

VICTIMIZATION AMONG JAIL INMATES: DIFFERENCES IN TYPE, TIMING,
GENDER, AND EFFECTS ON RECIDIVISM

By

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Important limitations exist in our understanding of prior abuse among incarcerated individuals including whether there are important differences in the type (e.g., physical versus sexual victimization) and timing (e.g., childhood versus adulthood victimization) of abuse, as well as whether and how these problems are distributed among individuals incarcerated in jails. It is important to understand these issues to a) know how abuse is distributed and experienced among individuals incarcerated in jails, b) inform trauma-informed policies and procedures within jail settings, c) influence the treatment and programming needs of individuals incarcerated in jails, and d) understand how prior abuse is related to continued criminal behavior among individuals incarcerated in jails. Findings from this dissertation indicate that: 1) prior abuse is prevalent among individuals incarcerated in jails, 2) victimization history predicts lower recidivism in the long-term, and 3) considering gender differences impact on the type and timing of abuse on recidivism. Recommendations for future research and policy implications for jail administration are discussed.

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Chapter 1: Introduction

Purpose and Relevance of the Study

Important limitations exist in our understanding of prior victimization among incarcerated individuals, including whether there are meaningful differences in the type (e.g., physical versus sexual victimization) and timing (e.g., childhood versus adulthood) of victimization, as well as whether and how these problems are distributed among individuals incarcerated in jails, and how they impact criminal behavior upon release. It is important to understand these issues to a) know how victimization is distributed and experienced among individuals incarcerated in jails, b) inform trauma-informed policies and procedures within jail settings, c) influence the treatment and programming needs of individuals incarcerated in jails, and d) understand how prior victimization is related to continued criminal behavior among individuals incarcerated in jails. This dissertation will attempt to better understand these issues.

Victimization is the act of deliberately trying to exploit, oppress, or harm another or destroy their property or possessions (Illingworth, 2007). Victimization is harmful because victims may feel anger, rage, anxiety, and fear, and they may feel insecure in reaching out to others for help (Illingworth, 2007). Victims not only suffer physically, emotionally, psychologically, and financially, but the complexity of the criminal justice system may discourage them from asking for help (Illingworth, 2007). Additionally, victimization has been linked to multiple maladaptive outcomes, such as criminal behavior and an increased risk for incarceration (Agnew, 2002), and relevant to the current study, it might be related to continued criminal behavior upon release (e.g., recidivism).

There are multiple types of victimization – physical, sexual, financial, and emotional – to name a few. Among the most studied in criminology include physical and sexual victimization. Physical victimization is touching or striking a person against their will and threatening violence against them (University of the Pacific, 2022). Sexual victimization can be defined as unwanted sexual experiences including but not limited to sexual harassment, unwanted sexual contact, sexual coercion, forcible rape, or alcohol- or drug-facilitated assault or rape (Pinchevsky et al., 2020). Both forms of victimization have been associated with maladaptive behavior including delinquency, arrests, substance use, and mental health problems (Ardino, 2012; Garbarino, 2002; Pinchevsky et al., 2020). For example, Agnew (2002) found that sexual and physical victimization were the leading causes of later delinquency, and Pratt and colleagues (2014) found victimization to be a leading cause of indulgence in risky behaviors which may have negative consequences. For instance, victims of violence and abuse may engage in risky lifestyle behaviors which puts them at risk of becoming justice-involved (Pratt et al., 2014; Schreck, 1999).

Given the evidence that traumatic experiences such as physical and sexual victimization put individuals at a greater risk of later criminal behavior (Ardino, 2011; Foy et al., 2011; Weeks & Widom, 1998; Widom, 1989), it is unsurprising that compared to the community-based (civilian) population, the rates of such prior victimizations are higher in the offender population (Wright et al., 2006). However, the unique effects of victimization on criminal behavior may depend upon both the *type* of victimization experienced (e.g., physical or sexual), as well as the *timing* at which it is experienced

(e.g., childhood or adulthood). This dissertation explores these issues to determine these unique effects on incarcerated individuals' recidivism in jails.

Impact of Victimization on Criminal Behavior

Types of Victimization

Among both incarcerated and community-based samples, the literature demonstrates a strong connection between physical and sexual victimization at one point in time and delinquency and subsequent criminal behavior at another point in time (Agnew, 2002; Chang et al., 2003; Weeks & Widom, 1998; Widom & Ames, 1994). Childhood violent victimization has been central to the early onset of longer and more involved criminality, where physical and sexual victimization has been associated with prostitution, theft, drug use (Macmillan, 2001), poor school performance (Conrad et al., 2014), delinquency (Conrad et al., 2014), and mental health problems (Conrad et al., 2014; Macmillan, 2001). Further, victims appear less focused on vocational goals and educational achievements, are at risk of failing grades, exhibit lower intellectual ability and reading ability, and have higher truancy rates (Macmillan, 2001). Scholars have found that poor school performance translates into limited employment opportunities, eventually impacting the victims' motivation for choosing deviant ways to make money and thus succumbing to criminal outcomes (Macmillan, 2001). Poor school performance and low socioeconomic status are just a couple of mechanisms by which physical and/or sexual victimization may eventually impact criminal behavior (Finkelhor & Asdigian, 1996). In short, victimization can influence youth delinquency and eventual adult criminal behavior through mechanisms such as lifestyles and routine activities (e.g., by

influencing one's friends or associates, and activities) (Finkelhor & Asdigian, 1996), learning (e.g., by learning that violence is acceptable and/or useful) (Burton et al., 2002), and strain related factors (e.g., anger, drug use) (Katz, 2000).

Despite the evidence that victimization is linked to subsequent maladies, it is currently unclear whether the *type* of victimization experienced elicits unique effects on outcomes like criminal behavior. For instance, victims of sexual victimization may be particularly at a greater risk of criminal offending both in adolescence and adulthood; sexually victimized children report lower IQ scores and below-average school performance (Conrad et al., 2014; Nunes et al., 2013) and may also be at a higher risk of arrest for sex crimes. Widom and Ames (1994) reported that irrespective of gender, child sexual abuse victims were more likely to be arrested for prostitution as adults compared to physically abused and neglected children. Child sexual abuse victims were also at an increased risk of arrest as a juvenile for being a runaway, and as adults, they were at a higher risk of arrest for sex crimes (Widom & Ames, 1994; Weeks & Widom, 1998). Further, Chang and colleagues (2003) found that sexual childhood victimization among males was associated with violent sex crimes such as rape and sodomy (Widom & Ames, 1994; Chang et al., 2003). They also found that juveniles who had experienced prior sexual victimization had a higher risk of being delinquent, truant, having poor grades, and being prone to undertaking risky behaviors. Thus, it is possible that experiencing sexual victimization in particular is associated with engaging in later violent and/or sexual criminal behavior.

Physical abuse, on the other hand, has been empirically linked to a broader variety of disorders including externalizing disorders, criminal behavior, and repeat recidivism

(Aebi et al., 2015). There is well-documented support that childhood physical abuse is correlated to later analogous criminal behavior (Miley et al., 2020). In fact, a history of physical abuse is commonly found among individuals under correctional supervision. For example, Wolff and colleagues (2007) found that almost 75% of their prison inmate sample comprising both males and females suffered physical victimization before the age of 18.

A substantial portion of available research has examined the effects of physical abuse and its link to criminal behavior, delinquency, substance use, and a whole constellation of issues that may stem from it. There is empirical evidence that presents the correlation between childhood physical abuse and subsequent aggressive and criminal acts (Skowrya & Cocozza, 2007; Smith et al., 2005; Widom & Maxfield, 2001). Childhood physical abuse is one of the most significant and common risk factors for post-traumatic reactions such as aggression toward others and criminal behavior (Dong et al., 2013; Finkelhor, 1994; Finkelhor, 2008; Hussey et al., 2006). Widom (1989) conducted a study on 900 individuals with a history of childhood abuse and found a clear link between the trauma experienced and the antisocial behavior which followed. The findings confirmed that children who were abused had a higher likelihood of being arrested as juvenile delinquents (Maxfield & Widom, 1996). With respect to women, a study found that in a sample of incarcerated women, almost 70% of the sample had experienced severe physical abuse in their childhoods either by their parents and/or their caregivers (Ardino, 2011; Browne et al., 1999).

In light of these findings, it becomes clear that we also need to understand the importance of gender when discussing the type of victimization that people experience.

There is limited literature available on this, but a few studies indicate that males may be more prone to experiencing physical abuse, and females may be more likely to experience sexual abuse (Finkelhor et al., 2009b; Wright & Schwartz, 2021).

Furthermore, the frequency of females' sexual victimization is higher compared to males, and they witness violence in the home more often than males. Males, on the other hand, are more at risk of being physically victimized in community settings (Dube et al., 2003; Fagan & Wright, 2011; Finkelhor et al., 2009b; Finkelhor et al., 2009c). The explanation for this difference could be that females spend more time in their home settings which increases their risk of familial sexual victimization, and males spend more time outside in the community settings which increases their risk of non-familial physical victimization (Perrone & Chesney-Lind, 1997; Fagan & Wright, 2011).

Timing of Victimization

The *timing* of when victimization is experienced might be uniquely influential as well. For example, a literature review essay by Fisher et al. (2008) noted that incarcerated women between the ages of 16 and 24 had the highest rates of rape. Out of those, 54% reported being raped before their 18th birthday and 32% reported being raped between the ages of 12 and 17 years old. These findings comport with a study by Felson and Lane (2010), which found that 50% of adult incarcerated individuals have a history of childhood physical victimization. Among juveniles in a detention center, Ford et al. (2013) revealed that traumatic physical *and* sexual victimization were predominant in their sample and were correlated to severe emotional and behavioral problems; they suggested these experiences could lead to further vulnerability (Ford et al., 2013). Juvenile girls had a higher susceptibility to prior victimization compared to juvenile boys,

and they had a higher likelihood of developing psychological adversities which made them further susceptible to additional victimization, especially sexual victimization (Ford et al., 2013). Felson and Lane (2010) reported that the males in their sample who were incarcerated for sexual assaults had a history of childhood sexual victimization, while women in the sample had suffered more sexual and physical victimization at the hands of their partners and had histories of childhood victimization.

To date, there is limited research on the impact of adulthood victimization on later criminal offending as most studies have focused largely on younger samples. Such a focus on younger samples should not come as a surprise, though, because older adults commit fewer crimes compared to younger individuals (Reisig & Holtfreter, 2018). Based on what is available in terms of victimization in adulthood and its correlation to criminal offending, limited research states that victimization experienced in adulthood is, in fact, related to increased criminal behavior. Karlsson and Zielinski (2020) reported that incarcerated women had high levels of victimization experiences and these experiences greatly increased the likelihood of criminal convictions leading to incarceration. Lastly, a study by Van Voorhis et al. (2010) reported that adulthood victimization was a high-risk factor for recidivism among a sample of adult incarcerated women.

Impact of Victimization on Recidivism among Incarcerated Individuals

Whereas the research referenced above focused on the impact of victimization on initial criminal behavior (i.e., behavior that occurs before incarceration), recently, some scholars have begun to examine the impact of victimization on *recidivism* among correctional populations, thus extending our understanding of the impact of trauma and

subsequent criminal behavior (i.e., to behavior after incarceration). For example, a study by Craissati and Beech (2004) found a correlation between child sexual victimization and future sexual offending and recidivism. Further, they found that childhood sexual victimization was associated with an increase in the risk of sexual, violent, and overall recidivism among a sample of incarcerated sex offenders. More than half of the participants tested in two studies were victims of childhood sexual victimization, and the prevalence of sexual victimization was found to be much higher among recidivists than among non-recidivists (Craissati & Beech, 2004). The results also indicated that adolescents who have sexually offended and who were sexually victimized in childhood present more problems related to conduct, including offending behavior, than do adolescents who were not victimized (Carpentier & Proulx, 2011; Nunes et al., 2013).

Conrad and colleagues (2014) found more support for the impact of prior victimization on future recidivism. In their sample of incarcerated juveniles, young females reported higher rates of lifetime sexual victimization compared to their non-offending peers. They also found that after controlling for other factors like prior legal involvement and conduct problems in school, sexual victimization surfaced as being the most salient predictor of recidivism for young females. Lastly, concerning adult incarcerated individuals, a study on incarcerated individuals and the relationship between victimization and recidivism showed that frequent victimization significantly increases the risk of any self-reported recidivism and has a particularly large effect on violent recidivism for those who have a prior violent crime conviction (Taylor, 2015). But this study did not examine gender differences in the sample. Additionally, this was a prison-

based study, not a jail-based study, and did not examine the type or timing of victimization.

Summary

Despite developments in our understanding of the impact of victimization on criminal behavior, questions remain regarding the impact of victimization on subsequent recidivism, including whether the type (physical or sexual) of victimization or the timing of victimization (childhood or adulthood) is more important to recidivism. Some literature examines the impact of sexual and physical victimization on maladaptive behavior, the importance of the timing of these victimizations (e.g., during childhood, during adulthood), as well as gender differences in these experiences (Carpentier & Proulx, 2011; Chang et al., 2003; DeHart, 2008; Weeks & Widom, 1998; Widom & Ames, 1994; Salisbury & VanVoorhis, 2009). However, much of this research is conducted on community-based population samples (Turner et al., 2006; Finkelhor et al., 2009). Comparatively less research on this topic is available concerning incarcerated populations, with the majority focusing on samples of individuals incarcerated in prison settings (e.g., Salisbury & VanVoorhis, 2009). This research, while still relatively new, suggests that victimization is prevalent among incarcerated individuals, prior victimization is linked to continued criminal behavior into and out of prison, and there may be gender differences in these effects (Cain et al., 2016; Cain, 2021; Day et al., 2013; Radatz & Wright, 2017).

Thus, overall, studies have indicated that a history of victimization can become a pathway to incarceration (DeHart, 2008; Karlson & Zielinski, 2020; Salisbury &

VanVoorhis, 2009; Weeks & Widom, 1998; White et al., 2006), but the majority of literature (except Listwan et al., 2013) does not consider whether different types of victimization are uniquely impactful to recidivism, nor whether the timing of the victimization (childhood, adulthood) is uniquely impactful. The research I plan to conduct will address these limitations and inform jail administrators regarding the victimization histories of individuals housed in jails, as well as the policies, treatment, and programming they can implement to reduce recidivism.

With the gaps in the literature reviewed above, the rationale of my dissertation becomes clearer. My dissertation seeks to address these gaps in the literature by comparing the impact of physical and sexual victimization (i.e., type of victimization) on recidivism. Further, I will examine the impact of early victimization and later victimization (i.e., timing of victimization) on recidivism. I will also examine the gender differences in these effects. The data that will be used for this dissertation were collected in 2017 and incarcerated individuals' recidivism was captured up to 1000 days after their release. Findings from this study will inform the correctional literature about the prevalence of various types of victimization among incarcerated individuals in jail and their relation to recidivism, while also informing jail administrators about gender-based programming.

Current Study

The primary purpose of this dissertation is to examine the role of prior sexual and physical victimization on recidivism among incarcerated individuals in jail, examine the timing of these victimizations, and determine if there are gender differences in these

effects on recidivism. To that end, I will attempt to answer the following research questions in my dissertation:

- 1) What is the prevalence of types (physical/sexual/both) of abuse and the timing (childhood/adulthood/both) of that abuse among a cohort of incarcerated individuals in jails?
- 2) What type of abuse (physical/sexual/both) is more impactful on recidivism?
- 3) Does the timing of abuse (childhood/adulthood/both) impact recidivism?
- 4) Are there gender differences in the prevalence and effects of the type and timing of victimization on recidivism among incarcerated individuals in jails?

Known risk factors for recidivism, including criminal history, mental illness, substance use, institutional misconduct, educational level, income, prior felonies, age, race, unemployment, and homelessness will be examined as control variables. Chapter 2 provides the literature review regarding the prevalence of the type and timing of prior victimization among the correctional population, the relationship between victimization and recidivism, and lastly, the gender differences in these patterns. Chapter 3 reports the methodology used for this study. Chapter 4 presents the results from the quantitative analyses performed to address the research questions of this study. Finally, Chapter 5 discusses the main conclusions from this study and the implications of the study for the jail population.

Chapter 2: Literature Review

Overview

In this chapter, I will go over the present literature which explains the processes that connect various victimizations to future delinquent and criminal behavior. I will first review the types of victimization that are prevalent in the correctional population and compare them to the community-based population, then discuss the relationship between victimization and criminal behavior. Moving on, I will review the relationship between victimization and recidivism because that is the crux of this dissertation. I will try to detangle the type and timing of victimization and explain based on the literature how it impacts men and women in different ways.

Types of Victimization and its Prevalence in the Correctional Population: Physical vs. Sexual Victimization

As per current research, rates of victimization are higher in the correctional population compared to the community-based population. For example, among the community-based population in the United States, the average rate of physical victimization is 20 per minute (National Coalition Against Domestic Violence, 2011). One in four women and one in nine men experience physical victimization at the hands of their intimate partner (National Coalition Against Domestic Violence, 2011). One in four women and one in seven men have experienced severe physical victimization such as beating, burning, or strangling by an intimate partner in their lifetime (National Coalition Against Domestic Violence, 2011). Considering victimizations that do not pertain to

domestic violence, the most recent research reports physical assaults at the rate of 10.7 per 1,000 people, and aggravated assaults at the rate of 2.9 per 1,000 people in the community-based population (Morgan & Thompson, 2021).

Individuals who are system-involved or under correctional supervision show above-average rates of victimization (Wolff et al., 2009). Some estimates suggest that at least 50% of incarcerated women have a history of at least one traumatic event in their lifetime (Browne et al., 1999; Sacks, 2004; Wolff et al., 2009). Between 25-50% of incarcerated women in prison report experiencing childhood victimization compared to six to 24% of incarcerated men (Bureau of Justice Statistics, 1999; McClellan et al., 1997). Physical victimization before the age of 18 is more likely for incarcerated men, but both physical and sexual victimization occur at equal rates for incarcerated women (Bureau of Justice Statistics, 1999; McClellan et al., 1997). Overall, we see that 23% of incarcerated men and 39% of incarcerated women were physically victimized prior to their sentence. These numbers are cumulative for all correctional populations including state and federal prisons, and jails (Harlow, 1999).

A similar pattern is evident in jail settings. Among incarcerated individuals in jail, 13.3% reported physical victimization before their sentence, with 10.7% of incarcerated men and 37.3% of incarcerated women reporting physical victimization prior to their sentence (Harlow, 1999). A study by Lynch and colleagues (2014) found that 67% of incarcerated women in jails were victims of intimate partner violence, 47% were victims of childhood sexual abuse, 45% were victims of prior adulthood sexual abuse, and 40% were victims of childhood physical abuse. To understand the prevalence rates of prior victimization among incarcerated individuals in jails, Gehring (2018) examined a mixed

sample of incarcerated men and women. The results indicated that in the sample 19% were victims of childhood physical abuse and 28% were victims of childhood sexual abuse. Among incarcerated men, 18% were victims of childhood physical abuse and six percent were victims of childhood sexual abuse.

While rates of sexual victimization are comparatively lower than physical victimization among the community-based population - for instance, one in five women (20%) and one in 71 men (1.4 %) are raped in the United States (National Coalition Against Domestic Violence, 2011) - once again, higher rates of this form of victimization are found among incarcerated individuals. To demonstrate, 11.6% of incarcerated individuals report sexual victimization prior to their sentence, with eight percent of incarcerated men and 62% of incarcerated women reporting sexual victimization prior to their sentence (Harlow, 1999). A more recent report by the U.S. Department of Justice showed that 57.2% of incarcerated women and 16.1% of incarcerated men reported having experienced sexual victimization before their admission to state prisons (United States Department of Justice, 2015). Overall, we see that five percent of incarcerated men and 33% of incarcerated women report being sexually victimized prior to their sentence. These numbers are cumulative for all correctional populations including state and federal prisons, and jails (Harlow, 1999). Among incarcerated individuals in jails specifically, nine percent have reported sexual victimization prior to their sentence. Out of these, six percent of incarcerated men and 37% of incarcerated women reported sexual victimization prior to their sentence (Harlow, 1999).

Victimization experiences and their aftereffects are different for men and women, but little research exists on this topic among the correctional population, especially in

jails. A study conducted in 12 male adult prisons and one female adult prison in one state revealed that 56% of incarcerated men and 54% of incarcerated women reported childhood physical victimization (Wolff et al., 2007). Less than 10% of all incarcerated men and 47% of all incarcerated women reported childhood sexual victimization and around 75% of incarcerated individuals reported being physically victimized before the age of 18 (Wolff et al., 2007).

In sum, victimization is higher among individuals who are under correctional supervision (with estimates ranging from five percent [men] to 33% [women] for sexual victimization and 23% [men] to 39% [women] for physical victimization) compared to the community-based population (with estimates ranging from 1.4% [men] to 20% [women] for sexual victimization and 11% [men] to 25% [women] for physical victimization) (Arbour, 1996; Bloom et al., 1994; Correctional Service Canada, 1990; Fletcher et al., 1993; Poupore, 1990; Sargent et al., 1993; Snell & Morton, 1991). We see that jail and prison populations are more similar in terms of their prior victimization compared to the community-based population, with both physical and sexual victimization being particularly high among the correctional population. Although owing to the different methodologies used to measure levels of victimization in the correctional population, there is a general consensus that incarcerated women have endured higher levels of prior physical and sexual victimization compared to incarcerated men as well as both males and females in the community-based population (Arbour, 1996; Bloom et al., 1994; Correctional Service Canada, 1990; Fletcher et al., 1993; Poupore, 1990; Sargent et al., 1993; Snell & Morton, 1994).

Turning to the prevalence of childhood and adulthood victimization between these two populations, as of 2019 in the community-based population, the rate of childhood victimization reported was 8.9 per 1000 in the United States (Child Welfare Information Gateway, 2021). Out of these 51% of the victims were girls and 48% were boys (Child Welfare Information Gateway, 2021). As per 2017 estimates, one in four women (24%) and one in 26 men (3%) reported being victims of adult victimization (Centers for Disease Control and Prevention, 2022). Notably, the prevalence of both childhood and adulthood victimization in the incarcerated population is higher than in the community-based population. This is evidenced by a recent study by Aizpurua and colleagues (2022) results of which indicate that 15% [men 15% and women 20%] of incarcerated individuals were victims of childhood abuse and 18% [men 18% and women 21%] were victims of adulthood abuse (Aizpurua et al., 2022).

Relationship Between Victimization and Criminal Behavior

Type of Victimization: Physical vs. Sexual Victimization

Several studies have found that victimization is linked to delinquency, criminal behavior, internalizing problems, behavioral problems, and poor coping mechanisms (Dodge et al., 1990; Ford et al., 2013; Wright et al., 2013). For example, Dodge et al. (1990), found that children who were subjected to physical harm were found to be more aggressive with their peers compared to children who hadn't been physically abused. Physical harm in early childhood is a risk factor for deep-rooted aggressive behavioral patterns. Physically victimized children were at risk to develop a lack of processing social information skills and an inability to follow simple cues. It also showed that they nested

unreceptive intentions toward others, and they lacked the behavioral skills to solve interpersonal problems. Findings further suggest that physically victimized female children are at risk of internalizing problems and suffering from withdrawal and isolation. It is plausible from this study that physical harm to the head resulting in injury to the brain may cause traumas leading to aggressive tendencies (Dodge et al., 1990).

Further, neglect and abuse by a primary caregiver are triggers for a broad range of problems related to internalizing and externalizing behaviors and leading to interpersonal issues (Ford et al., 2013), while victimization has also been related to maladaptive coping behaviors such as substance use among youth (Wright et al., 2013). A study by Weeks and Widom (1998) found that a considerable portion of incarcerated individuals in their sample (68%) reported some kind of childhood victimization, and sex offenders reported the highest frequency of childhood sexual victimization compared to other types of offenses.

Sexual victimization experienced during childhood is also a strong predictor of multiple types of criminal behaviors including violent, sexual, and other types of offending (Papalia et al., 2017). Papalia and colleagues found strong associations between sexual victimization and general and violent offending among women, and sexual offending among men. They also found that victims of childhood sexual victimization were more susceptible to a host of cumulative risks for criminal offenses, such as serious mental health illnesses, compared to those who did not experience childhood sexual abuse (Papalia et al., 2017). It should be noted that most research has concentrated on sexual victimization only among incarcerated sex offenders (Glasser et al., 2001; Levenson & Socia, 2016; Seto & Lalumiere, 2010), but there are far more

categories of crime that can stem from childhood sexual victimization, such as mentioned above.

The Timing of Victimization: Childhood vs. Adulthood Victimization

The timing of abuse also matters as we know that victimization tends to ‘beget’ victimization and that early victimization is strongly associated with later victimization (Finkelhor, 2009). With respect to childhood victimization, research has evidenced that victimized and neglected children have a higher risk of being arrested as juveniles (Widom, 1989; Widom & Maxfield, 2001). Abuse and neglect heighten the chances of crime and delinquency, and child maltreatment has been found to be a key risk factor for violent behavior after controlling for gender, race, ethnicity, social class, and family structure when compared to non-maltreated children (Widom, 1989; Widom & Maxfield, 2001). Widom and colleagues reported that abused and neglected females were 73% more likely to be arrested for drug, alcohol, misdemeanor, curfew violence, and loitering compared to those in the control group. Abused and neglected males were also found to be at a higher risk of getting arrested when compared to the males in the control group. Abused and neglected females were also at risk of becoming violent offenders as juveniles. For females, there is a greater peril of participation in delinquent activity, but a greater peril for males with respect to frequency of participation (Widom & Maxfield, 2001). There is extensive research that supports the notion that childhood victimization leads to aggression in the victimized child, which can turn violent toward others in adolescence and adulthood (e.g., Felix et al., 2019). Past research has reported that children who were severely physically disciplined (corporal punishments) are more physically violent with their children (Egeland et al., 1988; Herrenkohl et al., 1983;

Simons et al., 1991; Stevens-Simon & McAnarney, 1994). Further, such parents who were aggressive toward their children had a high likelihood to be violent with their spouses as well (Stevens-Simon & McAnarney, 1994). These findings make the case that “victimization begets victimization” even stronger.

Concerning adulthood victimization, research suggests that incarcerated individuals who have no history of prior victimization or criminal behavior are at risk of offending if their partners have criminal histories (Buzawa & Hirschel, 2008) and that people who had no histories of childhood victimization are at risk of offending if they suffered adulthood physical and/or sexual victimization (mostly in cases of domestic and intimate partner violence) (Byrne & Lurigio, 2008; Sampson & Laub, 2005). A study by Sanchez et al. (2017) examined the timing of various types of victimization among a sample of incarcerated men and women and found that more than 80% of the sample reported experiencing some kind of trauma or a shocking event in their lifetime. The results also showed that the sample showed high rates of sexual and physical victimization throughout different stages of life. Incarcerated individuals who received mental health treatment reported higher rates of both physical and sexual victimization in prison, before incarceration, and during childhood (Sanchez et al., 2017). Although this study examined the timing of various types of victimization in childhood, adulthood, and during incarceration, it did not measure recidivism as an outcome nor did it examine gender differences, and it was also a prison-based study (not a jail-based study).

Unfortunately, in the current literature, I can find no study that compares the impact of childhood victimization versus adulthood victimization and their relation to criminal behavior. However, some studies have examined the effects of childhood and

adulthood victimization separately on criminal outcomes (Chang et al., 2003; Conrad et al., 2014; Widom & Ames, 1994; Weeks & Widom, 1998). But limitations to the findings of these studies exist – the primary limitation is that no single study encompasses the impact of the type and timing of prior victimization on future criminal behavior and/or recidivism. For example, Widom and Ames (1994) examined a cohort of only incarcerated male adolescent sex offenders who were victims of various forms of child abuse. They examined the outcome of long-term criminal consequences but there was no support rendered to gender differences. Next, Weeks and Widom (1998) examined a cohort of incarcerated males and though the results indicate that childhood victimization had a significant impact on adulthood criminal behavior, this study did not measure gender differences, and this was a prison-based study, not a jail-based study. Most importantly, this study did not examine recidivism as an outcome. Chang and colleagues (2003) examined a cohort of high school seniors to examine the impact of repeat victimization on delinquency recidivism. Although the results indicated repeat victimization was an important factor in first-time delinquent behavior, it did not study the effects of timing and type of victimization. It also did not examine gender differences. Lastly, the most important thing to note here is that this was not a corrections-based study.

Taken together, there are limited studies that examine the impact of adulthood abuse on subsequent criminal behavior, with most research focusing on the impact of childhood victimization (e.g., Tripodi & Pettus-Davis, 2013). Further, few studies differentiate between separate effects of sexual and physical victimization on subsequent

criminal behavior (e.g., Craig & Zettler, 2021; DeHart, 2008; Listwan et al., 2013). Of the research that exists, even less has focused on incarcerated individuals in a jail setting.

The Importance of Poly-victimization

Poly-victimization, or experiencing multiple types of victimization, has an important impact on offending in that victimizations tend to “compound” or accumulate over time. This may add exponentially to the risk of experiencing detrimental outcomes (Finkelhor et al., 2009). This is in part why we find that victimizations are often linked: experiencing victimization early in life (e.g., during childhood) tends to be associated with an increased risk of experiencing victimization later in life (e.g., in adulthood), and experiencing one type of victimization (e.g., physical) is also related to experiencing other types of victimization (Wright et al., 2013). Poly-victimization can be very detrimental to criminal and behavioral outcomes and is therefore important to consider when examining the influence of victimization on these outcomes (Finkelhor et al., 2007;2009). Poly-victimization has been associated with increased substance use problems, mental health problems, continued victimization (or repeat victimizations), and criminal behavior (Finkelhor et al., 2007; Wright et al., 2013). The experience of multiple victimizations also appears to be quite high among the incarcerated population (Ford et al., 2013) work with incarcerated juveniles demonstrates high levels of poly-victimization and finds this is generally associated with poorer outcomes than non-poly-victimized juveniles. Given the overlap between one type or timing of victimization with another, it is important to consider poly-victimization in multivariate models when possible. Though I am especially interested in examining whether different types and timings of

victimization elicit unique effects on recidivism, I nonetheless consider poly-victimization in my dissertation¹.

Relationship Between Victimization and Recidivism

Most of the research thus far has considered how victimization acts as a precursor to *initial* delinquency and criminal behavior, with fewer inquiries into the impact of victimization on *recidivism* after incarceration. Evidence on this topic is relatively sparse, leading to some diversity in the patterns of findings. For instance, Taylor (2015) reported that frequent victimization significantly increases the risk of self-reported recidivism and may have a particularly large effect on violent recidivism for those who have a prior violent crime conviction. Somewhat similarly, Chang and associates (2003) confirmed that the relationship between repeat victimization and recidivism was statistically significant. They examined a nationally representative sample of adolescents and observed that the rates of delinquency decreased as the adolescents grew up. However, the risk of recidivism continued into adulthood. The study showed a consistent pattern of association between repeat victimization and delinquent recidivism. They suggested that preventing repeat victimization may not only be important in reducing adolescent engagement in delinquent behaviors but also in reducing recidivism as well (Chang et al., 2003). A caveat to this study was that the researchers did not examine any gender differences in the effects of victimization on males and females separately.

Lending more credit to the relationship between victimization and recidivism, a recent study examined a sample of Japanese adolescents with histories of victimization

¹ In this dissertation, I consider poly-victimization as experiencing both types (physical and sexual) of victimization or as experiencing victimization at both time points (childhood and adulthood).

and found that victimization was correlated with maladaptive coping mechanisms, which then led to juvenile recidivism (Bui et al., 2021). A limitation of this study, however, was that it did not consider adults and did not examine gender differences in the effects of victimization on males and females separately. Regarding sexual victimization, in particular, a study by Carpentier and Proulx (2011) found childhood sexual victimization to be a key factor associated with an increase in the risk of sexual, violent, and overall recidivism. Moreover, half of the sexual recidivists in this study had been victims of sexual abuse, compared with slightly less than one-third of non-recidivists, indicating that the prevalence of sexual victimization is much higher among recidivists than among non-recidivists. Here too, however, there were no gender differences examined with respect to the effects of prior victimization on future recidivism.

A study by DeHart (2008) found that a major portion of incarcerated women in prison were victims of various types of victimizations, including physical and sexual, and that the cumulative impact of prior victimization and poly-victimization pushed them toward criminal behavior. However, this was a prison-based study, did not study the effects of childhood versus adulthood victimization, and did not include males (DeHart, 2008). Another study by Listwan and colleagues (2013) examined varied types of strains (including prior victimizations) in a prison sample. They found that incarcerated individuals who had histories of victimization were at increased risk of recidivism post-release. But this study was prison-based and did not examine gender differences. It also did not differentiate between the type and timing of victimization concerning recidivism (Listwan et al., 2013). More recently, a study by Craig and Zettler (2021) found that adverse childhood effects (including physical and sexual abuse) increased the likelihood

of violent recidivism. But this study considered a juvenile sample and did not consider the type and timing of prior victimizations separately.

Finally, in a rare study that examined the type (physical) and timing (adulthood) of victimization, Van Voorhis and colleagues (2010) found that a history of physical victimization predicted new arrests for women probationers in a 17 to 24-month follow-up period. This study also showed that incarcerated women who were victims of abuse during adulthood were significantly at a higher risk of recidivating than the incarcerated women who did not suffer abuse during adulthood (Van Voorhis et al., 2010). This study was limited to incarcerated women, and few studies have examined the impact of prior victimization among incarcerated men.

Not all inquiries have found that victimization is associated with recidivism, however. A follow-up analysis to Van Voorhis et al.'s (2010) study, in fact, suggested that childhood victimization may not directly impact recidivism in women, though it may create different pathways to continued offending through psychological and behavioral effects (Salisbury et al., 2009). Similarly, two more studies found that childhood victimization did not impact later general or violent recidivism in the predicted direction (Rettinger & Andrews, 2010; Van Voorhis et al., 2010), and neither did it predict reincarceration (Lowenkamp et al., 2001). Lowenkamp and colleagues (2001) noted that although incarcerated women were more likely to report childhood victimization compared to their male counterparts, this did not have any impact on their later reincarceration.

It is possible that childhood abuse is not directly related to recidivism as Salisbury and Van Voorhis (2009) found, or that the failure to examine the type or timing of

victimization, among other moderators such as severity or frequency (Rettinger & Andrews, 2010), impacts the pattern of results. Given the mixed evidence regarding how past victimization has an impact on later recidivism, one avenue for clarification is to examine whether there are unique impacts of type and timing of victimization among incarcerated individuals in jails; a second avenue for clarification is to explore whether there are gender differences in these effects.

Gender Differences in Type and Timing of Victimization

As demonstrated above, the impact of victimization on criminal behavior is complicated by a multitude of factors, including incarcerated (vs. community-based) status, gender, as well as both the type and timing of victimization experienced. Where patterns are evident, we know that incarcerated individuals experience more victimization than the community-based population (Browne et al., 1999; Morgan & Thompson, 2021; Sacks, 2004; Wolff et al., 2009). Further, it appears that incarcerated women endure (or report) more victimization – both as a child and as an adult – than do incarcerated men (Cutler & Nolen-Hoeksema, 1991; Finkelhor & Araji, 1986). A complicating factor in this is that men and women may experience different types of victimization at different rates, as well as at different times. Among the incarcerated population, both genders are at similar risk to experience victimization during childhood, with men more likely to experience physical abuse (Dean et al., 2007; Krug et al., 2002), and women more likely to experience sexual abuse (Finkelhor et al., 2009; Gehring, 2018; Goodman et al., 2001), but women are more likely to experience continued victimization into adulthood (Cutler & Nolen-Hoeksema, 1991; Finkelhor & Araji, 1986; Krug et al., 2002; Tjaden &

Thoennes, 2000; Wright & Schwartz, 2021). That is, women's victimization appears to be more continual throughout the life course than male's victimization experiences: men experience abuse during childhood, with a sharper decrease in victimization as an adult than females experience. Thus, it is unclear if the findings in the literature so far regarding the impact of abuse on criminal behavior are a result of the *timing* of abuse or the *type* of abuse experienced, or whether gender differences play a role in these relationships. And, as mentioned above, there is limited evidence that specifically examines the separate effects of the type and timing of victimization on recidivism, or that considers gender differences in these effects among jail populations. I seek to disentangle some of these issues in my dissertation.

Summary

In summary, the prevalence rates of prior victimization are much higher in the correctional population (e.g., Harlow, 1999). The effects of prior victimization may depend on various factors, such as the type and timing of the victimization experienced (e.g., Egeland et al., 1988; Herrenkohl et al., 1983; Simons et al., 1991; Stevens-Simon & McAnarney, 1994). Further, these effects may also be different for men and women, but research addressing these issues is limited and dated, especially when it comes to recidivism among incarcerated individuals in jails.

The failure of most studies to examine victimization and recidivism among individuals incarcerated in jails is likely due to many practical and methodological concerns. These may include the transiency of the jail population – many individuals are confined for less than a day and it is therefore difficult to assess their needs within that

timeframe. Further, most jails do not have programming available to treat such problems among their population (Belenko & Peugh, 2005; Trestman et al., 2007), so identifying prior victimization and understanding its effects on recidivism (or other predictors of recidivism, such as substance use) would hold very little value for many jail administrators. Furthermore, some jails are smaller in size and may not have the appropriate level of programming that is needed for special sub-groups such as the severely mentally (Meyer et al., 2014), or individuals with co-occurring disorders (Belenko et al., 2003); this is relevant to victimized or abused incarcerated individuals because mental illness and other disorders (e.g., substance use) often co-occur with victimization (Bloom & Covington, 2008). Finally, incarcerated individuals may lack trust in the correctional staff to use their confidential medical, or historical, information against them. This lack of trust can extend to licensed therapists as well (Meyer et al., 2014; Mitchell & Latchford, 2010; Morgan et al., 2004). The dearth of knowledge on aspects of victimization and their impact on jail recidivism is important and signals the need for additional research.

Chapter 3: Methodology

Primary Goals

The primary goals of this study are to understand the prevalence of prior victimization experiences (physical/sexual/both) and their timing (childhood/adulthood/both) among incarcerated individuals within a jail setting, as well as to determine their effects on recidivism, and to examine gender differences in these relationships. The target population chosen for this study is an intake cohort of incarcerated individuals in a Midwestern County jail. The data were collected as part of the evaluation of the reentry services provided by the jail. The overarching goal of collecting these data was to examine the needs the incarcerated individuals demonstrated upon entry into the jail and to use this information to guide the necessary services being provided to them, to address the need to reduce recidivism rates. A subgoal of collecting these data was to enhance the efficacy of the reentry services provided by the jail, to expand the number of services provided, and to inform continued treatment and programming in the community. The following research questions will be addressed using this dataset:

- 1) What is the prevalence of the types (physical/sexual/both) of abuse and the timing (childhood/adulthood/both) of that abuse among a cohort of incarcerated individuals in jails?
- 2) What type of abuse (physical/sexual/both) is more impactful on recidivism?
- 3) Does the timing of abuse (childhood/adulthood/both) impact recidivism?

- 4) Are there gender differences in the prevalence and effects of the type and timing of victimization on recidivism among incarcerated individuals in jails?

Sample

The site for the current research is a Midwestern County jail. The sample included all the incoming individuals incarcerated in the jail between February 2017 and September 2017 [$N = 4,654$ ($n_{\text{males}} = 3,380$, $n_{\text{females}} = 1,274$)]. To assess the type and timing of victimization, I used the jail's 79-item screener, which included several questions related to criminogenic need factors, as well as prior sexual and physical victimization experiences, as well as when they were experienced (e.g., childhood or adulthood). Participation was voluntary and individuals were provided with a disclaimer that the data were confidential and would have no impact on their current level of care or their length of incarceration. Incarcerated individuals were interviewed by trained reentry specialists after the intake survey (since it was voluntary) and admissions and allocation of a housing unit were concluded. If for any reason the individual was indisposed during the time of the interview, the interview was rescheduled if possible. Other reasons for not being interviewed included whether an individual was unwilling to participate (voluntarily declined participation) or unable (e.g., fell asleep) to participate, was under the influence of drugs or alcohol, was released from jail prior to the interview, or had bonded out, had a language barrier, had a medical or mental health issue, had already been interviewed in the past 30 days, was a security threat, or was placed under house arrest or was being transferred back to prison. For the study, we tracked whether

individuals returned to jail 12 months after their release; we also tracked the individuals up to 1000 days after their release to examine if they *ever* returned to jail.

Measures

Independent and Dependent Variables

Two dependent variables measuring recidivism were used in this study: *Return to Jail Within 12 Month Follow-up* indicated whether an incarcerated individual came back to jail within 1 year after release (coded 1 = yes, 0 = no). The second dependent variable, *Return to Jail, Ever* indicated whether an incarcerated individual came back to jail at any time within 1,000 days after their release (coded 1 = yes, 0 = no).

The primary independent variables used in this study were taken from the intake interview/screener and pertained to the type and timing of prior victimization. Incarcerated individuals were asked if they had experienced physical (pushed, grabbed, slapped, kicked, bit, shoved, punched, and/or attacked with a weapon) or sexual (being pressured to have sexual contact and/or forced to have sexual contact) abuse prior to their incarceration, and if so, whether they experienced it during childhood or adulthood, or at both times (childhood/adulthood) as well. As such, *Childhood Abuse Only* indicates that the incarcerated individual reported experiencing either physical or sexual abuse before they turned 18 years old (coded 1 = yes, 0 = no), and *Adulthood Abuse Only* indicates that the incarcerated individual reported experiencing either physical or sexual abuse after they turned 18 years old (coded 1 = yes, 0 = no). Incarcerated individuals who reported experiencing *both childhood and adulthood abuse* were coded as “1” (= yes) on this dichotomous variable, while incarcerated individuals who reported experiencing *no*

childhood or adulthood abuse were coded as “1” (= yes) on this dichotomous variable. Additionally, *Physical Abuse Only* indicates that the incarcerated individual reported being pushed, grabbed, slapped, kicked, bit, shoved, punched, and/or attacked with a weapon (coded 1 = yes, 0 = no) but did not report experiencing sexual abuse. Likewise, *Sexual Abuse Only* entailed being pressured to have sexual contact and/or forced to have sexual contact (coded 1 = yes, 0 = no), but not physical abuse. *Both Physical and Sexual Abuse* indicated that the incarcerated individual experienced both physical and sexual abuse in their lifetime before incarceration (coded 1 = yes, 0 = no), while *No Physical or Sexual Abuse* indicated that the incarcerated individual did not experience any physical or sexual abuse before incarceration (coded 1 = yes, 0 = no). Table 1 shows the mean, standard deviation, and minimum/maximum values for all the variables.

Table 1. Definitions, Means, and Standard Deviations of Measures Included in Analyses

Variable	Item Coding	<i>X</i>	SD	Min-Max
Childhood Abuse Only	0 = No, 1 = Yes	0.05	0.22	0-1
Adulthood Abuse Only	0 = No, 1 = Yes	0.05	0.22	0-1
Physical Abuse Only	0 = No, 1 = Yes	0.11	0.31	0-1
Sexual Abuse Only	0 = No, 1 = Yes	0.80	0.40	0-1
Both Physical and Sexual Abuse	0 = No, 1 = Yes	0.15	0.36	0-1
Both Childhood and Adulthood Abuse	0 = No, 1 = Yes	0.02	0.13	0-1

No Childhood or Adulthood Abuse*	0 = No, 1 = Yes	0.11	0.31	0-1
No Physical or Sexual Abuse*	0 = No, 1 = Yes	0.72	0.45	0-1
Return to Jail, Ever	0 = No, 1 = Yes	0.30	0.46	0-1
Return to Jail in 12 months	0 = No, 1 = Yes	0.49	0.50	0-1
Gender is Male	0 = Female, 1 = Male	0.73	0.45	0-1
Incarcerated Individual is White*	0 = No, 1 = Yes	0.49	0.50	0-1
Incarcerated Individual is African American	0 = No, 1 = Yes	0.40	0.49	0-1
Incarcerated Individual is Hispanic	0 = No, 1 = Yes	0.08	0.27	0-1
Incarcerated Individual is Other Race	0 = No, 1 = Yes	0.03	0.18	0-1
Age at Booking	In years	23.80	9.59	7-56
Homeless Risk	0 = No, 1 = Yes	0.11	0.31	0-1
Prior Felonies	Total number of felonies prior to intake	0.81	1.40	0-7
Length of Stay Logged	Number of days incarcerated at the time of the interview	0.72	0.91	0-3
Institutional Misconduct	0 = No, 1 = Yes	0.17	0.38	0-1
Number of Admits	Total number of admissions to jail prior to the current booking date	6.79	9.43	0-33
Employment Status	0 = Employed, 1 = Unemployed	0.44	0.50	0-1
Children Status	0 = No children, 1 = Children	0.58	0.49	0-1
Marital Status	0 = Not married, 1 = Married	0.12	0.33	0-1
Acute Mental Health Status	0 = No, 1 = Yes	0.34	0.47	0-1
Internalizing Symptoms	Total number of symptoms experienced in the past year	2.18	1.78	0-6

Externalizing Symptoms	Total number of symptoms experienced in the past year	1.20	1.53	0-7
Substance Use	1 = no disorder, 2 = mild disorder, 3 = moderate disorder, and 4 = severe disorder	1.70	1.19	1-4
PTSD	0 = No, 1 = Yes	0.27	0.45	0-1

*=Reference category

Control Variables

Covariates potentially related to recidivism were included as control variables.

Gender is Male is a dichotomous variable indicating the gender of the incarcerated individual is male (coded 0 = female, 1 = male). Masculine ideals, such as limiting emotional expression or pressure to meet expectations of dominance or aggression, are common in general, including but not limited to bullying, assault, and/or physical and verbal violence. Men may be more likely to be involved in violent behavior (Feder et al., 2010).

The race² of the incarcerated individual is captured by four dichotomous variables: *White* (reference category), *African American*, *Hispanic*, and *Other Race* (each coded 1 = yes, 0 = no). According to research, recidivism is higher among individuals who are African American and Native American compared to individuals who are white. This could be because the social contexts in which minorities live are more favorable to crime, and subsequently, recidivism (Kubrin et al., 2007). *Age at Booking* reflects how old the incarcerated individual was at the time of booking and was coded in years. Age is

² The total of all race categories came to 96%. There is four percent missing data on the race indicator.

one of the most potent risk factors when it comes to recidivism among adult incarcerated individuals, with younger individuals being more vulnerable to subsequent criminal behavior and recidivism (Gendreau et al., 1996; Loong et al., 2021).

Homeless Risk indicates that an incarcerated individual is at risk of being homeless after their release, as they indicated that they do not have a place to live upon release (coded 1 = yes, 0 = no). Incarcerated individuals with less stable employment and income opportunities, as well as housing stability (e.g., risk of being homeless upon release) are also more likely to return to criminal behavior (Bonta et al., 2014; Gendreau et al., 1996). Homelessness can lead to difficulties in obtaining stable living arrangements, which in turn raises their risk of recidivism (Grace et al., 2008); in fact, homelessness raises one's risk for recidivism by almost four-fold (Fischer et al., 1986; Jacobs & Gottlieb, 2020; Lutze et al., 2014).

Prior Felonies indicate the number of an incarcerated individual's past felonies prior to the current booking date. It was top coded at 7 (99% of the sample) to reduce skew. *Length of Stay Logged* indicates the number of days served by an incarcerated individual after their arrest at the time of the interview. This variable was logged to reduce skew. *Institutional Misconduct* indicates whether the incarcerated individual had any instances of institutional infractions after the current booking date (coded 1 = yes, 0 = no). *Number of Admits* indicates incarcerated individual's number of admissions to the same jail prior to the current booking date. Measures of risk and criminal history, including length of stay in the institution, prior criminal history, prior incarceration history, prior violence, and offense seriousness, that tap into the incarcerated individual's propensity for crime and violence, as well as their past misbehavior (both in and outside

of correctional facilities), have been linked to recidivism among incarcerated individuals (Bonta et al., 2014) and should be considered in multivariate analyses. *Employment Status* is a dichotomous variable indicating that the incarcerated individual was unemployed at the time of admission (coded 0 = Employed, 1 = Unemployed). *Children Status* indicates whether the incarcerated individual has any children (coded 1 = yes, 0 = no). *Marital Status* indicates whether the incarcerated individual reported being married at the time of booking (coded 1 = yes, 0 = no). Having children and intimate partners/spouses are known to motivate them to desist from criminal behavior, and thus act as protective factors against recidivism (Brine et al., 2021). *Acute Mental Health Problems* indicate whether the incarcerated individual experienced a mental health episode in the 30 days prior to booking (coded 0 = No children, 1 = Children). Mental health problems are significant predictors of maladaptive outcomes such as aggression, criminal behavior, and recidivism. These problems are theorized to be more relevant in jail settings (Dalbir et al., 2022).

Both internalizing and externalizing symptoms were taken from the validated GAIN-SS scale. GAIN-SS stands for Global Appraisal of Individual Needs-Short Screener. This scale encompasses instruments designed to quickly and accurately screen incarcerated individual populations for probable externalizing and internalizing psychiatric disorders, substance use disorders, and problems related to violence (Dennis et al., 2006). *Internalizing Symptoms* indicate the number of internalizing symptoms that an incarcerated individual reported experiencing during the past year. Internalizing symptoms include: feeling very trapped, lonely, sad, blue, depressed, or hopeless about the future, sleep trouble such as bad dreams, sleeping restlessly, or falling asleep during

the day, feeling very anxious, nervous, tense, scared, panicked, or like something bad was going to happen, becoming very distressed and upset with something that reminded you of the past, thinking about ending your life or committing suicide, and seeing or hearing things that no one else could see or hear or feel that someone could read or control thoughts. Leaving internalizing symptoms untreated can contribute to the risk of problems within the correctional setting as well as a higher likelihood of recidivism post-release (DiPierro-Sutton & Gudiño, 2021). *Externalizing Symptoms* indicate the number of externalizing symptoms that an incarcerated individual reported experiencing in the past year at the booking interview. Externalizing symptoms include: lying or conning to get things you wanted or avoid having to do something; having a hard time paying attention at school, work, or home, having a hard time listening to instructions at school, work, or, home, having a hard time waiting your turn, were a bully or threatened other people, started physical fights with other people, and tried to win back your gambling losses by going back another day. Externalizing symptoms are empirically linked to recidivism (Thackery & Harris, 2003; Wibbelink et al., 2017). Furthermore, the research states that these symptoms are risk factors for future criminal behavior (Dodge et al., 2003; Mash & Barkley, 1998; Wibbelink et al., 2017).

Substance Use indicates whether an incarcerated individual was deemed to have a substance use disorder upon booking and was based on the TCU drug screening scale. The TCU screen is a validated substance use screening tool developed by Texas Christian University and was originally developed for DSM-3 (Knight et al., 2018). The current TCU Drug Screen includes 19 items that represent key clinical and diagnostic criteria for substance "dependence" as they appear in the Diagnostic and Statistical Manual and the

National Institute of Mental Health Diagnostic Interview Schedule. These criteria were adapted for use within criminal justice settings by rewording "clinical" language to be more appropriate for individuals with eighth-grade reading levels and by using a format that promotes reliable self-administration. The TCU Drug Screen can serve as an important tool in the process of identifying the need for individualized treatment services and appropriate level of care (Center for Substance Abuse Treatment, 2013; Guastaferro, 2012; Gunter & Antoniak, 2010; National Institute on Drug Abuse, 2006). The TCU drug screen included these questions; a) in the past year did you ever drink or use drugs more than you meant to, b) have you wanted to cut down on your drinking or drug use in the past year, and c) have family or friends ever expressed concern about your drinking or drug use. These questions were administered to assess the level of substance disorder an incarcerated individual evidenced (coded 1 = no disorder, 2 = mild disorder, 3 = moderate disorder, and 4 = severe disorder). Research evidence that incarcerated individuals who had a substance use disorder without any mental illness had the highest rates of rearrest and recidivism upon release (Zgoba et al., 2020).

PTSD indicates if the incarcerated individual is positive or negative (coded 1 = yes, 0 = no) for a post-traumatic stress disorder (PTSD) based on the abbreviated PCL score. The PCL is a 20-item self-report measure that assesses the 20 DSM-5 symptoms of PTSD (Weathers et al., 2013). The individual reported how bothered he or she was by problems such as repeated, disturbing memories, thoughts, or images of stressful experiences from the past, feeling very upset when something reminded them of a stressful experience from the past, avoiding activities or situations because they reminded them of a stressful experience from the past, feeling distant or cutoff from other people,

feeling irritable or angry outburst, having difficulty concentrating, and so forth. Response categories were provided on a five-point ordinal scale (1 = not at all, 2 = a little bit, 3 = moderately, 4 = quite a bit, 5 = extremely). The measure of PTSD is coded “yes” if the sum of the items from the PCL is 14 or greater, which indicates that the incarcerated individual experienced PTSD symptomology. As per current research, PTSD is empirically associated with an increased risk of incarceration among those with a history of trauma and victimization (Maschi et al., 2019).

Statistical Analyses

The following research questions will be addressed in this dissertation:

- 1) What is the prevalence of the types (physical/sexual/both) of abuse and the timing (childhood/adulthood/both) of that abuse among a cohort of incarcerated individuals in jails?
- 2) What type of abuse (physical/sexual/both) is more impactful on recidivism?
- 3) Does the timing of abuse (childhood/adulthood/both) impact recidivism?
- 4) Are there gender differences in the prevalence and effects of the type and timing of victimization on recidivism among incarcerated individuals in jails?

Several analytic techniques will be used to address the research questions of this study. First, to identify the prevalence of the types (physical, sexual, both) of abuse and the timing (childhood, adulthood, both) of that abuse among a cohort of incarcerated individuals in jails (research question 1), descriptive statistics will be provided for the “total” sample (men and women combined). Next, to address research questions 2-3, multivariate logistic regressions will be conducted on the “total” sample to determine the

unique effects of the type of abuse and timing of abuse on recidivism among incarcerated individuals in jails. In order to address research question 4, I will split the total sample of incarcerated individuals in jails by gender (male/female) and examine the difference of means tests (i.e., t-tests) to determine if the prevalence of various types and timing of abuse differed across genders. To examine whether the effects of these variables on recidivism differ significantly across gender categories, I will use the equality of coefficients test (Clogg, et al., 1995) when the multivariate regressions are conducted among the separate male and female samples.

Chapter 4: Results

Overview

This chapter will outline the results of the statistical analyses undertaken in this study. First, I will describe the descriptive statistics followed by the results of the difference of means tests. Second, I will describe the results of multivariate logistic regression for the pooled sample (men and women combined) to understand the impact of prior victimization on long and short-term recidivism. Third, moving on with the multivariate logistic regressions, I will describe the impact of prior victimization on recidivism (short and long-term) broken down by gender. And lastly, in this chapter, I will describe how significant are those gender differences based on the equality of coefficients test (z-test).

Descriptive Statistics and Difference of Means Tests

Table 2 presents the descriptive statistics for the “total” sample (pooled men and women), as well as for men and women separately. The last column provides the results from the difference-of-means tests, which indicate statistically significant differences in the means between men and women. The non-significant tests indicate that the means of the variable are statically similar or the same for men and women. This table is used to answer the research question 1) - *What is the prevalence of the types (physical, sexual, both) of abuse and the timing (childhood, adulthood, both) of that abuse among a cohort of jail-incarcerated individuals in jails?* And research question 4) - *Are there gender differences in the prevalence (and effects) of the type and timing of victimization on recidivism among jail-incarcerated individuals in jails?* Regarding the total sample, 30%

of incarcerated individuals returned to jail within one year of being released and 49% returned in the 1000 days after their release. Of the total sample prior to their incarceration, five percent had suffered childhood abuse only, five percent had suffered adulthood abuse only, 11% had suffered both childhood and adulthood abuse, and 80% had suffered no childhood or adulthood abuse. Of all incarcerated individuals in the sample and prior to their incarceration, 15% had suffered physical abuse only, two percent had suffered sexual abuse only, 11% had suffered both physical and sexual abuse, and 72% had not suffered any physical or sexual abuse. Additionally, 73% of the sample was male, and 27% was female. Concerning race in the total sample, 49% of incarcerated individuals were White, 40% were African American, eight percent were Hispanic, and three percent were of Other race. The average age in the total sample was 24 years. At the intake, 11% displayed the risk of being homeless. Furthermore, seven percent of the total sample had a prior incarceration history, and on average, incarcerated individuals had one prior felony on their records. The average length of stay in the total sample was one day. Seventeen percent of incarcerated individuals in the total sample had institutional misconduct on their record. The average number of prior admissions for the incarcerated individuals in the total sample was seven. Forty-four percent of incarcerated individuals in the total sample were unemployed at the time of intake. Fifty-eight percent of incarcerated individuals had children at the time of the intake. Regarding being married, 12% were married at the time of their intake. With respect to their mental health, 34% of incarcerated individuals had an acute mental health episode in the past 30 days prior to intake. On average, the incarcerated individuals displayed at least one internalizing symptom and two externalizing symptoms. In the total sample, on average, incarcerated

individuals had at least a mild substance use disorder, and 27% of incarcerated individuals in the total sample displayed signs of PTSD.

Turning to the gender sub-samples, among men, 32% of males returned to jail within one year of release compared to 27% of females (not a significant difference). Among males, 50% returned to jail in the 1000 days after their release compared to 49% of females, and this difference was not statistically significant either. Concerning the abuse variables, three percent of men suffered childhood abuse only compared to nine percent of women, highly statistically significant ($p \leq .001$), three percent of men suffered adulthood abuse only compared to 11% of women, again, statistically different ($p \leq .001$), four percent of men and 29% of women suffered both childhood and adulthood abuse, again, statistically highly significant ($p \leq .001$) and 90% of men and 51% of women had suffered no childhood or adult abuse, highly statistically significant ($p \leq .001$). Moving on, 13% of men suffered physical abuse only compared to 20% of women, a statistically significant difference ($p \leq .001$), one percent of men suffered sexual abuse only compared to four percent of women, statistically significant ($p \leq .001$), four percent of men suffered both physical and sexual abuse compared to 28% of women, again, a statistically significant difference ($p \leq .001$) and 81% of men and 48% of women had suffered no physical or sexual abuse – this difference was highly significant as well ($p \leq .001$).

The racial makeup of the incarcerated individuals showed that 47% of men and 51% of women belonged to the white race, 41% of men and 38% of women were African American, nine percent of men and six percent of women were of Hispanic descent (significantly different at $p \leq .001$), and three percent of men and five percent of women

belonged to Other race (again, a statistically significant difference at $p \leq .001$). Age at booking was on average for men 23 years and 26 years for women, not a significant difference. About 11% of men and women each ran the risk of being homeless, and this difference was not statistically different either. Regarding prior felonies, 90% of men had at least one prior felony compared to 56% of women, statistically significant ($p \leq .001$). The average length of stay was about one day for men and about a half day for women ($p \leq .001$). Regarding institutional misconduct, 17% of men and 19% of women had a record of institutional misconduct while under incarceration. For the number of admits it was an average of eight prior admits for men and four prior admits for women (a significant difference $p \leq .001$). With respect to employment status, 42% of men were employed at the time of intake compared to 48% of women, statistically significant ($p \leq .001$). Concerning children, 56% of men and 65% of women had children at the time of intake, statistically highly significant ($p \leq .001$). Coming to marital status, 13% of men and ten percent of women were married at the time of the intake. Regarding their mental health status, 33% of men and 36% of women had an acute mental health episode prior to the intake in the past 30 days. On average, men displayed two and women displayed 3 internalizing symptoms and this difference was highly significant ($p \leq .001$), and on average, men displayed two and women displayed one externalizing symptom. Concerning substance use, both men and women had at least a mild substance use disorder. Lastly, 24% of men and 37% of women displayed symptoms of PTSD, also a highly significant difference ($p \leq .001$).

Table 2. Descriptive Statistics (all samples)

	Total Sample			Men			Women			Differences of Means Test
	<i>x</i>	<i>sd</i>	<i>Min-Max</i>	<i>x</i>	<i>sd</i>	<i>Min-Max</i>	<i>x</i>	<i>sd</i>	<i>Min-Max</i>	
	<i>n</i> = 4654			<i>n</i> = 3,380			<i>n</i> = 1,274			
<i>Dependent Variables</i>										
Return to Jail within 12 Months	0.30	0.46	0-1	0.32	0.47	0-1	0.27	0.45	0-1	-2.76
Return to Jail, Ever	0.49	0.50	0-1	0.50	0.50	0-1	0.49	0.50	0-1	-0.75
<i>Independent Variables</i>										
Childhood Abuse Only	0.05	0.22	0-1	0.03	0.18	0-1	0.09	0.28	0-1	7.44***
Adulthood Abuse Only	0.05	0.22	0-1	0.03	0.17	0-1	0.11	0.31	0-1	11.27***
Both Childhood and Adulthood Abuse	0.11	0.31	0-1	0.04	0.19	0-1	0.29	0.46	0-1	27.33***
No Childhood or Adulthood Abuse ^a	0.80	0.40	0-1	0.90	0.30	0-1	0.51	0.50	0-1	-32.45***
Physical Abuse Only	0.15	0.36	0-1	0.13	0.34	0-1	0.20	0.40	0-1	5.92***
Sexual Abuse Only	0.02	0.13	0-1	0.01	0.10	0-1	0.04	0.19	0-1	5.97***
Both Physical and Sexual Abuse	0.11	0.31	0-1	0.04	0.20	0-1	0.28	0.45	0-1	25.44***
No Physical or Sexual Abuse ^a	0.72	0.45	0-1	0.81	0.39	0-1	0.48	0.50	0-1	-24.31***
Gender is Male	0.73	0.45	0-1	-	-	-	-	-	-	
White (reference)	0.49	0.50	0-1	0.47	0.50	0-1	0.51	0.50	0-1	2.30
African American ^b	0.40	0.49	0-1	0.41	0.49	0-1	0.38	0.49	0-1	-1.66
Hispanic ^b	0.08	0.27	0-1	0.09	0.28	0-1	0.06	0.23	0-1	-3.39***
Other Race ^b	0.03	0.18	0-1	0.03	0.17	0-1	0.05	0.21	0-1	3.22***
Age at Booking	23.80	9.59	7-56	23.08	9.52	7-56	25.71	9.52	10-56	8.41
Homeless Risk	0.11	0.31	0-1	0.11	0.31	0-1	0.11	0.31	0-1	0.35
Prior Felonies	0.81	1.40	0-7	0.90	1.47	0-7	0.56	1.16	0-7	-7.56***
Length of Stay Logged	0.72	0.91	0-3	0.80	0.92	0-3	0.50	0.84	0-3	-9.91***
Institutional Misconduct	0.17	0.38	0-1	0.17	0.37	0-1	0.19	0.39	0-1	1.75
Number of Admits	6.79	9.43	0-33	7.91	10.16	0-33	3.81	6.24	0-33	-13.49***
Employment Status	0.44	0.50	0-1	0.42	0.49	0-1	0.48	0.50	0-1	4.05***
Children Status	0.58	0.49	0-1	0.56	0.50	0-1	0.65	0.48	0-1	5.38***
Marital Status	0.12	0.33	0-1	0.13	0.33	0-1	0.10	0.30	0-1	-2.43
Acute Mental Health Status	0.34	0.47	0-1	0.33	0.47	0-1	0.36	0.48	0-1	1.53
Internalizing Symptoms	2.18	1.78	0-6	2.00	1.76	0-6	2.63	1.73	0-6	10.94***
Externalizing Symptoms	1.20	1.53	0-7	1.17	1.52	0-7	1.31	1.55	0-7	2.81
Substance Use	1.70	1.19	1-4	1.69	1.17	1-4	1.75	1.21	1-4	1.56
PTSD	0.27	0.45	0-1	0.24	0.43	0-1	0.37	0.48	0-1	8.81***

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Incarcerated individual is White

Multivariate Logistic Regressions

Two models were used to answer the research questions – the *Timing of Abuse Model* includes Childhood Abuse, Adulthood Abuse, and Both Childhood and Adulthood Abuse (with neither childhood or adulthood abuse serving as the reference category), and the *Type of Abuse Model* includes Physical Abuse, Sexual Abuse, and Both Physical and Sexual Abuse (with neither physical or sexual abuse serving as the reference category). Both these models were tested against two outcomes, 1) Recidivism within 12 Months of Release, and 2) Recidivism (Ever). Several analyses were conducted to answer the research questions: first, analyses were conducted with the total (pooled) sample of men and women, then, analyses were conducted with separate subsamples of males and females to determine gendered effects. I start with the pooled sample below.

Table 3 shows the multivariate logistic regression predicting whether the inmate recidivated within 12 months of their release for the Timing of Abuse Model. This table is used to answer the research question – *Does the timing of abuse (childhood/adulthood/both) impact recidivism while controlling for covariates?* The findings in Table 3 demonstrate that none of the abuse variables were significantly associated with the outcome. Coming to the control variables, incarcerated men were at 19% increased odds of recidivism compared to incarcerated women (moderately significant at $p \leq .05$). If the inmate was African American, this increased their likelihood of recidivism by 35% and this was highly significant ($p \leq .001$). Age at booking had an inverse relationship with recidivism and showed a decrease of two percent in the odds of recidivism and was highly significant ($p \leq .001$) – in other words – the older the inmate was at booking, the lower their chances to recidivate. Homeless risk increased the

likelihood of recidivism by 72% and was highly significant ($p \leq .001$) – which meant that incarcerated individuals who did not have stable housing at the time of intake, were at serious risk of being homeless at release and thus at an increased risk to recidivate. An inmate with prior felonies was at 14% increased odds of recidivism and this was highly significant ($p \leq .001$), in other words, the greater number of felonies they had prior to the current intake, the higher their chances to recidivate post-release. Length of stay was negatively related to recidivism, indicating that the fewer days incarcerated individuals spent under incarceration, the lower their chances of recidivating, decreasing the odds of recidivism by 28% ($p \leq .001$). None of the other control variables showed any statistical significance concerning recidivism. Nagelkerke R^2 values indicate that the model explained seven percent of the variation in the likelihood of returning to jail within 12 months of release.

Table 3. Multivariate Logistic Regression Predicting Recidivism within 12 Months of Release (Timing of Abuse Model)

	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>
Constant	-0.83	0.03	0.44
<i>Independent Variables</i>			
Childhood Abuse Only	-0.02	0.16	0.98
Adulthood Abuse Only	-0.20	0.17	0.82
Both Childhood and Adulthood Abuse ^a	0.03	0.13	1.03
Gender is Male	0.17	0.09	1.19*
Inmate is African American ^b	0.30	0.07	1.35***
Inmate is Hispanic ^b	0.06	0.13	1.06
Inmate is Other Race ^b	0.48	0.18	1.62
Age at Booking	-0.02	0.00	0.98***
Homeless Risk	0.54	0.10	1.72***
Prior Felonies	0.14	0.03	1.14***
Length of Stay Logged	-0.25	0.04	0.78***
Institutional Misconduct	-0.07	0.09	0.93
Number of Admits	0.01	0.01	1.01
Employment Status	-0.04	0.07	0.96
Children Status	0.01	0.07	1.01
Marital Status	-0.12	0.11	0.89
Acute Mental Health Status	-0.02	0.07	0.98
Internalizing Symptoms	0.01	0.03	1.01
Externalizing Symptoms	0.03	0.03	1.03
Substance Use	0.03	0.03	1.03
PTSD	0.11	0.09	1.12
Nagelkerke R ²		0.07	
		n = 4,654	

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 4 shows the multivariate logistic regression predicting whether incarcerated individuals recidivated within 1,000 days of their release for the Timing of Abuse Model (pooled sample). This table is used to answer the research question – *Does the timing of abuse (childhood/adulthood/both) impact recidivism while controlling for covariates?* Findings in Table 4 demonstrate that experiencing adulthood abuse only decreased the likelihood of recidivism by 25% (moderately significant, $p \leq .05$) when considering the control variables. Both childhood and adulthood abuse showed a decrease in their recidivism by 15% – but this finding was not statistically significant. Coming to

the control variables, African Americans were 41% more likely to recidivate than White incarcerated individuals, while older incarcerated individuals again were less likely to recidivate than younger ones. Homeless risk increased the likelihood of recidivism by 54% ($p \leq .001$). Incarcerated individuals with prior felonies were more likely to recidivate by 12% ($p \leq .001$). Length of stay was negatively related to incarcerated individuals' recidivism and decreased their likelihood of recidivism by 52% and was highly significant ($p \leq .001$) – indicating that the fewer days incarcerated individuals spent under incarceration, the lower their chances of recidivating, decreasing the odds of recidivism. Number of admits was positively related to recidivism, which means that the higher the number of prior admits, the higher the chances of an incarcerated individual recidivating ($p \leq .05$). Lastly, PTSD in incarcerated individuals led to an increase in the odds of recidivism by 33% and was significant ($p \leq .01$). None of the other variables were statistically significant to recidivism. Nagelkerke R^2 values indicate that the model explained 15% of the variation in the likelihood of returning to jail within 1,000 days of release.

Table 4. Multivariate Logistic Regression Predicting Recidivism (Ever) (Timing of Abuse Model)

	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>
Constant	-0.02	0.03	0.98
<i>Independent Variables</i>			
Childhood Abuse Only	-0.27	0.15	0.76
Adulthood Abuse Only	-0.29	0.15	0.75*
Both Childhood and Adulthood Abuse ^a	-0.17	0.12	0.85
Gender is Male	0.08	0.08	1.09
Inmate is African American ^b	0.34	0.07	1.41***
Inmate is Hispanic ^b	0.16	0.12	1.18
Inmate is Other Race ^b	0.41	0.18	1.51
Age at Booking	-0.02	0.00	0.98***
Homeless Risk	0.43	0.10	1.54***
Prior Felonies	0.11	0.03	1.12***
Length of Stay Logged	-0.74	0.04	0.48***
Institutional Misconduct	-0.05	0.08	0.95
Number of Admits	0.01	0.01	1.01*
Employment Status	-0.01	0.06	0.99
Children Status	-0.03	0.07	0.97
Marital Status	-0.13	0.10	0.88
Acute Mental Health Status	0.03	0.07	1.03
Internalizing Symptoms	-0.01	0.02	0.99
Externalizing Symptoms	0.00	0.03	1.00
Substance Use	0.05	0.03	1.05
PTSD	0.29	0.09	1.33**
Nagelkerke R ²		0.15	
		n = 4,654	

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 5 shows the multivariate logistic regression predicting whether the inmate recidivated within 12 months of their release for the Type of Abuse Model for the pooled sample. This table is used to answer the research question – *Does the type of abuse (physical/sexual/both) impact recidivism while controlling for covariates?* Findings in Table 5 demonstrate that none of the abuse variables were significantly associated with the outcome. Coming to the control variables, incarcerated men, incarcerated African Americans, and incarcerated individuals of other race were more likely to recidivate than incarcerated women and incarcerated White individuals. Incarcerated individuals' age at

booking had an inverse relationship with recidivism and showed a decrease of two percent ($p \leq .001$) in recidivism. Homeless risk among incarcerated individuals increased the likelihood of recidivism by 73% and was highly significant ($p \leq .001$). Prior felonies among incarcerated individuals increased the likelihood of their recidivism by 14% and were highly significant ($p \leq .001$). incarcerated individuals' length of stay was negatively related to their recidivism and decreased their likelihood of recidivism by 22% and was highly significant ($p \leq .001$). None of the other variables were statistically significant to recidivism. Nagelkerke R^2 values indicate that the model explained seven percent of the variation in the likelihood of returning to jail within 12 months of release.

Table 5. Multivariate Logistic Regression Predicting Recidivism within 12 Months of Release (Type of Abuse Model)

	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>
Constant	-0.83	0.03	0.44
<i>Independent Variables</i>			
Physical Abuse Only	0.04	0.10	1.04
Sexual Abuse Only	-0.09	0.27	0.91
Both Physical and Sexual Abuse ^a	-0.02	0.12	0.98
Gender is Male	0.17	0.08	1.19*
Inmate is African American ^b	0.30	0.07	1.35***
Inmate is Hispanic ^b	0.06	0.13	1.06
Inmate is Other Race ^b	0.48	0.18	1.62
Age at Booking	-0.02	0.00	0.98***
Homeless Risk	0.55	0.10	1.73***
Prior Felonies	0.14	0.03	1.14***
Length of Stay Logged	-0.25	0.04	0.78***
Institutional Misconduct	-0.07	0.09	0.93
Number of Admits	0.01	0.01	1.01
Employment Status	-0.04	0.07	0.96
Children Status	0.01	0.07	1.01
Marital Status	-0.12	0.11	0.89
Acute Mental Health Status	-0.01	0.07	0.99
Internalizing Symptoms	0.01	0.03	1.01
Externalizing Symptoms	0.03	0.03	1.03
Substance Use	0.03	0.03	1.03
PTSD	0.11	0.09	1.12
Nagelkerke R ²		0.07	
		n = 4,654	

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 6 is used to answer the research question – *Does the type of abuse (physical/sexual/both) impact recidivism while controlling for covariates?* Findings in Table 6 demonstrate that none of the types of abuse measures were significantly related to ever returning to jail. Coming to the control variables, the patterns of findings remained very stable – gender, African American and Other race, age, homeless, prior felonies, length of stay, prior admits, substance use, and PTSD were significantly related to recidivism. None of the other variables were statistically significant with recidivism.

Nagelkerke R^2 values indicate that the model explained 15% of the variation in the odds of returning to jail within 1,000 days of release.

Table 6. Multivariate Logistic Regression Predicting Recidivism (Ever) (Type of Abuse Model)

	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>
Constant	-0.02	0.03	0.98
<i>Independent Variables</i>			
Physical Abuse Only	-0.04	0.09	0.96
Sexual Abuse Only	-0.37	0.25	0.69
Both Physical and Sexual Abuse ^a	-0.20	0.12	0.82
Gender is Male	0.10	0.08	1.11
Inmate is African American ^b	0.34	0.07	1.41***
Inmate is Hispanic ^b	0.16	0.12	1.17
Inmate is Other Race ^b	0.41	0.18	1.51*
Age at Booking	-0.02	0.00	0.98***
Homeless Risk	0.43	0.10	1.54***
Prior Felonies	0.11	0.03	1.12***
Length of Stay Logged	-0.74	0.04	0.48***
Institutional Misconduct	-0.05	0.08	0.95
Number of Admits	0.01	0.01	1.01*
Employment Status	-0.01	0.06	0.99
Children Status	-0.03	0.07	0.97
Marital Status	-0.13	0.10	0.88
Acute Mental Health Status	0.03	0.07	1.03
Internalizing Symptoms	-0.01	0.02	0.99
Externalizing Symptoms	0.00	0.03	1.00
Substance Use	0.05	0.03	1.05
PTSD	0.28	0.09	1.33**
Nagelkerke R^2		0.15	
		n = 4,654	

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 7 shows the gender-specific multivariate logistic regression models predicting whether men and women returned to jail within 12 months of their release for the Timing of Abuse Model, with control variables added. This table is used to answer the research question – *Are there gender differences in the prevalence and effects of the timing (childhood/adulthood/both) of victimization among incarcerated individuals in jails while controlling for covariates?* The findings from Table 7 indicate that except for

adulthood abuse only, no other abuse variables were statistically linked to the outcome for males or females. Adulthood abuse only was associated with a decrease in the odds of recidivism among women and was moderately significant ($p \leq .05$), decreasing their odds of recidivism by 39%. Regarding the control variables among men, African American males were 59% more likely to recidivate than White males. Age at booking was inversely related to recidivism and decreased its odds by three percent. Homeless risk was associated with an increase in odds of recidivism by 86% and was highly significant ($p \leq .001$). Prior felonies also were associated with an increase in odds of recidivism by 17% and were highly significant ($p \leq .001$). Length of stay was associated with a decrease in odds of recidivism by 27% and was highly statistically significant ($p \leq .001$). Externalizing symptoms were associated with an increase in recidivism by seven percent and was moderately significant ($p \leq .05$).

Among incarcerated women, who were of Other race were 124% more likely to recidivate than incarcerated White women. Age at booking was inversely related to recidivism at two percent and was also statistically significant ($p \leq .01$). Number of admits was associated with an increase in the odds of recidivism by three percent and was moderately significant ($p \leq .05$). Turning to the equality of coefficients tests, findings demonstrated that the effects of African American race, Other race ($p \leq .05$), length of stay ($p \leq .01$), number of admits ($p \leq .05$), having children, and externalizing symptoms ($p \leq .05$) were significantly different across genders – the impact of African American race and externalizing symptoms were stronger among men, while other race, length of stay, the number of admits, and having children were stronger predictors of the odds of recidivism for women than for men. Nagelkerke R^2 values indicate that the model

explained eight and six percent of the variation in the likelihood of returning to jail within 12 months of release for both men and women respectively.

Table 7. Multivariate Logistic Regression Predicting Recidivism within 12 Months of Release (Timing of Abuse Model) (Males and Females)

	Men			Women			z-test
	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	
Constant	-0.77	0.04	0.46	-0.98	0.06	0.38	
<i>Independent Variables</i>							
Childhood Abuse Only	0.08	0.21	1.08	-0.23	0.25	0.80	0.949
Adulthood Abuse Only	-0.04	0.24	0.96	-0.49	0.24	0.61*	1.326
Both Childhood and Adulthood Abuse ^a	0.15	0.21	1.17	-0.17	0.17	0.84	1.184
Inmate is African American ^b	0.47	0.09	1.59***	-0.14	0.15	0.87	3.487***
Inmate is Hispanic ^b	0.09	0.15	1.09	0.01	0.29	1.01	0.245
Inmate is Other Race ^b	0.22	0.23	1.25	0.81	0.28	2.24**	-1.628*
Age at Booking	-0.03	0.01	0.97***	-0.02	0.01	0.98**	-0.707
Homeless Risk	0.62	0.12	1.86***	0.32	0.20	1.37	1.286
Prior Felonies	0.15	0.03	1.17***	0.06	0.07	1.06	1.182
Length of Stay Logged	-0.31	0.04	0.73***	-0.07	0.08	0.94	-2.683***
Institutional Misconduct	-0.11	0.10	0.89	0.05	0.16	1.05	-0.848
Number of Admits	0.00	0.01	1.00	0.03	0.01	1.03*	-2.121**
Employment Status	-0.05	0.08	0.95	0.02	0.13	1.02	-0.459
Children Status	-0.07	0.08	0.94	0.22	0.14	1.25	-1.799*
Marital Status	-0.15	0.12	0.86	0.08	0.23	1.08	-0.887
Acute Mental Health Status	-0.06	0.08	0.94	0.12	0.13	1.13	-1.179
Internalizing Symptoms	-0.02	0.03	0.99	0.07	0.05	1.08	-1.543
Externalizing Symptoms	0.07	0.03	1.07*	-0.08	0.05	0.92	2.572**
Substance Use	0.05	0.04	1.05	-0.03	0.06	0.97	1.109
PTSD	0.14	0.11	1.15	0.10	0.18	1.10	0.190
Nagelkerke R ²		0.08			0.06		
		n =3,380			n =1,274		

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 8 indicates that none of the abuse variables were significantly associated with the outcome among men. Among women, experiencing childhood abuse only and adulthood abuse only were associated with a decrease in the odds of recidivism by 37% ($p \leq .05$) and 44% ($p \leq .01$), respectively. Concerning the control variables among men, African American race, age at booking, homeless, prior felonies, length of stay, marital status, substance use, and PTSD were significantly associated with recidivism. Incarcerated individuals' age at booking was inversely related to recidivism ($p \leq .001$) and was associated with a decrease of two percent. Incarcerated individuals' risk of homelessness was associated with an increase in the odds of recidivism by 83% prior felonies also were associated with an increase in the odds of recidivism by 14%. Length of stay was inversely related to recidivism and was associated with a decrease of 54% while marital status was associated with a decrease in the odds of recidivism by 19%, meaning if an incarcerated man was married, their odds of recidivating were lower compared to an incarcerated individual who was not married. Substance use was associated with an increase in incarcerated men's odds of recidivism by seven percent, and PTSD was associated with an increase in incarcerated men's odds of recidivism by 43%.

Among incarcerated women, the ones belonging to Other race were more likely to recidivate by 111% compared to incarcerated white women, while age at booking was inversely related to recidivism ($p \leq .01$) and was associated with a decrease of two percent. Length of stay was inversely related to recidivism and was associated with a decrease of 48% and was highly statistically significant ($p \leq .001$). A higher number of admits were associated with an increase in the odds of recidivism by two percent and

more externalizing symptoms were associated with a decrease in the odds of recidivism by 10%. Equality of coefficients tests demonstrated that adulthood abuse only ($p \leq .05$) and marital status exerted a stronger influence on recidivism among females, while African American ($p \leq .01$) homeless risk ($p \leq .001$), and externalizing symptoms ($p \leq .01$), were stronger predictors among incarcerated men. Nagelkerke R^2 values indicate that the model explained 17% and 13% of the variation in the likelihood of returning to jail within 1,000 days of their release for both men and women respectively.

Table 8. Multivariate Logistic Regression Predicting Recidivism (Ever) (Timing of Abuse Model) (Males and Females)

	Men			Women			
	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>z-test</i>
Constant	-0.01	0.03	0.99	-0.06	0.06	0.94	
<i>Independent Variables</i>							
Childhood Abuse Only	-0.17	0.21	0.84	-0.46	0.22	0.63*	0.954
Adulthood Abuse Only	-0.07	0.23	0.93	-0.58	0.20	0.56**	1.673*
Both Childhood and Adulthood Abuse ^a	0.00	0.21	1.00	-0.24	0.16	0.79	0.909
Inmate is African American ^b	0.44	0.08	1.55***	0.10	0.14	1.10	2.109**
Inmate is Hispanic ^b	0.14	0.14	1.15	0.31	0.27	1.36	-0.559
Inmate is Other Race ^b	0.18	0.23	1.20	0.75	0.30	2.11*	-1.508
Age at Booking	-0.03	0.00	0.98***	-0.02	0.01	0.98**	-1.000
Homeless Risk	0.61	0.13	1.83***	-0.08	0.19	0.93	2.997***
Prior Felonies	0.13	0.03	1.14***	0.05	0.07	1.05	1.050
Length of Stay Logged	-0.78	0.05	0.46***	-0.66	0.08	0.52***	-1.272
Institutional Misconduct	-0.11	0.10	0.90	0.11	0.15	1.12	-1.220
Number of Admits	0.01	0.01	1.01	0.02	0.01	1.02	-0.707
Employment Status	0.01	0.08	1.01	-0.04	0.12	0.96	0.347
Children Status	-0.08	0.08	0.92	0.09	0.13	1.10	-1.114
Marital Status	-0.21	0.12	0.81	0.21	0.21	1.23	-1.736*
Acute Mental Health Status	-0.01	0.08	0.99	0.14	0.12	1.15	-1.040
Internalizing Symptoms	-0.03	0.03	0.98	0.01	0.05	1.01	-0.686
Externalizing Symptoms	0.04	0.03	1.04	-0.10	0.05	0.90*	2.401**
Substance Use	0.06	0.04	1.07	0.04	0.06	1.04	0.277
PTSD	0.35	0.11	1.43***	0.19	0.16	1.20	0.824
Nagelkerke R ²		0.17			0.13		
		n =3,380			n =1,274		

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 9 is used to answer the research question – *Are there gender differences in the prevalence and effects of the type (physical/sexual/both) of victimization among incarcerated individuals in jails while controlling for covariates?* The findings from Table 9 indicate that none of the abuse variables were significantly associated with recidivism among men and women. With respect to the control variables among men, African American race, age at booking, homelessness, prior felonies, length of stay, and externalizing symptoms were significantly associated with recidivism. Among women, other race, age at booking, and number of prior admissions were significantly related to recidivism. Equality of coefficients tests demonstrated that sexual abuse only ($p \leq .05$), inmate is African American ($p \leq .001$), inmate is Other race ($p \leq .05$), length of stay ($p \leq .001$), number of admits ($p \leq .01$), children status ($p \leq .05$), internalizing symptoms ($p \leq .05$), and externalizing symptoms ($p \leq .01$) significantly differed across genders and in similar patterns as described in Table 13 above. Nagelkerke R^2 values indicate that the model explained eight and six percent of the variation in the likelihood of returning to jail within 12 months of release for men and women respectively.

**Table 9. Multivariate Logistic Regression Predicting Recidivism within 12 Months of Release (Type of Abuse Model)
(Males and Females)**

	Men			Women			
	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>z-test</i>
Constant	-0.77	0.04	0.46	-0.98	0.06	0.38	
<i>Independent Variables</i>							
Physical Abuse Only	0.11	0.12	1.11	-0.21	0.18	0.81	1.479
Sexual Abuse Only	0.56	0.37	1.74	-0.75	0.41	0.47	2.372**
Both Physical and Sexual Abuse ^a	-0.10	0.20	0.91	-0.16	0.17	0.86	0.229
Inmate is African American ^b	0.47	0.09	1.60***	-0.14	0.15	0.87	3.487***
Inmate is Hispanic ^b	0.09	0.15	1.10	-0.01	0.29	0.99	0.306
Inmate is Other Race ^b	0.21	0.23	1.24	0.80	0.28	2.23**	-1.628*
Age at Booking	-0.03	0.01	0.97***	-0.02	0.01	0.98**	-0.707
Homeless Risk	0.62	0.12	1.86***	0.32	0.20	1.37	1.286
Prior Felonies	0.15	0.03	1.17***	0.07	0.07	1.07	1.050
Length of Stay Logged	-0.32	0.04	0.73***	-0.07	0.08	0.94	-2.795***
Institutional Misconduct	-0.11	0.10	0.90	0.04	0.16	1.04	-0.795
Number of Admits	0.00	0.01	1.00	0.03	0.01	1.03*	-2.121**
Employment Status	-0.05	0.08	0.95	0.02	0.13	1.02	-0.459
Children Status	-0.06	0.08	0.94	0.21	0.14	1.23	-1.674*
Marital Status	-0.15	0.12	0.86	0.10	0.23	1.11	-0.964
Acute Mental Health Status	-0.06	0.08	0.94	0.14	0.13	1.15	-1.310
Internalizing Symptoms	-0.02	0.03	0.98	0.08	0.05	1.08	-1.715*
Externalizing Symptoms	0.07	0.03	1.07*	-0.08	0.05	0.93	2.572**
Substance Use	0.05	0.04	1.06	-0.03	0.06	0.97	1.109
PTSD	0.14	0.11	1.15	0.09	0.18	1.09	0.237
Nagelkerke R ²		0.08			0.06		
		n =3,380			n =1,274		

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Table 10 findings indicate that none of the abuse variables were associated with recidivism among men. Among women, physical abuse only was significantly associated with recidivism, leading to a decrease of 26% – this was moderately significant ($p \leq .05$). Sexual abuse only decreased the odds of recidivism among women by 58% – also moderately significant ($p \leq .05$). Moving on to the control variables among men, similar patterns emerged: African American race, age, homelessness, prior felonies, length of stay, marital status, substance use, and PTSD were significantly related to recidivism. Among women, similar patterns emerged as well: other race, age, length of stay, and externalizing symptoms were related to recidivism. Equality of coefficients tests demonstrated that physical abuse only ($p \leq .01$), sexual abuse only ($p \leq .01$), inmate is African American ($p \leq .01$), homeless risk ($p \leq .001$), marital status ($p \leq .05$), and externalizing symptoms ($p \leq .01$) significantly differed across genders. Specifically, the impact of physical abuse only, sexual abuse only, and externalizing symptoms exerted stronger effects on recidivism among females than males. African American race, homeless risk, and marital status were stronger predictors of recidivism among males. Nagelkerke R^2 values indicate that the model explained 17% and 13% of the variation in the likelihood of returning to jail within 1,000 days of release for both men and women respectively.

Table 10. Multivariate Logistic Regression Predicting Recidivism (Ever) (Type of Abuse Model) (Males and Females)

	Men			Women			<i>z-test</i>
	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	<i>b</i>	<i>SE</i>	<i>Exp(B)</i>	
Constant	-0.01	0.03	0.99	-0.06	0.06	0.94	
<i>Independent Variables</i>							
Physical Abuse Only	0.08	0.11	1.09	-0.39	0.16	0.68*	2.421**
Sexual Abuse Only	0.21	0.37	1.23	-0.87	0.35	0.42*	2.121**
Both Physical and Sexual Abuse ^a	-0.23	0.20	0.79	-0.28	0.16	0.76	0.195
Inmate is African American ^b	0.44	0.08	1.56***	0.09	0.14	1.10	2.171**
Inmate is Hispanic ^b	0.14	0.14	1.15	0.28	0.27	1.33	-0.460
Inmate is Other Race ^b	0.17	0.23	1.19	0.74	0.30	2.09*	-1.508
Age at Booking	-0.03	0.00	0.97***	-0.02	0.01	0.98***	-1.000
Homeless Risk	0.60	0.13	1.83***	-0.07	0.19	0.93	2.910***
Prior Felonies	0.13	0.03	1.14***	0.05	0.07	1.05	1.050
Length of Stay Logged	-0.78	0.05	0.46***	-0.66	0.08	0.52***	-1.272
Institutional Misconduct	-0.11	0.10	0.90	0.10	0.15	1.11	-1.165
Number of Admits	0.01	0.01	1.01	0.02	0.01	1.02	-0.707
Employment Status	0.01	0.08	1.01	-0.03	0.12	0.97	0.277
Children Status	-0.08	0.08	0.92	0.09	0.13	1.09	-1.114
Marital Status	-0.22	0.12	0.80	0.22	0.21	1.25	-1.819*
Acute Mental Health Status	-0.01	0.08	0.99	0.15	0.12	1.16	-1.109
Internalizing Symptoms	-0.03	0.03	0.97	0.02	0.05	1.02	-0.857
Externalizing Symptoms	0.04	0.03	1.04	-0.10	0.05	0.91*	2.401**
Substance Use	0.06	0.04	1.07	0.04	0.06	1.04	0.277
PTSD	0.36	0.11	1.43***	0.19	0.16	1.21	0.876
Nagelkerke R ²		0.17			0.13		
		n =3,380			n =1,274		

* $p \leq .05$ ** $p < .01$ *** $p < .001$ (2-tailed); ^aReference category is No Abuse; ^bReference category is Inmate is White

Chapter 5: Discussion and Conclusion

Previous research presented in this dissertation indicates that the timing of abuse and type of abuse is linked to maladaptive behavior, including criminal behavior and recidivism (Conrad et al., 2014; Macmillan, 2001). However, research on this topic thus far has been limited in several ways. First, regarding the impact of prior victimization on recidivism among incarcerated individuals, this research has primarily only examined juveniles, only women, or only individuals incarcerated in prisons (Burton et al., 2002; Finkelhor & Asdigian, 1996; Katz, 2000). Second, few studies (except Van Voorhis et al., 2010) have considered multiple measures of the timing of victimization within this context, with most research (e.g., Widom & Ames, 1994; Sanchez et al., 2017) examining only victimization during childhood or victimization experienced “ever” (thus capturing childhood and/or adulthood victimization) (Karlsson and Zielinski, 2020; Reisig & Holtfreter, 2018). Somewhat similarly, few prior studies have considered the separate and unique impacts of physical and sexual abuse on recidivism, and those which have done so (e.g., Carpentier & Proulx, 2011; Chang et al., 2003; DeHart, 2008; Weeks & Widom, 1998; Widom & Ames, 1994; Salisbury & VanVoorhis, 2009; Van Voorhis et al., 2010) have often been limited to single-gender samples. Overall, research thus far has treated “abuse” in fairly general terms, conflated many important aspects of victimization (e.g., separate types experienced, at different or continuous times, and so forth), and/or has failed to consider that gender differences could be potentially impactful to the effects of prior victimization and recidivism.

The failure to consider these issues is important, as the type of victimization experienced, the timing, and the gender of the victim could impact the pattern of results that have been uncovered thus far. And, since incarcerated men and women tend to experience different levels of victimization, different types of victimization, and at different time points in their lives (Cutler & Nolen-Hoeksema, 1991; Dean et al., 2007; Finkelhor & Araji, 1986; Krug et al., 2002; Tjaden & Thoennes, 2000; Wright & Schwartz, 2021), I sought to try to untangle some of these issues. I did so by examining the relative importance of different types of victimization – physical, sexual, and both – on recidivism, as well as by examining the relative importance of experiencing victimization at different times in one’s life (e.g., during childhood, during adulthood, and during both) on incarcerated individuals’ recidivism. Further, I considered gender differences and attempted to understand whether the patterns of effects differed for incarcerated men and women. Finally, I examined these issues among a cohort of individuals incarcerated in jails – not prison – because of the dearth of knowledge regarding individuals incarcerated in jails in general, as well as the lack of data regarding the recidivism patterns and predictors among them (Taylor, 2015).

The limited research on victimization among individuals incarcerated in jail settings is likely due to several factors. As outlined in Chapter 2, due to the transiency of incarcerated individuals (Trestman et al., 2007), jails may not have programming available to cater to their populations (Belenko & Peugh, 2005). This is why identifying prior victimization among incarcerated individuals may not be a priority or a possibility for jail administrators. As current research indicates, victimization can lead to mental health disorders (Karlsson and Zielinski, 2020), and jails may not have appropriate

programming to serve this special subgroup of the population (Meyer et al., 2014). In addition to mental health disorders, victimized individuals may be at a risk of developing co-occurring disorders (both mental health issues and substance use issues), and again, jails that are smaller in size may not be equipped to handle the programming for these subgroups (Belenko et al., 2003). Mental health, substance use, and their co-occurrence are potent risk factors of recidivism (Dalbir et al., 2022), and thus, incarcerated individuals with prior victimization may need specialized programming so their likelihood of recidivating post-release becomes lower.

To better understand the impact of victimization among individuals incarcerated in jails, the main purposes of this dissertation were to examine: 1) What is the prevalence of types (physical/sexual/both) of abuse and the timing (childhood/adulthood/both) of that abuse among a cohort of individual incarcerated in jails? 2) What type of abuse (physical/sexual/both) is more impactful on recidivism? 3) Does the timing of abuse (childhood/adulthood/both) impact recidivism? And 4) Are there gender differences in the prevalence and effects of the type and timing of victimization on recidivism among individuals incarcerated in jails? Analyses revealed several main findings regarding the prevalence of abuse among individuals incarcerated in jails as well as the importance of the type of abuse experienced, when it was experienced, and gendered effects regarding recidivism. Taken together, findings from this dissertation indicate that: 1) abuse is prevalent among individuals incarcerated in jails, 2) victimization appears to be a better predictor of lower recidivism in the long-term, and 3) gender matters in terms of the prevalence of abuse experienced among individual incarcerated in jails, and impacts the

effect of type and timing of abuse on recidivism. I discuss the main findings and implications of this research below.

Abuse is Prevalent Among Incarcerated Individuals in Jails and is a Better Predictor of Long-Term *Lower* Recidivism

First, according to the descriptive statistics from this dissertation, we see that both the type and timing of abuse are fairly prevalent in the sample. The findings showed that among the pooled sample, five percent of individuals incarcerated in jails had experienced childhood abuse only, five percent experienced adulthood abuse only, 11% experienced both childhood and adulthood abuse, 15% experienced physical abuse only, two percent experienced sexual abuse only, and 11% experienced both physical and sexual abuse. Overall, 80% of the pooled sample had not experienced any prior childhood or adulthood abuse, and 72% had not experienced any prior physical or sexual abuse. These numbers are fairly consistent with prior research on incarcerated individuals – that is, typically, they experience higher levels of victimization than community-based populations (Browne et al., 1999; Sacks, 2004; Wolff et al., 2009). The fact that 20% of the sample experienced childhood and/or adulthood violence, and almost 30% had experienced physical and/or sexual abuse comports with prior findings on samples of incarcerated individuals (Gehring, 2018). These numbers are comparable to those found in the current literature which show that the prevalence of past victimizations is higher than average amongst incarcerated populations (Browne et al., 1999; Sacks, 2004; Wolff et al., 2009). This likely has implications for jail administrators because they can reasonably assume that about three out of every ten incarcerated individuals housed in

their facilities have a history of victimization – for practical purposes, jail administrators should then consider how prior victimization influences a) behavior and adjustment of these individuals during confinement, b) their needs for treatment and counseling programming, and c) their needs upon reentry, such as programming and support services, or medications for ailments.

Further, my findings suggest that abuse is associated with *lower* odds of recidivism, particularly long-term recidivism. Surprisingly, I found that incarcerated individuals who suffered abuse (compared to ones who never experienced abuse) were less likely to recidivate. This was a finding in an unexpected direction and warrants further consideration. But first, it is important to consider the patterns of findings I uncovered with regard to the type and timing of victimization. First, findings demonstrated that for the pooled sample, and when examining various timings of abuse, experiencing abuse during only adulthood was most impactful on recidivism, and only important when considering long-term recidivism. To demonstrate, experiencing adulthood abuse only was associated with a decrease in recidivism by 25% (moderately significant), and childhood abuse only and experiencing both were not associated significantly with recidivism. Thus, it appears that adulthood abuse is quite important. Notably, and somewhat consistent with the literature on poly-victimization (e.g., Finkelhor et al., 2009), experiencing “both” childhood and adulthood abuse was not significantly associated with lower odds of recidivism; while it was not significantly associated with higher odds of recidivism, it was not the *inhibitive* factor that the singular adulthood and childhood abuse variables seem to be. None of these variables, however, were significantly related to short-term (within 12 months of release) recidivism,

suggesting that abuse may only inhibit recidivism after longer periods (e.g., after 1 year post-release). Second, with respect to the type of abuse experienced, I found that none of the abuse variables were significantly associated with either short-term or long-term recidivism.

Taken together, the results from the pooled analyses suggest that the timing of abuse (specifically, adulthood abuse only) is important only for predicting long-term recidivism, as it showed no significant association when considering short-term recidivism. I found no evidence that the type of abuse impacted recidivism – short-term or long-term – when the sample combined males and females. As noted in the literature review, some of the unique effects of prior victimization may be only apparent when analyses are broken down by gender, which is why I explored these effects by gender and examined gender differences.

Gender Matters Regarding the Prevalence of Abuse, and Impacts the Effects of Type and Timing of Abuse on Recidivism

Results from my analyses also reveal important gender effects. When broken out by gender, the prevalence of prior abuse was consistently higher among incarcerated women. Three percent of men had experienced only childhood abuse compared to nine percent of women; three percent of men had experienced only adulthood abuse compared to 11% of women, and four percent of men had experienced both childhood and adulthood abuse compared to 29% of women. A much greater percentage of men (90%) than women (51%) had *never* experienced abuse in childhood or adulthood. These patterns largely held for the type of abuse as well: 13% of men had experienced only

physical abuse compared to 20% of women, one percent of men had experienced only sexual abuse compared to four percent of women, and one percent of men had experienced both physical and sexual abuse compared to 28% of women. Notably, physical abuse was the most prevalent form of abuse reported among men, and a large percentage (81%) of men reported never having experienced physical or sexual abuse; comparatively, only 48% of women had never experienced physical or sexual abuse.

These findings indicate that overall, women were significantly more likely to suffer from prior victimizations. These findings also comport with prior research regarding the victimization profiles of incarcerated individuals (Cain et al., 2016; Cain, 2021; Day et al., 2013; Radatz & Wright, 2017), especially research showing that past abuse is higher among incarcerated women than men (Cutler & Nolen-Hoeksema, 1991; Finkelhor & Araj, 1986). So far, the literature has concentrated on only women samples or prison samples, but my study suggests that future research should also consider the past physical and sexual victimization of incarcerated men. While the levels of abuse uncovered here reveal yet again that women experience more abuse than men, the abuse histories of men are not insignificant. The information regarding male victimization in correctional settings – especially as it is related to misconduct and later recidivism – is very limited (Cain et al., 2016; Capuzzii et al., 2019), and I emphasize that more research is needed in this area.

Additionally, my findings suggest that sexual abuse is relatively uncommon – among males and females – but it appears that when sexual abuse does occur (especially among women), it tends to co-occur with other types of victimization, like physical abuse. In fact, in terms of the type of victimization experienced, the largest percentage of

women (28%) fell into the category of having experienced *both* physical and sexual violence. Somewhat similarly, my results suggest that women also experience victimization more consistently than incarcerated men: almost 30% of females in my sample experienced abuse during *both* childhood and adulthood, compared to only four percent of men. Taken together, the findings of my dissertation suggest that women in jail not only experience high rates of abuse but that this abuse tends to be more continuous over their lifetimes and they experience more types of abuse than men. This has an important implication for jail administrators because, given the prevalence rates of past victimization among their population, jails should not only concentrate on programming for past abuse, but also for abuse that continued into adulthood. Further, especially for women, jails might be wise to consider the kind of environment they will be returning to upon release – namely if they will be returning to an abusive household or family member.

Timing of Abuse

Although I found that females experience higher levels of all forms (type and timing) of abuse, the effects of these separate measures were generally related to *lower* odds of recidivism – but only among females. Thus, the relationships between the type and timing of abuse and recidivism appear to be primarily driven by associations that exist only among females. The results demonstrate that regarding the timing of abuse, experiencing only adulthood abuse led to a decrease in short-term recidivism among women by 39% (moderately significant). Again, none of the other timing of abuse variables was associated with short-term recidivism among men and neither were there any significant gendered differences. These patterns remained the same or became

stronger when examining long-term recidivism. Experiencing only childhood abuse and experiencing abuse during adulthood was significantly associated with recidivism but again only for women. Childhood abuse only led to a decrease in recidivism by 37% (moderately significant), and adulthood abuse only led to a decrease of 44% (statistically significant). Adulthood abuse only showed a significant gender difference, suggesting it was indeed a stronger inhibitor for women to refrain from recidivating. Taken together, my results suggest that the timing of abuse matters only for females. When it is significant, it is associated with a lower likelihood of recidivism among females, and only pertains to the separate effects of childhood and adulthood abuse (not poly-victimization); further, experiencing only adulthood victimization is a stronger inhibitor to recidivism for females than men. Perhaps this result is partially due to the prevalence of the timing of abuse, as almost no males (3%) experienced only adulthood abuse.

Type of Abuse

The results demonstrate that in the type of abuse model for short-term recidivism, no abuse variables were associated significantly with recidivism, however, experiencing only sexual abuse was a significantly stronger inhibitor to recidivism among females than males. While examining long-term recidivism, two out of three abuse variables were significantly associated with recidivism, but only for women. Physical abuse only was associated with a decrease in recidivism by 32% (moderately significant), sexual abuse only was associated with a decrease in recidivism by 58% (moderately significant), and poly-victimization was not associated with recidivism among women. Among the gender differences, physical abuse only and sexual abuse only showed a significantly stronger impact on women's recidivism compared to men's recidivism. In

other words, this means that physical abuse only and sexual abuse only acted as inhibiting factors with respect to women's recidivism, but showed no such effect on men.

Thus, in terms of the type of abuse, I found that it only matters when gender is considered (i.e., results are broken out by gender), and only among females. Only then does physical abuse only become related to recidivism (again reducing the odds of recidivism and only among females), and sexual abuse only lowers the odds of females' recidivism, but not men's recidivism. The significant gender differences in both of these effects suggest that the type of abuse is related to reduced recidivism among females, but their coefficients are in the positive direction among males (although not significant) – this suggests that the type of abuse for males and females operates in significantly different ways for males and females. This is important because it indicates the need to examine separate types of abuse, by gender, when examining the importance of prior abuse on recidivism. It further suggests that prior research that has not broken abuse down by type or considered gender has likely masked the overall impacts of abuse.

Implications for Future Research and Policy

The findings of this study are important to correctional research from both a prevalence and effects standpoint. Abuse appears to be related to long-term recidivism, not short-term, and it appears to inhibit, not increase recidivism. These findings were somewhat unanticipated, but not altogether surprising. Prior research examining various types or timing of abuse (e.g., Tripodi & Pettus-Davis, 2013) among incarcerated populations has found mixed results regarding the impact of abuse on recidivism. As noted in Chapter 2, some scholars have found that abuse is related to increased recidivism

(Chang et al., 2003; Taylor, 2015), and others have found a negative association with recidivism (Rettinger & Andrews, 2010; Van Voorhis et al., 2010), and others have found no significant effects (Lowenkamp et al., 2001). Some have suggested that early abuse and victimization may not be directly related to criminal behavior, but instead, indirectly related through intervening mechanisms like substance use and mental health problems (Salisbury et al., 2009). In fact, if abuse is linked to maladaptive behaviors that inhibit criminal engagement (for example, depression or isolation), this might partially explain the negative association between abuse and recidivism that I uncovered here. I should note here that females in my sample indeed evidenced higher levels of internalizing problems and PTSD levels than males in my sample. Perhaps it is because of other factors (like these) at play that inhibited long-term recidivism among females but failed to do so among males. In fact, the descriptive statistics of the samples showed that males and females were significantly different in many other ways as well: females evidenced higher levels of internalizing problems and PTSD levels, while men in the sample were at higher risk (more prior felonies, prior admissions, and longer length of stays). Perhaps prior victimization impacts male behavior in other indirect ways (e.g., through aggressive or violent behavior, which might show up in measures of criminal histories), but I am unaware of existing studies that have examined this sort of interaction. Thus, as a future research implication, interactions between prior victimization and risk factors such as prior felonies and number of admits should be considered among men, as well as the interactions between victimization and internalizing symptoms and PTSD.

It is also possible that incarcerated individuals in my sample had or were receiving programming for their trauma experiences. I cannot examine this in the dataset

because, at the time of the data collection, the jail staff was not collecting data regarding case management for incarcerated individuals, although they were providing some case management and programming around trauma, children, and substance use (though not to all incarcerated individuals). It is possible that the mixed patterns of results across studies are a result of different methodologies used, but also may reflect the failure to separate the different types of victimization experienced, the different times they are experienced, and/or the failure to consider gender differences. Indeed, the separate effects of timing of victimization and type of victimization were not always significantly related to recidivism, especially among incarcerated men, so studies that have examined victimization among a pooled sample of men and women may have masked the differential effects of victimization, thus leading to overall null results. At the least, findings from my dissertation suggest that unique effects may only be uncovered when prior victimization is measured in more nuanced ways and when gender differences are considered.

Another question that remains is why the abuse was generally only related to reduced odds of recidivism over the long-term, that is, after 12 months post-release, and why it did not seem to inhibit recidivism within 12 months post-release. Jail administrators may investigate these processes to understand how perhaps jails (programming, policies, procedures) might be impactful to short-term recidivism. As the abuse is not leading to more recidivism but decreasing it, jail administrators might nonetheless consider programming and treatment needs for incarcerated individuals with prior victimization as these are fairly prevalent in the jail population. Importantly, my findings showed that females – who experienced more abuse than men – also exhibited

significantly higher levels of internalizing problems and PTSD than men in my sample. Keeping in mind prior victimization's association with mental health and substance use problems (Ardino, 2012; Garbarino, 2002; Pinchevsky et al., 2020), it is suggested that jail administrators establish treatment programs for mental health, substance use, and co-occurring disorders because even if victimization is not positively related to recidivism, it is related to these issues, which are related to recidivism post-release (Dalbir et al., 2022). Therefore, jail administrators should consider actively looking out for these patterns in their incarcerated population and consider programs or revising their already existing initiatives to accommodate victimized incarcerated individuals.

I found that abuse was related to lower odds of recidivism, particularly among females. This could be because of several reasons. It is possible that incarcerated men did not report their prior abuse, were unwilling or ashamed to share the details of their abuse, or it is possible that they may not be aware that the experience they went through was abuse. Further research is required to examine why the abuse variables were not significantly related to men's recidivism. Perhaps a study using a different methodology to examine abuse could better answer this question. Consider, for instance, that men were reluctant to share their past victimization experiences given the face-to-face nature of the interview. Perhaps if they are given privacy and the option to write their experiences down rather than verbally share their experiences, they would be more willing to report their victimization. Perhaps jail administration should consider educating incarcerated individuals about abuse, its definitions, and types, and offer therapeutic solutions. Case managers could work to help these individuals share their experiences confidentially by creating safe spaces for them.

Finally, additional treatment options should be available for incarcerated women because in terms of prevalence, all abuse indicators (type and timing) were higher among women and some of them exerted stronger effects on recidivism for them. The implications for this are two-fold. First, results from this study indicate that incarcerated women experience more abuse, various forms of abuse, and over a more continuous period of time than incarcerated men. Second, abuse is related to lower recidivism among incarcerated women, but many of the coefficients for incarcerated men were in the positive direction, indicating that abuse could be a risk factor for them. Although my results do not show significant effects in this regard among incarcerated men, future research is needed to continue to examine the impact of abuse in incarcerated men's lives, especially as it pertains to their *continued* criminal behavior. At the least, my results indicate that abuse may not increase incarcerated women's recidivism, but it fails to inhibit incarcerated men's recidivism. Perhaps males were reluctant to disclose their experiences and the face-to-face nature of the interview made it difficult for them to disclose if they had such experiences. These remaining questions necessitate continued research on this topic.

Limitations

Although this study has answered some important preliminary questions about which type or timing of abuse is more impactful on recidivism, there are nonetheless limitations of my research that need to be acknowledged. The first limitation is that this study did not directly compare the strength of type versus timing of abuse in relation to recidivism. That is, I did not directly compare the effects of type versus timing of abuse

within the same model. I chose to focus on examining the main effects of various forms of abuse (physical/sexual/both) and the timing of abuse (childhood/adulthood/both), but future research should consider examining interaction effects and as well as to directly compare the relative influences of type and timing of abuse in the same models.

The second limitation is that I consistently saw a significant association between victimization and recidivism among incarcerated women but not among incarcerated men. Thus, additional and continued research is recommended among incarcerated men. Future research should consider using additional and/or specific behavioral measures of victimization, especially among incarcerated men. The third limitation is that this study was not able to study the frequency and/or severity of abuse that incarcerated individuals have experienced. This could be because the screening tools only ask when and what type of abuse occurred, but not if it is ongoing. It is possible that based on the severity and continuity of victimization, the behavioral outcomes are different, and this is important from a policy standpoint. Individual impacts of severity and continuity may elicit a differential degree of maladaptive outcomes, which can lead to recidivism in the long run, but that was beyond the scope of this dissertation. Therefore, more research is needed to tap into those details and examine how the frequency and severity of abuse are related to recidivism and which appropriate interventions can be provided through jail administration and case management.

The fourth limitation is that I did not find many significant effects for the pooled sample unless I broke it down by gender. This may mean that future criminal behavior might be masked if we do not consider gender differences. Hence, future research must consider gender differences with respect to prior victimizations and recidivism. The fifth

limitation is that we consistently saw prior victimization negatively associated with recidivism, meaning that it was related to lower odds of recidivism (among females). Since I was unable to determine whether incarcerated individuals were receiving some kind of intervention or treatment in jail for prior abuse, it is possible that treatment accounts for the negative impact of victimization on recidivism that I uncovered here. Future research needs to confirm the presence of any ongoing treatment/programming to analyze what kind of effect it has on recidivism, along with gendered differences.

Conclusion

To answer broadly as to which aspect of abuse (type vs timing) is associated with recidivism is complicated because these issues are in fact, highly tied to gender. Keeping in mind the findings, we see that abuse is connected to long-term recidivism, but it seems to inhibit criminal behavior and not encourage it. This finding is contrary to some research but opens the door for further inquiry. Furthermore, amongst the pooled sample, the timing of abuse, and specifically experiencing only adulthood abuse, was the only measure of abuse that was significantly related to lower recidivism. Among the gendered subsamples, it appears that both types of abuse and timing of abuse were related to lower recidivism, but only among females, with the impact of the type of abuse being a stronger predictor of recidivism among females than among males.

Thus, my dissertation was able to fill an important gap in the literature about how prior forms of victimization – both type and timing – impact future recidivism among incarcerated individuals in jails. Data from jails are extremely limited, especially as it pertains to victimization profiles of incarcerated individuals and their impacts on

recidivism. My study added significantly to the literature base by examining a) the separate and unique effects of the type and timing of prior abuse, b) how those patterns of abuse pertain to gender, and c) how abuse relates to recidivism d) among individuals incarcerated in a jail setting. Taken together, my results suggest that future research should examine multiple aspects of prior abuse and victimization among incarcerated individuals – in jail and otherwise – to better understand the nuances of how prior experiences influence future misbehavior and adjustment. My results also indicate that failing to examine gender differences with respect to these effects might mask the unique, and important, effects of victimization histories among incarcerated individuals.

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