faced with opportunities for autonomous behavior, they may be reminded of their prison experiences. The exposure to routine and repeated deprivation of autonomy has also led former inmates to replicate prison behavior post-release (e.g., Martin, 2018; Tracey & Hanham, 2017), which could trigger PTSD symptoms such as flashbacks or intrusive memories. Post-release autonomy loss may also trigger a change in cognitions and schemas to include more themes of dependence and helplessness, which may make

former offenders more vulnerable to PTSD symptoms (Kolts et al., 2004; Vasilopoulou et al., 2020).

Hypothesis 3 predicted resources loss would positively and significantly relate to PTSD symptoms, which was supported by results. Results show how when faced with a greater degree of resource loss, both of material possessions and social support, more PTSD symptoms are reported in formerly incarcerated individuals. This provides support for COR theory within this population, which posits that loss of valued resources predicts psychological distress (Hobfoll, 1989; Hobfoll & Lilly, 1993; Holmgreen et al., 2017). This study is one of the first direct applications of this concept in a sample of former offenders. This finding is also interesting in the context of the demographics of the sample, as they were overall more educated than the general formerly incarceration population. Additionally, the majority of the sample reported employment. This may provide indirect support for COR theory's proposition that resource loss is more detrimental to outcomes than resource gain (Hobfoll, 1989; Hobfoll & Lilly, 1993; Holmgreen et al., 2017). The current sample appears to have gained back some of their material resources as evidenced by their educational attainment, employment, and sense of socioeconomic status; however, there was still a significant correlation between resource loss and PTSD symptoms.

Hypothesis 4 predicted that a sense of personal safety anxiety would predict PTSD symptoms, for which results provided support. The more anxiety or fear participants reported about their feelings of safety, the more symptoms of PTSD they reported. As many formerly incarcerated individuals have reported in qualitative studies, imprisonment can leave a lasting sense of fear, distrust, paranoia, or hypervigilance (Binswanger et al., 2011;

Forsyth et al., 2015; Harris & Levenson, 2020; Martin, 2018; Porter, 2019). This relationship between personal safety anxiety and PTSD symptoms may be a result of a change in schemas. Individuals who have been incarcerated must make changes to their beliefs and behavior in order to protect themselves in prison, an environment characterized by continuous traumatic stress (Eagle & Kaminer, 2013). A sense of safety is a critical self-schema (McCann et al., 1988), so serious alterations to these concepts following a traumatic event or exposure to a traumatic environment could predict the resulting symptoms of PTSD. However, causal implications are unable to be made due to the cross-sectional nature of this study; it is possible that the negative alterations in cognition captured by PTSD symptoms precede personal safety anxiety. Overall, nearly all measured and observed variables significantly predicted PTSD symptoms. The strength of correlations is notable as well, indicating the importance of all measured variables in formerly incarcerated individuals.

Hypothesis 5 sought to examine the collective impact of the pains of imprisonment, controlling for length of incarceration, time since release, and trauma exposure before, during, and after incarceration. While personal safety anxiety did predict PTSD symptoms above and beyond the control variables, autonomy, and resource loss, it became redundant when considered alongside internalized stigma. In the final model, trauma exposure while incarcerated, autonomy, and resource loss were significant unique predictors of PTSD symptoms. The non-significance of personal safety anxiety and internalized stigma when considered alongside the other pains could be for many reasons. One possible explanation is that the traumatic stress reaction to an environment characterized by CTS and thus

feelings of personal safety anxiety may manifest different than traditional PTSD symptoms. Roach (2013) posits that when exposed to CTS, hypervigilance is not helpful and therefore desensitization and callousness may be the outcome. Yet the study did find that personal safety anxiety predicted PTSD when examined in a simple bivariate correlation. This finding also indicates some degree of overlap in how personal safety anxiety and internalized stigma predict PTSD symptoms and redundancy when examined alongside one another. Explanations of this finding are somewhat limited due to the lack of research examining these concepts together. It is possible that the measurement of personal safety anxiety in the present study overlapped with the measurement of the other pains of imprisonment. For example, one question on the PSAVS (Calogero et al., 2020) asks participants to rate their agreement with the statement, "I share my concerns about my personal safety with others." It's possible this is also captured by participants' degree of loss of social support as measured on the COR-E (Hobfoll & Lilly, 1993). The lack of a significant relationship between internalized stigma and PTSD symptoms could be a result of the relatively low average score for the sample on internalized stigma. Overall, it is clear from the results that the relationship between incarceration and one's ability to access resources and autonomous behavior is crucial.

Additionally, trauma exposure while in prison appears to have a uniquely strong correlation with PTSD symptoms, above pre-prison trauma and post-release trauma. Overall, resource loss emerged as the strongest predictor of PTSD symptoms when considered alongside the pains of imprisonment, followed by trauma exposure while incarcerated, and then by autonomy. The salience of these variables as unique predictors

of post-release PTSD symptoms is critical to note. This suggests that the most critical variables that appear to drive the prediction of post-release PTSD include trauma exposure in prison, resource loss, and autonomy. The importance of trauma exposure while in prison above and beyond trauma exposure prior to and following incarceration is also an interesting finding, suggesting that there is something unique to trauma experience in prison. The instability, lack of safety, and risk of violence in prison may be contributors to this observed correlation (Daquin et al., 2016; Dierkhising et al., 2014; Schappell et al., 2016).

Hypotheses 6 through 9 aimed to explore potential moderation effects on the relationships between the pains of imprisonment and PTSD symptoms. Hypothesis 6 predicted oppression would moderate the relationship between internalized stigma and PTSD symptoms. Results provided support for this hypothesis, as the relationship between internalized stigma and PTSD was conditional on reported level of exposure to oppression-based trauma. Specifically, among those with lower reported experience of oppression, there was a significant and positive relationship between internalized stigma and PTSD symptoms. However, for those who reported very high levels of oppression, internalized stigma predicted PTSD symptoms in a negative direction; higher levels of internalized stigma were associated with less reported PTSD symptoms. This is similar to some previously offered explanation of differential effects of stigma for those exposed to oppression. In a set of longitudinal research studies, White offenders were found to have more negative outcomes associated with self-stigmatization, to include social withdrawal or anticipated stigma (Moore & Tangney, 2017; Moore, Tangney et al., 2016; Moore et al.,

2018). Researchers offered explanations that this may be a result of the experience minority groups have with oppression and thus the increased potential for them to have developed coping strategies.

These results provide some support for Modified Labeling Theory (Link et al., 1989), which posits that individuals with devalued social identities may be more prone to internalizing negative messages about themselves and in turn experiencing negative outcomes. In the current sample, it seems that the experience of having a devalued identity as a criminal was more painful and impactful to those who had previously not experienced much oppression based on their gender, race, sexual orientation, culture, or religion. This stands somewhat in contrast with tenets of minority stress theory (Meyer, 2003), which posits that both internal (i.e., internalized stigma, expectations of rejection) and external (i.e., prejudice events) stressors predispose minority populations to more psychological distress. It is also possible that other aspects of the self-stigmatization process including perceived stigma, stereotype agreement, and anticipated stigma are more relevant for those with oppressed identities, rather than internalized stigma. Additionally, the type of internalized stigma measured in this study was specific to participants' identity as individuals with criminal records. It is possible that internalized stigma related to race, gender, or sexual orientation would be observed to have a positive and significant relationship with PTSD symptoms or other maladaptive outcomes.

Similarly, other unmeasured variables in the current study may provide better context for the finding. For example, it is possible that minority individuals are more likely to have developed stigma consciousness as a result of their past experiences with

oppression. Another unmeasured variable that could contextualize this finding is previous experiences with incarceration. If an individual has previously been incarcerated, they may have already developed coping strategies to avoid internalizing stigma by rejecting negative social attitudes toward offenders. Given the overrepresentation of oppressed groups in the criminal justice system (Appel et al., 2020; Carson, 2020; Meyer et al., 2017; Stewart et al., 2020), this may explain why those with higher levels of oppression did not have the same relationship between internalized stigma and PTSD symptoms post-release.

Previous research has documented the finding that for many with stigmatized identities, self-esteem is relatively unaffected by discrimination (Corrigan & Watson, 2002; Croker & Major, 1989). This may be a result of the ability of individuals to reject negative messages about their stigmatized identities by attributing these messages to prejudice against their group (Corrigan & Watson, 2022; Croker & Major, 1989; Major & O'Brien, 2005). Individuals in minority groups also are more likely to develop stigma consciousness, wherein they are more likely to perceive and expect discrimination (Pinel, 1999). Taken together, these findings suggest that stigmatized individuals are able to reject internalizing experiences of oppression by correctly identifying the source of the problem as the negative, prejudicial attitudes of others. Similarly, an individual's level of critical consciousness may help to explain the observed relationship in the current study. Critical consciousness is the ability to consider and identity oppression and subsequently intervene in order to challenge it, which is achieve through critical reflection, critical motivation, and critical action (Freire, 1990). Because of the active nature of critical consciousness, it's development may prevent negative outcomes of oppression, discrimination, and

stigmatization (Watts et al., 1999). As such, it is possible that among current study participants, those with higher oppression had a greater degree of stigma consciousness and/or critical consciousness that helped them avoid internalizing the stigma they experience and reporting more PTSD symptoms.

Furthermore, this finding may provide evidence for the concept of White fragility, in which White individuals experience more significant distress when confronted with discrimination as a result of their insulation from oppression (DiAngelo, 2011). Individuals in majority groups are privileged and do not experience the same stigmatizing messages about their group identities as minority populations. Therefore, they have not engaged in work to build critical consciousness or stigma consciousness that offers the ability to reject negative messages about their identities when they assume roles that are stigmatized. As such, they are more at risk of experiencing negative consequences of stigmatization. For example, previous research in non-justice involved populations has found that racial minority employees perceived more discrimination in the workplace than White employees, but perceived discrimination negatively predicted job satisfaction and positively predicted work stress only for White participants (Ng et al., 2020). In the current sample, those with low levels of oppression were more at risk to have an observed relationship between internalized stigma about criminal identity and post-release PTSD symptoms. Not only may this be a result of their lack of critical consciousness, but it could also be explained by the relatively recency of stigmatized identity acquisition. As Crocker and Major (1989) hypothesize, self-protection strategies are likely to be limited in those who have recently been stigmatized. Criminal identity is typically acquired later in life and

thus more recently than other more fixed aspects of identity (such as race or gender). Additionally, during incarceration, offenders are separated from the general public who hold stigmatizing attitudes (Goffman, 1963). Thus, this identity may not become salient until post-release and self-protective strategies are not yet developed.

Finally, the increased sensitivity to stigma among majority group individuals specifically related to criminality could be a result of their prior role in stigmatizing others. As those with status of privilege, members in majority groups may previously have held negative beliefs about criminality or associated criminality with minority status. As such, when they become stigmatized in the same way, there may be an increased sensitivity to this stigma as a result of prior acceptance of negative views of criminal behavior (Crocker & Major, 1989; Pinel, 1999). Additionally, the belief that one is responsible for their stigmatized identity may predict worse outcomes (Crocker & Major, 1989).

Hypothesis 7 explored the effect of oppression on the relationship between autonomy and PTSD symptoms. However, it was not supported, as the relationship between autonomy and PTSD symptoms did not appear to be conditional upon experiences of oppression. A possible explanation for this finding is that the experience of autonomy loss is a universal experience in prison, and all prisoners are subject to the same behavioral controls and rules. Thus, the traumatic effect of autonomy loss may be universal for all offenders. However, the lack of representation of racial minorities in the current sample could be an influence on this finding. Another possible explanation is that while oppression and experiences of discrimination can impact one's sense of autonomy and therefore well-being (e.g., Ayón et al., 2018; Kachanoff et al., 2021), the effect of autonomy loss while

incarcerated may be unique. Even though there exist oppressive circumstances that affect one's sense of control over their decision-making, few people are subjected to the absolute and total loss of control experienced in prison. Even things as mundane as waking and eating times are controlled by external sources. Thus, the autonomy loss of prison may be so universally painful that the experience of oppression does not exacerbate its effects on PTSD symptoms.

Hypothesis 8 predicted oppression would moderate the relationship between resource loss and PTSD. It was also not supported, as the relationship between resource loss and PTSD symptoms was not conditional upon experiences of oppression. This runs counter to existing research that consistently documents the disproportionate material resource loss faced by racial and gender minorities involved in the criminal justice system (Glidden & Brown, 2017; Lyons & Pettit, 2011; Ortiz & Jackey, 2019; Williams, 2019). However, research has also indicated that racial minority groups may expect and report more social support post-release (Pettus-Davis et al., 2018). It is possible that the higher rates of incarceration among minority populations increase the likelihood of receiving social support or prevent former offenders from withdrawing from their communities out of fear of judgement (Moore & Tangney, 2017). Given the research indicating minorities are more prone to certain types of resource loss, it is possible that the moderation of oppression would be more obvious if only material or financial loss was examined, rather than both material and social support. However, the current sample was highly educated, and most participants reported having enough to afford needed resources. Finally, the limited sample demographic distribution may have affected the results obtained, given the

underrepresentation of minority participants and low levels of reported oppression. Further discussion of this limitation on results and implications is provided below.

Hypothesis 9 examined the role of oppression in the relationship between personal safety anxiety and PTSD symptoms. Results provided support for the hypothesis, as the relationship between personal anxiety and PTSD symptoms was conditional on experiences of oppression. Specifically, for those with lower levels of oppression-based trauma, the relationship between personal safety anxiety and PTSD was significant and positive. However, for those with more reported oppression-based trauma, no significant relationship was observed between personal safety anxiety and PTSD symptoms. Existing research documents how minority stress can lead to hypervigilance and other negative health outcomes among LGBTQ (e.g., Rostosky et al., 2022) and Black individuals (e.g., Himmelstein et al., 2015). The current study thus appears to contradict existing research given that among those with higher levels of oppression-based trauma, personal safety anxiety did not relate to PTSD symptoms; however, this could be a result of the measurement of specifically prison-induced traumatic stress. It could be that for minorities, the CTS experience in prison is not any different from their normal exposure to CTS and the need for vigilance as a result of ever-present threats of discrimination. This stands in contrast to those with minimal historical experiences of oppression who may be experiencing exposure to CTS for the first time at significant levels while incarcerated, which in turn influences post-release PTSD symptoms. Additionally, the lack of relationship between personal safety anxiety and PTSD symptoms among those with higher levels of oppression may be a result of the demographic issues with the sample.

Research Implications

This study contributes to existing theories within psychology, sociology, and criminology. First, it provides support for the existence of PICS and the relevance of continued exploration of how PICS develops. While the current study did not explicitly evaluate the additionally identified symptoms of PICS (institutionalized traits, social-sensory deprivation, and social/temporal alienation), it does provide support for PTSD symptoms triggered by incarceration. This is one of the first studies to attempt to quantitively observe and represent symptoms of PICS, and evidence suggests that further research should continue to replicate these findings. If PICS is found to be a distinguishable subtype or disorder from current conceptualizations of PTSD, this will also have implications for research on interventions for PICS. Research can investigate how currently empirically validated treatments for PTSD impact PICS symptoms, and if needed, develop alternative interventions that better target the symptoms.

Preliminary support for several psychological theories were also found in the current study, however, none of these theories were investigated fully. Nonetheless, the findings imply further research should test theoretical principles in justice-involved samples to investigate the unique experiences of this population. The significant relationship between internalized stigma and PTSD symptoms provides support for Modified Labeling Theory (Link et al., 1989), especially the idea that internalization of negative attitudes about a stigmatized identity leaves an individual more vulnerable to negative outcomes. Future research could investigate additional negative outcomes for formerly incarcerated individuals, especially with a focus on recidivism. The findings of

the current study also imply that it may be valuable to explore more aspects of the self-stigma process with this population, not just internalized stigma. The unique influence of perceived stigma, stereotype agreement, and anticipated stigma should also be investigated (Bos et al., 2013; Corrigan 1998; Goffman, 1963; Link et al., 1989; Vogel et al., 2013). The relatively low amount of internalized stigma in justice-involved populations is also an interesting finding that future research can be directed toward (Moore et al., 2016). This could imply the existence of strong protective factors, or it could be evidence that the self-stigma process functions differently in this population.

The unique moderating effect of oppression observed in the current research also implies the importance of identifying more specific mechanisms by which oppressed groups experience post-incarceration PTSD symptoms. Applications of other relevant constructs and theories would be beneficial to explore in this context. Taken together, the current results and prior research indicates several variables that were unmeasured in the current study are valuable areas of further investigation. The role of critical consciousness, stigma consciousness, and White fragility are warranted to continue to explore the differential outcomes experienced in justice-involved populations (Corrigan & Watson, 2002; Crocker & Major, 1989; Freire, 1990; Major & O'Brien, 2005; Pinel, 1999).

Similarly, support for aspects of SDT (Ryan & Deci, 2000) were found in the current study, but the full theory was not tested. The initial support for the importance of autonomy also indicates research should identify how imprisonment may affect the other basic needs identified in SDT: competence and relatedness (Ryan & Deci, 2000). SDT also posits that motivation is an important piece of well-being, which was not examined in the

current study. Future research can aim to extend the application of SDT to justice-involved populations. Results also provided strong support for corollaries of COR theory (Hobfoll, 1989). Resource loss emerged as a very strong predictor of PTSD symptoms, even when controlling for several other variables. However, the entirety of COR theory principles was not tested, such as the disproportionate impact of resource loss compared to resource gain (Hobfoll, 1989). As such, research would benefit from specialized attention and application of COR theory to this population.

Findings in the current study also add to the growing body of literature that identifies how traumatic exposure and stress reactions are critically important at many timepoints for justice-involved individuals (Figure 1). The unique relationship between trauma exposure and the deprived environment of prison in general should continue to be attended to in the literature. Trauma exposure before, during, and after incarceration were identified as predictors of post-release PTSD symptoms, but trauma exposure during incarceration emerged as a significant predictor when controlling for many other variables. This could have important implications for future research, especially to inform prison reform efforts. Past researchers have proposed that prison functions to retraumatize individuals who have histories of trauma exposure (e.g., Haney, 2001, 2012; Hochstetler et al., 2004). Ongoing research can aim to disentangle the unique influences of trauma exposure at these various points in justice-involved individuals' life courses.

Implications for Intervention and Counseling Psychology

Several implications for clinical practice and the field of counseling psychology as a whole may also be drawn from results. Primarily is the importance of considering a PTSD

or PICS diagnosis when working with formerly incarcerated individuals. Clinicians should have an understanding of how incarcerated individuals may present with symptoms of traumatic stress related to their experience in prison. The ability to assess and treat the symptoms, even if they are not linked to a trauma that meets Criterion A as identified by the *DSM-5* (APA, 2013), is critical for competent and effective practice with formerly incarcerated individuals. Clinicians can assess for PICS or prison-induced traumatic stress by specifically identifying how clients experience the four clusters of symptoms related to their incarceration. Treatment can then be targeted to address which symptoms are most distressing to the individual. Furthermore, this approach with formerly incarcerated clients could help to normalize their post-release experiences. It will also be crucial for clinicians to consider how many currently empirically-supported treatments for PTSD may not translate for those with PICS symptoms, especially interventions targeted towards processing Criterion A traumas (such as Cognitive Processing Therapy). However, the current study also highlighted the significant impact of trauma exposure while in prison. Clinicians should also take special care to assess for any Criterion A trauma exposure that continues to trigger PTSD symptoms post-release. This can help inform treatment planning as well, as these traumatic experiences may be well-treated with traditional trauma therapies.

Clinical work should also intentionally attend to formerly incarcerated individuals' experiences of oppression and how that uniquely affects them throughout their justice-system involvement. The current student indicated that the experience of oppression appeared to attenuate the impact internalized stigma and personal safety anxiety had on

symptoms of PTSD. However, the limited sample does hinder the conclusiveness of these findings. CRT and minority stress theory emphasize the importance of attending to and addressing system-level variables in order to identify and explain negative outcomes for minority groups (Bell, 1992; Crenshaw, 1989; Delgado & Stefancic, 2017; Meyer, 2003). Clinicians should allow for and facilitate exploration of these factors in a way that helps minority justice-involved clients identify how systemic oppression impacts their well-being. Using counseling psychology values of social justice intervention, clinicians should also aim to help clients develop critical consciousness of their experiences in the justice-system.

Treatment planning with formerly incarcerated clients should attend to their feelings of autonomy, internalized stigma, access to resources, and feelings of personal safety. Given that resource loss emerged as one of the strongest predictors of PTSD symptoms when examined alongside the other pains of imprisonment and control variables, clinicians working with formerly incarcerated clients can make this a specific target of treatment. This also highlights the need for providers and practitioners to be accessible to formerly incarcerated individuals. Counseling psychologists can take specific action to build professional relationships with local agencies or organizations that serve reentering citizens in order to make their own services more accessible. For example, psychologists may set up a formal referral process with other professionals such as parole officers or non-profits so that interested formerly incarcerated individuals do not have to seek out services on their own. Additionally, unique formats may be offered, such as online, virtual, or telephone counseling so that clients do not have to arrange transportation. Similarly,

providers can build relationships with halfway houses and provided services in-home to eliminate even more barriers for formerly incarcerated clients.

While the current results provide clear implications that resources are important to address post-release, there is also evidence to suggest that this is not a sufficient intervention. The current sample appears to have re-established some of their previously loss resources, as evidenced by their higher-than-average education and income compared to other formerly incarcerated samples. However, there was still a high rate of post-release PTSD symptoms and a relationship between resource loss and PTSD symptoms. As such, interventions must address a comprehensive set of variables when working with formerly incarcerated individuals, and not assuming that individuals with stable employment or formal education are protected from poor outcomes following release.

As prevention is an important value for counseling psychologists (Goodyear et al., 2016; Lichtenberg et al., 2018), results should also be highlighted as important for providers to prevent the development of PTSD in justice-involved populations. Given the importance of exposure to trauma at several points throughout the lifetime (see Figure 1), counseling psychologists have the opportunity to apply prevention principles in many ways and with many populations. Current findings suggest psychologists should apply prevention principles in working with incarcerated individuals or with justice-system professionals. Trauma-informed care training for corrections officers and prison administrators could help to improve prison conditions and reduce the impact of the pains of imprisonment. Additionally, psychologists can identify tools that can help to reduce the risk of violence, unsafe situations, and other risks for trauma exposure while in prison or

conditions that trigger personal safety anxiety. Prevention efforts might include training for staff in de-escalation, culturally competent care, gang violence prevention, and other relevant topics. This could also offer opportunities for research on program evaluation that could help to implement prevention efforts more widely; identifying the impacts prevention efforts can have on safety and other positive, desirable outcomes for the prison system may facilitate implementation of trainings or programs on a bigger scale.

Prevention efforts in prisons can also target incarcerated individuals. Psychoeducational material may also be made available to incarcerated individuals providing them with effective coping strategies for navigating the pains of imprisonment. Prevention efforts can also be specifically targeted during the reentry preparation process. Incarcerated individuals should be well-informed and prepared for the barriers and challenges that may occur during their reentry. Prevention efforts can also focus on connecting justice-involved individuals with resources prior to their release, such as setting up follow-up appointments with mental health treatment or other important resources. Furthermore, results indicate the importance of having access to quality mental health care that is accessible during incarceration. Providers in the prison system can make intentional effort to address the pains of imprisonment with incarcerated clients and find ways to compensate for these losses through treatment.

Results also provide serious implications for advocacy work, which is often highlighted as a core competency and commitment of counseling psychologists (Lichtenberg et al., 2018; Vera & Speight, 2003). These results add to the body of literature demonstrating the detrimental effect of incarceration and failure of the criminal justice

system (Varghese et al., 2019). Not only do the findings of this study demonstrate the lack of rehabilitation provided by the justice system, but they also highlight how the system may actually be actively causing harm to those who are subjected to it. Counseling psychologists should engage in advocacy efforts to promote more trauma-informed care in the justice system. Creation of and lobbying for public policies that would reduce the risk of PICS are critical practices for counseling psychologists. For example, policies that reduce mass incarceration or focus on sentencing alternatives (such as mental health treatment, substance use treatment, or restorative justice programs) could in turn reduce prison populations, which could reduce the dangerousness of facilities and return staff-to-inmate ratios to safer levels. Additionally, prison reform that attempts to make facilities more rehabilitative rather than punitive may help to avoid the pains of imprisonment. For example, recent efforts in other countries to allow inmates to have more autonomy and family support while incarcerated have been successful. Specifically, Scandinavian approaches to corrections that aim to structure prison to replicate "normal" life as much as possible have been found to be more humane and effective at rehabilitation (Haney, 2020). However, these structural changes are possible due to the drastically smaller prison population in these countries (Haney, 2020); thus, psychologists can also target and promote policies that reduce overcrowding and high rates of prison sentences.

Social justice advocacy can also be integrated into clinical work on an individual level. Psychologists competent in social justice and advocacy should be prepared to modify their role in order to best meet the unique needs of the individual client (e.g., Vera & Speight, 2003). Thus, in working with formerly incarcerated individuals, clinicians should

be prepared to assist their client obtain needed resources in order to prevent further resource loss spirals and resulting traumatic stress. Providers should have a strong working knowledge of available resources for which they can provide referrals or assist justice-involved clients in obtaining. This will require an extra effort for providers, such as researching local jobs that hire convicted felons or housing resources that serve formerly incarcerated individuals. Similarly, providers may consider offering services on a sliding scale fee or finding other ways to offer services that allow them to be accessible to the population. Obtaining insurance can be a difficult process for reentering individuals, and they are likely unable to afford out-of-pocket costs associated with treatment. Psychologists may consider forming partnerships with non-profit organizations or other community-based agencies that would be able to offer compensation out of donated funds rather than direct charge to clients.

Additionally, the PICS diagnosis is not yet formally recognized in the *DSM-5* (APA, 2013). As such, it may prove difficult for providers to diagnosis and bill insurance for services related to a PICS diagnosis. This may be another area of opportunity for advocacy and further research for psychologists. As research continues to support and refine the diagnostic criteria for PICS, modifications should be made to the *DSM* criteria. Furthermore, the existing research may support the expansion of criterion A traumas to include a more broadly defined spectrum. Others have previously called for the expansion of criterion A to include experiences of oppression and discrimination (e.g., Carter, 2007; Holmes et al., 2016; Kira, 2001), and current findings indicate incarceration may be relevant to include in expanded definitions.

Strengths, Limitations and Future Directions

Several strengths of the current study may be highlighted. First, this study offered a novel and unique area of study to the existing literature. It appears to be one of the first to offer quantitative investigation into the pains of imprisonment and prison-induced symptoms of PTSD symptoms. The integration of theories from several disciplines allowed for a comprehensive discussion of trauma in the justice system. By using past trauma exposure before prison, during incarnation and post-release as control variables, the unique prediction of PTSD symptoms resulting from the pains of imprisonment were able to be identified. Furthermore, the measures used in the present study have been established as reliable and valid, adding to the strength of the research design. Additionally, the use of quantitative data in the present study is a relative advantage given the predominance of qualitative data in the literature at this time. The use of qualitative data as a foundation for the study is also a strength, as often qualitative research allows for a more intersectional, in-depth analysis of concepts in psychology (e.g., Moradi & Grzanka, 2017). This allows for the research to be guided by personal experiences rather than strictly researcher-driven theory.

A critical limitation of this study is the demographic makeup of the sample. Overall, the sample was highly educated and did not perceive themselves overall to be low in socioeconomic status. Thus, results may be skewed by this. The biggest problem in the current sample, however, is the lack of racial and ethnic minority representation. As such, results are highly limited in their generalizability. The measurement of oppression used in this study does also limit the ability to draw conclusions from this data. The discrimination

subscale of the Cumulative Trauma Scale (Kira et al., 2008) measured experiences of oppression based on gender, sexual orientation, racial or ethnic group, culture, and religion. Thus, conclusions about a specific type of oppression affecting the relationship between the pains of imprisonment and PTSD symptoms are not able to be differentiated. This measure is also self-report and was administered to all participants. As such, participants who identified with majority identities (White, male, heterosexual) were still asked to report if they had ever been discriminated against based on race, culture, national origin, gender, sexual preference, or religion. This may have skewed results; however, the distribution of responses to this questionnaire skewed positive, with most participants reporting little, if any, oppression. Additionally, the relatively small sample size of 119 participants may limit the generalizability of results. Furthermore, the cross-sectional nature of the data prevents conclusions from being drawn regarding causal relationships. Similarly, the self-report nature of the measures can impact the ability to make conclusions about the environment of prison; no objective measures of the deprivations of the prison environment were used. Some measurement limitations also exist. The Personal Safety Anxiety and Vigilance Scale (PSAVS; Calogero et al., 2020) demonstrated marginal or near-adequate reliability (α = .69) and had previously not been used with this population. The study is also limited in the ability to draw conclusions about PICS as a distinct diagnosis from PTSD, as the additional symptoms of PICS as proposed by Liem and Kunst (2013) were not measured in the present study.

Future research should focus on identifying the prevalence of PTSD symptoms post-release and investigating the symptom clusters that may be unique to PICS. Thus far

in the literature, institutionalized traits, social-sensory deprivation, and social/temporal alienation have been identified through qualitative literature (e.g., Gorski, 2001; Liem & Kunst, 2013). Additionally, there are not well-established measures for these categories of symptoms. Future research should aim to measure these symptoms in a standardized, reliable, and valid way and identify their prevalence. Future research would benefit from identifying other negative outcomes that may be associated with the pains of imprisonment, to include relevant justice-system outcomes such as recidivism or re-offending. Given the attention paid to risk factors in the current study, future research should also aim to investigate protective factors. Identifying ways to mitigate the negative impacts of the pains of imprisonment could offer important perspectives for changes to the justice system or for providers who serve justice-involved individuals.

Attention to oppression and system-level factors using frameworks such as CRT (Bell, 1992; Crenshaw, 1989; Delgado & Stefancic, 2017; Gotanda, 1991; Peller, 1990) and minority stress theory (Meyer 2003), especially for minority groups that are disproportionately affected by the justice system, is also critical for future research. Researchers should take care to intentionally sample and survey Black, Hispanic, and Native American individuals as well as sexual and gender minorities, as they are disproportionately represented in the justice system. By centering and attending to issues of race, gender, and sexual orientation, systemic level barriers and oppression can be better identified as the source of disparities, which also helps to avoid blaming minority groups for their experiences (e.g., Bell, 1992; Delgado & Stefancic, 2017; Gotanda, 1991; Varghese et al., 2019). Sampling techniques used in the current study were primarily

online, and thus, those with limited access to resources may not have been exposed to advertising material. In-person recruitment at agencies, events, or organizations that serve formerly incarcerated individuals may be beneficial for this goal. In-person recruitment could remove the resource barrier to study participation by providing pen and pencil versions of the survey or providing electronic devices (such as iPads/tablets or laptops) at the time of recruitment. Incentivized snowball sampling may also be beneficial, such as offering extra entries into a raffle if an individual refers a friend or family member to participate. Finally, recruitment from agencies that are adjacent to reentry services may be beneficial, such as local churches, homeless shelters, food banks, and more.

Another prospective area of research is identifying how different types of offenders may be more vulnerable to PICS. Sex offenders have qualitatively reported more barriers in reentry and may be more prone to internalized stigma (e.g., Harris & Levenson, 2020), but individuals with violent crimes or longer sentences may be more at risk of institutionalized traits or loss of autonomy (e.g., Liem & Kunst, 2013). Similarly, any risk and protective factors that influence the course of symptoms over time should be investigated in order to best target treatment.

Conclusions

The present study provides support for the hypothesis that the deprived environment of prison predicts PTSD symptoms post-release, which may be understood as post-incarceration syndrome. Results highlight the effect of internalized stigma, autonomy, resource loss, and personal safety anxiety on the experience of post-incarceration PTSD symptoms. Internalized stigma, autonomy and the loss of resources were identified to be

particularly impactful on traumatic stress. Furthermore, the conditional effect of oppression on these relationships was explored. While conclusions are limited regarding this effect, preliminary evidence was found for the attenuating role of oppression on the correlations of internalized stigma and personal safety anxiety with symptoms of PTSD. Thus, this study suggests PICS is a relevant topic to explore in research, target in treatment, and use to advocate for needed prison reform. Further research is needed to better understand the unique role oppression plays for minority groups within the criminal justice system, especially given the historically racist and oppressive roots of the system.

REFERENCES

Agboola, C. (2017). "Why do they need to punish you more?": Women's lives after imprisonment. *South African Review of Sociology, 48*(2), 32-48. https://doi.org/10.1080/21528586.2016.1233510

Agnew, R. (2001). Building on the foundation of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency, 38*(4), 319-361. https://doi.org/10.1177%2F0022427801038004001

Alper, M., Durose, M. R., & Markman, J. (2018*). 2018 update on prisoner recidivism: A 9-year follow-up period (2005-2014)*. Bureau of Justice Statistics. https://www.bjs.gov/content/pub/pdf/18upr9yfup0514.pdf

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.)

American Psychiatric Association Division of Research. (2013). Highlights of changes from *DSM-IV* to *DSM-5*: Posttraumatic stress disorder. *Focus: The Journal of Lifelong Learning in Psychiatry, 11*(3), 358-361. https://doi.org/10.1176/appi.focus.11.3.358

Andersen, T. S., Scott, D. A. I., Boehme, H. M., King, S., & Mikell, T. (2020). What matters to formerly incarcerated men? Looking beyond recidivism as a measure of successful reintegration. *The Prison Journal, 100*(4), 488-509. https://doi.org/10.1177/0032885520939295

Anderson, R. E., Geier, T. J., & Cahill, S. P. (2016). Epidemiological associations between posttraumatic stress disorder and incarceration in the National Survey of American Life. *Criminal Behavior and Mental Health, 26*(2), 110-123. https://doi.org/10.1002/cbm.1951

Andu, E., Wagenaar, B. H., Kemp, C. G., Nevin, P. E., Simoni, J. M., Andrasik, M., Cohn, S. E., French, A. L., & Rao, D. (2018). Risk and protective factors of posttraumatic stress disorder among African American women living with HIV. *AIDS Care, 30*(11), 1393-1399. https://doi.org/10.1080/09540121.2018.1466981

Anumba, N., Dematteo, D., & Heilbrun, K. (2012). Social functioning, victimization, and mental health among female offenders. *Criminal Justice and Behavior, 39*(9), 1204-1218. https://doi.org/10.1177/0093854812443489

Appel, O., Stephens, D., Shadravan, S. M., Key, J., & Ochoa, K. (2020). Differential incarceration by race-ethnicity and mental health service status in Los Angeles county jail system. *Psychiatric Services, 71*(8), 843-846. https://doi.org/10.1176/appi.ps.201900429

Ashkar, P. J., & Kenny, D. T. (2008). Views from the inside: Young offenders' subjective experiences of incarceration. *International Journal of Offender*

Therapy and Comparative Criminology, 52(5), 584-597. https://doi.org/10.1177/0306624X08314181

Asnaani, A., & Hall-Clark, B. (2017). Recent developments in understanding ethnocultural and race differences in trauma exposure and PTSD. *Current Opinion in Psychology, 14*(1), 96-101. http://dx.doi.org/10.1016/j.copsyc.2016.12.005

Ayón, C., Messing, J. T., Gurrola, M., & Valencia-Garcia, D. (2018). The oppression of Latina mothers: Experiences of exploitation, violence, marginalization, cultural imperialism, and powerlessness in their everyday lives. *Violence Against Women, 24*(8), 879-900. https://doi.org/10.1177/1077801217724451

Baskin, D. R., Sommers, I., Tessler, R., & Steadman, H. J. (1989). Role incongruence and gender variation in the provision of prison mental health services. *Journal of Health and Social Behavior, 30*(3), 305-314. https://doi.org/10.2307/2136962

Baumle, D. (2018). Creating the trauma-to-prison pipeline: How the U.S. justice system criminalizes structural and interpersonal trauma experienced by girls of color. *Family Court Review, 56*(4), 695-708. https://doi.org/10.1111/fcre.12384

Bebbington, P. E., McManus, S., Coid, J. W., Garside, R., & Brugha, T. (2021). The mental health of ex-prisoners: Analysis of the 2014 English National Survey of Psychiatric Morbidity. *Social Psychiatry and Psychiatric Epidemiology.* https://doi.org/10.1007/s00127-021-02066-0

Bélanger, J. J., Nisa, C. F., Schumpe, B. M., & Chamberland, P. (2019). Using implementation intentions to change passion: The role of environmental mastery

and basic psychological needs. *Motivation Science, 5*(4), 343-356. http://dx.doi.org/10.1037/mot0000125

Bell, D. (1992) *And we are not saved: The elusive quest for racial justice*. Basic Books.

Bennion, E. (2015). Banning the bing: Why extreme solitary confinement is cruel and far too usual punishment. *Indiana Law Journal, 90*(2), 741-786.

Berry, M. C., & Wiener, R. G. (2020). Exoffender housing stigma and discrimination. *Psychology, Public Policy, and Law, 26*(2), 213-232. https://doi.org/10.1037/law0000225

Binswanger, I. A., Nowels, C., Corsi, K. F., Long, J., Booth, R. E., Kutner, J., & Steiner, J. F. (2011). "From the prison door right to the sidewalk, everything went downhill," A qualitative study of the health experiences of recently released inmates. *International Journal of Law and Psychiatry, 34*(), 249-255. http://dx.doi.org/10.1016/j.ijlp.2011.07.002

Birgden, A. (2015). Maximizing desistance: Adding therapeutic jurisprudence and human rights to the mix. *Criminal Justice and Behavior, 42*(1), 19-31. https://doi.org/10.1177/0093854814550024

Blankenship, K. M., del Rio Gonzalez, A., Keene, D. E., Groves, A. K., & Rosenberg, A. P. (2018). Mass incarceration, race inequality, and health: Expanding concepts and assessing impacts on well-being. *Social Science & Medicine, 215*(1), 45-52. https://doi.org/10.1016/j.socscimed.2018.08.042

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and

initial psychometric evaluation. *Journal of Traumatic Stress, 28*(6), 489-498. https://doi.org/10.1002/jts.22059

Bogaerts, S., & Polak, M. S. (2013). Victimhood and post-traumatic stress in the forensic domain: Consequences of incarceration and stimulation of mental disorders. In J. B. Helfgott (Ed.), *Criminal psychology, Vol. 1. Theory and research, Vol. 2. Typologies, mental disorders, and profiles, Vol. 3. Implications for forensic assessment, policing, and the courts, Vol. 4. Implications for juvenile justice, corrections, and reentry* (p. 253–266). Praeger/ABC-CLIO.

Bonfils, K. A., Lysaker, P. H., Yanos, P. T., Siegel, A., Leonhardt, B. L., James, A. V., Brustuen, B., Luedtke, B., & Davis, L. W. (2018). Self-stigma in PTSD: Prevalence and correlates. *Psychiatry Research, 265*(1), 7-12. https://doi.org/10.1016/j.psychres.2018.04.004

Bos, A. G., Pryor, J. B., Reeder, G. D., & Stutterheim, S. E. (2013). Stigma: Advances in theory and research. *Basic and Applied Social Psychology, 35*(1), 1-9. https://doi.org/10.1080/01973533.2012.746147

Bosma, A. Q., van Ginneken, E., Palmen, H., Pasma, A. J., Beijersbergen, K. A., & Nieuwbeerta, P. (2020). A new instrument to measure prison climate: The psychometric quality of the prison climate questionnaire. *The Prison Journal, 100*(3), 355-380. https://doi.org/10.1177/0032885520916819

Boxer, P., Middlemass, K., & Delorenzo, T. (2009). Exposure to violent crime during incarceration: Effects on psychological adjustment following release. *Criminal Justice and Behavior, 36*(8), 793-807. https://doi.org/10.1177/0093854809336453

Boxer, P., Schappell, A., Middlemass, K., & Mercado, I. (2011). Cognitive and emotional covariates of violence exposure among former prisoners: Links to antisocial behavior and emotional distress and implications for theory. *Aggressive Behavior, 37*(5), 465-475. https://doi.org/10.1002/ab.20405

Breet, E., Kagee, A., & Seedat, S. (2014). HIV-related stigma and symptoms of post-traumatic stress disorder and depression in HIV-infected individuals: Does social support play a mediating or moderating role? *AIDS Care, 26*(8), 947-951. http://dx.doi.org/10.1080/09540121.2014.901486

Brennan, T., Breitenbach, M., Dieterich, W., Salisbury, E. J., & Van Voorhis, P. (2012). Women's pathways to serious and habitual crime: A person-centered analysis incorporating gender responsive factors. *Criminal Justice and Behavior, 39*(11), 1481-1508. https://doi.org/10.1177/0093854812456777

Briere, J., Agee, E., & Dietrich, A. (2016). Cumulative trauma and current posttraumatic stress disorder status in general population and inmate samples. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(4), 439-446. http://dx.doi.org/10.1037/tra0000107

Bureau of Justice Statistics. (2016). *Recidivism of offenders placed on federal community supervision in 2005: patterns from 2005 to 2010 (NCJ 249743*). https://www.bjs.gov/content/pub/pdf/ropfcs05p0510.pdf

Bureau of Justice Statistics (2018). *Key statistic: Incarceration rate.* https://www.bjs.gov/index.cfm?ty=kfdetail&iid=493#Publications

Calogero, R. M., Tylka, T. L., Siegel, J. A., Pina, A., & Roberts, T. (2020). Smile pretty and watch your back: Personal safety anxiety and vigilance in objectification theory. *Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes.* Advance online publication. https://doi.apa.org/doi/10.1037/pspi0000344

Caravaca-Sánchez, F., Azipurua, E., & Wolff, N. (2022). The prevalence of prison-based physical and sexual victimization in males and females: A systematic review and meta-analysis. *Trauma, Violence, & Abuse.* https://doi.org/10.1177/15248380221130358

Caraves, J. (2018). Straddling the school-to-prison pipeline and gender non-conforming microaggressions as a Latina lesbian. *Journal of LGBT Youth, 15*(1), 52-69. https://doi.org/10.1080/19361653.2017.1395308

Carlson, B. E., & Shafer, M. S. (2010). Traumatic histories and stressful life events of incarcerated parents: Childhood and adult trauma histories. *The Prison Journal, 90*(4), 475-493. https://doi.org/10.1177/0032885510382224

Carson, E. A. (2022). *Prisoners in 2021*. Bureau of Justice Statistics. https://bjs.ojp.gov/sites/g/files/xyckuh236/files/media/document/p21st.pdf

Carson, E. A. (2020). *Prisoners in 2019*. Bureau of Justice Statistics. https://bjs.ojp.gov/content/pub/pdf/p19.pdf

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist, 35*(1), 13-105. https://doi.org/10.1177/00110000629033

Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*(2)*,* 216-236. https://doi.org/10.1007/s11031-014-9450-1

Chui, W. H., & Cheng, K. K-Y. (2013). The mark of an ex-prisoner: Perceived discrimination and self-stigma of young men after prison in Hong Kong. *Deviant Behavior, 34*(8), 671-684. https://doi.org/10.1080/01639625.2013.766532

Clark, V. A., & Duwe, G. (2017). Distance matters: Examining the factors that impact prisoner visitation in Minnesota. *Criminal Justice and Behavior, 44*(2), 184-204. https://doi.org/10.1177/0093854816667416

Clemmer, D. (1940). *The prison community*. Holt, Rinehart and Winston.

Cloud, D. H., Drucker, E., Browne, A., & Parsons, J. (2015). Public health and solitary confinement in the United States. *American Journal of Public Health, 105*(1), 18-26. https://doi.org/10.2105/AJPH.2014.302205

Corrigan, P. W. (1998). The impact of stigma on severe mental illness. *Cognitive and Behavioral Practice, 5*(2), 201-222. https://doi.org/10.1016/S1077-7229(98)80006-0

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9*(1), 35–53. https://doi.org/10.1093/clipsy.9.1.35

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*(8), 875-884. https://doi.org/10.1521/jscp.2006.25.8.875

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum, 1989,* 139-168.

Crewe, B., Hulley, S., & Wright, S. (2016). Swimming with the tide: Adapting to long-term imprisonment. *Justice Quarterly, 34*(3), 517-541. https://doi.org/10.1080/07418825.2016.1190394

Crewe, B., Hully, S., & Wright, S. (2017). The gendered pains of life imprisonment. *British Journal of Criminology, 57*(6), 1359-1378. https://doi.org/0.1093/bjc/azw088

Crisanti, A. S., & Frueh, B. C. (2011). Risk of trauma exposure among persons with mental illness in jails and prisons: What do we really know? *Current Opinion in Psychiatry, 24*(5), 431-435. https://doi.org/10.1097/YCO.0b013e328349bbb8

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*(4), 608-630. https://doi/10.1037/0033-295X.96.4.608

Curtis, A. (2014). "You have to cut it off at the knee": Dangerous masculinity and security inside a men's prison. *Men and Masculinities, 17*(2), 120-146. https://doi.org/10.1177/1097184X14533641

Cusack, K. J., Herring, A. H., & Steadman, H. J. (2013). PTSD as a mediator between lifetime sexual abuse and substance use among jail diversion participants. *Psychiatric Services, 64*(8), 776-781. https://doi.org/10.1176/appi.ps.000052012

Cyprus, K. (2017). Multiple minorities as multiply marginalized: Applying the minority stress theory to LGBTQ people of color. *Journal of Gay & Lesbian Mental Health, 21*(3), 194-202. https://doi.org/10.1080/19359705.2017.1320739

Daquin, L. E., Daigle, L. E., & Listwan, S. J. (2016). Vicarious victimization in prison: Examining the effects of witnessing victimization while incarcerated on offender reentry. *Criminal Justice and Behavior, 43*(8), 1018-1033. https://doi.org/10.1177/0093854816650479

Davidson, M. M., Butchko, M. S., Robbins, K., Sherd, L. W., & Gervais, S. J. (2016). The mediating role of perceived safety on street harassment and anxiety. *Psychology of Violence*, 6(4), 553-561. https://doi.apa.org/doi/10.1037/a0039970

Davis, C., & Francois, S. (2020). Behind closed doors: Considering a triphasic traumatic incarceration experience. *Traumatology, 26*(2), 193-204. http://dx.doi.org/10.1037/trm0000227

Decker, S. H., Ortiz, N., Spohn, C., & Hedberg, E. (2015). Criminal stigma, race, and ethnicity: The consequences of imprisonment for employment. *Journal of Criminal Justice, 43*(2), 108-121. https://doi.org/10.1016/j.jcrimjus.2015.02.002

DeHart, D. D. (2008). Pathways to prison: Impact of victimization in the lives of incarcerated women. *Violence Against Women, 14*(12), 1362-1381. https://doi.org/10.1177/1077801208327018

Delgado, R., & Stefancic, J. (2017). *Critical Race Theory: An introduction* (3rd ed.). New York University.

DeShay, R. A. (2016). "A lot of people go insane behind that": Coping with the trauma of being wrongfully convicted. *Criminal Justice Studies, 29*(3), 199-213. http://dx.doi.org/10.1080/1478601X.2016.1146140

Dettbarn, E. (2012). Effects of long-term incarceration: A statistical comparison of two expert assessments of two experts at the beginning and the end of incarceration. *International Journal of Law and Psychiatry, 35*(3), 236-239. https://doi.org/10.1016/j.ijlp.2012.02.014

DeVeaux, M. (2013). The trauma of the incarceration experience. *Harvard Civil Rights-Civil Liberties Law Review, 48*(1), 257-277.

de Viggiani, N. (2012). Trying to be something you are not: Masculine performances within a prison setting. *Men and Masculinities, 15*(3), 271-291. https://doi.org/10.1177/1097184X12448464

Dhami, M., Ayton, P., & Loewenstein, G. (2007). Adaptation to imprisonment: Indigenous or imported? *Criminal Justice and Behavior, 34*(8), 1085-1100. https://doi.org/10.1177/0093854807302002

DiAngelo, R. (2018). *White fragility: Why it's so hard for White people to talk about racism*. Beacon Press.

Dierkhising, C. B., Lane, A., & Natsuaki, M. N. (2014). Victims behind bars: A preliminary study of abuse during juvenile incarceration and post-release social

and emotional functioning. *Psychology, Public Policy, and Law, 20*(2), 181-190. https://psycnet.apa.org/doi/10.1037/law0000002

Di Lorito, C., Völlm, B., & Dening, T. (2018). Psychiatric disorders among older prisoners: A systematic review and comparison study against older people in the community. *Aging & Mental Health, 22*(1), 1-10. http://dx.doi.org/10.1080/13607863.2017.1286453

Doekhie, J., Dirkzwager, A., & Nieuwbeerta, P. (2017). Early attempts at desistance from crime: Prisoners' prerelease expectations and their postrelease criminal behavior. *Journal of Offender Rehabilitation, 56*(7), 473-493. https://doi.org/10.1080/10509674.2017.1359223

Dogan, J. N., Thrasher, S., Thorpe, S. Y., Hargons, C., & Stevens-Watkins, D. (2021). Cultural race-related stress and cannabis use among incarcerated African American men. *Psychology of Addictive Behaviors,* 1-6. https://doi.org/10.1037/adb0000694

Durante, K. A. (2020). Racial and ethnic disparities in prison admissions across countries: An evaluation of racial/ethnic threat, socioeconomic inequality, and political climate explanations. *Race and Justice, 10*(2), 176-202. https://doi.org/10.1177/2153368717738038

Duwe, G., & Johnson, B. R. (2016). The effects of prison visits from community volunteers on offender recidivism. *The Prison Journal, 96*(2), 279–303. https://doi.org/10.1177/0032885515618468

Eagle, G., & Kaminer, D. (2013). Continuous traumatic stress: Expanding the lexicon of traumatic stress. *Peace and Conflict: Journal of Peace Psychology, 19*(2), 85-99. http://dx.doi.org/10.1037/a0032485

Earle, M., Prusacyk, E., Choma, B., & Calogero, R. (2021). Compliance with COVID-19 safety measures: A test of an objectification theory model. *Body Image, 37*(1), 6-13. https://doi.org/10.1016/j.bodyim.2021.01.004

Ellis, S., & Bowen, E. (2017). Factors associated with desistance from violence in prison: An exploratory student. *Psychology, Crime and Law, 23*(6), 601-619. https://doi.org/10.1080/1068316X.2017.1290090

Epp, C. R., Maynard-Moody, S., & Haider-Markel, D. (2017). Beyond profiling: The institutional sources of racial disparities in policing. *Public Administration Review, 77*(2), 168-178. https://doi.org/10.1111/puar.1272

Everett, B. G., Steele, S. M., Matthews, A. K., & Hughes, T. L. (2019). Gender, race, and minority stress among sexual minority women: An intersectional approach. *Archives of Sexual Behavior, 48*(5), 1505-1517. https://doi.org/10.1007/s10508-019-1421-x

Facer-Irwin, E., Blackwood, N. J., Bird, A., Dickson, H., McGlade, D., Alves-Costa, F., & MacManus, D. (2019). PTSD in prison settings: A systematic review and meta-analysis of comorbid mental disorders and problematic behaviours. *PLoS ONE, 14*(9). https://doi.org/10.1371/journal.pone.0222407

Fala, N. C., Coleman, J. A., & Lynch, J. R. (2016). Anticipatory anxiety in the treatment of combat veterans with posttraumatic stress disorder. *Journal of Aggression,*

Maltreatment & Trauma, 25(2), 210-229. http://dx.doi.org/10.1080/10926771.2015.1081661

Favril, L., Vander Laenen, F., Vandeviver, C., & Audenaert, K. (2017). Suicidal ideation while incarcerated: Prevalence and correlates in a large sample of male prisoners in Flanders, Belgium. *International Journal of Law and Psychiatry, 55*(1), 19-28. https://doi.org/10.1016/j.ijlp.2017.10.005

Fazel, S., & Baillargeon, J. (2011). The health of prisoners. *The Lancet, 377*(9769), 956-965. https://doi.org/10.1016/S0140-6736(10)61053-7

Fazel, S., Ramesh, T., & Hawton, K. (2017). Suicide in prisons: An international study of prevalence and contributory factors. *Lancet Psychiatry, 4*(12), 946-952. https://doi.org/10.1016/S2215-0366(17)30430-3

Folk, J. B., Blasko, B. L.,Warden, R., Schaefer, K., Ferssizidis, P., Stuewig, J., & Tangney, J. P. (2016). Feasibility and acceptability of an impact of crime group intervention with jail inmates. *Victims and Offenders*, *11*(3), 436–454. https://doi.org10.1080/15564886.2014.982777

Forsyth, K., Senior, J., Stevenson, C., O'Hara, K., Hayes, A., Challis, D., & Shaw, J. (2015). 'They just throw you out': Release planning for older prisoners. *Ageing & Society, 35*(), 2011-2025. https://doi.org/10.107/S0144696X1400774

Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*(2)*,* 173–206. http://dx.doi.org/10.1111/j.1471-6402.1997.tb00108.x

Freiburger, T. L., & Sheeran, A. M. (2020). The joint effects of race, gender and age on the incarceration and sentence length decisions. *Race and Justice, 10*(2), 203-222. https://doi.org/10.1177/2153368717739676

Freire, P. (1990). *Education for a critical consciousness*. New York: Continuum.

Galardi, T. R., & Settersten, R. A. (2018). "They're just made up different": Juvenile correctional staff perceptions of incarcerated boys and girls. *Children and Youth Services Review, 95*(1), 200-208. https://doi.org/10.1016/j.childyouth.2018.10.040

Gao, M., Xiao, C., Zhang, X., Li, S., & Yan, H. (2018). Social capital and PTSD among PLWHI in China: The mediating role of resilience and internalized stigma. *Psychology, Health, & Medicine, 23*(6), 698-706. https://doi.org/10.1080/13548506.2018.1426869

Garber-Paul, E., & Bort, R. (2021, April 22). *The United States of weed: Curious about the status of cannabis? Here's where legalization stands, state by state*. Rolling Stone. https://www.rollingstone.com/feature/cannabis-legalization-states-map-831885/

Garcia-Hallett, J. (2019). "We're being release to a jungle": The state of prisoner reentry and the resilience of women of color. *The Prison Journal, 99*(4), 459-483. https://doi.org/10.1177/0032885519852089

Gibbons, F. X., Fleischli, M. I., Gerrard, M., Simons, R. L., Weng, C., & Gibson, L. P. (2020). The impact of early racial discrimination on illegal behavior, arrest, and incarceration among African Americans. *American Psychologist, 75*(7), 952-968. http://dx.doi.org/10.1037/amp0000533

Gillespie, G. L., & Gates, D. M. (2013). Using proactive coping to manage the stress of trauma patient care. *Journal of Trauma Nursing, 20*(1), 44-50. https://doi.org/10.1097/JTN.0b013e318286608e

Glidden, M. D., & Brown, T. C. (2017). Separated by bars or dollar signs? A comparative examination of the financial literacy of those incarcerated and the general population. *American Journal of Criminal Justice, 42*(3), 533–553. https://doi.org/10.1007/s12103-016-9377-z

Goff, A., Rose, E., Rose, S., & Purves, D. (2007). Does PTSD occur in sentenced prison populations? A systematic literature review. *Criminal Behaviour and Mental Health, 17*(3), 152-162. https://doi.org/10.1002/cbm.653

Goffman, E. (1961). *Asylums: essays on the social situation of mental patients and other inmates.* Aldine Publishing Company.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Simon & Schuster, Inc.

Golder, S., Engstrom, M., Hall, M. T., Higgins, G. E., & Logan, T. (2015). Psychological distress among victimized women on probation and parole: A latent class analysis. *American Journal of Orthopsychiatry, 85*(4), 382-391. http://dx.doi.org/10.1037/ort0000057

Gonzalez, A., Locicero, B., Mahaffey, B., Fleming, ,C., Harris, J., & Vujanovic, A. A. (2016). Internalized HIV stigma and mindfulness: Associations with PTSD symptom severity in trauma-exposed adults with HIV/AIDS. *Behavior Modification, 40*(1-2), 144-163. https://doi.org/10.1177/0145445515615354

Goodyear, R., Lichtenberg, L., Hutman, H., Overland, E., Bedi, R., Christiana, K., Di Mattia, M., du Preez, E., Farrell, B., Feather, J., Grant, J., Han, Y., Ju, Y., Lee, D., Lee, H., Nicholas, H., Jones Nielsen, J., Sinacore, A., Tu, S., & Young, C. (2016). A global portrait of counselling psychologists' characteristics, perspectives, and professional behaviors. *Counselling Psychology Quarterly, 29*(2), 115-138. https://doi.org/10.1080/09515070.2015.1128396

Gorski, T. T. (2001). Post incarceration syndrome. *Addiction Exchange, 3*(4).

Gotanda, N. (1991). A critique of "our constitution is color-blind." *Stanford Law Review, 44*(1), 1-68. https://doi.org/10.2307/1228940

Gottfried, E. D., & Christopher, S. C. (2017). Mental disorder among criminal offenders: A review of the literature. *Journal of correctional Health care, 23*(3), 336-346. https://doi.org/10.1177/1078345817716180

Graff, G. (2015). Redesigning racial caste in America via mass incarceration. *The Journal of Psychohistory, 32*(2), 120-133.

Graham, L. F. (2014). Navigating community institutions: Black transgender women's experiences in schools, the criminal justice system, and churches. *Sexuality Research and Social Policy, 11*(1), 274-287. https://doi.org/10.1007/s13178-014-0144-y

Green, B. L., Dass-Brailsford, P., Hurtado de Mendoza, A., Mete, M., Lynch, S. M., DeHart, D. D., & Belknap, J. (2016). Trauma experiences and mental health among incarcerated women. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(4), 455-463. https://doi.org/10.1037/tra0000113

Green, B. L., Miranda, J., Daroowalla, A., & Siddique, J. (2005). Trauma exposure, mental health functioning, and program needs of women in jail. *Crime & Delinquency, 51*(1), 133-151. https://doi.org/10.1177/0011128704267477

Greenberg, G. A., & Rosenheck, R. A. (2008). Homelessness in the state and federal prison population. *Criminal Behaviour and Mental Health, 18*(2), 88–103. https://doi.org/10.1002/cbm.685

Griffin, A. D., Tasca, M., & Orrick, E. A. (2020). Getting high after getting out: Understanding the relationship between support, stressors, and drug use among men and women in early reentry. *Crime & Delinquency, 66*(13-14), 1839-1864. https://doi.org/10.1177/0011128720906113

Grillon, C., Pine, D. S., Lissek, S., Rabin, S., Bonne, O., & Vythilingam, M. (2009). Increased anxiety during anticipation of unpredictable aversive stimuli in posttraumatic stress disorder but not in generalized anxiety disorder. *Biological Psychiatry, 66*(1), 47-53. https://doi.org/10.1016/j.biopsych.2008.12.028

Hagan, B. O., Wang, E. A., Aminwung, J. A., Albizu-Garcia, C. E., Zaller, N., Nyamu, S., Shavit, S., Deluca, J., Fox, A. D., & Transitions Clinic Network (2018). History of solitary confinement is associated with post-traumatic stress disorder symptoms among individuals recently released from prison. *Journal of Urban Health, 95*(2), 141-148. https://doi.org/10.1007/s11524-017-0138-1

Halushka, J. M. (2020). The runaround: Punishment, welfare, and poverty survival after prison. *Social Problems, 67*(2), 233-250. https://doi.org/10.1093/socpro/spz018

Haney, C. (2001). *The psychological impact of incarceration: Implications for post-prison adjustment*. Paper presented at the "From Prison to Home" Conference, Washington, DC. Retrieved from https://aspe.hhs.gov/system/files/pdf/75001/Haney.pdf

Haney, C. (2012). Prison effects in the age of mass incarceration. *The Prison Journal*, 1-24. https://doi.org/10.1177/0032885512448604

Harlow, C. W. (2003). *Education and Correctional Populations*. Bureau of Justice Statistics. https://files.eric.ed.gov/fulltext/ED477377.pdf

Harner, H. M., Wyant, B. R., & Da Silva, F. (2017). "Prison ain't free like everyone thinks": Financial stressors faced by incarcerated women. *Qualitative Health Research, 27*(5), 688-699. http://doi.org/10.1177/1049732316664460

Harper, A., Ginapp, C., Bardelli, T., Grimshaw, A., Justen, M., Mohammedali, A., Thomas, I., & Puglisi, L. (2021). Debt, incarceration, and re-entry: A scoping review. *American Journal of Criminal Justice, 46*(), 250-278. https://doi.org/10.1007/s12103-020-09559-9

Harris, D. A., & Levenson, J. (2020). Life on "the list" is a life lived in fear: Post-conviction traumatic stress in men convicted of sexual offenses. *International Journal of Offender Therapy and Comparative Criminology.* https://doi.org/10.1177%2F0306624X20952397

Harvey, T. D., Keene, D. E., & Pachankis, J. E. (2021). Minority stress, psychosocial health, and survival among gay and bisexual men before, during, and after

incarceration. *Social Science & Medicine, 272*(113735). https://doi.org/10.1016/j.socscimed.2021.113735

Haskins, A. R., & Lee, H. (2016). Reexamining race when studying the consequences of criminal justice contact for families. *Annals of the American Academy of Political and Social Science, 665*(1), 224-230. https://doi.org/10.1177/0002716216633447

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.

Hayes, J., Chun-Kennedy, C., Edens, A., & Locke, B. D. (2011). Do double minority students face double jeopardy? Testing minority stress theory. *Journal of College Counseling, 14*(2), 117-126. https://doi.org/10.1002/j.2161-1882.2011.tb00267.x

Heath, N. M., Hall, B. J., Russ, E. U., Canetti, D., & Hobfoll, S. E. (2012). Reciprocal relationships between resource loss and psychological distress following exposure to political violence: An empirical investigation of COR theory's loss spirals. *Anxiety Stress Coping, 25*(6), 679-695. https://dx.doi.org/10.1080%2F10615806.2011.628988

Henry, B. F. (2020). Typologies of adversity in childhood & adulthood as determinants of mental health & substance use disorders of adults incarcerated in US prisons. *Child Abuse & Neglect, 99*(1), 1-9. https://doi.org/10.1016/j.chiabu.2019.104251

Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumatic Stress, 5*(3), 377-391. https://doi.org/10.1002/jts.2490050305

Himmelstein, M. S., Young, D. M., Sanchez, D. T., & Jackson, J. S. (2015). Vigilance in the discrimination-stress model for Black Americans. *Psychology & Health, 30*(3), 253-267. https://doi.org/10.1080/08870446.2014.966104

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524. https://doi.org/10.1037/0003-066x.44.3.513

Hobfoll, S. E. (1991). Traumatic stress: A theory based on rapid loss of resources. *Anxiety Research, 4*(3), 187-197. https://doi.org/10.1080/08917779108248773

Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as a strategy for community psychology. *Journal of Community Psychology, 21*(2), 128-148. https://doi.org/10.1002/1520-6629(199304)21:2%3C128::AID-JCOP2290210206%3E3.0.CO;2-5

Hochstetler, A., Murphy, D. S., & Simons, R. L. (2004). Damaged goods: Exploring predictors of distress in prison inmates. *Crime & Delinquency, 50*(3), 436-457. https://doi.org/10.1177%2F0011128703257198

Holloway, C. P., & Wiener, R. L. (2021). Affective forecasting and ex-offender hiring decisions. *Motivation and Emotion, 45*(4), 489-505. https://doi.org/10.1007/s11031-021-09885-3

Holmes, S. C., Facemire, V. C., & DaFonseca, A. M. (2016). Expanding criterion A for posttraumatic stress disorder: Considering the deleterious impact of oppression. *Traumatology, 22*(4), 314-321. http://dx.doi.org/10.1037/trm0000104

Holmgreen, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory: Resource caravans and passageways in health contexts. In C. L. Cooper & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 443-457). John Wiley & Songs, Ltd.

Howard, R., Karatzias, T., Power, K., & Mahoney, A. (2017). Posttraumatic stress disorder (PTSD) symptoms mediate the relationship between substance misuse and violent offending among female prisoners. *Social Psychiatry And Psychiatric Epidemiology, 52*(1), 21-25. https://doi.org/10.1007/s00127-016-1293-5

Huebner, B. M., Kras, K. R., & Pleggenkuhle, B. (2018). Structural discrimination and social stigma among individuals incarcerated for sexual offenses: Reentry across the rural-urban continuum. *Criminology, 57*(4), 715-738. https://doi.org/10.1111/1745-9125.12226

Hulley, S., Crewe, B., & Wright, S. (2016). Re-examining the problems of long-term imprisonment. The *British Journal of Criminology, 56*(4), 769-792. https://doi.org/10.1093/bjc/azv077

Jackson, S. L., Komarovskaya, I., Warren, J. I., & Loper, A. B. (2017). The role of forms of traumatic exposure in relational and physical aggression perpetrated by incarcerated men and women. *Victims & Offenders, 12*(4), 610-623. https://doi.org/10.1080/15564886.2016.1219686

Jäggi, L. J., Mezuk, B., Watkins, D. C., & Jackson, J. S. (2016). The relationship between trauma, arrest, and incarceration history among Black Americans: Findings from

the national survey of American life. *Society and Mental Health, 6*(3), 187-206. https://doi.org/10.1177/215689316641730

Jewkes, Y. (2005). Men behind bars: "Doing" masculinity as an adaptation to imprisonment. *Men and Masculinities, 8*(1), 44-63. https://doi.org/10.1177/1097184X03257452

Kachanoff, F. J., Cooligan, F., Caouette, J., & Wohl, M. J. A. (2021). Free to fly the rainbow flag: The relation between collective autonomy and psychological well-being amongst LGBTQ+ individuals. *Self and Identity, 20*(6), 741-773. https://doi.org/10.1080/15298868.2020.1768890

Karatzias, T., Jowett, S., Begley, A., & Deas, S. (2016). Early maladaptive schemas in adult survivors of interpersonal trauma: Foundations for a cognitive theory of psychopathology. *European Journal of Psychotraumatology, 7*(1). http://dx.doi.org/10.3402/ejpt.v7.30713

Keene, D. E., Smoyer, A. B., & Blankenship, K. M. (2018). Stigma, housing, and identity after prison. *The Sociological Review Monographs, 66*(4), 799-815. https://doi.org/10.1177/0038026118777447

Kelley, C. L., Britt, T. W., Adler, A. B., & Bliese, P. D. (2014). Perceived organizational support, posttraumatic stress disorder symptoms, and stigma in soldiers returning from combat. *Psychological Services, 11*(2), 229-234. http://dx.doi.org/10.1037/a0034892

Kennedy, A. C., Bybee, D., & Greeson, M. R. (2014). Examining cumulative victimization, community violence exposure, and stigma as contributors to PTSD

symptoms among high-risk young women. *American Journal of Orthopsychiatry. 84*(3), 284-294. https://doi.org/10.1037/ort0000001

Kim, J., & Kiesel, A. (2018). The long shadow of police racial treatment: Racial disparity in criminal justice processing. *Public Administration Review, 78*(3), 422-431. https://doi.org/10.1111/puar.12842

Kira, I. A. (2001). Taxonomy of trauma and trauma assessment. *Traumatology, 7*(2). https://doi.org/10.1177%2F153476560100700202

Kira, I. A., Fawzi, M. H., & Fawzi, M. M. (2012). The dynamics of cumulative trauma and trauma types in adults patients with psychiatric disorders: Two cross-cultural studies. *Traumatology, 19*(3), 179-195. https://doi.org/10.1177/1534765612459892

Kira, I. A., Lewandowski, L., Templin, T., Ramaswamy, V., Ozkan, B., & Mahanesh, J. (2008). Measuring cumulative trauma dose, types, and profiles using a development-based taxonomy of traumas. *Traumatology, 14*(2), 62-87. https://doi.org/10.1177/1534765608319324

Kira, I. A., Shuwiekh, H. A. M., Alhuwailah, A., Ashby, J. S., Sous, M. S. F., Baali, S. B. A., Azdaou, C., Oliemat, E. M., & Jamil, H. J. (2021). The effects of COVID-19 and collective identity trauma (intersectional discrimination) on social status and well-being. *Traumatology, 27*(1), 29-39. https://doi.org/10.1037/trm0000289

Kira, I. A., Smith, I., Lewandowski, L., & Templin, T. (2010). The effects of gender discrimination on refugee torture survivors: A cross-cultural traumatology

perspective. *Journal of the American Psychiatric Nurses Association, 16*(5), 299-306. https://doi.org/10.1177/1078390310384401

Kolts, R., Robinson, A. M., & Tracy, J. J. (2004). The relationship of sociotropy and autonomy to posttraumatic cognitions and PTSD symptomatology in trauma survivors. *Journal of Clinical Psychology, 60*(1), 53-63. https://doi.org/10.1002/jclp.10193

Koopman, C., Classen, C., & Spiegel, D. A. (1994). Predictors of posttraumatic stress symptoms among survivors of the Oakland/Berkeley, Calif., firestorm. *The American Journal of Psychiatry, 151*(6), 888–894. https://doi.org/10.1176/ajp.151.6.888

Kriegel, L. S. (2019). Stranger support: How former prisoners with mental illnesses navigate the public landscape of reentry. *Health and Place, 56*(1), 155-164. https://doi.org/10.1016/j.healthplace.2019.01.021

Kubiak, S. P. (2004). The effects of PTSD on treatment adherence, drug relapse, and criminal recidivism in a sample of incarcerated men and women. *Research on Social Work Practice, 14*(6). 424-433. https://doi.org/10.1177/104973150266837

Kubzansky, L. D., Bordelois, P., & Jin Jun, H. (2014). The weight of traumatic stress: A prospective study of posttraumatic stress disorder symptoms and weigh status in women. *JAMA Psychiatry, 71*(1), 44-51. https://doi.org/10.1001/jamapsychiatry.2013.2798

Kukucka, J., Horodyski, A. M., & Dardis, C. M. (2022). The Exoneree Health and Life Experiences (ExHaLE) study: Trauma exposure and mental health among

wrongly convicted individuals. *Psychology, Public Policy, and Law, 28*(3), 387–399. https://doi.org/10.1037/law0000358

Kutnick, A. H., Leonard, N. R., & Gwadz, M. V. (2019). "Like I have no choice": A qualitative exploration of HIV diagnosis and medical care experiences while incarcerated and their effects. *Behavioral Medicine, 45*(2), 153-165. https://doi.org/10.1080/08964289.2019.1591338

Lattimore, P., & Visher, C. (2006). *Serious and Violent Offender Reentry Initiative (SVORI) Multi-site Impact Evaluation, 2004-2011: Data documentation*. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

LeBel, T. P. (2012a). "If one doesn't get you another one will": Formerly incarcerated persons' perceptions of discrimination. *The Prison Journal, 92*(1), 63-87. https://doi.org/10.1177/0032885511429243

LeBel, T. P. (2012b). Invisible stripes? Formerly incarcerated persons' perceptions of stigma. *Deviant Behavior, 33*(2), 89-107. https://doi.org/10.1080/01639625.2010.538365

Lichtenberg, J. W., Goodyear, R. K., Hutman, H., & Overland, E. A. (2016). Counselling psychology in the United States. *Counselling Psychology Quarterly, 29*(2), 216-224. http://dx.doi.org/10.1080/09515070.2015.1127207

Lichtenberg, J. W., Hutman, H., & Goodyear, R. K. (2018). Portrait of counseling psychology: Demographics, roles, activities, and values across three decades. *The Counseling Psychologist, 46*(1), 50-76. https://doi.org/10.1177/0011000018754532

Liem, M., & Kunst, M. (2013). Is there a recognizable post-incarceration syndrome among released "lifers"? *International Journal of Law and Psychiatry, 36*(3-4), 333-337. https://doi.org/10.1016/j.ijlp.2013.04.012

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*(3), 400–423. https://doi.org/10.2307/2095613

Listwan, S. J., Colvin, M., Hanley, D., & Flannery, D. (2010). Victimization, social support, and psychological well-being: A study of recently released prisoners. *Criminal Justice and Behavior, 37*(10), 1140-1159. https://doi.org/10.1177%2F0093854810376338

Lloyd, C., Page, G., McKeganey, N., & Russell, C. (2019). Capital depreciation: The lack of recovery capital and post-release support for prisoners leaving the Drug Recovery Wings in England and Wales. *International Journal of Drug Policy, 70*(), 107-116. https://doi.org/10.1016/j.drugpo.2019.06.012

Lujan, M. J. W. M., & Fanniff, A. M. (2019). Justice for all: Trauma and the need for safety and fairness within juvenile justice facilities. *Criminal Justice and Behavior, 46*(1), 63-81. https://doi.org/10.1177/0093854818796060

Lyons, C. J., & Pettit, B. (2011). Compounded disadvantage: Race, incarceration, and wage growth. *Social Problems, 58*(2), 257-280. https://doi.org/10.1525/sp.2011.58.2.257

Maas, J., Laceulle, O., & Bekker, M. (2019). The role of autonomy-connectedness in the relation between childhood stressful life events, current posttraumatic symptoms,

and internalizing psychopathology in adulthood. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(3), 345-352. http://dx.doi.org/10.1037/tra0000412

Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56*(1), 393-421. https://doi.org/10.1146/annurev.psych.56.091103.070137

Markman, J. A., Durose, M. R., Rantala, R. R., & Tiedt, A. D. (2016). *Recidivism of offenders place on federal community supervision in 2005: Patterns from 2005-2010.* Bureau of Justice Statistics. https://bjs.ojp.gov/content/pub/pdf/ropfcs05p0510.pdf

Marks, L. D. (2019). Trauma and incarceration: Historical relevance and present-day significant for African American women. In S. Ringel & J. R. Brandell (Eds), *Trauma: Contemporary directions in trauma theory, research, and practice* (2nd ed., pp. 312-333). Columbia University Press.

Marotta, P. L. (2017). Childhood adversities and substance misuse among the incarcerated: Implications for treatment and practice in correctional settings. *Substance Use & Misuse, 52*(6), 717-733. https://doi.org/10.1080/10826084.2016.1261899

Martin, L. (2018). "Free but sill walking the yard": Prisonization and the problems of reentry. *Journal of Contemporary Ethnography, 47*(5), 671-694. https://doi.org/10.1177/0891241617737814

Martin, M. S., Eljdupovic, G., McKenzie, K., & Colman, I. (2015). Risk of violence by inmates with childhood trauma and mental health needs. *Law and Human Behavior, 39*(6), 614-623. http://dx.doi.org/10.1037/lhb0000149

Martin, R. E., Hanson, D., Hemingway, C., Ramsden, V., Buxton, J., Granger-Brown, A., Condello, L.-L., Macaulay, A., Janssen, P., & Hislop, T. G. (2012). Homelessness as viewed by incarcerated women: Participatory research. *International Journal of Prisoner Health, 8*(3–4), 108–116. https://doi.org/10.1108/17449201211284987

Maruschak, L. M., & Minton, T. D. (2020). *Correctional populations in the United States, 2017-2018*. Bureau of Justice Statistics. https://www.bjs.gov/content/pub/pdf/cpus1718.pdf

Maschi, T., MacMillan, T., Morgen, K., Gibson, S., & Stimmel, M. (2010). Trauma, world assumptions, and coping resources among youthful offenders: Social work, mental health, and criminal justice implications. *Child and Adolescent Social Work Journal, 27*(6), 377-393. https://doi.org/10.1007/s10560-010-0211-z

Maschi, T., Morgen, K., Leibowitz, G., & Rees, J. (2019). Exploring the relationship between cumulative trauma and recidivism among older adults: Does race and offense history matter? *Traumatology, 25*(1), 11-20. http://dx.doi.org/10.1037/trm0000167

Massoglia, M., & Pridemore, W. A. (2015). Incarceration and health. *Annual Review of Sociology, 41*(1), 291-310. https://doi.org/10.1146/annurev-soc-073014-112326

Matsumoto, A., Santelices, C., & Lincoln, A. K. (2020). Perceived stigma, discrimination and mental health among women in publicly funded substance abuse treatment.

Stigma and Health. Advance online publication. https://doi.org/10.1037/sah0000226

Mauer, M. (2011). Addressing racial disparities in incarceration. *The Prison Journal, 91*(3), 87S-101S. https://doi.org/10.1177/0032885511415227

McCann, I. L., Sakhein, D. K., & Abrahamson, D. J. (1988). Trauma and victimization: A model of psychological adaptation. *The Counseling Psychologist, 16*(4), 531-594. https://doi.org/10.1177%2F0011000088164002

McWilliams, E. R., & Hunter, B. A. (2021). The impact of criminal record stigma on quality of life: A test of theoretical pathways. *American Journal of Community Psychology, 67*(1-2), 89-102. https://doi.org/10.1002/ajcp.12454

Meijers, J., Harte, J. M., Meynen, G., Cuijpers, P., & Scherder, E. J. A. (2018). Reduced self-control after 3 months of imprisonment: A pilot study. *Frontiers in Psychology, 9*. https://doi.org/10.3389/fpsyg.2018.00069

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*(5), 674-697. http://dx.doi.org/10.1037/0033-2909.129.5.674

Meyer, I. H., Flores, A. R., Stemple, L., Romero, A. P., Wilson, B. D. M., & Herman, J. L. (2017). Incarceration rates and traits of sexual minorities in the United States: National inmate survey, 2011-2012. *American Journal of Public Health, 107*(2), 267-273. https://doi.org/10.2105/AJPH.2016.303576

Millward, L., & Senker, S. (2012). Self-determination in rehabilitation: A qualitative case study of three young offenders on community orders. *The British Journal of Forensic Practice, 14*(3), 204-216. https://doi.org/10.1108/14636641211254923

Moore, K. E., Milam, K. C., Folk, J. B., & Tangney, J. P. (2018). Self-stigma among criminal offenders: Risk and protective factors. *Stigma and Health, 3*(3), 241-252. https://doi.org/10.1037/sah0000092

Moore, K., Stuewig, J., & Tangney, J. (2013). Jail inmates' perceived and anticipated stigma: Implications for post-release functioning. *Self and Identity, 12*(5), 527-547. https://doi.org/10.1080/15298868.2012.702425

Moore, K. E., Stuewig, J. B., & Tangney, J. P. (2016). The effect of stigma on criminal offenders' functioning: A longitudinal mediational model. *Deviant Behavior, 37*(2), 196-218. https://doi.org/10.1080/01639625.2014.1004035

Moore, K. E., & Tangney, J. P. (2017). Managing the concealable stigma of criminal justice system involvement: A longitudinal examination of anticipated stigma, social withdrawal, and post-release adjustment. *Journal of Social Issues, 73*(2), 322-340. https://doi.org/10.1111/josi.12219

Moore, K. E., Tangney, J. P., & Stuewig, J. B. (2016). The self-stigma process in criminal offenders. *Stigma and Health, 1*(3), 206-224. http://dx.doi.org/10.1037/sah0000024

Moradi, B., & Grzanka, P. R. (2017). Using intersectionality responsibly: Toward critical epistemology, structural analysis, and social justice activism. *Journal of Counseling Psychology, 64*(5), 500-513. http://dx.doi.org/10.1037/cou0000203

Motivans, M. A. (2022). *Federal Justice Statistics, 2021*. Bureau of Justice Statistics. https://bjs.ojp.gov/sites/g/files/xyckuh236/files/media/document/fjs21.pdf

Mowen, T. J., Stansfield, R., & Boman, J. H. (2019). Family matters: Moving beyond "if" family support matters to "why" family support matters during reentry from prison. *Journal of Research in Crime and Delinquency, 56*(4), 483-523. https://doi.org/10.1177/0022427818820902

Muller, A. E. (2020). A systematic review of quality of life assessments of offenders. *International Journal of Offender Therapy and Comparative Criminology, 64*(13-14), 1364-1397. https://doi.org/10.1177/0306624X19881929

Ng, E. D., Sears, G. J., & Bakkaloglu, M. (2020). White and minority employee reactions to perceived discrimination at work: Evidence of White fragility? *International Journal of Manpower, 42*(4), 661-682. https://doi.org/10.1108/IJM-12-2019-0535

O'Donnell, I., & Edgar, K. (1999). Fear in prison. *The Prison Journal, 79*(1), 90-99. https://doi.org/10.1177%2F0032885599079001006

Öğülmüş, S., Boysan, M., Fidan-Acar, Ö., & Koca, H. (2020). The underlying dimensions of *DSM-5* posttraumatic stress disorder (PTSD) and their relationships with mental and somatoform dissociation, depression and anxiety among jail inmates. *British Journal of Guidance & Counseling, 48*(3), 374-393. https://doi.org/10.1080/03069885.2020.1738338

Ortiz, J. M., & Jackey, H. (2019). The system is not broken, it is intentional: The prisoner reentry industry as deliberate structural violence. *The Prison Journal, 99*(4), 484-503. https://doi.org/10.1177/0032885519852090

Parent, M. C. (2013). Handling item-level missing data: Simpler is just as good. *The Counseling Psychologist, 41*(4), 568-600. https://doi.org/10.1177/0011000012445176

Peller, G. (1990). Race consciousness. *Duke Law Journal, 1990*(4), 758-847.

Pemberton, S. (2013). Enforcing gender: The constitution of sex and gender in prison regimes. *Signs: Journal of Women in Culture and Society, 39*(1), 151-175. https://doi.org/10.1086/670828

Petrich, D. M. (2020). A self-determination theory perspective of human agency, desistance from crime, and correctional rehabilitation. *Journal of Developmental and Life-Course Criminology, 6*(3), 353-379. https://doi.org/10.1007/s40865-020-00141-9

Pettus-Davis, C. (2014). Social support among releasing men prisoners with lifetime trauma experiences. *International Journal of Law and Psychiatry, 37*(5), 512-523. http://dx.doi.org/10.1016/j.ijlp.2014.02.024

Pettus-Davis, C., Veeh, C. A., Davis, M., & Tripodi, S. (2018). Gender differences in experiences of social support among men and women releasing from prison. *Journal of Social and Personal Relationships, 35*(9), 1161-1182. https://doi.org/10.1177/0265407517705492

Pforte, D. (2020). Evaluating and intervening in the trauma of solitary confinement: A social work perspective. *Clinical Social Work Journal, 48(*1), 77–86. https://doi.org/10.1007/s10615-019-00744-w

Pierson, E., Simoiu, C., Overgoor, J., Corbett-Davies, S., Ramachandran, V., Phillips, C., & Goel, S. (2020). A large-scale analysis of racial disparities in police stops across the United States. *Nature Human Behavior, 4*(7), 736-745. https://doi.org/10.1038/s41562-020-0858-1

Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology, 76*(1), 114-128. https://doi.org/10.1037/0022-3514.76.1.114

Piper, A., & Berle, D. (2019). The associated between trauma experienced during incarceration and PTSD outcomes: A systematic review and meta-analysis. *The Journal of Forensic Psychiatry & Psychology, 30*(5), 854-875. https://doi.org/10.1080/14789949.2019.1639788

Pleggenkuhle, B. (2018). The financial cost of a criminal conviction: Context and consequences. *Criminal Justice and Behavior, 45*(1), 121-145. https://doi.org/10.1177/0093854817734278

Porter, L. C. (2019). Being "on point": Exploring the stress-related experiences of incarceration. *Society and Mental Health, 9*(1), 1-17. https://doi.org/10.1177/2156869318771439

Porter, L. C., & DeMarco, L. M. (2019). Beyond the dichotomy: Incarceration dosage and mental health. *Criminology, 57*(1), 136-156. https://doi.org/10.1111/1745-9125.12199

Porter, L. C., Kozlowski-Serra, M., & Lee, H. (2021). Proliferation or adaptation? Differences across race and sex in the relationship between time served in prison

and mental health symptoms. *Social Science and Medicine, 276*(113815), 1-9. https://doi.org/10.1016/j.socscimed.2021.113815

Prins, S. J. (2014). Prevalence of mental illnesses in U.S. state prisoners: A systematic review. *Psychiatric Services, 65*(7), 862-872. https://doi.org/10.1176/appi.ps.201300166

Radatz, D. L., & Wright, E. M. (2017). Does polyvictimization affect incarcerated and non-incarcerated adult women differently? An exploration into internalizing problems. *Journal Of Interpersonal Violence, 32*(9), 1379-1400. https://doi.org/10.1177/0886260515588921

Ram, D., Siegel, Z. A., & Jason, L. A. (2017). Housing as a resource for justice-involved women. *Community Mental Health Journal, 53*(3), 340-363. https://doi.org/10.1007/s10597-016-0036-0

Reising, K., Ttofi, M. M., Farrington, D. P., & Piquero, A. R. (2019). Depression and anxiety outcomes of offending trajectories: A systematic review of prospective longitudinal studies. *Journal of Criminal Justice, 62*(1), 3-15. https://doi.org/10.1016/j.jcrimjus.2018.05.002

Ricciardelli, R., & Moir, M. (2013). Stigmatized among the stigmatized: Sex offenders in Canadian penitentiaries. *Canadian Journal of Criminology and Criminal Justice, 55*(3), 353-385. https://doi.org/10.3138/cjccj.2012.E22

Ricciardelli, R., & Mooney, T. (2018). The decision to disclose: Employment after prison. *Journal of Offender Rehabilitation, 57*(6), 343-366. https://doi.org/10.1080/10509674.2018.1510866

Roach, C. B. (2013). Shallow affect, no remorse: The shadow of trauma in the inner city. Peace and Conflict: *Journal of Peace Psychology, 19*(2), 150-163. http://dx.doi.org/10.1037/a0032530

Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race-ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological Medicine, 41*(1), 71-83. https://doi.org/10.1017/S0033291710000401

Robinson, B. A. (2020). The lavender scare in homonormative times: Policing, hyper-incarceration, and LGBTQ youth homelessness. *Gender & Society, 34*(2), 210-232. http://doi.org/10.1177/0891243220906172

Rocheleau, A. M. (2013). An empirical exploration of the "pains of imprisonment" and the level of prison misconduct and violence. *Criminal Justice Review, 38*(3), 354-374. https://doi.org/10.1177/0734016813494764

Roos, L. E., Afifi, T. O., Martin, C. G., Pietrzak, R. H., Tsai, J., & Sareen, J. (2016). Linking typologies of childhood adversity to adult incarceration: Findings from a nationally representative sample. *American Journal of Orthopsychiatry, 86*(5), 584-593. https://doi.org/10.1037/ort0000144

Romero, M. (2012, November 16). *A day in the life of a prisoner*. PEN America 100. https://pen.org/a-day-in-the-life-of-a-prisoner/

Rostosky, S. S., Richardson, M. T., McCurry, S. K., & Riggle, E. D. B. (2022). LGBTQ individuals' lived experiences of hypervigilance. *Psychology of Sexual*

Orientation and Gender Diversity, 9(3), 358–369. https://doi.org/10.1037/sgd0000474

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. https://doi.org/10.1037110003-066X.55.1.68

Saar, M. S., Epstein, R., Rosenthal, L., & Vafa, Y. (2015). *The sexual abuse to prison pipeline: The girls' story*. Human Rights Project for Girls, Georgetown Law Center on Poverty and Inequality, & Ms. Foundation for Women. https://rights4girls.org/wp-content/uploads/r4g/2015/02/2015_COP_sexual-abuse_layout_web-1.pdf

Saddichha, S., Werker, G. R., Schuetz, C., & Krausz, M. R. (2015). Stimulants and cannabis use among a marginalized population in British, Columbia, Canada: Role of trauma and incarceration. *International Journal of Offender Therapy and Comparative Criminology, 59*(13), 1487-1498. https://doi.org/10.1177/0306624X14541661

Sadeh, N., & McNiel, D. (2015). Posttraumatic stress disorder increases risk of criminal recidivism among justice-involved persons with mental disorders. *Criminal Justice and Behavior, 42*(6), 573-586. https://doi.org/10.1177/0093854814556880

Salem, B. E., Kwon, J., Ekstrand, M. L., Hall, E., Turner, S. F., Faucette, M., & Slaughter, R. (2021). Transitioning into the community: Perceptions of barriers and facilitators experienced by formerly incarcerated, homeless women during

reentry – A qualitative study. *Community Mental Health Journal, 57*(4), 609-621. https://doi.org/10.1007/s10597-020-00748-8

Sauber, E. W., & O'Brien, K. M. (2020). Multiple losses: The psychological and economic well-being of survivors of intimate partner violence. *Journal of Interpersonal Violence, 35*(15-16), 3054-3078. https://doi.org/10.1177/0886260517706760

Schappell, A., Docherty, M., & Boxer, P. (2016). Violence and victimization during incarceration: Relations to psychosocial adjustment during reentry to the community. *Violence and Victims, 31*(2), 361-378. https://doi.org/10.1891/0886-6708.VV-D-13-00188

Schnurr, P.P., Spiro, A. III, Vielhauer, M.J., Findler, M.N., & Hamblen, J.L. (2002). Trauma in the lives of older men: Findings from the normative aging study. *Journal of Clinical Geropsychology, 8*(3), 175-187. https://doi.org/10.1023/A:1015992110544

Schnurr, P., Vielhauer, M., Weathers, F., & Findler, M. (1999). *The brief trauma questionnaire*. White River Junction, VT: National Center for PTSD.

Schnittker, J. (2014). The psychological dimensions and the social consequences of incarceration. *The ANNALS of the American Academy of Political and Social Science, 651*(1), 122-138. https://doi.org/10.1177/0002716213502922

Schnittker, J., & Bacak, V. (2013). A mark of disgrace or a badge of honor?: Subjective status among former inmates. *Social Problems, 60*(2), 234-354. https://doi.org/10.1525/sp.2013.12057

Schnittker, J., & John, A. (2007). Enduring stigma: The long-term effects of incarceration on health. *Journal of Health and Social Behavior, 48*(2), 115-130. https://doi.org/10.1177/002214650704800202

Shinkfield, A. J., Graffam, J. (2010). The relationship between emotional state and success in community reintegration or ex-prisoners. *International Journal of Offender Therapy and Comparative Criminology, 54*(3), 346-360. https://doi.org/10.1177/0306624X09331443

Smoyer, A. B., Madera, J. E., & Blakenship, K. M. (2019). Older adults' lived experience of incarceration. *Journal of Offender Rehabilitation, 58*(3), 220-239. https://doi.org/10.1080/10509674.2019.1582574

Srivastava, A., Prost, S. G., & Williams, S. M. (2022). Mental health among lesbian, gay, bisexual and other non-heterosexual adults in United States prisons. *Current Psychology, 2022*. https://doi.org/10.1007/s12144-022-03777-6

Stammen, E., & Ghandnoosh, N. (2022). *Incarcerated LGBTQ+ Adults and Youth*. The Sentencing Project. https://www.sentencingproject.org/app/uploads/2022/10/Incarcerated-LGBTQ-Youth-and-Adults.pdf

Steiner, B., & Meade, B. (2016). Assessing the link between exposure to violent prison context and inmate maladjustment. *Journal of Contemporary Criminal Justice, 32*(4), 328-356. https://doi.org/10.1177/1043986216660009

Stewart, E. A., Warren, P. Y., Hughes, C., & Brunson, R. K. (2020). Race, ethnicity, and criminal justice contact: Reflections for future research. *Race and Justice, 10*(2), 119-149. https://doi.org/10.1177/2153368717738090

Stinson, J. D., & Gonsalves, V. (2014). Suicide attempts and self-harm behaviors in psychiatric sex offenders. *Sexual Abuse: Journal of Research and Treatment, 26*(3), 252-270. http://dx.doi.org/10.1177/1079063213486935

Straker, G., & the Sanctuaries Counselling Team. (1987). The continuous traumatic stress syndrome: The single therapeutic interview. *Psychology in Society, 8*, 48 –78.

Strickland, J. (2016). Building social capital for stable employment: The postprison experiences of Black male exprisoners. *Journal of Offender Rehabilitation, 55*(3), 129-147. http://dx.doi.org/10.1080/10509674.2015.1128506

Sugie, N. F., Zatz, N. D., & Augustine, D. (2020). Employer aversion to criminal records: An experimental study of mechanisms. *Criminology, 58*(1), 5-34. https://doi.org/10.1111/1745-9125.12228

Sumner, J. A., Kubzansky, L. D., Kabrhel, C., Roberts, A. L., Chen, Q., Winning, A., Gilsanz, P., Rimm, E. B., Glymour, M. M., & Koenen, K. C. (2016). Associations of trauma exposure and posttraumatic stress symptoms with venous thromboembolism over 22 years in women. *Journal of the American Heart Association, 5*(5). https://doi.org/10.1161/JAHA.116.003197

Sykes, G. (1958). *The society of captives: A study of a maximum security prison.* Princeton University Press.

Sykes, G., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review, 22*(6), 664-670. https://doi.org/10.2307/2089195

Tangney, J. P., Mashek, D., & Stuewig, J. (2007). Working at the social-clinical-community-criminology interface: The GMU inmate study. *Journal of Social and Clinical Psychology, 26*(1), 1-21. https://dx.doi.org/10.1521%2Fjscp.2007.26.1.1

Taylor, C. J. (2016). The family's role in the reintegration of formerly incarcerated individuals: The direct effects of emotional support. *The Prison Journal, 96*(3), 331-354. https://doi.org/10.1177/0032885516635085

Teasdale, B., Daigle, L. E., Hawk, S. R., & Daquin, J. C. (2016). Violent victimization in the prison context: An examination of the gendered contexts of prison. *International Journal of Offender Therapy and Comparative Criminology, 60*(9), 995-1015. https://doi.org/10.1177/0306624X15572351

Tewksbury, R. (2012). Stigmatization of sex offenders. *Deviant Behavior, 33*(8), 606-623. https://doi.org/10.1080/01639625.2011.636690

Thomas, E. G., Spittal, M. J., Hefernan, E. B., Taxman, F. S., Alati, R., & Kinner, S. A. (2015). Trajectories of psychological distress after prison release: Implications for mental health service need in ex-prisoners. *Psychological Medicine, 46*(3), 611-621. https://doi.org/10.1017/S0033291715002123

Tiegreen, J. A., & Combs, D. R. (2017). An examination of sub-clinical paranoia in a correctional setting. *Journal of Experimental Psychopathology, 8*(1).

Tracey, D., & Hanham, J. (2017). Applying positive psychology to illuminate the needs of adolescent males transition out of juvenile detention. *International Journal of*

Offender Therapy and Comparative Criminology, 61(1), 64-79. https://doi.org/10.1177/0306624X15591242

Turney, K., Lee, H., & Comfort, M. (2013). Discrimination and psychological distress among recently released male prisoners. *American Journal of Men's Health, 7*(6), 482-493. https://doi.org/10.1177/1557988313484056

Van der Kaap-Deeder, J., Audenaert, E., Vandevelde, S., Soenens, B., Van Mastrigt, S., Mabbe, E., & Vansteenkiste, M. (2017). Choosing when choices are limited: The role of perceived afforded choice and autonomy in prisoners' well-being. *Law and Human Behavior, 41*(6), 567-578. http://dx.doi.org/10.1037/lhb0000259

Van der Kaap-Deeder, J., Audenaert, E., Van Petegem, S., Vandevelde, S., Van Mastrigt, S., Aelterman, N., & Vansteenkiste, M. (2019). The internalization of and defiance against rules within prison: The role of correctional officers' autonomy-supportive and controlling communication style as perceived by prisoners. *Motivation and Emotion, 43*(5), 771-785. https://doi.org/10.1007/s11031-019-09766-w

Van der Laan, A., & Eichelsheim, V. (2013). Juvenile adaptation to imprisonment: Feelings of safety, autonomy and well-being, and behaviour in prison. *European Journal of Criminology, 10*(4), 424-443. https://doi.org/10.1177/1477370812473530

Van Ginneken, E. F. J. C., Palmen, H., Bosma, A. Q., & Sentse, M. (2019). Bearing the weight of imprisonment: The relationship between prison climate and well-being.

Criminal Justice and Behavior, 46(10), 1385-1404. https://doi.org/10.1177/0093854819867373

van Willigenburg, T. (2020). Moral injury, post-incarceration syndrome and religious coping behind bars. In S. Sremac & I. W. Jindra (eds.), *Lived religion, conversion and recovery: Negotiating of self, the social, and the sacred.* Palgrave Studies in Lived Religion and Scoeital Challenges. https://doi.org/10.1007/978-3-030-40682-0_8

Valera, P. & Boyas, J. F. (2019). Perceived social ties and mental health among formerly incarcerated men in New York City. *International Journal of Offender Therapy and Comparative Criminology, 63*(10), 1843-1860. https://doi.org/10.1177/0306624X19832239

Varghese, F. P., Israel, T., Seymour, G., Herbst, R. B., Suarez, L. G., & Hargons, C. (2019). Injustice in the justice system: Reforming inequities for true "justice for all." *The Counseling Psychologist, 47*(5), 682-740. https://doi.org/10.1177/0011000019892329

Vasilopoulou, E., Karatzias, T., Hyland, P., Wallace, H., & Guzman, A. (2020). The mediating role of early maladaptive schemas in the relationship between childhood traumatic events and complex posttraumatic stress disorder symptoms in older adults (>64 years). *Journal of Loss and Trauma, 25*(2), 141-158. https://doi.org/10.1080/15325024.2019.1661598

Vera, E. M., & Speight, S. L. (2003). Multicultural competence, social justice, and counseling psychology: Expanding our roles. *The Counseling Psychologist, 31*(2), 253-272. https://doi.org/10.1177/0011000002250634

Vogel, D. L., Bitman, R. L., Hammer, J. H., & Wade, N. G. (2013). Is stigma internalized? The longitudinal impact of public stigma on self-stigma. *Journal of Counseling Psychology, 60*(2), 311-316. https://doi.org/10.1037/a0031889

Wahlstrom, L. C., Scott, J. P., Tuliao, A. P., DiLillo, D., & McChargue, D. E. (2015). Posttraumatic stress disorder symptoms, emotion dysregulation, and aggressive behavior among incarcerated methamphetamine users. *Journal of Dual Diagnosis, 11*(2), 118-127. https://doi.org/10.1080/15504263.2015.1025026

Walker, J., Illingworth, C., Canning, A., Garner, E., Woolley, J., Taylor, P., & Amos, T. (2014). Changes in mental state associated with prison environments: a systematic review. *Acta Psychiatrica Scandinavica, 129*(6), 427-436. https://doi.org/10.1111/acps.12221

Wallace, D., Fahmy, C., Cotton, L., Jimmons, C., McKay, R., Stoffer, S., & Syed, S. (2016). Examining the role of familial support during prison and after release on post-incarceration mental health. *International Journal of Offender Therapy and Comparative Criminology, 60*(1), 3-20. https://doi.org/10.1177/0306624X14548023

Warren, P., Tomaskovic-Devey, D., Smith, W., Zingraff, M., & Mason, M. (2006). Driving while black: Bias processes and racial disparity in police stops. *Criminology, 44*(3), 709-738. https://doi.org/10.1111/j.1745-9125.2006.00061.x

Watts, R. J., Griffith, D. M., & Abdul-Adil, J. (1999). Sociopolitical development as an antidote for oppression – theory and action. *American Journal of Community Psychology, 27*(2), 255-271. https://doi.org/10.1023/A:1022839818873

Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013). The PTSD Checklist for *DSM-5* (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov.

West, M. L., Vaysheker, B., Rotter, M., & Yanos, P. T. (2015). The influence of mental illness and criminality self-stigmas and racial self-concept on outcomes in a forensic psychiatric sample. *Psychiatric Rehabilitation Journal, 38*(2), 150-157. http://dx.doi.org/10.1037/prj0000133

Westcott, K. (2015). Race, criminalization, and historical trauma in the United States: Making the case for a new justice framework. *Traumatology, 21*(4), 273-284. http://dx.doi.org/10.1037/trm0000048

Western, B., Braga, A. A., Davis, J., & Sirois, C. (2015). Stress and hardship after prison. *American Journal of Sociology, 120*(5), 1512–1547. https://doi.org/10.1086/681301

Williams, J. M. (2019). Race as a carceral terrain: Black lives matter meets reentry. *The Prison Journal, 99*(4), 387-395. https://doi.org/10.1177/0032885519852062

Williams, J. M., Wilson, S. K., & Bergeson, C. (2019). "It's hard out here if you're a black felon": A critical examination of black male reentry. *The Prison Journal, 99*(4), 437-458. https://doi.org/10.1177/0032885519852088

Wolff, N., Blitz, C. L., Shi, J., Siegel, J., & Bachman, R. (2007). Physical violence inside prisons: Rates of victimization. *Criminal Justice and Behavior, 34*(5), 588-599. https://doi.org/10.1177/0093854806296830

Wolff, N., McHugo, G., Shi, J., Huening, J., & Frueh, B. C. (2015). Screening for PTSD among incarcerated men: A comparative analysis of computer-administered and orally administered modalities. *Criminal Justice and Behavior, 42*(2), 219-236. https://doi.org/10.1177/0093854814551601

Wolff, N., & Sánchez, F. C. (2019). Associations among psychological distress, adverse childhood experiences, social support, and resilience in incarcerated men. *Criminal Justice and Behavior, 46*(11), 1630-1649. https://doi.org/10.1177/0093854819876008

Wolff, N. L., & Shi, J. (2010). Trauma and incarcerated persons. In C. L. Scott (Ed.), *Handbook of correctional mental health* (2nd ed., pp. 277-320). American Psychiatric Association Publishing.

Wolff, N., Shi, J., & Blitz, C. L. (2008). Racial and ethnic disparities in types and sources of victimization inside prison. *The Prison Journal, 88*(4), 451-472. https://doi.org/10.1177/0032885508325392

Wood, J., & Dennard, S. (2017). Gang membership: Links to violence exposure, paranoia, PTSD, anxiety, and forced control of behavior in prison. *Psychiatry: Interpersonal and Biological Processes, 80*(1), 30–41. https://doi.org/10.1080/00332747.2016.1199185

Wyant, B. R. & Harner, H. M. (2018). Financial barriers and utilization of medical services in prison: An examination of co-payments, personal assets, and individual characteristics. *Journal for Evidence-Based Practice in Correctional Health, 2*(1). https://opencommons.uconn.edu/jepch/vol2/iss1/4

Xu, Y., Li, J., Xie, Q., & Deng, H. (2019). Hair cortisol levels and symptoms of anxiety and depression in Chinese adolescents: Comparison between incarcerated and community populations. *PsyCh Journal, 8*(1), 147–157. https://doi.org/10.1002/pchj.248

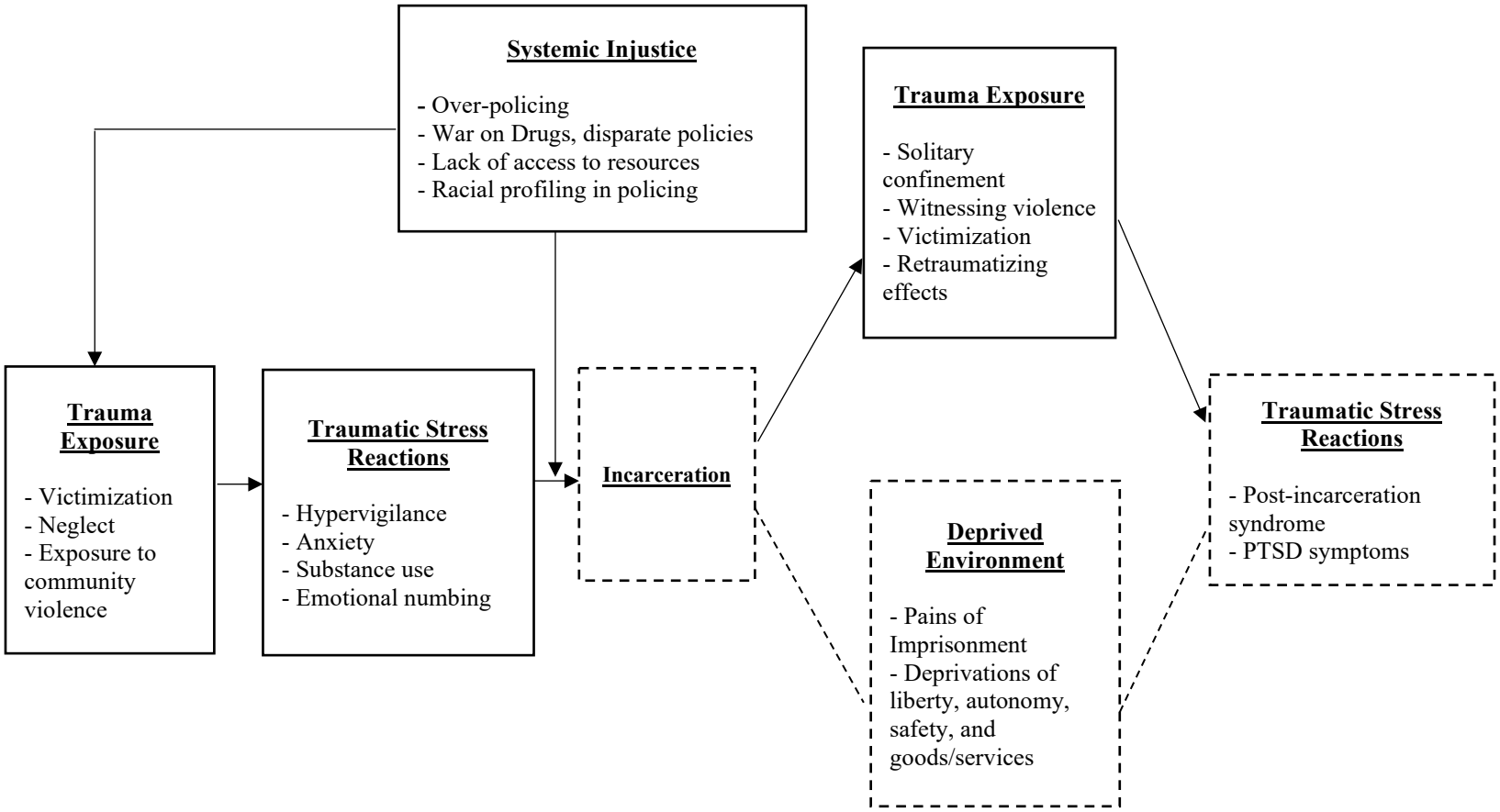
Zamble, E. & Porporino, F. J. (1988). *Coping, behavior, and adaptation in prison inmates*. Springer-Verlag Publishing.

Zaw, K., Hamilton, D., & Darity Jr., W. (2016). Race, wealth, and incarceration: Results from the national longitudinal survey of youth. *Race and Social Problems, 8*(1), 103-115. https://doi.org/10.1007/s12552-016-9164-y

Zlodre, J., & Fazel, S. (2012). All-cause and external mortality in released prisoners: Systematic review and meta-analysis. *American Journal of Public Health, 102*(12), 67-75. https://doi.org/10.2105/AJPH.2012.300764

Figure 1

Conceptual Model for the Role of Trauma in Justice-Involved Populations



Note: The doted borders and paths represent the aim of the current project.

Table 1

Demographic Characteristics of Participants

	n	%
Race		
Native American or Alaskan Native	4	3.4%
Black/African-American	12	10.1%
White/Caucasian	101	84.9%
Other (Self-Report)	2	1.7%
"Mexican"	1	
"Italian, Egyptian"	1	
Ethnicity		
Hispanic/Latino(a)	15	12.6%
Non-Hispanic/Latino(a)	103	86.5%
Gender		
Man	86	72.3%
Woman	32	26.9%
Trans man	1	0.8%
Sexual Orientation		
Straight	94	79.0%
Lesbian/Gay	10	8.4%
Bisexual	9	7.6%
Other sexual orientation	6	5.0%
Household Income		
Under $10,000	25	21.0%
$10,000-$19,999	20	16.8%
$20,000-$29,999	27	22.7%
$30,000-$39,999	12	10.1%
$40,000+	34	28.6%
SES		
My family has a hard time buying the things we need	38	31.9%
My family has just enough money for the things we need	37	31.1%
My family has no problem buying the things we need and sometimes we can also buy special things	36	30.3%
My family has enough money to buy pretty much anything we want.	8	6.7%

	n	%
Highest Level of Education Completed		
Less than middle school	2	1.7%
Middle school	9	7.6%
Some high school	8	6.7%
High school diploma/GED	24	20.2%
Some college	34	28.6%
Associate's Degree	12	10.1%
Bachelor's Degree	21	17.6%
Master's Degree	5	4.2%
Doctorate	3	2.5%
Spent Time in Solitary During Incarceration		
Yes	85	71.4%
No	34	28.6%

Note. Values reported as %(*n*); *n's* do not always add up to 119 due to missing data

Table 2

Means, Standard Deviations, and Internal Consistency Reliability

Measure	α	*M (SD)*	Possible Range	Observed Range
PCL-5	.96	41.13 (20.86)	0 - 80	1 - 76
SSICR: Internalized Stigma Subscale	.93	1.65 (.74)	1 - 4	1 – 3.70
BPNSFS: Autonomy Subscale	.75	3.36 (.74)	1 - 5	1.25 – 4.88
COR-E: Interpersonal and Material Subscales	.96	3.11 (.89)	1 – 5	1.02 – 4.68
PSAVS	.69	4.11 (1.15)	1- 7	1.5 – 6.5
BTQ: Pre-Prison	-	5.26 (3.38)	0 - 15	0 – 13
BTQ: During Prison	-	4.40 (3.22)	0 - 15	0 - 12
BTQ: Post-Prison	-	2.94 (3.03)	0 - 15	0 - 11
Sentence Length (months)	-	86.16 (97.43)	-	7 – 478
Time Since Release (months)	-	37.59 (47.94)	-	1 - 336
Solitary Confinement (days)	-	124.71 (279.64)	-	0 – 2,372

Table 3

Bivariate Correlations Among Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. PTSD	-	.45***	-.52***	.57***	.52***	-.35***	-.24**	.02	.46***	.52***	.48***
2. Internalized Stigma		-	-.27**	.27**	.39***	-.31**	-.23*	.00	.51***	.51***	.42***
3. Autonomy			-	-.44***	-.37***	.26**	.20*	.09	-.33***	-.33***	-.29***
4. Resource Loss				-	.46***	-.21*	-.19*	-.05	.38***	.33***	.32***
5. Personal Safety Anxiety					-	-.16	-.07	-.02	.47***	.46***	.50***
6. Sentence Length (months)						-	.17	.26**	-.25**	-.12	-.32***
7. Time Since Release (months)							-	.16	-.08	-.07	.04
8. Time Spent in Solitary Confinement (days)								-	.15	.18*	.12
9. Pre-Prison Trauma Exposure									-	.58***	.72***
10. Trauma Exposure During Incarceration										-	.69***
11. Post-Prison Trauma Exposure											-

Note. ***$p < .001$, **$p < .01$, *$p < .05$.

Table 4

Summary of Hierarchical Regression Analyses for Predicting PTSD Symptoms

	Step 1				Step 2				Step 3			
	B	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*
Variable												
Model 1												
Sentence Length	-.05	.02	-.22**	-2.72	-.03	.02	-.16*	-2.21	-.03	.02	-.14	-1.93
Time Since Release	-.08	.03	-.17*	-2.26	-.04	.03	-.10	-1.49	-.04	.03	-.09	-1.31
Pre-Prison Trauma	.80	.66	.13	1.21	-.02	.59	-.01	-.04	-.18	.61	-.03	-.29
During Prison Trauma	2.36	.70	.35**	3.35	1.57	.63	.23*	2.5	1.37	.66	.20*	2.07
Post Prison Trauma	.54	.88	.08	.61	.35	.78	.05	.45	.44	.78	.06	.56
Autonomy					-5.33	2.11	-.19*	-2.52	-5.36	2.11	-.19*	-2.54
Resource Loss					6.17	1.82	.26***	3.39	6.25	1.82	.27***	3.43
Personal Safety Anxiety					2.99	1.46	.17*	2.05	2.78	1.48	.15	1.89
Internalized Stigma									2.29	2.32	.08	.99
R^2			.40				.56				.56	
ΔR^2							.16				.004	
F			14.84***				13.17***				.98	
Model 2												
Sentence Length	-.05	.02	-.22**	-2.72	-.04	.02	-.17*	-2.29	-.03	.02	-.14	-1.93
Time Since Release	-.08	.03	-.17*	-2.26	-.05	.03	-.11	-1.55	-.04	.03	-.09	-1.31
Pre-Prison Trauma	.80	.66	.13	1.21	-.08	.62	-.01	-.12	-.18	.61	-.03	-.29
During Prison Trauma	2.36	.70	.35**	3.35	1.57	.67	.24*	2.34	1.37	.66	.20*	2.07
Post Prison Trauma	.54	.88	.08	.61	.35	.80	.05	.44	.44	.78	.06	.56
Resource Loss					7.45	1.80	.32***	4.14	6.25	1.82	.27***	3.43
Personal Safety Anxiety					3.26	1.50	.18*	2.18	2.78	1.48	.15	1.89

	Step 1				Step 2				Step 3			
	B	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*
Variable												
Internalized Stigma					2.20	2.37	.08	.93	2.29	2.32	.08	.99
Autonomy									-5.36	2.11	-.19*	-2.54
R^2			.40				.53				.56	
ΔR^2							.14				.03	
F			14.84***				10.81***				6.45*	
Model 3												
Sentence Length	-.05	.02	-.22**	-2.72	-.03	.02	-.16*	-2.07	-.03	.02	-.14	-1.93
Time Since Release	-.08	.03	-.17*	-2.26	-.05	.03	-.11	-1.61	-.04	.03	-.09	-1.31
Pre-Prison Trauma	.80	.66	.13	1.21	.10	.63	.02	.16	-.18	.61	-.03	-.29
During Prison Trauma	2.36	.70	.35**	3.35	1.50	.69	.22*	2.17	1.37	.66	.20*	2.07
Post Prison Trauma	.54	.88	.08	.61	.31	.82	.05	.38	.44	.78	.06	.56
Autonomy					-7.25	2.14	-.26***	-3.39	-5.36	2.11	-.19*	-2.54
Personal Safety Anxiety					4.19	1.49	.23**	2.82	2.78	1.48	.15	1.89
Internalized Stigma					1.97	2.43	.07	.81	2.29	2.32	.08	.99
Resource Loss									6.25	1.82	.27***	3.43
R^2			.40				.51				.56	
ΔR^2							.12				.05	
F			14.84***				8.72***				11.75***	
Model 4												
Sentence Length	-.05	.02	-.22**	-2.72	-.03	.02	-.13	-1.76	-.03	.02	-.14	-1.93
Time Since Release	-.08	.03	-.17*	-2.26	-.04	.03	-.09	-1.25	-.04	.03	-.09	-1.31
Pre-Prison Trauma	.80	.66	.13	1.21	-.12	.62	-.02	-.20	-.18	.61	-.03	-.29
During Prison Trauma	2.36	.70	.35**	3.35	1.43	.67	.22*	2.16	1.37	.66	.20*	2.07
Post Prison Trauma	.54	.88	.08	.61	.71	.78	.10	.91	.44	.78	.06	.56

	Step 1				Step 2				Step 3			
	B	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*	*B*	*SE*	*β*	*t*
Variable												
Autonomy					-5.87	2.12	-.21**	-2.77	-5.36	2.11	-.19*	-2.54
Resource Loss					7.20	1.77	.31***	4.06	6.25	1.82	.27***	3.43
Internalized Stigma					2.91	2.32	.10	1.25	2.29	2.32	.08	.99
Personal Safety Anxiety									2.78	1.48	.15	1.89
R^2	.40				.55				.56			
ΔR^2					.15				.01			
F	14.84***				12.03***				3.56			

Note. *$p < .05$, ** $p < .01$, *** $p < .001$.

Table 5

Results of Moderation Analyses Predicting PTSD Symptoms

Predictor variables	*B*	*SE*	*t*	R^2
Model 1 (*N* = 119), Hypothesis 6				.45***
Internalized Stigma	8.76**	3.18	2.75	
Oppression	.98	0.56	1.74	
Internalized Stigma x Oppression	-2.06*	.67	-3.06	
Model 2 (*N* = 119), Hypothesis 7				.47***
Autonomy	-8.18***	2.23	-3.66	
Oppression	.77	.54	1.42	
Autonomy x Oppression	.78	.64	1.21	
Model 3 (*N* = 119), Hypothesis 8				.51***
Resource Loss	8.16***	1.78	4.59	
Oppression	.89	.52	1.71	
Resource Loss x Oppression	-.67	.50	-1.34	
Model 4 (*N* = 119), Hypothesis 9				.49***
Personal Safety Anxiety	5.23***	1.49	3.51	
Oppression	.90	.56	1.62	
Personal Safety Anxiety x Oppression	-1.06*	.41	-2.59	

Note. SE = standard error. All models included control variables of sentence length, time since release, and trauma exposure before, during, and after incarceration.

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

Table 6

Summary of Hypotheses and Results

Hypothesis	Result
1. Internalized stigma will positively and significantly predict PTSD symptoms.	Supported
2. Autonomy will negatively and significantly predict PTSD symptoms.	Supported
3. Resource loss will positively and significantly predict PTSD symptoms.	Supported
4. Personal safety anxiety will positively and significantly predict PTSD symptoms.	Supported
5. The pains of imprisonment will positively and significantly predict PTSD symptoms collectively and each pain will predict PTSD above and beyond the other pains.	Partially supported
6. Oppression will moderate the relationship between internalized stigma and PTSD symptoms.	Supported
7. Oppression will moderate the relationship between autonomy and PTSD symptoms.	Not supported
8. Oppression will moderate the relationship between resource loss and PTSD symptoms.	Not supported
9. Oppression will moderate the relationship between personal safety anxiety and PTSD symptoms.	Supported

APPENDICES

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

Inclusion Criteria:

1. Do you have a criminal conviction?
    - Yes
    - No

2. As a result of your conviction, did the court require you to go to a jail, a prison, or other correctional facility?
    - Yes
    - No

3. If yes: For your most recent incarceration - how long were you there?
   Years: _____ Months: _____

4. How long have you been out of prison since your last incarceration (in months)?"
   Months: _____

5. If you can remember, for your most recent incarceration - what month and/or year did the court send you there?
   Month: _____
   Year: _____

6. For your most recent incarceration - what month and/or year did you get out (even if this was the same year as above)?
   Month: _____
   Year: _____

Participants will be screened out if they do not meet the inclusion criteria. If they meet criteria, they will be redirected to the rest of the study:

7. Have you spent time in solitary confinement while incarcerated?
    - Yes
    - No

8. If yes, what was the longest period of time you spent in solitary confinement?

   Months: _____ Days: _____

9. What is your age?

   _____

10. What sex were you assigned at birth, on your original birth certificate?
    - Female
    - Male

11. What is your current gender identity? Check all that apply.
    - Woman
    - Man
    - Trans male/Trans man
    - Trans female/Trans woman
    - Gender queer/Gender non-conforming
    - Different identity (please state): _____

12. What is your sexual orientation?
    - Straight
    - Lesbian/Gay
    - Bisexual
    - Different sexual orientation (specify): _____

13. What is your primary racial identity?
    - Caucasian (White)
    - African-American (Black)
    - Native American or Alaskan Native
    - Asian or Pacific Islander
    - Prefer not to say
    - More than one race (specify): _____

14. What is your ethnicity?
    - Hispanic/Latino(a)
    - Non-Hispanic/Latino(a)
    - Different ethnicity (specify): _____

15. What is your employment status? Select all that apply.

- Full-time
- Part-time
- Unemployed
- Student
- Retired

16. How would you identify your income level?
    - I/my family has a hard time buying the things I/we need
    - I/my family has just enough money for the things I/we need
    - I/my family has no problem buying the things I/we need
    - I/my family has enough money to buy pretty much anything I/we need

17. What is your estimated annual income?
    - $0-10,000
    - $10,001-20,000
    - $20,001-30,000
    - $30,001-40,000
    - $40,000+

18. What is the highest level of education you have completed?
    - Middle school
    - Some high school
    - High school diploma
    - Some college
    - Associate's degree
    - Bachelor's degree
    - Master's degree
    - Doctorate
    - Other professional degree (specify): _____

19. Where did you find out about this study?

    _____

APPENDIX B

SELF-STIGMA OF INDIVIDUALS WITH CRIMINAL RECORDS
(SSICR; Moore et al., 2016)

There are many attitudes about having a criminal record. We would like to know what you think about these attitudes. Please answer the following items using the 4-point scale below.

1 = False, Not at all True, 2 = Slightly True, 3 = Mainly True, 4 = Very True

Because I have a criminal record…

	False, Not at all True	Slightly True	Mainly True	Very True
1._____I cannot be trusted.	1	2	3	4
2._____I am a bad person.	1	2	3	4
3. _____I am dirty and unkempt.	1	2	3	4
4. _____I am unwilling to get or keep a regular job.	1	2	3	4
5. _____ I cannot be rehabilitated.	1	2	3	4
6. _____I am below average intelligence.	1	2	3	4
7. _____I am disgusting.	1	2	3	4
9. _____ I am dangerous.	1	2	3	4
10. _____I am unpredictable.	1	2	3	4

APPENDIX C

BASIC PSYCHOLOGICAL NEED SATISFACATION AND FRUSTRATION SCALE (BPNSNF; Chen et al., 2015) – Autonomy subscale

Below, we ask you about the kind of experiences you actually have in your life as a result of incarceration. Please read each of the following items carefully. You can choose from 1 to 5 to indicate the degree to which the statement is true for you at this point in your life.

As a result of incarceration…	Not true at all				Completely true
1. I feel a sense of choice and freedom in the things I undertake.	1	2	3	4	5
2. Most of the things I do feel like "I have to."	1	2	3	4	5
3. I feel that my decision reflect what I really want.	1	2	3	4	5
4. I feel forced to do many things I wouldn't choose to do.	1	2	3	4	5
5. I feel my choices express who I really am.	1	2	3	4	5
6. I feel pressured to do too many things.	1	2	3	4	5
7. I have been doing what really interests me.	1	2	3	4	5
8. My daily activities feel like a chain of obligations.	1	2	3	4	5

APPENDIX D

CONSERVATION OF RESOURCES EVALUATION
(COR-E; Hobfoll & Lilly, 1993) – Interpersonal and Material Subscales

To what extent have you lost any of the following things as a result of incarceration?

	Not at all		To some extent		Large Extent
1. Personal transportation	1	2	3	4	5
2. Good marriage	1	2	3	4	5
3. Adequate clothing	1	2	3	4	5
4. Feeling valuable to others	1	2	3	4	5
5. Family stability	1	2	3	4	5
6. More clothing than I need	1	2	3	4	5
7. Intimacy with one or more family members	1	2	3	4	5
8. Good relationship with my children	1	2	3	4	5
9. Time with loved ones	1	2	3	4	5
10. Necessary home appliances	1	2	3	4	5
11. Adequate food	1	2	3	4	5
12. Larger home than I need	1	2	3	4	5
13. Intimacy with spouse or partner	1	2	3	4	5
14. Adequate home furnishings	1	2	3	4	5
15. Providing children's essentials	1	2	3	4	5
16. Acknowledgement of my accomplishments	1	2	3	4	5
17. Extras for children	1	2	3	4	5
18. Intimacy with at least one friend	1	2	3	4	5
19. Money for extras	1	2	3	4	5
20. Understanding from my employer/boss	1	2	3	4	5
21. Savings or emergency money	1	2	3	4	5
22. Spouse/partner's health	1	2	3	4	5
23. Support from co-workers	1	2	3	4	5
24. Adequate income	1	2	3	4	5

25. Adequate financial credit	1	2	3	4	5
26. Companionship	1	2	3	4	5
27. Financial assets (stocks, property, etc.)	1	2	3	4	5
28. Affection from others	1	2	3	4	5
29. Financial stability	1	2	3	4	5
30. People I can learn from	1	2	3	4	5
31. Money for transportation	1	2	3	4	5
32. Help with tasks at work	1	2	3	4	5
33. Medical insurance	1	2	3	4	5
34. Involvement with church, synagogue, etc	1	2	3	4	5
35. Retirement security (financial)	1	2	3	4	5
36. Help with tasks at home	1	2	3	4	5
37. Loyalty of friends	1	2	3	4	5
38. Money for advancement of self-improvement (education, starting a business, etc.)	1	2	3	4	5
39. Help with child care	1	2	3	4	5
40. Involvement in organization with others who have similar interests	1	2	3	4	5
41. Financial help if needed	1	2	3	4	5

APPENDIX E

PERSONAL SAFETY ANXIETY AND VIGILANCE SCALE (PSAVS; Calogero et al., 2020)

For each item, please select the response that best matches your attitudes and experience as a result of incarceration. Each item is rated on a continuum ranging from *completely unlike me* to *completely like me*.

Because of incarceration….	Completely Unlike Me	Unlike Me	Slightly Unlike Me	Neither Like Me Nor Unlike Me	Slightly Like Me	Like Me	Completely Like Me
1. I feel nervous about my safety when I am alone.	1	2	3	4	5	6	7
2. I have thoughts about my safety when I notice someone checking out my body/body parts.	1	2	3	4	5	6	7
3. I never worry about my personal safety.	1	2	3	4	5	6	7
4. I would feel uncomfortable walking alone on the street at night.	1	2	3	4	5	6	7
5. I check behind me when I am walking alone to see if someone is there.	1	2	3	4	5	6	7
6. When alone, past experiences where I have felt personally threatened enter my mind.	1	2	3	4	5	6	7
7. I share my concerns about my personal safety with others.	1	2	3	4	5	6	7
8. In general, I do not worry about my safety in my day-to-day environment.	1	2	3	4	5	6	7

Note: Items 3 and 8 are reverse scored.

APPENDIX F

THE PTSD CHECKLIST FOR DSM-5
(PCL-5; Weathers et al., 2013)

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month as a result of being incarcerated.

In the past month, how much were you bothered by:	Not At All	A Little Bit	Moderately	Quite a Bit	Extremely
1. Repeated, disturbing, and unwanted memories of incarceration?	0	1	2	3	4
2. Repeated, disturbing dreams of incarceration?	0	1	2	3	4
3. Suddenly feeling or acting as if incarceration were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of incarceration?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of incarceration (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to incarceration?	0	1	2	3	4
7. Avoiding external reminders of incarceration (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4

8.	Trouble remembering important parts of incarceration?	0	1	2	3	4
9.	Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10.	Blaming yourself or someone else for the incarceration or what happened after it?	0	1	2	3	4
11.	Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12.	Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13.	Feeling distant or cut off from other people?	0	1	2	3	4
14.	Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15.	Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16.	Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17.	Being “superalert” or watchful or on guard?	0	1	2	3	4
18.	Feeling jumpy or easily startled?	0	1	2	3	4
19.	Having difficulty concentrating?	0	1	2	3	4
20.	Trouble falling or staying asleep?	0	1	2	3	4

APPENDIX G

BRIEF TRAUMA QUESTIONNAIRE

(Schnurr et al., 1999)

The following questions ask about events that may be extraordinarily stressful or disturbing for almost everyone. Please click "Yes" or "No" to report what has happened to you before, during, and after prison.

Event	Has this ever happened to you?		
1. Have you ever served in a war zone, or have you ever served in a noncombat job that exposed you to war-related casualties (for example, as a medic or on graves registration duty?)	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
2. Have you ever been in a serious car accident, or a serious accident at work or somewhere else?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
3. Have you ever been in a major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
4. Have you ever had a life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc.?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
5. Before age 18, were you ever physically punished or beaten by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
	Before prison:	□Yes	□No

Event	Has this ever happened to you?		
6. Not including any punishments or beatings you already reported in Question 5, have you ever been attacked, beaten, or mugged by anyone, including friends, family members or strangers?	During prison:	□Yes	□No
	After prison:	□Yes	□No
7. Has anyone ever made or pressured you into having some type of unwanted sexual contact? *Note*: By sexual contact we mean any contact between someone else and your private parts or between you and some else's private parts	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
8. Have you ever been in any other situation in which you were seriously injured, or have you ever been in any other situation in which you feared you might be seriously injured or killed?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
9. Has a close family member or friend died violently, for example, in a serious car crash, mugging, or attack?	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
10. Have you ever witnessed a situation in which someone was seriously injured or killed, or have you ever witnessed a situation in which you feared someone would be seriously injured or killed? *Note*: Do not answer "yes" for any event you already reported in Questions 1-9	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No

Cumulative Trauma Scale (Kira et al., 2008) – Discrimination subscale

Event	Has this ever happened to you?		
1. I was put down, threatened, or discriminated against by some others negative attitudes, stereotypes, or actions because of my ethnicity, race, culture, religion, or national origin.	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
2. My race has a history of being oppressed, discriminated against, or threatened by genocide.	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
3. I have been discriminated against because of my sexual preference.	Before prison:	□Yes	□No
	During prison:	□Yes	□No

Event	Has this ever happened to you?		
	After prison:	□Yes	□No
4. I was put down, denied my rights, or discriminated against in the society (not by family members), by some others' negative attitudes, stereotypes, or actions, or by institutions because of my gender.	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No
5. I was put down, threatened, or discriminated against by some other family members (e.g., parents, siblings) negative attitudes, stereotypes, or actions because of my gender.	Before prison:	□Yes	□No
	During prison:	□Yes	□No
	After prison:	□Yes	□No

APPENDIX H

LIST OF AGENCIES, GROUPS, AND ORGANIZATIONS USED FOR RECRUITMENT

The Pathfinder Network, Portland, OR
Root & Rebound, Oakland, CA
Roadmap to Reentry, Charleston, WV
ReEntry by Design, Tempe, AZ
The Lord's Place, West Palm Beach, FL
St. Vincent de Paul Reentry Services, Southwest Idaho
Powerhouse Community Development Corporation, Mashall, MO
Center for Women in Transition, St. Louis, MO
Unlocking Doors, Dallas, TX
Piedmont Triad's Project Re-entry, Kernersville, NC
180 Degrees, Inc., Minneapolis, MN
RISE, Omaha, NE
The University of Akron Law School Reentry Clinic, Akron, OH
Akron Urban League, Akron, OH
SFAPD Reentry Division, San Francisco, CA
Volunteers of American Northern New England, Belfast, ME
Family Services, Norristown, PA
Volunteers of America Mid-States, Louisville, KY
Twelfth Street Heritage, Kansas City, MO
Volunteers of America Minnesota and Wisconsin, Minneapolis, MN
Alvis180, Columbus, OH
Berk's Connections, Reading, PA
REAL LIFE, Richmond, VA
Sacramento County Office of Education, Reentry Programs, Sacramento, CA
Mirror Inc., Newton, KS
Anthony's Way, Hanover, PA
AMiracle4Sure, Harrisburg, PA
Citizens United for Rehabilitation of Errants (CURE), National Organization
Oregon Justice Resource Center, Eugene, OR
Vizion 4 21st Century Solutions, Las Vegas, NV
Project New Start Inc., Wilmington, DE
Christlife Ministries, Pueblo, CO
California Reetnry Program, San Quentin, CA
Abode Services, Fremont, CA
Mat-Su Reentry Coalition, Anchorage, AK

Homeward Alliance, For Collins, CO
Lexington Rescue Mission, Lexington, KY
Prisoners of Christ, Jacksonville, FL
I'm Free Now What LLC, Tallahassee, FL
Project 180, Sarasota, FL
Chrysalis Ministries, San Antonia, TX
Stone Bridge Reentry Services, Clarkston, WA
City Walk Urban Mission, Tallahassee, FL
Transtional Living Centers, Inc., Williamsport, PA
Sharing Hope Ministry, Inc., Amarillo, TX
The Elevation Project, Philadelphia, PA
Tristan Kades House, Pompano Beach, FL
St. Francis Center, Denver, CO
Divine Intervention Ministries, Pittsburgh, PA
OhioMeansJobs – Athens County Reentry, Athens, OH
The Prisoner's Hope, Louisville, KY
Camden County Reentry Services, Camden, NJ
Transformative Justice Initiative, Camden, NJ
The Salvation Army, Harbor Light Complex, Cleveland, OH
Talbert House, Cincinnati, OH
StartAnew, Minneapolis, MN
SELF-Reentry, Lehigh Valley, PA
Unlock My Life, Leeds, UK
Inmates to Entrepreneurs, National Organization
Amethyst Place, Kansas City, MO
Utah Prisoner Advocate Network, online newsletter
Parole Project, Baton Rouge, LA
From Prison Cells to Ph.D.s, National online network
Heaven Sent Second Chance Transitional Safehouse, inc. (Facebook page)
Formerly Incarcerated Reentry Support Team (Facebook page)
Strong Prison Wives (Facebook group)
Formerly Incarcerated Peer Support Group (Facebook group)
Inmate Support Re-Entry (Facebook group)
Re-Entry Support Group (Facebook group)
Second Chance for Ex-offenders (Facebook group)