PARENTAL INCARCERATION: HOW PARENTING PROGRAMS IMPACT THE PARENT-CHILD RELATIONSHIP AND RECIDIVISM

by

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ABSTRACT

LINDSAY FLYNN. Parental Incarceration: How Parenting Programs Impact the Parent-Child Relationship and Recidivism. (Under the direction of DR. JANNE GAUB).

Parental incarceration has a major impact on children and families. The influx of incarcerated parents, as well as the high-risk nature of parental incarceration, has resulted in an elevated need for proper parent-focused prison programs. However, while parenting programs are often viewed as an effective method to improve the negative consequences of incarceration, there are conflicting findings on parenting programs' impact and effectiveness. Additionally, there is little connection between parenting programs and recidivism (Purvis, 2013). Using data from the Multi-Site Family Study on Incarceration, Parenting and Partnering (Bir & Lindquist, 2022), this study aims to examine the extent to which attending parenting programs while incarcerated contributes to the parent-child relationship, parental warmth, and recidivism. Using propensity score matching, mean comparison tests, linear regression, and logistic regression, analyses focused on how parenting program attendance influenced said variables both while still incarcerated and during reentry. Findings generally did not support the position that attending parenting programs while incarcerated is associated with stronger parent-child relationship quality, parental warmth, and a lower risk of recidivism. Significance and limitations, as well as policy implications and directions for future research, are discussed.

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CHAPTER 1: INTRODUCTION

Incarceration has been a hotly debated topic within the United States for decades, with many arguments focusing on the cause, the different populations most heavily affected, and possible alternatives (e.g., La Vinge et al., 2005; Coyne et al., 2017; Nellis, 2023). More recently, research has focused on the impact of mass incarceration on the family; particularly when a parent is incarcerated. According to the U.S. Department of Justice, by year-end 2021, just over 1.2 million individuals were incarcerated in federal and state prisons (Carson, 2022). In contrast, at year-end 2016 there were 1.5 million incarcerated individuals (Carson, 2018). While this does show a decline in prison populations in that 5-year period, prison populations have been declining since 2010 (Ghandnoosh, 2019). Despite declining numbers, a separate report indicated that of those 1.5 million incarcerated in 2016, almost 700,000 prisoners were parents of at least one minor child, with close to 1.5 million children affected overall (Maruschak, Bronson, & Alper, 2021). Forty-seven percent of the male population had children at home under the age of 18, compared to 58% of the women who are incarcerated (Brown, 2021). Yet, despite these high numbers, correctional institutions are often ill-equipped to accommodate incarcerated parents and their family's needs. In particular, they are inadequately prepared to facilitate the family unit and, more specifically, the parent-child relationship to allow its continuing functioning. It stands to reason that consequences for breaking the law are no longer solely endured by the incarcerated persons, and potential solutions to address the damaging effects of parental incarceration on the family unit need to be examined.

The literature consistently shows that incarcerated persons benefit from strong relationships with family and friends that minimize their likelihood of reoffending and allows for a stronger chance for successful reentry into society (Hairston, 1988; Nasher & Vissa, 2006; Folk

et al., 2019). Additionally, the literature finds that contact between parent and child has been linked to higher levels of attachment and better post-release outcomes (La Vigne et al., 2005; Loper et al., 2009; Branden, 2021). While contact is beneficial, a growing number of prisons are beginning to implement parenting education programs in an effort to mitigate the negative effects parental incarceration can have on both parents and their children (Loper & Tuerk, 2006). A collateral consequence that's not easily rectified due to the difficulties of parenting from prison. While there is existing literature surrounding parental incarceration and the parent-child relationship, there is more of a lack of research focusing on parenting programs and their aid in the parent-child relationship and recidivism.

The purpose of this thesis is to examine the strength of the parent-child relationship—specifically fathers, as they represent a larger incarcerated population (Maruschak et al., 2021)—when parenting programs are utilized by parents during their time in prison. Parenting program attendance will also be used to analyze the likelihood of a parent reoffending once released. The central research questions to be addressed are whether or not parenting programs strengthen the father-child relationship and parental warmth. Additionally, parenting programs impact on recidivism will also be examined. To assess this, data from the Multi-Site Family Study on Incarceration, Parenting, and Partnering (Bir & Lindquist, 2022) will be used to test the influence of parenting programs on the relationship between incarcerated fathers and their child(ren) and recidivism. The results of this study will add to the existing literature by providing insight into the outcomes of fathers' incarceration trajectories after participation in parenting programs while incarcerated, which, in turn, can influence correctional institution policies in favor of aiding incarcerated parents.

CHAPTER 2: LITERATURE REVIEW

2.1 Parental Incarceration

Mass Incarceration

Since the 1970s, mass incarceration has entangled more individuals in the United States than in any other country, initiating an unparalleled new era in the criminal justice system that would lead to a dramatic expansion in prison populations (Western, 2018). There was an approximate 500% increase in the nation's prison and jail populations between 1970 and 2000 leading to approximately 1.2 million people currently held in correctional facilities at year-end 2021 (Carson, 2022). On top of those incarcerated, the Bureau of Justice Statistics estimated over five million more individuals were under community supervision (meaning those on probation and parole) at the end of 2020 (Kluckow & Zeng, 2022). This astronomical increase in people entering the correctional system has not necessarily been a result of a change in crime rates but, rather, can be accounted for by changes in policy (Western, 2018).

Mandatory minimum sentencing, over-policing, drug laws, and other initiatives focused on law and order and 'tough on crime' politics have all contributed to this prison boom. One such contributor started in 1971 when then-president Richard Nixon was the first to declare a "war on drugs," resulting in a combined effort from state, local, and federal jurisdictions commenced to fight illicit drugs (Coyne & Hall, 2017). The Anti-Drug Abuse Acts of 1986 and 1988 alone drastically changed the laws surrounding drug offenses that morphed the system from rehabilitative to punitive as one such change altered the mandatory minimum sentences to be determined by the amount apprehended (Busk-Baskette, 2000). By 1986, the number of adult convictions for violation of federal drug laws had risen to 12,285 from 5,244 in 1980 (Bureau of Justice Statistics, 1988). Drug-related charges and convictions are still prominent four decades later. The Federal Bureau of Prisons reported 46.7% of inmates held in BOP or privately-owned

correctional facilities in 2020 were serving time for drug-related offenses (Federal Bureau of Prisons, 2021). In other words, nearly half of the 2020 federal prison population was incarcerated for drug-related offenses including trafficking, possession, and other related charges.

Recidivism and Reentry

Turning to the criminal justice system as an aide to reduce and control swelling rates of drug abuse resulted in an overflowing correctional system. This is likely due to the tough-on-crime ideology prompting the shift away from rehabilitation and influencing correctional institutions to abandon that rehabilitative prison programming, in turn creating a "revolving door" effect within the corrections system (Ortiz & Jackey, 2019). Although incarceration rates are beginning to slow and prison populations are leveling off but not showing as much of a substantial decline (Gramlick, 2021), there are still approximately 1.2 million people incarcerated (Carson, 2022). And recidivism rates are not favorable. A study following the 2008 release of prisoners in 24 states found that 66% of those released were rearrested within three years, and 82% arrested within 10 years (Antenangeli & Durose, 2021). Similarly, studying the recidivism of prisoners released in 34 states in 2012, 62% were arrested again within three years, and 71% arrested within 10 years (Durose & Antenangeli, 2021). This system fails to provide successful reentry aid due to the greater concern for crime control rather than rehabilitation (Esperian, 2010).

Prevalence of Incarcerated Parents

The rise in the prison population meant that there was also an increase in the number of children with at least one parent incarcerated. Findings from interviews conducted with participants from the 2004 Survey of Inmates in State and Federal Correctional Facilities (SISFCF) indicated a nearly 80% increase in the number of parents of minor children between 1991 and 2007 (Glaze & Maruschak, 2010). Estimates from the most recent Survey of Prison Inmates (2016)

indicated that over 694,500 incarcerated persons in state and federal prisons were parents to one or more minor children (Maruschak et al., 2021). A further breakdown indicates that, of those parents in federal and state prisons, 626,800 were fathers and 57,700 were mothers (Maruschak et al., 2021). That said, mothers represented 58% of the total incarcerated female population while fathers represented less than half of the incarcerated male population (Maruschak et al., 2021), indicating that although the majority of incarcerated parents are fathers, a higher proportion of incarcerated women are mothers.

2.2 Familial Consequences

An individual who physically enters a state or federal correctional institution oftentimes is not the only one suffering the consequences of incarceration. Although the experiences may vary, mass incarceration has extensively altered the life course of not only the marginalized populations for which this phenomenon is undeniably prevalent but also their families. Yet, despite the number of children being exposed to parental incarceration alongside their parents (Travis et al., 2016; Wildeman et al., 2018) prison systems are often not equipped to meet the physical and mental needs associated with family disruption (Comfort et al., 2016). Family members of those incarcerated are often labeled the ‘hidden victims’ or ‘hidden population’ of the criminal justice system as they are usually not acknowledged, regardless that parental incarceration substantially impacts familial living situations and the parent-child relationship (Ghandnoosh et al., 2021).

Collateral to Children

As mentioned, the data collected in the 2016 Survey of Prison Inmates revealed that approximately 684,500 federal and state prisoners were parents of at least one child under the age of 18, with more than 1.4 million minor children altogether (Maruschak et al., 2021). Yet, as also previously mentioned, prison systems are oftentimes not equipped to meet the physical and

mental needs associated with families. Financial strain and residential instability brought on by the loss of a parent to the criminal justice system can leave children at risk of having unmet needs such as material hardship due to the deprivation of a parent's income or having to move to a different neighborhood (Geller et al., 2009). Children also face emotional and developmental consequences, having to process the loss of a parent while possibly coping with an altered system of care (Geller et al., 2009; Davis et al., 2011). Examples of altered systems of care are living with a non-incarcerated parent, other immediate family members, or, in extreme cases, being placed in foster care. Paternal incarceration has been connected to a higher risk of behavioral problems such as aggression (Davis et al., 2011; Geller et al., 2012) or antisocial tendencies (Murray et al., 2012). Other behavioral issues have been explored, too, but a majority of researchers agree that the children of an incarcerated parent face a multitude of negative consequences.

Behavioral and developmental consequences are no small issue, but a greater consequence for children of incarcerated parents results from the 1997 Adoption and Safe Families Act (AFSA). While honorable in its intentions to speed up the time that children spend in foster care, the AFSA oftentimes instead disrupts families with incarcerated parents as it allows "the termination of parental rights [to be] expedited to ensure that children do not languish in foster care" (Downey, 2000, p. 42) and increases their chances to be moved into permanent homes. But the act doesn't consider the sentence lengths of incarcerated parents. The AFSA allows for the termination of parental rights if a child has been in foster care for 15 of 22 consecutive months, after which it makes children eligible for adoption (Adoption and Safe Families Act, 1997). The Federal Bureau of Prisons (2022) sentencing statistics report that less than 12% of inmates have a sentence length of fewer than three years, unfortunately leaving a majority of federal sentence lengths longer than

the 15 of 22 months that the AFSA regulates. Lee et al. (2005) found that termination of parental rights was granted in 92.9% of the cases of maternal incarceration and 91.4% of paternal in an examination of reviewed reported termination cases from 1997 to 2002. When both parents were incarcerated, it was 100% guaranteed that termination of parental rights was granted (Lee et al., 2005). With no one able to take on the responsibility of childcare, these children enter the foster care system and convicted parents may never regain custody of their child again and face permanent loss (Downey, 2000). Children are paying the price not only due to policy changes in sentencing, but also policy changes enacted to help them when their parents are incarcerated but, unfortunately, only further separate them.

Mothers Behind Bars

Maternal incarceration, although lower in number compared to their male counterparts, carries far heavier complications. Over the last four decades, women's incarceration rates have increased by 750%, expanding to 1.3 million under the supervision of the criminal justice system ("Incarcerated Women and Girls", 2019). Yet, correctional institutions are not often equipped to meet the needs of incarcerated mothers despite their growing presence. This is likely due to prisons being a "historically male-focused institution" (Clarke & Simon, 2013), and, as such, meeting female health-centric needs can present a problem in a "system originally designed for males" (Friedman et al., 2020, p. 366). Female health-centric needs refer to reproductive health and gynecological needs, services that aren't required in men's prisons.

Due to the increase in incarcerated women, pregnancy has become a pressing issue for correctional institutions to handle. A majority of women who are incarcerated are in their reproductive years (between 18 to 34) and many either are pregnant or give birth during their sentence (Clarke & Simon, 2013). For example, there are few acceptable prison settings for female

offenders available as the Federal Bureau of Prisons reports only 29 different facilities that house federally incarcerated women (Federal Bureau of Prisons, n.d.). Even then, not all are equipped to handle this type of care. The treatment that incarcerated pregnant women can undergo would typically be considered inhumane and barbaric if it were to occur anywhere else but in a prison setting (Clarke & Simon, 2013). Practices including shackling women during labor and the separation of mother from child shortly after birth contribute to these unacceptable circumstances. As a result of correctional facilities lacking on-site obstetric care, pregnant inmates are then transported to off-site medical facilities equipped for delivery and post-delivery care and are often shackled unnecessarily for security reasons (Clarke & Simons, 2013). Shackling during medical treatment has often been used as a gender-neutral practice, but it's seldom considered —whether due to a lack of care or lack of thought— that shackling a woman during childbirth can be incredibly stressful and bring unique dangers that could harm both mother and child (King, 2018). Not only does this inhibit medical care, increase the risk of injury for mother and child, and decrease the comfort of expectant mothers, but it is oftentimes traumatizing and humiliating (Sichel, 2008). The First Step Act of 2018 placed a prohibition on shackling inmates within federal prisons, but unfortunately, state laws lack uniformity in their stance on shackling during birth (Richardson, 2020).

Giving birth presents challenges, but post-birth practices also contribute to the mistreatment and emotional turmoil mothers face while incarcerated. Once an inmate has given birth, they are often given little to no time postpartum with their newborns (Cardaci, 2013). Sometimes even as little as 24 to 48 hours are spent together before new mothers are returned to prison and their infants are given to extended family or placed within the foster care system (Clarke & Simon, 2013). This separation of mother and child so close after birth, coupled with the lack of

women's prisons being located near major metropolitan areas, makes it difficult for incarcerated mothers to create and maintain a bond with their children ("Mothers Behind Bars," 2010). A study conducted by Chambers (2009) found that women being physically separated from their infants brought an emotional, heavy loss of connection and a shocking, abrupt emptiness. Feelings of sadness, loneliness, depression, pain, and more would follow these lost connections with their newborns as "connectedness emerged as the construct that gave meaning to the mother-baby relationship" (Chamber, 2009, p. 6). This experience can be difficult for both mother and child and create lasting psychological effects that, in turn, could affect the recidivism rates of offenders (Clarke & Simon, 2013). Mothers who had birthed children prior to incarceration faced similar stress due to separation which, in turn, could be associated with higher infractions during their sentence as well as increased mental health issues (Houck & Loper, 2002), all of which can contribute to recidivism.

Incarcerated Fathers

Of the nearly 700,000 prisoners in federal and state prisons who reported having a minor child, 90% were fathers (Maruschak et al., 2021). Based on these estimates, fathering from prison is a common occurrence, yet the roles and responsibilities of a father —which are still present even when incarcerated— are seldom addressed by correctional institutions (Hairston, 1998). It can't be assumed that fathering while in prison is comparable to fathering outside of prison (Magaletta & Herbst, 2001). Fathering from prison presents a unique situation in and of itself as incarceration has become progressively disruptive to paternal roles (Charles et al., 2019). This could, in part, be due to the outdated societal notion and pressure that fathers are often seen as the breadwinner of the family and not as involved in parenting as mothers typically are. With this pressure, and the inability to provide as much, if any, financial support while incarcerated, fathers may begin

questioning their role in the family dynamic (Greif, 2014). This can, in turn, influence mental health and emotional turmoil while behind bars. Fathers can face complications while incarcerated, including managing the "potential conflict between the identities of inmate and father" (Tripp, 2009, p. 27). The paternal identity is not simply switched off once a father enters the criminal justice system, which has contributed to their identification as the "forgotten parent" (Hairston, 1998).

Paternal Identity Crisis. The goal of incarceration is to interrupt any intentions to interact in criminal activity but, in doing so, then also disrupts an incarcerated person's ability to "maintain a meaningful domestic (i.e., family) existence" (Dyer, 2005, p. 207). This interruption impedes the ability of fathers to participate in roles, actions, or responsibilities that are significant to their identity as a parent (Dyer, 2005). Meaning that correctional institutions are not conducive for a father to maintain their paternal identity (Clarke et al., 2005) and can even result in the "destabilization of the inmate's identity as a father" (Dyer, 2005, p. 207) or, at least, alter them. In line with this, Roy (2005) indicated that men's parenting is molded to be substantially regulated and refined due to the correctional rules and regulations surrounding them. Men's paternal identities are becoming 'prisonized', a term coined by Arditti et al., (2005), or transformed due to their norms and values adjusting to match those of the prison environment (Tripp, 2009).

As such, the adaptations that men experience to survive in such a harsh environment can interfere with the parent-child relationship. Incarcerated men can exhibit behaviors such as selfishness, frustration, and basic forms of "traditional male socialization" (Magaletta & Herbst, 2001, p. 92) in order to protect themselves against not only other inmates and guards but the stress that incarceration can give overall (Magaletta & Herbst, 2001). Traditional male socialization is made up of principles such as always obtaining what they wish, never losing, taking control, and

rarely allowing their feelings to show – all of which relate to criminal lifestyles as well (Magaletta & Herbst, 2001). These types of 'traditional' men are typically socialized to parent on the basis of active participation and 'doing.' Yet, while incarcerated, fathers must simply *be* since they can't play as active a physical role in their children's lives (Magaletta & Herbst, 2001). They've been forcefully entered into a dormant period of fatherhood due to incarceration (Arditti et al., 2005). Interviews with incarcerated fathers conducted by Fowler et al. (2017) indicated that a consistent dilemma they faced was the sense of missing out on important events in their children's lives or regretting the impact their absence may cause, further exemplifying the strain men in prison face when they cannot *do* but, as mentioned, must simply *be* (Magaletta & Herbst, 2001). Fathers, especially those 'traditional' men, need help understanding that they must now play a more emotional, rather than physical, role in their children's lives (Magaletta & Herbst, 2001). Yet, there are no "clear social guidelines" for preserving that paternal identity and facilitating the father-child relationship within such a harsh environment (Clarke et al., 2005).

Incarceration's Impact on the Father-Child Relationship. Extensive research has examined the effect of incarceration on the mother-child relationship and the importance of maintaining that bond (e.g., Chambers, 2009; "Mothers Behind Bars", 2010; Clarke & Simon, 2013) but fewer studies have examined the father-child relationship (Hairston, 1998; Lee, 2012; Purvis, 2013; Haney, 2018). While the impact on children has been discussed above, it's imperative to note that fathers are not exempt from the impact of the loss of the parent-child relationship. Struggling with their paternal identity is one thing, but incarcerated fathers also experience feelings of guilt, sadness, separation, and missing out due to exclusion from their children's lives (Fowler et al., 2017; Grief, 2014). Additionally, the inability to parent has also led to experiences of lower self-esteem, feelings of powerlessness, and embarrassment that these

fathers can't provide as they had pre-incarceration (Hairston, 2001). Higher levels of depression are also commonly experienced when fathers felt that their relationships with their children were detached (Lenier, 1993). In comparison to mothers, a study by Loper et al. (2009) found that fathers have reported "higher levels of parenting stress concerning their attachment to their children as well as their competence as a parent" (p. 496). Simply put, fathers identified that the hardest part of being incarcerated was not being there for their children (McKay, 2018).

Coparenting

Understanding the change in how they parent is one thing, but being able to father at all and remain connected with their children is another prevalent predicament that can influence a father's relationship with their child's mother (Clarke et al. 2005; Modecki & Wilson, 2009). It's established that incarceration interrupts family relationships, and fathers' relationship with their coparent(s) is no exception. But the issue that remains is the impact that the father-coparent relationship then has on the father-child relationship.

Parenting relationships have been found to be incredibly dynamic and complex during the father's incarceration (Comfort et al., 2016). Lindquist et al. (2016a) found that the quality of the father-child relationship does not have to do with marital status, but rather the coparenting relationship between a father and their child's other parent. One reason for this could be the difference in parents' perceptions of how their child is faring during their father's incarceration, as mothers are more present and aware of children's struggles (Comfort et al., 2016). Regardless of whether they were the sole guardian, keeping in contact with their children while serving their term can become complicated for incarcerated fathers, as they must then rely on either the mother of their children or nonparental guardians to facilitate connections (Arditti et al., 2005). This is indicative that the consistency with which fathers see their children is dependent on their own

relationship with the child's mother (Clarke et al. 2005; Modecki & Wilson, 2009). Poehlmann (2005) found similar evidence that the quality of relationships between incarcerated parents and their children's caregivers had a significant impact on the frequency of parent-child contact. Meaning that having a compatible relationship with the child's mother can then influence the father-child relationship.

2.3 Parenting Through Incarceration

The purpose of this thesis is to address the prevalence of parents in prison and how its impact on the parent-child relationship can influence recidivism. The facilitation of the parent-child relationship can be done through parenting programs. While parenting programs are not necessarily scarce, there is a lack of support from correctional institutions which can play a role in the parent-child relationship.

The Parent-Child Relationship

Prior research has made it clear that there is a correlation between strong relationships with family and friends minimizing the likelihood of reoffending as well as increasing the odds of successful reintegration into society (see, e.g., Hairston, 1988; Nasher & Vissa, 2006; Folk et al., 2019). Despite the difficulties that incarceration implements on the father-child relationship, fathers often show the desire to remain involved in their child's life as incarceration has not necessarily dampened their motivation to be a good father (Hairston, 1991; Fowler et al., 2017). Children provide the motivation that a parent needs to succeed while serving their sentence (Charles, 2019) as well as during reentry (Thomas et al. 2022). As noted by Dyer (2005) a majority of incarcerated fathers will be released from prison and, in many cases, reunited with their children. Therefore, it stands to reason that the parent-child relationship is interrupted not only by a father's incarceration but also by their return and reunification at the end of their sentence. Maintaining a

higher-quality father-child relationship during paternal incarceration plays a key role in the relationship quality once a father is released (Festern et al., 2002). Their dormant period of parenthood during incarceration, if not properly addressed or provided aid to maintain (or improve) the parent-child relationship, can make reunification with their child(ren) and reentry that much harder.

Parenting Programs

The influx of incarcerated parents, as well as the high-risk nature of parental incarceration, has resulted in an elevated need for proper parent-focused programs. This, in turn, has led to the development of institutional change in both policy and practices that focus on incarcerated individuals who are parents (Armstrong et al., 2018). There are several policies that target family strengthening and family dynamics in order to promote positive parent-child relationships (see Dallaire & Kaufman, 2018; Eddy, et al. 2018), such as parent-child visitation programs, coparenting and relationship education, and counseling. All of these are examples of programs that can be implemented in order to prepare incarcerated parents for the responsibility of inclusion in their child's life, regardless of whether it happens during their sentence or post-release (Loper & Tuerk, 2006). A majority of programs focusing specifically on parents fall into four basic classifications: parenting classes, parent-child visiting services, mentoring for children and youth, and support groups (Hairston, 2007). Parenting education programs are the most widespread and prominent option, but they often vary in their approaches (Hairston, 2007).

Hughes & Harrison-Thompson (2002) highlight that many parenting programs were initially focused on primarily mothers in prison as they were more often identified as the primary caregiver. One such example, prison nurseries, is discussed below. It wasn't until the Federal Bureau of Prisons (1995) mandated that prison programming provide the same kind of parenting

resources to fathers as they do mothers that fathers began receiving more support while incarcerated. Since then, a number of various programs and organizations have been made available or have provided resources to address the needs of incarcerated fathers. Research has determined that fathers want to improve their parenting skills and participate in parenting programs (Hairston, 1990), despite some men not having experienced positive fathering practices during their own upbringing (Fowler et al., 2017). Research also indicates that fathers benefit from parenting curriculum, as it improves attitudes toward child-rearing (Harrison, 1997; Wilson et al., 2010), provides guidance on managing intense emotions regarding separation/incarceration (Dallaire & Kaufman, 2018), improves parenting skills (Hoffman et al., 2010), and is linked with reduced recidivism (Visher et al., 2013). A few such examples of successful parenting programs—with one exception leading to a more successful program in its stead—are addressed below.

Long Distance Dads (LDD). Long Distance Dads was the National Fatherhood Initiative's (NFI) first program for incarcerated fathers (Turner & Peck, 2002). The program's focus was to ensure responsible parenting while also instructing how to address both the social and psychological damage that incarceration has inflicted. This was accomplished through small group programming facilitated by a qualified peer leader, who was also an inmate, over a period of 12 weeks. Some of the topics addressed included anger management, family values, parenting skills, and dealing with guilt and loss.

This program ultimately was not significantly successful despite being implemented in approximately 25 states. While the program's strengths included peer leadership, voluntary participation, and small group discussions, little evidence was found that program participants had improved father knowledge, skills, or behaviors (Behrend College, 2001, 2003). Several recommendations were made and the NFI conducted focus groups to obtain feedback, which

ultimately led them to decide to create a new program called InsideOut Dad (Rutgers University, 2012).

InsideOut Dad™. Now on its third edition, InsideOut Dad™ (Brown et al., 2018) is a fatherhood involvement intervention program first established and launched by the NFI in 2005 to replace Long Distance Dads. The program focused on enhancing father-child relationships through an extensive curriculum with the intention to reduce recidivism and connect, or reconnect, incarcerated fathers to their families. The curriculum consists of 12 hour-long core sessions: "(1) Ground Rules [i.e., getting started], (2) About Me, (3) Being a Man, (4) Spirituality, (5) Handling Emotions, (6) Relationships, (7) Fathering, (8) Parenting, (9) Child Development, (10) Discipline, (11) Fathering From the Inside, (12) Closing [i.e., ending the program]" (Brown et al., 2018). In addition, 24 optional additional sessions allow for facilitators to increase the length of the program to become more applicable in long-term facilities where fathers' sentences are longer than those in short-term facilities. This allows the program to be tailored to both types of facilities. Re-entry sessions are part of these optional sessions, allowing fathers to prepare for the challenges they may face once released after gaining encouragement from the core sessions while incarcerated. One of the major differences from LDD is that InsideOut Dad™ included this re-entry content (Rutgers University, 2012).

Studies geared at evaluating the effectiveness of InsideOut Dad™ (Brown et al., 2018) have found statistically significant improvements in fathering knowledge (Smith, 2009), fathering attitudes (Spain, 2009), and self-efficacy (Rutgers University, 2012). Self-efficacy, as noted by Rutgers University (2012), was particularly important as it "provides a critical foundation for the application of the skills taught in the program" (p. 22). Another study, geared more toward

participants and facilitators, found overwhelming support for the program overall (Block et al., 2014).

Parenting Inside Out®. Parenting Inside Out® (PIO), similar to InsideOut Dad™, is a parenting-based skills program available for criminal justice-involved parents (mothers and fathers) while they're incarcerated as well as during reentry (PIO, n.d.). Through conducting many focus groups and interviews with incarcerated parents, examining prior literature and other parenting programs, PIO was established six years later to create a learner-centered, outcomes and evidence-based parenting management skills training course, with Parent Management Training (PMT) at its core. Parent Management Training refers to a form of cognitive behavioral intervention that helps incarcerated parents address the errors in their thinking regarding their role as a parent. Other topics covered in the extensive curriculum include communication and problem-solving skills, child development, discipline tactics, family reintegration, and more.

The Parent Child Study was a major evaluation of the effectiveness of PIO that began in the mid-2000s (PIO, n.d.). 359 parents within the Oregon Department of Corrections were randomly assigned to participate in the program and assessed consistently throughout the duration of the program and after completion. Analyses indicated that PIO had reduced recidivism rates of participants, reduced substance abuse, and led to better parental participation and attitudes. An overall incredible outcome. This program, as noted by PIO (n.d.), is seemingly "the only parenting program for criminal justice involved parents that has been the subject of a longitudinal RCT with a relatively large sample size and a diverse sample."

Prison Nurseries. As of 2019, eight states had prison-nursery programs where children could stay with their mothers until, at most, the age of three (Riley, 2019). For example, Texas implemented a prison nursery program called the Baby and Mother Bonding Initiative (BAMBI)

in 2010 to help alleviate the physical and emotional stress that mothers and infants can experience while separated by allowing them to bond together for up to twelve months (Kwarteng-Amaning, 2019). BAMBI's mission is to provide the opportunity "for mother and child bonding and attachment, which are critical to healthy growth and development, socialization, and psychological development during the infant's formative years" while in a monitored -yet safe- environment (Kwarteng-Amaning, 2019). For mothers specifically, BAMBI aims to improve parenting skills and educate them on healthy parenting lifestyles as well as decrease their rate of recidivism (Kwarteng-Amaning, 2019). Results from the BAMBI program indicated that participants found it to be incredibly impactful on their lives by allowing them to connect with their infants and made them feel supported as mothers while incarcerated (Kwarteng-Amaning, 2019). Similarly, a 3-year study conducted by Goshin et. al (2013) found over 85% of women who had participated in living with their infants in a prison nursery had not returned to prison. Recidivism rates of women who have been released from a prison nursery are lower than those who otherwise do not get to live with their newborn (Goshin et. al, 2013).

Theoretical Framework

While this is not a test of theory, Hirschi's (1969) social bond theory is reviewed to better understand the importance of familial bonding through prison programming and its importance in recidivism. Social bond theory postulates that the bonds one forms with family, friends, and other relationships are what encourage an individual to follow the rules and values of society (Hirschi, 1969). In other words, these so-called social bonds discourage involvement in illegal behavior and can assist in keeping individuals from falling back into the criminal justice system due to fear of damaging these relationships. Social bond theory consists of four elements (commitment, attachment, involvement, and belief) (Hirschi, 1969) which, when evaluated, address why it is so

valuable to encourage a strong parent-child relationship through parental incarceration. The status of being a parent influences the behavior of incarcerated fathers and mothers as the attachment to their children and the commitment they have developed concerning their role both play a part in instigating better behavior (Sherard-Redman, 2016). There has already been promising evidence indicating that a stronger parent-child relationship can lead to better mental health and lower recidivism rates (Visher, 2013). But, as they point out, most studies are not primarily focused on how parent-child relationships may play into reentry trajectories (Visher, 2013).

Failure to provide adequate means to facilitate bonding between parent and child can lead to long-term negative outcomes due to weaker social bonds (Burraston & Eddy, 2017). This lack of bonding leaves parents vulnerable to repeat the cycle of incarceration if they re-offend due to the weak parent-child attachment. In regard to their children, Hirschi & Gottfredson (1990) postulated that the bond between parent and child can be increasingly helpful in preventing delinquent behavior. Direct parental control and supervision play a part in deterring juvenile delinquency (Gottfredson & Hirschi,1990), but that is also disrupted due to parental incarceration. Therefore, the call for increased parenting programs ties back to social bond theory through the argument that providing these amenities during a parent's sentence, as the literature suggests, can strengthen the parent-child relationship and, in turn, reduce recidivism and delinquent behavior.

Purvis (2013) highlights that there is not yet a clear, firmly established link between participation in parenting programs offered while incarcerated and recidivism. Therefore, this thesis aims to add to the existing literature regarding parenting programs benefiting the parent-child relationship and the role it plays in the recidivism of offender parents. The literature has shown that incarcerated parents potentially face various negative consequences when separated from their offspring and lack significant institutional support in resolving them (Hairston, 1998;

Dyer, 2005; Clarke et al., 2005). That being said, the literature also suggests that these consequences have the potential to be rectified, or at least addressed, by providing parenting programs. The assessment of the ability of parenting programs to aid the parent-child relationship, as well as recidivism, will be done by focusing on incarcerated fathers' perspectives, who make up a majority of incarcerated parents (Brown, 2021; Maruschak et al., 2021).

CHAPTER 3: METHODOLOGY

3.1 Research Questions

This thesis adds to the existing literature (see Lindquist et al. 2016) by improving understanding of how correctional parenting programming might impact the strength of parents' relationships with their children which will then impact recidivism. Therefore, the current study aimed to address questions about the relationship between parenting classes, the parent-child relationship, and paternal recidivism. The first topic of inquiry investigated whether attending parenting classes while incarcerated contributes to the parent-child relationship in a positive manner. Do parenting classes increase the likelihood of positive relationships among incarcerated fathers and their focal child? As a superior analysis strategy will be used in this study, results may indicate parenting programming has an effect on the father-child relationship quality whereas Lindquist et al. (2016) did not find such an association.

The second inquiry questioned whether parental warmth will be affected by attendance at parenting classes. As examined prior by Tadros & Tor (2022) parental warmth can be an important indicator in examining the father-child relationship as fathers are still able to demonstrate warmth even through the barriers of incarceration. The third inquiry being tested questioned whether attending parenting classes while incarcerated will play a role in parents' recidivism. To address these inquiries and based on current literature, the following hypotheses were tested:

H1: Attending parenting classes during incarceration will be positively associated with a stronger parent-child relationship.

H2: Attending parenting classes during incarceration will be positively associated with stronger parental warmth.

H3: Attending parenting classes during incarceration will be negatively associated with recidivism rates.

To address these hypotheses, a few different analytical methods were utilized to obtain the most accurate results. First, a control group and program participation group (the treatment) were equally matched using propensity score matching. Once all statistical significance between groups is rendered null, linear and logistic regression was run on the independent and dependent variables. In order to account for how relationship quality and parental warmth may differ while incarcerated vs when released, two different control variable sets were utilized and multiple *t*-tests and regressions were run.

3.2 Data

Data for this study came from the Multi-Site Family Study on Incarceration, Parenting and Partnering (MSF-IP) (Bir & Lindquist, 2022), which was found through the Inter-University Consortium for Political and Social Research (ICPSR). MSP-IP is an evaluation of a grant-funded program by the Office of Family Services (OFS) within the U.S. Department of Health and Human Services (HHS), Administration for Families and Children (AFC) to assist in strengthening and sustaining healthy relationships where a father has been incarcerated or recently given parole/probation. Essentially, programs related to promoting healthy marriages and parenting were implemented and then the impact of partnering programs was examined through an initial interview and several follow-ups. Recruitment techniques varied at each OFA-funded site due to different populations being targeted (Lindquist et al., 2016). Most were recruited after attending a recruitment presentation or were recruited by program staff. The sample of men was recruited for baseline interviews after meeting specific requirements to be deemed eligible: married, in a committed intimate relationship, or in a coparenting relationship, speaks English, physically/mentally fit to interview, and willing to provide contact information for their partner. Topics addressed within these interviews relevant to this study include demographics, criminal

history, incarceration and experiences, programs and services, family structure, parenting quality, and reentry[1]. MFS-IP data primarily focused on a single focal child identified at the baseline interview who was coparented by fathers and their romantic partners (Lindquist et al., 2016). The MSF-IP is publicly available, and all identifying information is kept confidential with unique identifiers given to all participants. Although this thesis uses data collected for the MFS-IP impact evaluation, the results presented here are not findings about the impact of MFS-IP programming. Rather, the data is used to gather insight for a large sample of fathers and their families.

While the MSF-IP study was not designed with parenting programs or recidivism as a focal outcome (Lindquist et al., 2016), it has provided an opportunity to collect information about the parent-child relationship and the variety of parenting-related activities provided for not only justice-involved parents but also couples. Being a revolutionary study "that's enabled a new understanding of family life in the context of criminal justice system involvement" (McKay et al., 2019, p. *xi*), data from the MSFIP has already been utilized in a variety of recent studies focused on the impact of incarceration (Lindquist et al., 2020; Tadros & Durante, 2021; Tadros et al., 2022) as well as programs that may help mitigate them (Lindquist, McKay, & Bir, 2012; Mckay et al., 2013; McKay et al., 2018a, 2018b).

Data Cleaning Process

All selected variables were recoded into one of two types: categorical and continuous. For categorical variables —such as current crime incarcerated for or parenting perceptions— dummy variables were created. Tables 1, 2, 3, and 4 describe the variables that were used for this study and how they were coded.

[1] Reentry was not discussed at baseline interview, only in the follow-ups.

3.3 Data Sample

The initial study was conducted at five of the 12 OFA-funded sites, each located within a different state, and interviews took place from December 2008 to August 2014 (Bir & Lindquist, 2022). There were 1,991 male participants in the initial interview[2]. The MSF-IP is a longitudinal dataset with three follow-up interviews conducted at 9 months, 18 months, and 34 months after the initial baseline interview. For the purposes of this study, only baseline and 18-month data were used in order to examine the effects of parenting classes on the father-child relationship and parental warmth both inside and outside prison[3]. Baseline data will be utilized for the former as all participants were still incarcerated. The 18-month data will then be used to examine the effects of parenting classes taken during incarceration then outside of prison (i.e., during reentry). Since this study assesses the parent-child relationship as a major interest, respondents without any focal child were excluded. Only men that indicated at baseline they had children were included (n = 1720).

3.4 Measures

Outcome Variables

The dependent variables utilized in this analysis are parent-child relationship strength, parental warmth, and recidivism. The descriptive statistics for parent-child relationship strength, parental warmth, and recidivism are listed in Table 1. One outcome variable of the first hypothesis is a subjective measure of *relationship quality* between fathers and their focal child during the baseline interview and 18-month follow-up where fathers were asked, "Would you say your current relationship with your focal child is…" (poor = 1, fair = 2, good = 3, excellent = 4). Higher ordinal scale scores on this measure indicate a higher-caliber relationship quality between the

[2] As there were only 20 incarcerated persons in the female (coparent/copartner) dataset, they were excluded from analysis.

[3] 34-month interview data were excluded as it only included the largest two OFA grantee sites of the initial five.

Table 1: Descriptive Statistics for Outcome Variables

Variable	Mean	Std. Dev.	Min.	Max.
Relationship Strength at Baseline (1 = poor to 4 = great)	2.15	0.96	1.00	4.00
Parental Warmth at Baseline (1 = low to 12 = high)	11.07	2.08	0.00	12.00
Relationship Strength at 18 Month	2.17	0.98	1.00	4.00
Parental Warmth at 18 Month	10.61	2.36	0.00	12.00
Released and Reincarcerated[+] (yes = 1)	*73*[++]	*21.2%*	0.00	1.00

Note. [+] Frequency and percent (%) are presented for dichotomous variables rather than the mean and standard deviation.
Note. [++] 73 out of 344 incarcerated fathers had been released and reincarcerated by the 18-month interview.

father and their focal child. Prior research that has also examined relationship quality as an outcome variable includes Lindquist et al. (2016) and McLeod (2021). The outcome variable for the second hypothesis, *parental warmth*, was measured on a 12-point score (no parental warmth = 0, higher parental warmth = 12) based on four "scale items assessing the frequency (never, sometimes, usually, always) with which the respondent hugs/shows physical affection with the focal child, tells the child that he/she loves him/her, communicates with the child about things he/she is interested in, and praises the focal child when he/she communicates with him/her" (Lindquist et al., 2016b, p. D-2) . Again, higher ordinal scores on this measure indicated a greater degree of parental warmth. The effect of parenting classes on parental warmth was also examined by Lindquist et al. (2016).

The outcome variable for the third hypothesis, *recidivism*, accounts for the father's incarceration trajectories at the 18-month follow-up. The incarceration status variable consisted of multiple categories including incarceration, reincarceration, and reentry experiences across the baseline and two follow-up interviews. Dummy coded factor variables were created to account for

the different incarceration trajectories with *released and reincarcerated* (no = 0, yes = 1) being utilized in this study.

Independent Variable

The independent variable *parenting programs* is a binary indicator (no = 0, yes = 1) of whether fathers attended any classes or programs regarding parenting while incarcerated. Approximately half the sample (49.7%; n = 990) had indicated taking part in such classes/programs.

Control Variables

The MSF-IP also includes a wide variety of background variables measured at the baseline and each consecutive interview that may be used to model the probability of relationship quality, parental warmth, and recidivism. This study includes two sets of control variables.

Covariates / Matching Variables. First, to calculate a propensity score, one must involve covariates, or matching variables, to control for possible selection effects that may influence program participation. By assessing the effects of covariates on participation in the program, the propensity score was calculated for each unit in the sample, and units were matched according to their propensity score. All matching variables were measured at the baseline interview. The PSM analysis used variables that can be classified into three major domains: current crime and sentencing information, demographic characteristics, and family perceptions (See Tables 3 and 4). These covariates capture the characteristics of incarcerated fathers prior to treatment (participation in parenting programs).

Control Variables. A second set of control variables measured at the 18-month follow-up was also utilized in order to control for confounding effects that may influence reentry and recidivism. Descriptive statistics for these variables are shown in Table 2.

Table 2: Descriptive Statistics of 18-Month Reentry Control Variables

Variable	Frequency	%	Min	Max
Lived with Focal Child (yes = 1)	205	60.8%	0	1
Family Support Helpfulness (yes = 1)	276	82.6%	0	1
Employed and Working (yes = 1)	212	62.9%	0	1
No Criminal Behavior (yes = 1)	213	67.4%	0	1
No Substance Use (yes = 1)	156	47.1%	0	1
Psychological/Emotional Health[+] (1 = poor to excellent = 5)	*3.54*	*1.152*	1	5

Note. [+]Mean and standard deviation are presented for categorical variables rather than frequency and percent (%).

3.5 Analytical Procedure

Propensity Score Matching

To account for the complicated nature of the MFS-IP data and the sample that will be examined, the data analysis will proceed in two phases. The first phase addresses the first two hypotheses focusing on the impact of parenting programs —taken while incarcerated— on the father-child relationship quality and parental warmth. As the project was not designed to randomly assign incarcerated fathers to attend parenting classes or to abstain from participation, all data used in this analysis is observational. This means that an experimental study, the "gold standard" to assess the effects of an intervention, is not achievable. Therefore, this analysis cannot be classified as a true experiment. In an attempt to address this practical shortcoming, this first analysis was conducted with an advanced statistical method: propensity score matching (PSM). Propensity score matching is a form of logistic regression that makes allowances for a number of confounding factors that are thought to be connected to the independent/treatment in order to predict a subject's involvement in the treatment. Or, in simpler terms as described by Browning (2021), "variables related to treatment participation or outcome are used to predict a subject's participation in the

aforementioned treatment" (p. 34). It's a valid, useful technique that's used to simulate a true experimental study when using observational data (Rosenbaum & Rubin, 1983). Additional advantages of PSM include reducing selection bias, improving internal validity, and providing better conjecture (Connelly, Sackett & Waters, 2013; Monaghan & Attewell, 2014). It will be a useful tool to strengthen the causal inferences of the findings. Propensity score matching conducted in this thesis was done using the statistical program STATA 17.

Two propensity score matching analyses were conducted in order to examine the effect of parenting programs on the outcome variables both inside prison and after release. One matching analysis (see Table 3) will be conducted using the baseline interview data where all of the sample is incarcerated, while the second matching analysis (see Table 4) is conducted at the 18-month follow-up interview where an incarceration-trajectory indicator variable (the outcome variable for the second hypothesis, discussed above) was used to narrow the sample to only those individuals who were released. Baseline matching variables were used in both analyses, with baseline variables being merged into the 18-month dataset for the second propensity score matching model.

Propensity scoring makes use of covariates by using them to predict treatment assignment in logistic regression. Before matching, pre-analysis descriptive statistics were collected for each covariate to examine the differences between incarcerated fathers who attended parenting classes and those who did not attend parenting classes. After pre-match descriptive statistics and t-tests, propensity scores were calculated using logistic regression with the selected matching variables. For these logit models, parenting program participation was the outcome and the matching variables were used as covariates. Using nearest-neighbor matching, a treatment group member was paired with the nearest control group member within a caliper of 0.05 (propensity score). Through this process, we created a sample of 972 respondents at baseline and 334 at 18 months

after matching. At baseline, 486 fathers attended parenting classes (treatment group) and 486 were in the comparison group. At 18 months, 172 fathers attended parenting classes and 172 were in the comparison group.

After matching, a series of *t*-tests were conducted to determine if there were still statistically significant differences between the treatment and comparison groups. Tables 3 and 4 present descriptive statistics for treatment and control groups at baseline and 18 months before and after matching. *T*-test results indicated that significant differences existed among four of the 15 variables before matching in both baseline (Table 3) and 18 months (Table 4). After matching, none of the variables showed a statistically significant difference, indicating that the analysis appropriately accounted for any systemic bias of being in either group. Once propensity score matching was conducted to ensure the treatment and control groups have similar characteristics, *t*-tests were run on the parent-child relationship quality and parental warmth variables at baseline and 18 months to examine how parenting classes affected them (See Tables 5 and 6).

Regression

Linear Regression. Linear regression, often referred to as just regression, is a rather simple analysis used to predict the value of a dependent variable based on an independent variable. In order to control the confounding of reentry factors on the dependent variables, as a number of things can happen after release, regression is used on the sample of the 18-month population after propensity score matching (n = 344). This sample was chosen because two equivalent groups (parenting class attendance vs non-) were created at baseline with PSM. Based on the information gathered at baseline, the same two groups were meant to be used at 18 months, too. But, due to the loss of participants that were still incarcerated since baseline at 18 months (n = 735), another PSM was conducted at 18 months with the variables from baseline. The confounding effects of

Table 3: Descriptive Statistics for Baseline Matching Variables Pre- and Post-Match

	Before PSM (n = 1990)			After PSM (n = 972)		
	Treatment (n = 990) Mean	Control (n = 1000) Mean	*t*-Value	Treatment (n = 486) Mean	Control (n = 486) Mean	*t*-Value
Incarceration Information						
Incarcerated for Parole/Probation Violation (yes = 1)	0.20	0.26	-2.91***	0.23	0.23	-0.15
Incarcerated for Person Crime (yes = 1)	0.40	0.42	-0.82	0.37	0.36	0.47
Incarcerated for Property Crime (yes = 1)	0.17	0.17	-0.15	0.18	0.18	0.08
Incarcerated for Drug Crime (yes = 1)	0.35	0.28	3.04***	0.33	0.35	-0.88
Months Incarcerated (counts)	44.00	29.94	7.06	27.73	28.52	-0.47
Number of Arrests (counts)	12.36	12.84	-0.76	13.24	12.97	0.33
Age at First Arrest	16.32	16.45	-0.47	16.46	16.18	0.84
Demographics						
Age	32.94	32.17	2.08	32.51	32.49	0.06
Race / Ethnicity (Hispanic grouped) (yes = 1)	2.32	2.44	-1.53	2.35	2.33	0.18
Race/Ethnicity (Hispanic non-grouped) (yes = 1)	2.08	2.16	-1.60	2.11	2.09	0.28
Marital Status (married = 1)	0.43	0.40	1.60	0.45	0.43	0.19
Education Level (1 = 8th grade or less to 9 = graduate/professional degree)	3.85	3.45	4.52***	3.51	3.57	-0.47
Number of Children (counts)	3.01	2.92	0.88	3.32	3.36	-0.29
Perceptions of Parenting						
Father Treatment of Child (1 = agree)	0.98	0.98	0.95	0.99	0.99	-0.64
Parenting Decision (1 = agree)	3.36	3.19	2.82***	3.29	3.28	0.03

Note. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$

Table 4: Descriptive Statistics for 18M Matching Variables Pre- and Post-Match

	Before PSM (n = 608)			After PSM (n = 344)		
	Treatment (n = 301) Mean	Control (n = 307) Mean	*t*-Value	Treatment (n = 172) Mean	Control (n = 172) Mean	*t*-Value
Incarceration Information						
Incarcerated for Parole / Probation Violation	0.31	0.35	-1.06	0.31	0.32	-0.12
Incarcerated for Person Crime	0.30	0.24	1.78*	0.22	0.25	-0.76
Incarcerated for Property Crime	0.20	0.18	0.61	0.20	0.20	-0.00
Incarcerated for Drug Crime	0.36	0.28	2.27**	0.36	0.37	-0.22
Months Incarcerated	33.21	21.31	5.08***	21.85	24.04	-0.95
Number of Arrests	12.95	14.62	-1.43	14.44	14.27	0.11
Age at First Arrest	16.48	16.49	-0.05	16.63	16.56	0.12
Demographics						
Age	32.7	32.76	-0.09	33.26	33.13	0.16
Race / Ethnicity (Hispanic grouped)	2.26	2.18	0.67	2.18	2.20	-0.11
Race/Ethnicity (Hispanic non-grouped)	2.01	2.00	0.12	1.99	2.01	-0.11
Marital Status	0.41	0.40	0.38	0.43	0.44	-0.22
Education Level	3.80	3.53	1.79*	3.53	3.56	-0.12
Number of Children	3.02	2.89	0.88	3.43	3.43	-0.41
Perceptions of Parenting						
Father Treatment of Child	0.98	0.98	0.32	0.98	0.98	0.00
Parenting Decision	3.31	3.30	0.10	3.34	3.30	0.31

Note. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

variables at baseline on program participation were already controlled for, but the effects of control variables related to reentry at 18 months (see Table 2) have not yet been controlled for. Linear regression will be conducted to control for the effect of reentry on the parent-child relationship

quality and parental warmth (both continuous variables) measured at the 18-month follow-up interview. The strengths of regression analysis lie in its ability to identify causal relationships, forecast an effect, and trend forecasting (Bennett, Briggs, & Triola, 2014). All regression analyses will be conducted using the statistical program IBM SPSS 28.

Logistic Regression. The second phase of the analysis addresses the third hypothesis and will use logistic regression in order to evaluate the relationship between attending parenting classes and recidivism. Logistic regression is used due to the nature of the dependent variable, *recidivism*, being a dichotomous variable (e.g., yes/no) and it differs from linear regression in that it predicts the probability of belonging to groups (Leon, 1998). In order to eliminate alternative explanations during reentry, the second set of control variables (see Table 2) will be utilized within the regression, too. The odd ratios were additionally calculated to give the percent change in recidivism for every one hundred percent change in program participation since they are dichotomous measures (Schumaker, 2015). This analysis gives a better indication of the probability of recidivism happening after attending parenting classes during incarceration.

CHAPTER 4: RESULTS

4.1 Mean Comparison Tests

The first and second hypotheses posit that attending parenting classes while incarcerated will be positively associated with stronger parent-child relationships and parental warmth, respectively. After PSM to ensure the control and treatment group didn't differ in their matching variables, a two-sample *t*-test was performed to compare parent-child relationship quality and parental warmth between attending and not attending parenting classes. Parent-child relationship quality and parental warmth were used as the dependent measures, respectfully, and parenting class attendance as the independent variable. This was performed at baseline and at 18 months in order to examine the effect of parenting classes while still incarcerated and when released.

Table 5: *t*-Test Model for Baseline Dependent Variables (n = 972)

Dependent Variable	Parenting Class Mean (SD)	No Parenting Class Mean (SD)	t value (Significance)
Parent-Child Relationship Quality	3.04 (0.834)	2.96 (0.887)	-1.384† (.083)
Parental Warmth	11.20 (2.046)	11.02 (2.047)	-1.354† (.088)

Note. † $p < 0.10$ (one-tailed test)

Table 5 shows there was a marginally significant difference in baseline parent-child relationship quality between parenting classes (M = 3.04, SD = 0.834) and no parenting classes (M = 2.96, SD = 0.887); $t(963) = -1.384$, $p = .083$. While the most common p-value is 0.05, as originally proposed by Fischer (1950), there can be some situations where it is larger. The *p*-value closer to 0.10 could be due to the small sample size (Thiese et al., 2016), and therefore, although not strictly significant, it cannot be concluded that parenting classes are ineffective. With that in mind, there was also a marginally significant difference in parental warmth between parenting

classes (M = 11.20, SD = 2.046) and no parenting classes (M = 11.02, SD = 2.047); $t(963)$, p = .088. As Table 6 shows, the *t*-tests were non-significant on all variables, which indicates that there were no significant differences between attending or not attending parenting classes when examining their effect at 18 months (i.e., during reentry).

Table 6: *t*-Test Model for 18M Dependent Variables (n = 344)

Dependent Variable	Parenting Class Mean (SD)	No Parenting Class Mean (SD)	t value (Significance)
Parent-Child Relationship Quality	3.02 (0.97)	2.90 (1.01)	-1.052 (.147)
Parental Warmth	10.30 (2.721)	10.17 (2.726)	-.406 (.343)

4.2 Linear Regression Models

A linear regression analysis was conducted to examine the influence of reentry factors and parenting class attendance on the parent-child relationship quality measured at 18 months. The results of the first regression analysis are presented in Table 7. The model summary indicated that the R^2 value was 18.4%, which is acceptable in social science research when some of the explanatory variables are statistically significant (Ozili, 2023). The R^2 value tells us that the variables in the model can only explain 18.4% of the variation in parent-child relationship quality. While the independent variable was not significant, two control variables were highly significant: Psychological/emotional health (Coeff. = 0.165, $p < .001$) and having lived with a focal child at any point during release (Coeff. = 0.713, $p < .001$). Based on these findings, it can be concluded that out of all the reentry predictors, only psychological/emotional health and living with their focal child at some point have an effect on parent-child relationship quality when measured during reentry.

Table 7: Regression Analysis Model of Parent-Child Relationship Quality at 18M (n = 344)

Variables	Coeff.	S.E.	β	t
Parenting Class Attendance	0.163	0.105	0.082	1.555
Family Support Helpfulness	-0.085	0.143	-0.032	-0.597
Employed and Working	0.068	0.111	0.033	0.612
Criminal Behavior	0.206	0.118	0.097	1.750
Substance Use	0.022	0.114	0.011	0.192
Psychological/Emotional Health	0.165	0.048	0.190	3.424***
Lived with Focal Child	0.713	0.108	0.347	0.347***
Constant	1.741	.217		8.024
F		9.643***		
R^2(adj) = .184 (0.165)				

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

Table 8 presents the results of the second linear regression examining parental warmth as the dependent variable measured at 18 months. Similar to parent-child relationship quality, parenting class attendance did not have a significant effect on parental warmth. The model summary indicated that the R^2 value was 5.2% which is generally not an accepted value in social science and should be rejected (Ozili, 2023). The R^2 value tells us that variables in the model can only explain 5.2% of the variation in parental warmth. As with the parent-child relationship model, the independent variable is not significant. However, psychological/emotional health (Coeff. = 0.339, $p < 0.05$). was shown to be statistically significant. These findings indicate that only psychological/emotional health has an effect on parental warmth when measured during reentry.

Table 8: Regression Analysis Model of Parental Warmth at 18M (n = 344)

Variables	Coef.	S.E.	β	t
Parenting Class Attendance	0.153	0.327	0.028	0.467
Family Support Helpfulness	0.394	0.445	0.053	0.884
Employed and Working	0.663	0.345	0.116	1.921
Criminal Behavior	0.143	0.366	0.024	0.391
Substance Use	-0.117	0.351	-0.021	-0.333
Psychological/Emotional Health	0.339	0.152	0.140	2.232*
Lived with Focal Child	0.337	0.346	0.057	0.973
Constant	7.934	0.693		11.452
F		2.145*		
R^2(adj) = .052 (0.028)				

Note. * $p < .05$

4.3 Logistic Regression Model

The third hypothesis posits that attending parenting classes while incarcerated will be negatively associated with recidivism. A logistic regression model was estimated using recidivism as the dependent measure and parenting class attendance as the independent variable. Having lived with their focal child at any point when released, family helpfulness, employment, participation in criminal behavior, substance use, and rating of psychological/emotional health were used as control variables. Using logistic regression, we're able to increase the precision of the estimates of the parenting program's impact by considering some factors relevant to reentry and recidivism.

Table 9 presents the results of the logistic regression model for recidivism. Attending parenting classes while incarcerated did not produce any significance in this study. Interestingly, being employed and working (Coeff. = -0.739, $p < 0.5$) was shown to be statistically significant. To further support its importance, the odds ratios were calculated. The odds ratio for employed

Table 9: Logistic Regression Model Predicting Recidivism at 18M (n = 344)

	Coef.	S.E.	Odds Ratio	z-value
Parenting Class Attendance	-0.227	0.296	0.797	-0.767
Family Support Helpfulness	0.147	0.394	1.158	0.373
Employed and Working	-0.739	0.3	0.477	-2.463*
Criminal Behavior	-0.5	0.311	0.607	-1.608
Substance Use	-0.297	0.319	0.743	-0.931
Psychological/Emotional Health	-0.154	0.132	0.858	-1.167
Lived with Focal Child	-0.83	0.3	0.920	-2.767
Constant	-1.423	.143		-1.566
LR Chi^2 = 15.844*				

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

and working was 0.477, meaning that a one-unit increase in employed and working will decrease 51.3% of the likelihood of recidivism. No other predictors were statistically significant.

CHAPTER 5: DISCUSSION

5.1 Primary Findings

This study sought to determine whether participation in parenting classes while incarcerated has a positive effect on parent-child relationship quality and parental warmth as well as test if participation lessens recidivism. The analyses were performed using propensity score matching, *t*-tests, linear regression, and logistic regression to test parenting class attendance on parent-child relationship quality, parental warmth, and recidivism both while fathers were still incarcerated and during reentry. The results of this study generally did not support the position that participating in parenting programs while incarcerated is associated with stronger parent-child relationship quality, parental warmth, or lower risk of recidivism. Treatment effects of parenting classes on relationship quality and parental warmth at baseline achieved a very marginal significance at the $p < 0.10$ level. Treatment effects of parenting classes on those same variables at 18 months (i.e., during reentry), as well as testing treatment on recidivism, did not achieve any statistical significance. These few relationships of statistical significance in the analyses suggest the absence of an impact of parenting classes on the parent-child relationship and recidivism.

The first hypothesis tested for any correlations between parenting classes and parent-child relationship quality. Once propensity score matching constructed an artificial control group, mean comparison tests and a linear regression test were performed to determine if parenting classes had an effect on the father-child relationship compared to those who did not attend the class. While there was marginal significance ($p < 0.10$) at baseline, that was not the case for the 18-month *t*-test or linear regression model. This is indicative that parenting classes have more influence on the parent-child relationship compared to the control group while fathers are still incarcerated and, presumably, still attending classes. Lindquist et al. (2016) came to a similar conclusion, finding that participation in parenting programming while incarcerated did not affect the parent-child

relationship post-release. That being said, this thesis took Lindquist et al.'s (2016) study a step further by utilizing a better method —propensity score matching— to more accurately evaluate the impact of parenting program attendance. While parenting programs weren't significant, two control variables did show statistically high significance ($p < 0.001$) and positive coefficients in the 18-month linear regression model for relationship quality: psychological/emotional health (and having lived with the focal child at some point after release. This indicates that having better psychological/emotional health and living with the focal child at some point after release has a significant impact on the parent-child relationship post-release.

The second hypothesis tested for correlations between parenting classes and parental warmth. Taking the same approach as the first hypothesis, mean comparison tests and a linear regression model were run after propensity score matching. Similar to parent-child relationship quality, there was a marginal significance at baseline ($p < 0.10$) but no significance at 18 months. Again, this indicates that parenting classes have more influence on parental warmth while they were still incarcerated and attending said classes. These findings are consistent with Lindquist et al. (2016) who also examined post-release parental warmth and its predictors. Psychological and emotional health was again significant ($p < 0.05$) with a positive coefficient (0.339), indicative that the father's emotional health was positively associated with parental warmth. This is consistent with Tadros et al.'s (2022) findings when examining fatherhood attitudes and parental warmth.

Lastly, the final significant finding is the lack of correlation between parenting classes and recidivism. As previously stated, Purvis (2013) highlighted that there is not yet a clear, firmly established link between participation in parenting programs offered while incarcerated and recidivism. The third hypothesis of this study aimed to establish that link but, unfortunately,

logistic regression did not indicate that parenting programs were statistically significant in the recidivism model, meaning that there is little correlation between parenting programs and reoffending. This conflicts with some of the existing literature, as previous studies found empirical evidence that parenting classes do reduce recidivism (PIO, n.d.; Visher et al. 2013). This is not to minimize the importance of parenting programs offered through OFA-funded sites, but rather to bring awareness as to why this was not the case, which could be linked back to MSF-IP data, or the type of parenting class attended.

5.2 Limitations

Several limitations should be kept in mind when considering the results of this study. First, while propensity score matching is a practical method for addressing selection bias in observational studies, it does not completely eliminate this bias. Other limitations of PSM—such as reliance on assumptions, the potential for model misspecification, and limited ability to account for unobserved confounders—are also prevalent. The only way to prove cause and effect is to do experimental trials with random selection, which was not possible in the original MSF-IP study. Therefore, all possible measures to ensure that the requirements of causality are met were undertaken, but the interpretation of causality must still be done with caution.

Second, given the source of the dataset, this analysis only examines fathers and results are therefore only generalizable to paternal incarceration. Incarcerated mothers were not included but, given as many parenting resources were only initially available for incarcerated mothers (Hughes & Harris-Thompson, 2002), more examination of incarcerated fathers was needed. Additionally, the MSF-IP study did not evaluate the impact of parenting programs—only couples-based intervention—(Lindquist et al., 2016b) and limited variables pertaining to parenting classes were available to examine in additional studies (such as this thesis). Therefore, the quality of the

variables regarding parenting —as well as participation in parenting programs— within this dataset may not have been high enough caliber to capture more of the respective nuances associated with parental incarceration.

Third, the independent variable measuring incarcerated fathers' attendance in parenting classes while incarcerated does not account for the duration or intensity of participation. An incarcerated individual answering "yes" to this variable (thereby being included in the parenting classes treatment group of this analysis) could have attended one parenting class, several, or could have been active in the program for years while serving their sentence. It is also logical to assume that an individual who spends longer in the program would be more influenced by the program's teachings and values. this thesis also only included the variable pertaining to if they had participated in parenting classes at the baseline interview. Additionally, the parenting class variable used in this study does not measure the intensity of participation in parenting classes. Respondents were simply asked if they attended parenting classes while incarcerated. Without an adequate measure of duration or the intensity of participation included —as quantity does not equal quality— it is difficult for this thesis to determine how actively any particular individual participated in the program or for how long at baseline. If accounted for with the inclusion of more of the variables surrounding the nuances of parenting classes, results may have indicated they had more of a significant effect on the parent-child relationship, parental warmth, and recidivism.

5.3 Policy Implications

One explanation that could account for the insignificance of the parent-child relationship and parental warmth has to do with the type of parenting classes incarcerated fathers attended. As explained in the literature review, a majority of programs focusing specifically on parents fall into four basic classifications: parenting classes, parent-child visiting services, mentoring for children

and youth, and support groups (Hairston, 2007). Parenting education programs are the most widespread and prominent option, but they often vary in their approaches (Hairston, 2007). Parenting programs funded by the OFA and partially examined in the MSF-IP—again, couples relationship classes were the main focus—did not have a clear consensus across the OFA-funded sites as to what would constitute "parenting classes." Each site appeared to have adopted a parenting curriculum based on a different program such as 24/7 Dads®, Active Parenting Now, or a new curriculum developed specifically in-house (Lindquist et al., 2016b). That being said, each program had different expectations or involvement of coparents and children of incarcerated fathers. Involving the child in the program can play an impact on the parent-child relationship and recidivism as actual contact between parent and child has been linked to higher levels of attachment and better post-release outcomes (Branden, 2021; La Vigne et al., 2005; Loper et al., 2009). Prison policymakers and program facilitators need to develop parenting programs that play heavily in maintaining a relationship with their children, which should involve actually allowing fathers and children to visit in person while parents are incarcerated. Prison nurseries allowed mothers and their infants to remain together, and this played a part in lowering their recidivism rates (Goshin et al., 2019; Kwarteng-Amaning et al., 2019). Fathers need that same privilege.

In addition, this study examined the impact of parenting classes both during and after incarceration. Results did not indicate that parenting classes taken only during incarceration (i.e., baseline) made an impact post-release. Translating skills from incarceration to release is not a simple task and the MSF-IP technical report highlighted that a major theme for men returning home from prison was the lack of support during reentry (Lindquist et al., 2016b). With that in mind, policymakers must ensure that incarcerated fathers have resources available once released in order to apply the skills learned while incarcerated to community and domestic contexts.

Parenting from prison can't be assumed to be comparable to fathering outside of prison (Magaletta & Herbst, 2001) and it's imperative that policies reflect this notion. Parenting Inside Out® (PIO) and InsideOut Dad™ are two great examples of parenting programs geared at incarcerated mothers and fathers that provide services both while incarcerated and during reentry. Their success has been well documented and has assisted criminal justice-involved parents make that transition from parenting while incarcerated to parenting once released.

5.4 Future Research

Based on the findings discovered in this thesis, the patterns between parenting classes, the parent-child relationship and parental warmth, and recidivism should continue to be investigated as they were largely insignificant. The question of whether fathers who attend parenting classes have an impact on the parent-child relationship and parental warmth needs further clarification. Especially when it comes to the parent-child relationship during incarceration and then again post-release as there was marginal significance examined at baseline with no significance indicated at 18 months. Although MSF-IP was a monumental study, it did not evaluate the impact of parenting programs (Lindquist et al., 2016b) and therefore the quality of the variables included in this thesis regarding parenting may not have been overly ideal as the researchers were focused on the impacts of intimate couples-based prison programming. That being said, future research should be conducted specifically on OFA-funded parenting classes using the MSF-IP as groundwork to establish a similar study in order to focus on capturing data about the nuances related to parenting in prison and parenting program impacts. Additionally, when examining parenting classes, future research needs to ensure that it's capturing all aspects of the program as simply attending the class had little to no correlation with any dependent variables within this thesis.

Another area that future research can expand on is if any other forms of prison classes or programs are correlated with parent-child relationship quality, parental warmth, and recidivism. For the sake of brevity, parenting classes were the primary focus of this thesis. However, the MSF-IP data included a variety of programming-related variables (i.e., relationship classes, couples counseling, educational classes, job training, anger management, etc.) that could offer predictions that provide more insight into this relationship as well as recidivism impacts. Prior research has indicated that correctional education programs (Esperian, 2010), religious classes (Johnson, 2004), and vocational education (Bouffard et al., 2000) have each individually resulted in reduced recidivism. Examining the impact of these types of programs alongside participation in parenting classes could prove more beneficial in strengthening parent-child relationships as well as recidivism.

CHAPTER 6: CONCLUSION

Parental incarceration is not a new concept, nor are prison programs being implemented in order to address the impacts that incarceration can have on an individual as well as their family. Understanding the challenges that incarcerated parents face —particularly fathers— is significant in reforming prison programs tailored to attempt to maintain family relationships despite incarceration. The objective of this thesis was to investigate the effects of parenting programs taken during incarceration on the parent-child relationship quality and parental warmth both while still incarcerated and when released. Additionally, parenting programs' impact on recidivism was also examined. There are a few key takeaways from this study that can guide future research on this subject. This study demonstrates that out of the various impacts parenting programs can have, only parental warmth and the parent-child relationship quality measured while still incarcerated were marginally affected by parenting class attendance. Meaning that parenting classes did not have an effect on any of the predictors post-release. This study confirms overall that parenting classes are not a strong predictor for recidivism nor do they actively set up parents to continue their relationship with their child(ren) post-release.

Moving forward, parental incarceration research can reshape the current practices in correctional systems. One recommendation that needs to be emphasized more is that parenting programs should be implemented both while incarcerated and during reentry. Some of the examples discussed in the literature review offered parenting classes both during incarceration and reentry and indicated that recidivism rates were lower. Another suggestion that can improve parental incarceration is the type of parenting class implemented as actively including children in the program itself may then show different results. By becoming more mindful of the impact parenting classes have on parental incarceration, various negative consequences for both father

and child may be rectified and, ultimately, lead to a better quality of life both during incarceration and reentry.

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