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THE IMPACT OF PARENTHOOD ON SUBSTANCE USE DISORDER TREATMENT
PARTICIPATION AND MOTIVATION OF INCARCERATED OFFENDERS

By

Shelly L. Wilkerson

A Dissertation

Submitted in Partial Fulfillment of the
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Major: Counselor Education and Supervision

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Dedication

This dissertation is dedicated to my pops, Ralph Wilkerson. May your light continue to shine bright, and may I always be a channel of your kindness and empathy towards others.

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I am fortunate to have had an abundance of friends and loved ones who have supported me while on this path, each and every one an instrumental part of my journey, and an integral part of my success. For this, I am truly grateful.

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Abstract

The United States has more people in prison than any other country in the world. While many of these prisons offer treatment groups designed to rehabilitate inmates, it is unknown at what rate individuals participate in these groups and what their motivation is for involvement. The current study investigated the impact of parenthood on substance use disorder treatment participation and motivation of incarcerated males and females. Descriptive statistics and chi square tests of independence were used to examine differences in participation rates and motivation of incarcerated parents and non-parents and incarcerated male and female parents. The study showed statistically significant results with small effect sizes for the participation rates of each of the populations in addiction groups and in adjustment groups. Statistically significant results with small effects size were also found for the motivation reasons of each of the populations in both types of groups. These findings highlight the need for more research in the area so that this population can be better understood. With a greater understanding, methods to increase participation and motivation could be tailored to meet the specific treatment needs of individuals in prisons.

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The Impact of Parenthood on Substance Use Disorder Treatment Participation and Motivation in Incarcerated Offenders

Chapter 1: Introduction

Background of Study

Adverse childhood experiences (ACEs) are defined as potentially traumatic events, which occur prior to the age of 18. These include all types of neglect and abuse (sexual, physical, and emotional) as well as mental illness, substance use, divorce, incarceration, and domestic violence of parent(s) (Anda et al., 2006; CDC, 2019; Dube et al., 2003; Felitti et al., 1998; Holman, 2019). Individuals who experience multiple ACEs are more likely to develop negative health outcomes, including substance use disorders (SUDs), mental health disorders (e.g. depression, anxiety, PTSD), and experience higher rates of incarceration (Dube, et al., 2002). This is particularly true for minority and economically disadvantaged individuals (Massoglia & Warner, 2011; Wildeman & Western, 2010). However, when parents are incarcerated, their children experience this separation from a primary attachment figure as its own type of trauma or ACE (Glaze & Maruschak, 2010). With this, an intergenerational cycle is set in motion with the incarceration of parents suffering from comorbid SUDs and other mental illness and modeling the behavior for their offspring (Parolin et al., 2016).

As discussed below, there are well-documented negative consequences from both SUDs and incarceration to a community's economic system, health of individual citizens, and to society in general (Holman, 2019; Jarecki et al., 2012; Wildeman & Western, 2010). It is concerning, that there is an observable cycle of ACEs, subsequent development of SUDs to deal with the effects of the ACEs, resulting in increased risk of incarceration, followed by the

attachment disruption of parental incarceration on children who experience this as an ACE, thus starting the cycle again (Berger, Cancian, Cuesta, & Noyes, 2016; Murray & Farrington, 2005).

Purpose of the Study

Although it is not the core function of correctional facilities, some prisons provide interventions for people with SUDs and other mental health disorders (Miller & Najavits, 2012; Najavits, 2017; Zanis, et al., 2003). Two of the most common interventions offered in prisons include 12-step self-help groups and psychoeducational problem-solving groups aimed at addressing the antecedent triggers to SUDs and mental health symptomology. These services are often voluntary. There are existing studies, which examine the health outcomes of these interventions; however, I was unable to find any literature examining relationships between male or female offenders in prisons who self-identify as parents, their motivation for engagement in SUDs or mental health services, or the frequency with which they engage in SUDs/mental health intervention. As such, this study seeks to utilize data from a large national prison dataset to examine these relationships. This information could determine if there are potential clues regarding how treatment providers may want to ‘market’ these services to incarcerated parents. For example, as an intervention in the cycle of parent’s experience of ACEs, parent’s development of SUDs/mental illness and subsequent incarceration, resulting in child’s experience of ACEs, leading to the child’s own involvement with the legal system. The purpose of this study is to investigate the impact parenthood has on male and female incarcerated offenders and their participation and motivation of to seek treatment for substance use disorders.

Statement of the Problem

Due to the paucity of literature examining the involvement of incarcerated parents and the motivation to seek treatment of substance use disorder, research is needed. Developing a

greater understanding of the motivation behind treatment could allow for options engineered towards generating more involvement. Children of incarcerated offenders are impacted by the actions of their parents for the duration of their lives. Parental incarceration and substance use disorder are two adverse childhood experiences that have significant repercussions (Holman, 2019; Mate', 2017). The potential to "break the intergenerational cycle" by treating the underlying issues can provide an opportunity for a better future for incarcerated offenders upon release and for their children.

Significance of Study

Substance use disorders and incarceration are two aspects that directly impact society on a multitude of levels. One manner by which to begin tackling these issues is to intervene in the lives of parents, specifically while they are incarcerated offenders. By doing so, the ability to impact the vicious cycle of intergenerational trauma, addiction, and incarceration can potentially be impacted. Research in the area needs to be expanded. New information on the impact of parental SUD and incarceration on future generations highlights the importance of creating interventions and implicates the need to investigate further. Counseling trends are shifting in the direction of neuropsychology with ACEs being at the forefront of the paradigm. Additionally, intervention and prevention of adverse childhood experiences can have an enormous impact on the health of society as a whole (Anda, 2019).

Definition of Terms

Addict: An addict is a person with a "treatable, chronic, medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences" (ASAM, 2019, p.2).

Adverse Childhood Experiences (ACEs): Adverse childhood experiences are potentially traumatic events occurring prior to the age of 18. These include physical, emotional, or sexual abuse; observing violence in the home; familial attempt or death by suicide; and growing up in an establishment with substance use, mental health problems, or instability due to parental separation, divorce, or incarceration (CDC, 2019).

Incarcerated Offender: Incarcerated offender is a term used for a defendant in a criminal case or person found guilty of an offense according to law (“Offender Law and Legal Definition”, n.d.; “The Law Dictionary: What is offender?”, n.d.) who is currently residing in a government run institution (e.g. prison, jail, etc.). Often used interchangeably with the terms incarcerated individual, inmate, and prisoner.

Parent: A parent is any individual who self-identifies as a parent, whether the child they are parenting is legally their child or not.

Substance Use Disorder (SUD): Substance use disorder is a pattern of symptoms resulting from the continued use of a substance despite the negative consequences experienced as a result of use (APA, 2013).

Research Questions

- 1) What is the frequency of participation in 12-step and CBI groups for incarcerated male and female parents?
 - a. Are there differences in participation frequency in 12-step groups for incarcerated male and female parents?
 - b. Are there differences in participation frequency in CBI groups for incarcerated male and female parents?

- c. Are there differences in participation rates for incarcerated parent and non-parent prisoners?
- 2) What do incarcerated parent and non-parents cite as their motivation for participation in 12-step and CBI groups?
- a. What is the most frequently cited reason for participation in 12-step and CBI groups for incarcerated parents by gender?
 - b. Are there differences in motivation to participate in 12-step or CBI groups for incarcerated male parents and incarcerated female parents?
 - c. Are there differences in motivation to participate in 12-step or CBI groups for incarcerated parents and incarcerated non-parents?
- 3) Does age of youngest child impact relationship between gender and participation for male and female parents?

Organization

The information in this research study is presented in five chapters. The first three make up this prospectus proposal. Chapter one includes background of the study, purpose of the study, a statement of the problem to be researched, significance of the study, definitions of key terms, and research questions. Chapter two presents a review of relevant literature including adverse childhood experiences, the impact of addiction and incarceration, effects on children whose parents are active in addiction and/or incarcerated, and evidence-based practices in the treatment of substance use disorder. Chapter three describes the research methodology of this study, which includes research questions, participants, instrumentation, data collection and procedures, and data analysis. Chapter four includes the results of the study separated by variables in research

questions. Chapter five is comprised of a discussion of results, limitations of the study, implications for practice, and suggestions for future research.

Chapter 2: Literature Review

A growing number of issues impact society on a myriad of levels. One such problem is adverse childhood experiences (ACEs), which are potentially traumatic events that occur prior to the age of 18. These include, but are not limited to, neglect, abuse, growing up in a home with a parent/caregiver who has a substance use disorder (SUD) or having a parent who is incarcerated (Anda, et al., 2006; CDC, 2019; Dube, et al., 2003; Felitti et al., 1998; Holman, 2019). Caregiver substance abuse, mental health problems, and domestic violence are all likely to disrupt the ability of a caregiver to meet the needs of their child(ren) (Clarkson-Freeman, 2014; Fisher, 2015; Holman, 2019). Any type of ACE has the potential to impact children in a meaningful way, shifting the trajectory of their future towards a positive or negative path, depending on how the effects are addressed (Fisher, 2015; Holman, 2019; Mate', 2010).

“Adverse experiences, such as poverty, residential instability, parental substance abuse, risk of abuse/neglect, homelessness, and lack of closeness to parents or caregivers who are imprisoned may all act as potential sources of trauma” (Roettger & Dennison, 2018, p. 1551). As a result, children who are neglected and/or abused may suffer immediate physical injuries and emotional and psychological problems, such as impaired socio-emotional skills or anxiety (Fortson, et al., 2016). Moreover, numerous ACE studies suggest that adverse childhood experiences are considerable risk factors for the leading causes of illness, disability, and death as well as poor quality of life in the U.S. (Anda, 2019; Arditti & Savla, 2015; Dube et al., 2009; Felitti et al., 1998). Exposure to violence in childhood heightens the risks of injury, future violence, substance abuse, sexually transmitted infections, delayed brain development,

reproductive health problems, engagement in sex trafficking, lower educational attainment, and limited employment opportunities (Fortson, et al., 2016). Turney and Wildeman (2015) suggest that complex traumas and heightened disadvantage (e.g. low SES, etc.) are more difficult to overcome and predominant in the majority of cases where children experience parental imprisonment.

While incarcerated, many individuals may have the opportunity to access interventions to combat SUD and reduce behaviors that increase recidivism (Holman, 2019; Najavits, 2017). These include options such as cognitive behavioral interventions, seeking safety, and 12-step programs. However, it is unknown the extent to which the reasons they decide to partake in the opportunities for such interventions. By investigating the motivation of incarcerated offender parents in seeking treatment, programs/interventions can be geared towards increasing enrollment and better addressing pertinent issues so that intergenerational patterns cease to continue. This review of literature elaborates on the impact of two specific ACEs- parental substance use disorder and parental incarceration- and the effects they have on the children exposed to these circumstances. Potential evidence-based treatments will also be highlighted.

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) are defined as potentially traumatic events that occur in childhood; they include abuse and neglect (sexual, physical, and emotional) as well as parental mental illness, substance use, divorce, incarceration, and domestic violence (Anda et al., 2006; CDC, 2019; Dube et al., 2003; Felitti et al., 1998; Holman, 2019). The ACE study was performed by the Center for Disease Control (CDC) and Kaiser in the mid-1990s. The results of the study show a statistically significant, positive correlation between the numbers of ACEs a person experiences and a variety of negative outcomes in adulthood, such as mental illness,

substance use disorder, chronic diseases, and early death (Anda, et al., 2006; Anda, 2019; CDC 2019). Additionally, these experiences have the potential to generate social, emotional, and cognitive neurodevelopmental impairments (Arditti & Savla, 2015). While the effects of ACEs vary from person to person, stress and other negative impacts of adverse experiences result not only in medical, mental health, and behavioral issues, but also in corresponding anxiety, guilt, and despair (Anda, et al., 2006; Zyromski, et al., 2018).

Most individuals have more than one ACE (Felitti et al., 1998). An individual's collective ACE score captures the cumulative negative impact on emotional, social, and cognitive development, as well as other impairments in the function of brain and body. These impairments are biologic pathways to health risks, disability, disease, and early mortality (Anda, 2019, p. 2). Moreover, Felitti et al. (1998) found that individuals who had experienced 4 or more ACEs were more likely than those with no ACEs to report behaviors such as smoking, poor health, sexually transmitted infections, and severe obesity as well as increased risks for alcoholism, drug abuse, depression, and suicide attempts. A sizable body of literature also suggests that adverse childhood experiences are a strong predictor of adult drug use/abuse (Dube, et al., 2003; Mate', 2010; Zyromski, et al., 2018).

“Stressors and trauma created by ACEs can have a global, long-term, and pervasive effects resulting from economic, familial, and environmental impacts” (Zyromski, et al., 2018, p. 156). Being raised in an environment that is characterized by the constant and unpredictable threat of adverse events can cause overwhelming and chronic stress (Parolin, et al., 2016). It is reported that children and adolescents repeatedly exposed to ACEs often have feelings of helplessness, unpredictability, and chaos, which may create problems with affect-regulation (Anda, 2019; Mate', 2010; Dube, et al., 2002; Fisher, 2015). This often leads to seeking

unhealthy behaviors (e.g. drugs, alcohol) to escape from the pain, anxiety, and anger that often accompanies such experiences (Bensley, et al., 1999; Lebling, 1986; Dube, et al., 2002, 2003). Additionally, when children in early development are exposed to repeated, stressful experiences, disruptions in neurodevelopment can occur, which may impede a child's ability to cope with difficult emotions (Anda, 2019).

Impact of Substance Use Disorder

Substance use disorder (SUD), also referred to as addiction, is a chronic disease of the brain reward, motivation, memory, and related circuitry (Fisher, 2015; Mate', 2010; Perry, 2005). SUD is characterized by an inability to abstain from substance use, impairment in behavioral control, intense craving, diminished recognition of problems with one's behaviors and relationships, and a dysfunctional emotional response (ASAM, 2011; Mate', 2010). Cognitive, behavioral, and psychological symptoms indicating that individuals continue to use substances despite the consequences of significant impairment are some of the distinguishing features of this hardship (Lipari & Van Horn, 2017; Parolin et al., 2016). This disorder impacts relatively everyone in society in some capacity or another. If it is not the individual themselves that abuses substances, then it is someone they know- a neighbor, family member, friend, co-worker, etc. Highly prevalent and debilitating conditions, SUDs wreak havoc on the individuals who use, their families, and society (Olivia, Maisel, Gordon, & Harris, 2011). The ramifications of which reach far and wide on a myriad of levels. The economic, health, emotional, and social effects of SUDs/addiction are discussed below.

Economic Impact

The cost of addiction has a crippling effect on communities. The National Institute on Drug Abuse (NIDA) (2015a) estimates that the United States spends more than \$740 billion a

year in costs related to crime, health care, and lost work productivity as a result of tobacco, alcohol, and illicit drug use. It was found the increased health care and substance use treatment costs alone amount to around \$28.9 billion while the CDC (2016) established the annual cost of alcohol-related crashes alone totaled over \$44 billion (Florence et al., 2016). A large share of the economic burden is borne by the public sector through direct services from government agencies and tax revenue lost from reduced earnings (Florence et al., 2016). Addiction also contributes to high rates of incarceration and subsequent costs of housing and care of offenders with SUDs (NIDA, 2015a). In fact, more than 50% of people arrested for crimes, such as homicide, assault, and theft, reported being under the influence of substances at the time of arrest (NIDA, 2015b). Moreover, it is exceedingly difficult to measure all the costs to society from an epidemic such as this. The reduction in quality of life as well as the pain and suffering of family members who have lost loved ones due to SUD is immeasurable (Florence, et al., 2016).

Health Impact

The use of alcohol and drugs also has disturbing effects on the body. In fact, every major organ system is potentially impacted by the abuse of drugs and alcohol, which, in turn, influences the overall health of the individual. The National Institute on Drug Abuse (2012) reports that SUDs negatively impact health outcomes including cardiovascular disease, stroke, cancer, HIV/AIDS, hepatitis, and lung disease. Additionally, NIDA (2015b) estimates that approximately 40 million serious illnesses, injuries, and deaths can be attributed to substance use annually. Additionally, the Center for Disease Control and Prevention (2016) concluded that 30 people die daily in alcohol-related car crashes. Moreover, there are a multitude of drug-attributable diseases identified by the World Health Organization. These include low birth

weight, various cancers, depressive disorders, accidental injuries, nutritional deficiencies, and death (Collins et al., 2006).

Emotional Impact

Not only does substance abuse impact physical health, it has repercussions with emotional health as well. The interaction between SUDs and other mental health disorders can occur in cyclical fashion, where one leads to the other in a downward spiral (Holman, 2019). In fact, people with mental health issues, such as depression, bipolar disorder, or PTSD, are more likely to use alcohol or drugs to self-medicate (Cheetham, Allen, Yucel, & Lubman, 2010; Mate', 2010; Levine, 1997; SAMHSA, 2016). The term co-occurring disorder is used to describe individuals who have both a mental health disorder and a substance use disorder. Of the 20 million adults with SUDs, roughly 40% have co-occurring disorders (SAMHSA, 2015). Many of these individuals have difficulty with regulation of emotions, related to their SUDs, which contributes to their mental health challenges.

Affective dysregulation, or emotional instability, plays a role in addiction initiation and maintenance (Cheetham, et al., 2010; Mate', 2017). Specifically, dysregulation of the brain's reward and stress systems distort addicted individuals towards sustained substance use, in spite of the negative consequences (Cheetham, et al., 2010; Fisher, 2015; Mate', 2010). This idea highlights the significance of the circuitry that mediates the behavioral response to natural rewarding stimuli, the action of drugs of abuse within this system, and the resulting transformations that occur within the brain in an attempt to sustain homeostasis (Altman et al., 1996; Koob & Le Moal, 1997). In other words, substance use disorder greatly impacts an addict's ability to maintain stability on an emotional level (Fisher, 2015; Holman, 2019). Additionally, Mate' (2017) discusses addiction as a reaction to childhood trauma (e. g. adverse

childhood experiences - (ACE)). Thus, ACEs can compel one to initiate use or continue abuse of substances to avoid the painful emotions associated with past experiences (Fisher, 2015; Holman, 2019; Mate', 2017).

Social Impact

The International Guidelines for the Estimation of the Avoidable Costs of Substance Abuse suggest a variety of aspects to consider when calculating the social impact of addiction (Single et al., 2003). These include consequences to health and welfare systems, productivity consequences, criminal justice, road accidents, fires, environment, research and prevention, loss of life, and physical and emotional pain and suffering (Collins, et al., 2006; Single et al., 2003). One of the biggest concerns is the impact of SUDs on parenting. Wulczyn, Ernst, and Fisher (2011) report an estimate of 61% of infants and 41% of children in foster care are from families with active substance abuse. Additionally, research indicates that 5.9 percent of pregnant women ages 15-44 report current use of illegal substances and 10% of all births demonstrate evidence of prenatal exposure (Holman, 2019; SAMHSA, 2013). This further perpetuates the social impact of addiction, jeopardizing the future of developing infants by means of drug and alcohol consequences (Perry, 2005; Mate', 2010).

Social interaction, or connection, some argue, is the opposite of addiction (Alexander, 1981; Fisher, 2015; Hari, 2015). However, addiction often isolates individuals, although human beings, are neurobiologically hard-wired for connection (Fisher, 2015; van der kolk, 2015). A seminal piece of research, the "Rat Park" experiment, as it is known, is a prime example of how connection, regardless of the species, is essential in maintaining motivation to renounce addictive substances (Alexander, 1981; Hari, 2015; Weiss, 2015). In his experiment, Alexander (1981) found that rats, when isolated, choose to use the accessible drugs, whereas rats in community

choose interaction with other rats over the available substances. Humans, much like the rats in the “Rat Park”, need connection to find the courage to heal from the concerns that compel them to abuse substances (Fisher, 2015; Hari, 2015).

Effect of Parental Substance Use Disorder

Parental addiction has become so common among families that television shows specifically geared towards children (e.g. Sesame Street) are now tackling the issue to help raise awareness and reduce stigma (Sforza, 2019). On that note, approximately 12% of children in the United States are living with a parent who has a substance use issue (Child Welfare Information Gateway, 2014). Parental addiction often entails a childrearing environment characterized by poor parenting skills, disadvantaged contexts, and ACEs, leading to a variety of dysfunctional outcomes (Parolin et al., 2016). In conjunction, when a parent abuses a substance, there is a three-fold increase in the risk for children to be neglected, and/or physically or sexually abused (IOM, 2013; NIDA, 2015b).

Children of parents with SUDs are likely to face other ACEs, such as household dysfunction and violence, parental incarceration, sexual, physical, and psychological abuse or neglect (Hussong et al., 2012; Taplin et al., 2014). These children are also more likely to be lower in socioeconomic status, have cognitive deficits, impaired personality function, and as well as increased difficulties in social settings and family functioning (Lipari & Van Horn, 2017; Peleg-Oren & Teichman, 2006). Furthermore, drug abusing parents often deal with unemployment, social isolation and mental illness, and struggle to attend to the emotional health of their child (Fisher, 2015; Parolin et al., 2016).

The effects of parental SUD in the life of a child are profound. Children model the behavior of their caregivers, therefore, when exposed to parental substance abuse, they are more

likely to abuse substances themselves (Fisher, 2015; Murray & Farrington, 2005). “Parental substance use is a major risk factor for child development, heightening the risk of drug problems in adolescence and young adulthood, and exposing offspring to several types of traumatic events” (Parolin, et al., 2016, p 1). Furthermore, Dube et al., (2002) found that cumulative ACE scores had a strong relationship to the risk of drug initiation from early adolescence to young adulthood and to problems with drug use and drug addiction.

The biological processes that occur when children are exposed to stressful events can negatively disrupt early development of the central nervous system (CNS) (Dube et al., 2002). This may impede their ability to cope with disruptive emotions, (Perry & Pollard, 1998) leading to problems with emotional and behavioral self-regulation later in life (van der kolk, Perry, & Herman, 1991; Mate´, 2010). Thus, behaviors such as substance abuse often manifest as a means to assist with regulation of emotional states (Dube et al., 2002). This is parallel with Mate´’s (2017) belief that addiction is a response to childhood suffering. On the contrary, it is important to note that a child is not destined to develop problems as a result of a single risk factor. Instead, a myriad of genetic, psychosocial, and environmental factors interacts over time and may lead to a series negative, long-term effects (Taplin, Saddichha, Li, & Krausz, 2014).

Impact of Incarceration

Unfortunately, it is not uncommon for people with SUDs, particularly those who are poor and minorities, to be arrested and spend time in prison due to criminal behavior that is linked to their addictive behaviors (Holman, 2019; Jarecki, et al., 2012; Najavitz & Hein, 2013). In fact, the number of people in US prisons has increased by more than 600% over the past 40 years, causing an unprecedented expansion of the criminal justice system (Rich, Wakeman, & Dickman, 2011). Additionally, multiple studies indicate that this is largely the result of the “War

on Drugs.” The passage of multiple pieces of legislation in the 1980s and 1990’s, corresponding with the reduction in community mental health spending, resulted in increased incarceration for nonviolent drug and property offenders, and our country’s failure to treat addictions and mental health issues as medical conditions (Blumstein & Beck, 1999; Dumont et al., 2012; Jarecki, et al., 2012; Rich, Wakeman, & Dickman, 2011). In the United States, these correctional policies, such as mandatory minimum sentencing, have resulted in an increased number of vulnerable children being affected by parental incarceration (Gilpin, 2012). Research indicates that this has contributed greatly to the breakdown of the family unit, predominantly in black and low-income communities (Massoglia & Warner, 2011; Wildeman & Western, 2010). Removing a parent from the home not only impacts the family unit, but it also costs taxpayers more than community treatment of SUDs (Fisher, 2014).

Economic Impact

Economically, incarceration impacts society at an astronomical level. Rich et al. (2011) report that since 1980, state correctional spending has increased by 300% and is now the fastest growing area of government spending after Medicaid (Pew Center on the States, 2008). Wagner and Rabuy (2017) report the annual cost for private individuals, local, state, and federal governments in the United States totaled around \$182 billion per year. This estimate includes the costs for both the government and for families of those arrested as well as the costs from appointed counsel to the price of food and healthcare for incarcerated inmates (Wagner & Rabuy, 2017). Correctional facilities are a critical component of the public-safety infrastructure; however, many believe that the social and economic costs associated now far outweigh the benefits (Rich, et al., 2011). What is more, the economic impact of incarceration is so profound

that even a slight reduction in the prison population could save the U.S. billions of dollars annually (Massoglia & Warner, 2011).

Of the 600,000 plus inmates that leave prison and more than 7 million who leave jail, many struggle to find housing, legitimate work, and to re-establish familial and social relationships (Dumont, et al., 2012). A prison record disqualifies eligibility for public assistance such as food stamps, public housing, and student loans in the majority of states. Most prospective employees question previous incarceration history on job applications, making it nearly impossible to get a job and resulting in a permanent underclass (Dumont, et al., 2012; Western 2002). “Former prisoners and their dependents remain locked in low socioeconomic status, unemployment, and unstable housing, factors that are consistently associated with low access to health care as well as poor health outcomes” (Dumont, et al., 2012, p. 8). With this, one of the largest expenditures for prisons is the cost of health care, particularly for those individuals who have SUDs and other mental health disorders (Sridhar, Cornish, & Fazel, 2018).

Due to the lingering effects, the economic impact of incarceration perpetuates the cycle of lower SES, poverty, and homelessness (Dumont, et al., 2012; Western, 2002). Moreover, a strong causal inference relating to the negative effects of incarceration on wages was found, which threatens increased crime since those with few economic opportunities are compelled to turn to crime in an effort to survive (Western, 2002). “It appears that the U.S. penal system has grown beyond disciplining the deviant few, to imposing a systemic influence on broad patterns of social inequality” (Western, 2002, p. 542).

Health Impact

It is well known that the prison population reflects dramatic disparities by race, gender, and socioeconomic status (SES) (Dumont, et al., 2012; Massoglia & Warner, 2011; Rich, et al.,

2011). Poor and minority citizens are more likely to be medically underserved, therefore presenting with more health problems than that of the general population in society (Dumont, et al., 2012; Wildeman & Western, 2010). Prisons are required to provide appropriate healthcare, including physical and mental health, under the 8th amendment of the constitution (*Estelle v Gamble*, 1976; *Richardson v. McKnight*, 1997; *West v. Atkins*, 1988). With this, prisons have a unique opportunity to provide incarcerated with healthcare; providing screening, diagnosis, and treatment options for diseases such as HIV, diabetes, hepatitis, and mental illness (CCCHRI, 2013; Rich, Dumont, & Allen, 2012). For those living especially chaotic lives, incarceration can yield respite and stabilization providing available food, a structured environment, reduced access to alcohol, drugs, and other harmful practices (Rich, Dumont, & Allen, 2012).

However, correctional facilities also expose inmates to risks such as infectious diseases, physical violence, and overcrowding, all of which can have immediate and long-term effects on health (Dumont et al., 2012). While the medical care and environmental change can be lifesaving for some offenders, prisons are fundamentally designed to confine and punish, not to reform or treat disease like SUDs or other mental illnesses (Rich et al., 2011). Additionally, most facilities lack the necessary resources to adequately address continuity of care for a population with high-needs and low resources, which often lead to abrupt discontinuation of medication and treatment (Dumont, et al., 2012).

In addition to the explicit health risks of incarceration, implicit risks are also evident. The environment of correctional settings is threatening in nature- loud and institutionally cold in the way they physically look (DeVeaux, 2013; Holman, 2019). One previously incarcerated offender who went on to publish about his experience shared, “Violence permeated the prison atmosphere. I lived in a constant state of paranoia” (DeVeaux, 2013, p 266). This type of

environment is conducive to the possibility of increased cortisol levels due to the stress of hyper-vigilance, trauma, and PTSD; all of which can lead to further health complications and potential emotional health problems (Holman, 2019; Mate', 2010; Perry, 2005; van der kolk, 2014).

Moreover, incarceration negatively impacts mental and physical health outcomes for incarcerated, which they bring back into the community when they reenter society.

Social Impact

The social impact of incarceration extends far beyond the millions who are incarcerated every year. "Locking up millions of people for drug-related crimes has failed as a public-safety strategy and has harmed public health in the communities to which these men and women return" (Rich, et al., 2011, p. 2083). Society must deal with the consequences of incarceration when offenders are removed from the home as well as when they return after release. Specifically, in low-income minority communities, a large portion of the male population is behind bars (Dumont, et al., 2012; Massoglia & Warner, 2011; Rich, et al., 2011). This delivers a devastating blow to relationships and family units. Additionally, the disproportionate incarceration of black males is associated with low wages and increasing unemployment rates, which perpetuates the divide (Rich, et al., 2011).

Rich, Wakeman, and Dickman (2011) report, "Deinstitutionalization of the mentally ill over the past 50 years and severe punishment for drug users starting in the 1970s have shifted the burden of care for addiction and mental illness to jails and prisons" (p 2081). As a result, the largest housing facilities of psychiatric patients are not hospitals, but jails (Rich, Wakeman, & Dickman, 2011). Due to the mindset of incarcerated offenders being influenced by their prison experience, their attitudes and behaviors post-release impact members of the communities to which they return (Massoglia & Warner, 2011; Western, Braga, Davis, & Sirois, 2015).

Additionally, without proper rehabilitation to change the behaviors which lead to incarceration in the first place, the same conduct is often repeated, and the cycle continues (Holman, 2019).

Effect of Parental Incarceration

As the number of incarcerated offenders increases, so too does the number of children who have a parent absent from the home. Glaze and Maruschak (2010) report that nationally, in state and federal prisons there are more than 120,000 incarcerated mothers and 1.1 million incarcerated fathers who are parents to children under the age of 18. Additionally, an estimated 1.7 million children under the age of 18 currently have at least one parent in prison, which translates to 2.3% of the minor U.S. population (Glaze & Maruschak, 2010).

It is important to note that when a parent is removed from the home for incarceration, families are forced to reorganize and restructure their dynamics. This often leaves children unsupervised due to a remaining parent having to work multiple jobs or prolonged hours to make up for the loss of income (Aaron & Dallaire, 2010). In addition to the removal from the home, parents are often held in prisons too far for children to visit, therefore, they do not see each other for extended periods of time. Mumola (2000) reports 62% of parents in state prisons and 84% of parents in federal prisons are held over 100 miles away from their residence, making regular visitation difficult.

Arditti and Savla (2015) propose, “Parental incarceration is recognized as an adverse childhood experience (ACE) that has been characterized as an enduring trauma that involves ongoing and repeated stressors” (p. 551). Moreover, parental incarceration is distinguished from other ACEs because of the unique combination of trauma, shame, and social stigma (Hairston, 2007). Previous studies of prisoners’ children consistently report that they experience a range of psychosocial issues during parental incarceration, including withdrawal, depression, clinginess,

problems with sleep and eating, hyperactivity, aggressive behavior, truancy, poor grades in school, and delinquency (Aaron & Dallaire, 2010; Murray & Farrington, 2005). Due to the uniquely high number of incarcerated parents in the US, parental imprisonment could emerge as a historically novel -and distinctly American- form of childhood disadvantage (Wideman, 2009).

Glaze and Maruschak (2010) found that estimates from self-report surveys of inmates in state prisons indicate 2.2 percent of fathers and 10.9 percent of mothers as reporting children in out of home placement, such as foster care, agency, or an institution. Over the last 25 years, the number of children with incarcerated mothers has more than doubled (Glaze & Maruschak, 2010). Moreover, children are considerably more likely to be in foster care when their mother is incarcerated than when their father is incarcerated (Glaze & Maruschak, 2010; Mumola, 2000). Furthermore, it was found that as a result of childhood displacement and the associated effects, many individuals who spent time in out of home placement are disproportionately likely to be incarcerated as adults (Berger, Cancian, Cuesta, & Noyes, 2016).

Stigmatization, which often induces shame, is another adverse consequence of parental incarceration (Phillips & Gates, 2011). “Stigmatization manifests in various areas of a child’s lives (e.g., within their family networks, schools, neighborhoods, social service settings, and so forth)” (Phillips & Gates, 2011, p. 286). This stigmatization serves to further separate children of incarcerated parents into categories of “us” and “them” based on differences associated with labels (Phillips & Gates, 2011). Moreover, an overall greater inequality in the social experience of childhood can be contributed to by the high levels of parental imprisonment (Wildeman, 2009).

As previously mentioned, many inmate offenses are as a result of actions taken while under the influence of substances. Davis and Shlafer (2018) disclose that in 2007, nearly 60% of

offenders identifying as parents were serving time for drug-related offenses. Additionally, two out of three parents in state prisons met criteria for substance dependence or abuse, over half (54%) reported using drugs in the month prior to their arrest, and more than a third (34%) reported that during their own childhoods, their parents or guardians had abused alcohol or drugs (Glaze & Maruschak, 2008). “From a social policy point of view, it seems that imprisoning parents might cause antisocial behavior and crime in the next generation, and hence contribute to the intergenerational transmission of offending” (Murray & Farrington, 2005, p. 1277).

“In light of abounding empirical evidence linking incarceration to adverse consequences for offenders, their children and communities, policymakers are compelled to implement effective policy changes to reduce the harm of parental incarceration on society” (Gaston, 2016, p. 1071). Additionally, given that parental incarceration and substance use disorders (SUDs) serve as ACEs, it is crucial that we identify effective interventions to address these issues. By educating parents while incarcerated and treating the core reasons as to why they are incarcerated in the first place (e.g., trauma history, ACEs, SUDs) the intergenerational cycle of repeating modelled behaviors has the potential to be intercepted and a different future created for generations to come.

Evidence Based Practices

Evidence based practice (EBP) is the term generally used to describe methods and strategies that are empirically based and shown to be consistently effective in a multitude of studies (Cook, Schwartz, & Kaslow, 2017; Fisher & Harrison, 2013). Insurance companies often require practices to be evidence based or “scientifically proven” in order to be covered by their plans. This makes EBPs the preferred practice in many areas of treatment. Incorporating EBPs allows providers to use research-driven evidence and reduces the need to rely on personal

opinion (Cook, Schwartz, & Kaslow, 2017). On the contrary, concerns have been raised about the generalizability of EBPs due to the significantly differing characteristics and conditions of the controlled treatment environments to that of the real world (Kazdin, 2008). Additionally, research samples often under-represent minority populations or patients with comorbid conditions (Bernal, 2012) and overemphasis on use of EBPs could erroneously ignore personal clinical experience. (Cook et al., 2017). Information regarding a variety of EBPs for substance use disorders (SUD) follows.

Pharmacotherapy

Pharmacotherapy for substance use disorders is a widely recognized, evidence-based practice considered to be a critical component in treatment (Thomas, Garnick, Horgan, & Miller, 2013). During the past two decades, there have been significant advancements in the pharmacotherapy medications used to treat alcohol and drug abuse (Bahr, Masters, & Taylor, 2012). This form of treatment is often used in conjunction with other remedies, such as behavioral therapy, to augment results (Fisher & Harrison, 2012; Koob, 2000). There are a variety of options available to assist in the treatment of alcohol and opioid use. Currently, medications approved by the Food and Drug Administration (FDA) for treatment include: Methadone, Buprenorphine, Suboxone, Naloxone, and Naltrexone for opioid dependence, and Naltrexone, Acamprosate, Disulfiram, and Topiramate for alcohol abuse (Fisher & Harrison, 2013; Olivia, Maisel, Gordon, & Harris, 2011; Thomas, et al., 2013). Despite its success, pharmacotherapy treatment for SUDs is underutilized; oftentimes due to the resistance of patients to start medications and/or the reluctance of the treating physician (Olivia, et al., 2011; Thomas, et al., 2013). Important to note is that medications are often necessary to treat

underlying mental illness so that abstinence from drugs and/or alcohol is a feasible task with a greater likelihood of success (Fisher & Harrison, 2012).

Behavioral Therapies

12-Step Groups. 12-step groups, or “addiction groups” as they are sometimes called, are based on the 12-steps of Alcoholics Anonymous (AA). The philosophy of these groups emphasizes the importance of three key ideas: accepting addiction as a chronic, progressive disease to which abstinence is the only alternative; surrendering by accepting support from fellow recovering addicts and turning oneself over to a higher power; actively maintaining involvement in 12-step meetings and service work (Alcoholics Anonymous, 1976; Bahr, Masters, & Taylor, 2012; Donovan et al., 2013; Fisher & Harrison, 2012; NIDA, 2018).

Self-help groups based on these philosophies outline twelve consecutive steps that substance users are to complete during their process of recovery (Alcoholics Anonymous, 1976; Donovan et al., 2013; Fisher & Harrison, 2012). The basis of these steps is “trust God, clean house, and help others”, where individuals pair with another recovering addict and go through the process of creating a spiritual connection, identifying the wrongs of their past, making amends, and maintaining a spiritual connection (Alcoholics Anonymous, 1976; Fisher, 2015). An important aspect of 12-step programs is the connection with other like-minded individuals who suffer from a common problem and are seeking a solution (Jhanjee, 2014). An additional factor highly related to abstinence is the social process, or “fellowship”, of the AA program, which allows for a shift in one’s social network (Donovan et al., 2013; Kaskutas, 2009). The success rates and ease of facilitation make this treatment a popular option when working with a variety of populations, specifically incarcerated offenders (Kaskutas, 2009).

An important element of working with another addict in completing the steps is safety/trust (Fisher, 2015; Miller, & Najavits, 2012; Najavits, 2002). In order to be rigorously honest, as the book of Alcoholics Anonymous suggests, it is imperative to feel safe sharing one's deepest, darkest secrets. In prisons, due to the triggering environment, the idea of trusting another inmate is taboo and can create chaos for individuals who give others the benefit of the doubt by doing so (Miller & Najavits, 2012; Holman, 2019). Without trust and the ability to safely confide, the purpose of the program can become strenuous and navigating the path to abstinence, cumbersome (Fisher, 2015). This, in part, may be why offenders who dropout of 12-step groups regularly report higher rates of relapse and criminal recidivism (Schneider, 2006; Zanis et al., 2003).

Cognitive Behavioral Interventions

Cognitive behavioral interventions (CBI) are scientifically supported practices, with arguably the most research in the field to support its efficacy (David, Cristea, & Hoffman, 2018; Fisher & Harrison, 2012). This form of treatment assumes that clients have maladaptive thinking patterns, or irrational beliefs, that need to be changed (Bahr, Masters, & Taylor, 2012). CBIs are based on the idea that cognitive processes influence behavior and emphasizes identifying and modifying irrational thoughts about substances so that individuals can make healthier choices to avoid relapsing (Fisher & Harrison, 2012; Hoffman et al., 2012; Jhanjee, 2014).

Cognitive Behavioral Interventions (CBI), also called “adjustment groups”, are considered psycho-educational. In prison settings, these “adjustment groups” often utilize information from workbooks that are to be completed by the offenders and serve to reinforce and develop skills (Lowenkamp, Hubbard, Makarios, & Latessa, 2009). Furthermore, Hall, Prendergast, Wellisch, Patten, & Cao (2004) report significantly less drug use and fewer arrests

than the control group with released offenders who had participated in CBI. Conversely, however, providing cognitive treatment to individuals in a high-stress, traumatic environment has often shown to be ineffective (Fisher, 2015; Holman, 2019).

Motivational Enhancement Therapy/Motivational Interviewing (MI)

Motivation is necessary for change; without it, there is essentially no logic behind implementing a different way of being (Miller & Rollnick, 1991, 2002; Prochaska & DiClemente, 1983). In addiction recovery, motivation is especially crucial. Individuals with substance use disorders (SUDs), or addicts, have a relationship with their drug of choice (Fisher & Harrison, 2012). Many believe the substance to be critical to their functioning since, in their mind, it has helped them survive (Fisher, 2015; Fisher & Harrison, 2012; Hussain, 2017). Additionally, while an addict may be aware of the undesirable consequences of their substance use, the thought of walking away from it and making a change in their behavior has the potential to be immobilizing (DiClemente, 1999; Fisher & Harrison, 2012; Fisher, 2015).

Motivational interviewing, developed by Rollnick and Miller in 1991, is a method used to enhance intrinsic motivation to change (Carroll & Onken, 2005; Fisher & Harrison, 2012). It is based on the transtheoretical model of intentional behavior change developed by Prochaska and DiClemente (1983), which identifies five stages of change: precontemplation, contemplation, preparation, action, and maintenance (DiClemente, 1999; DiClemente, Bellino, & Neavins, 1999; Fisher & Harrison, 2012; Holman, 2019). An explanation of the stages follows.

In the precontemplation stage, the client does not see a problem with their behavior, and therefore, sees no reason to change (Prochaska & DiClemente, 1983). At this point, an intervention to assist the client with improving awareness and highlighting the negative consequences of their behavior is necessary (Fisher & Harrison; 2012; Miller & Rollnick, 2002;

Holman, 2019). The next stage, contemplation, takes place when the client becomes aware that there might be a problem and may be considering change in the near future (Prochaska & DiClemente, 1983). Often, the client feels ambivalent or stuck. It is helpful for ambivalence to be normalized and the client to be helped to weigh the pros and cons of continuing versus discontinuing targeted behavior (Miller & Rollnick, 1991, 2002). The goal of this step is to help the client move from extrinsic motivation to intrinsic motivation (DiClemente et al., 1999; Miller & Rollnick, 2002). The preparation stage is when the client resolves their ambivalence and decides to make a change (Prochaska & DiClemente, 1983). At this stage, the client should be encouraged make small steps while utilizing social supports (Miller & Rollnick, 2002). Next, is the action stage. This stage occurs when a client begins putting the strategies for behavior change into action (Prochaska & DiClemente, 1983). The final stage, maintenance, is when the behavior has changes or ceases, and the main focus is on sustaining the change (Prochaska & DiClemente, 1983).

Four general principles of MI that assist to resolve the ambivalence of a client and move them towards change include expressing empathy, developing discrepancy, rolling with resistance, and supporting self-efficacy (Fisher & Harrison, 2012; Holman, 2019; Miller & Rollnick, 2002). These MI skills help advance an addict through the stages of change; to a mindset where a new, drug-free way of life is imaginable and intrinsic motivation is high (DiClemente, 1999; DiClemente, Bellino, & Neavins, 1999; Fisher & Harrison, 2012; Miller & Rollnick, 1991; 2002). MI has strong empirical support for the treatment of alcoholics according to Carroll and Onken (2005), yet contradictory evidence is presented by Fisher and Harrison (2012), who state the opposite. Furthermore, Lundahl, Kunz, Brownell, Tollefson, and Burke

(2010) note that MI efficacy is impacted by variables such as feedback, delivery time, ethnicity, delivery mode (individual vs group), and manualization.

Contingency Management

Contingency management (CM) is a commonly used, evidence-based treatment for drug dependence. This treatment approach extrinsically motivates, encouraging positive behavior by providing rewards such as vouchers, prizes, or privileges, when a person progresses toward a treatment goal (e.g. verified abstinence) (Bahr, et al., 2012; Carroll & Onken, 2005; Fisher & Harrison, 2013; Hall et al., 2004; Jhanjee, 2014). A common method of verifying progress/abstinence is obtaining urine and testing for the presence of specific substances. Contingent upon a negative urine specimen, rewards are then sanctioned (Carroll & Onken, 2005; Jhanjee, 2014).

A substantial number of efficacy studies have been published that focus on reinforcing abstinence from substances such as opiates, cocaine, alcohol, and marijuana (Carroll & Onken, 2005; Stitzer, 2006). While there is strong evidence of CM as an effective strategy in the treatment of SUDs, it is often not used. Some limitations that interfere with implementation of CM include are the perceived high costs and the issue of decreasing rates of abstinence when rewards are discontinued (Hall, Pendergrat, Roll, & Wards, 2009; Jhanjee, 2014). On the contrary, Carroll & Onken (2005) report that a substantial portion of individuals with SUDs do not respond to CM and individual differences need to be addressed to increase success.

Trauma-Informed Care

To be trauma-informed is to understand the impact and involvement of violence and victimization in the lives of individuals seeking care (Butler, Critelli, & Rinfrette, 2001). The practice of trauma-informed care (TIC) considers a person's previous life experiences and their

neurobiological response (van der kolk, 2015). TIC is an approach that considers the science of neurobiology and cognitive understanding of trauma and then utilizes this to inform the application of the appropriate treatment (Tkach, 2018). Muskett's (2014) article states the following:

Key principles of TIC are: (i) clients need to feel connected, valued, informed, and hopeful of recovery; (ii) the connection between childhood trauma and adult psychopathology is known and understood by all staff; and (iii) staff work in mindful and empowering ways with individuals, family, friends, and other social service agencies to promote and protect the autonomy of that individual (p. 52).

It is important to note that TIC is not designed for the treatment of traumatic experiences (e.g. processing trauma narrative), but rather to assist in managing symptoms and reducing the likelihood of re-traumatization (Najavits, 2002; SAMHSA, 2014; Tkach, 2018). Trauma and the resulting symptoms are often found to be one of the co-occurring disorders with the highest prevalence rates for patients in substance abuse treatment (Atkins, 2014; SAMHSA, 2014; Tkach, 2018).

Seeking-Safety. Seeking Safety (SS) is one example of a manualized trauma-informed treatment, which is designed to address co-occurring post-traumatic stress disorder (PTSD) and substance use disorders (SUDs) (Najavits, 2002). This treatment was developed utilizing aspects of CBI and TIC to focus on educational and therapeutic needs that were not being adequately addressed otherwise (Najavitz, 2002; Najavits, 2017). The fundamental ideas this modality is based on include: safety as priority; integrated treatment of PTSD and substance abuse; focus on ideals; cognitive, behavioral, interpersonal, and case management content areas; and attention to therapist processes (e.g. building alliance, having compassion, giving patients control, and

behavior modeling) (Najavits, 2002). SS consists of 25 interactive psychoeducation topics that can be presented to a group or individual in any order.

This treatment explicitly and intentionally omits exploration and processing of past trauma. Instead, Seeking Safety addresses the associated symptoms of PTSD, (e.g., hyperarousal, immobilization, etc.) and teaches skills on how to manage these manifestations (Najavits, 2002, Najavits, 2017). SS is the first treatment of its kind that has been found to significantly lower rates of PTSD and SUD among those who suffer from both (Najavits, 2002). Furthermore, it has demonstrated significantly beneficial impacts for use with offender populations. Studies performed by Wolff, et al., (2015), Zlotnick, et al., (2003), and Zlotnick, et al., (2009) all indicate Seeking Safety as effective in reducing both SUD behaviors and PTSD symptoms.

Conclusion

The research on adverse childhood experiences reveals that the impact of parental incarceration and substance use disorder are two types of traumatic encounters that significantly influence the children exposed. Intentionally targeting incarcerated offending parents increases the opportunity to break the cycle of intergenerational trauma. Additionally, investigating the motivation for participation in treatment of male and female incarcerated offenders can help with the molding of interventions to fit the needs of those seeking assistance.

The most commonly utilized EBPs in correctional settings are 12-step groups and CBIs. These EBPs are considered problem-solving groups due to their focus on identifying problematic behaviors, relationships, coping choices, and thought processes and learning to replace them with healthier behaviors (Biggam & Power, 2002; Gonzales, 2018; Mears, et al., 2002).

This literature review highlighted aspects of substance use disorder and incarceration, their impacts on society, as well as the children of those affected. Viewing these issues from the

lens of adverse childhood experiences and finding ways to break the intergenerational cycle of continued incarceration and substance abuse, we can find ways to market treatment options to parents while they are incarcerated.

Chapter 3: Methodology

Research Design

This study conducted a secondary analysis of existing publicly available research data, specifically, the U.S. Prison sample from the Program for the International Assessment of Adult Competencies (PIAAC) 2014 study. The PIAAC Survey of Incarcerated Adults is an extension of two previous studies conducted by the National Center for Educational Statistics (NCES)- one in 1992 and the other in 2003- which assessed skills of incarcerated adults in the United States (Carr, 2016). The report- *Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education, and Training: Program for the International Assessment of Adult Competencies: 2014-* was designed to improve training and educational opportunities for incarcerated adults and to foster the skills they need to successfully return to society upon release (Carr, 2016; Rampey, et al., 2016; Renbarger, Rivers, & Sulak, 2019). The data collection process in the PIAAC study was cross-sectional with random sampling of incarcerated adults.

Data Source

The PIAAC is a large-scale study that was developed under the Organization for Economic Cooperation and Development (OECD). The goal of the study is to assess the basic skills of a variety of competencies from adults around the globe. The PIAAC assessments focus on cognitive and workplace skills necessary for successful participation in society and build on knowledge gained from previous assessments- the International Adult Literacy Survey (IALS) and the Adult Literacy and Lifeskills Survey (ALL) ("What is PIAAC", n.d.).

Prison Data

The United States PIAAC Prison Study was conducted in 2014 and assessed literacy, numeracy, and problem solving of adult inmates detained at private, state and federal prisons (Carr, 2016; Rampey, et al., 2016; Renbarger, Rivers, & Sulak, 2019). The prison background questionnaire was adapted from the household version and was tailored to specifically address the needs of this group. Modified items were related to activities in prison, such as participation in academic programs, experiences with prison jobs, and involvement in nonacademic programs (“U.S. Prison Study Data Collection”, n.d.). The background questionnaire was orally administered to each participant individually by an interviewer using a computer-based assessment system (“Background Questionnaires”, n.d.).

Participants

Adult participants ages 16-74 from 98 United States federal or state prisons were selected using a two-stage stratified sample, resulting in 1,319 participants. While the target population was 16-74, the prison sample did not include any one under the age of 18. A total of 1,315 inmates completed the prison-adapted questionnaire (Renbarger et al., 2019). Demographics of the US prison sample population for this study include: 93% male; 7% female; 34% White; 37% Black; 22% Hispanic; and 7% other (Rampey et al., 2016).

Measures

Variables included three demographic variables (gender, parental status, and age of youngest child), participation in an adjustment or cognitive behavioral intervention (CBI) group or participation in drug and alcohol (12-step) group, and inmate motivation for group participation. Gender was dichotomous, with respondents answering “male” or “female”. Parental status and group participation responses were dichotomous, with respondents answering

“yes” or “no” to the questions (see Table 1). Age of youngest child responses were categorical and included “2 or younger”, “3-5 years”, “6-12 years”, and “13 or older”. Motivation for group participation responses were categorical and included “self-improvement”, “family-related reasons”, “to increase possibilities of getting a job assignment”, “to increase possibilities of getting a job when I am released”, “I was required to participate”, and “other”.

Table 1

Prison Sample Variables Used in Study

Variable	Name in PIAAC	Question Text
Gender	CI_Gender	Your gender?
Parental status	J_Q03a	Do you have children? Please include stepchildren and children not living in your household.
Age of youngest child	J_Q03d1	How old is your youngest child?
Adjustment group (CBI)	P_Q190d	During your current incarceration, have you attended...classes in community adjustment including anger management, conflict resolution?
Motivation for attending adjustment group (CBI)	P_Q190d_2	What was your main reason for attending this class?
Drug or alcohol group (12-step)	P_Q190e	During your current incarceration, have you attended...drug or alcohol groups for example, Alcoholics Anonymous, Al-Anon, Narcotics Anonymous, or other drug or alcohol related groups?
Motivation for attending drug or alcohol group (12-step)	P_Q190e_2	What was your main reason for attending this class?

Research Questions

The research questions addressed by the study included:

- 1) What is the frequency of participation in 12-step and CBI groups for incarcerated male and female parents?

- a. Are there differences in participation frequency in 12-step groups for incarcerated male and female parents?
 - b. Are there differences in participation frequency in CBI groups for incarcerated male and female parents?
 - c. Are there differences in participation rates for incarcerated parent and non-parent prisoners?
- 2) What do incarcerated parents and non-parents cite as their motivation for participation in 12-step and CBI groups?
- a. What is the most frequently cited reason for participation in 12-step and CBI groups for incarcerated parents by gender?
 - b. Are there differences in motivation to participate in 12-step or CBI groups for incarcerated male parents and incarcerated female parents?
 - c. Are there differences in motivation to participate in 12-step or CBI groups for incarcerated parents and incarcerated non-parents?
- 3) Does age of youngest child impact the relationship between gender and participation for male and female parents?

Data Analysis

A chi-square test of independence was performed to determine if the frequency of participation in 12-step groups was independent of gender in incarcerated parents. A chi-square test of independence was performed to determine if the frequency of participation in CBI groups was independent of gender in incarcerated parents. Two separate chi-square tests were performed to identify the most frequently cited reason for participation in 12-step groups and one for participation in CBI groups. To determine whether there were significant differences between

parents versus non-parents in participation motivation, the chi-square test of independence was used. The previously mentioned assumptions were checked prior to conducting the analysis.

The chi-square test of independence was the appropriate statistic to use in these scenarios because this test allowed us to determine whether cases fall into categories in proportions that were equal to what one would expect by chance or if the frequencies in each category were determined by a relationship between the variables (Urduan, 2017). Prior to conducting these tests, the assumptions were assessed. The assumptions for this analysis included random sampling, categorical variables, and a sample size large enough that expected frequencies were greater than 5 (StatTrek, 2019a).

The Cochran-Mantel-Haenszel test, which is used to assess “conditional” independence of categorical predictors associated with categorical outcomes, was going to be used (Scalelive, 2020). However, the homogeneity of odds ratio was significant, and therefore, the assumptions of the test were not met. For this reason, the Cochran-Mantel-Haenszel test was not performed. Instead, multiple chi-square tests were performed to test if the age of the youngest child impacted participation (2 or younger, 3-5 years, 6-12 years, and 13 or older).

All analyses were completed in SPSS in order to accommodate the use of sampling weights provided with the PIACC prison data. The final overall weighted response for the prison sample was 82.2 percent (Rampey, et al., 2016).

Chapter 4: Results

Comparison of Parents and Nonparents Participation

A chi-square test of independence was performed to examine the relationship between parental status and participation in an adjustment group. The relationship between these variables was significant, $X^2(1, N = 1,218,861) = 492.04, p < .01$. Parents participated at a slightly lower

rate than non-parents (see Table 1). While there is a statistically significant result, the effect size is so low ($\Phi = -.020$) that the relationship is negligible or not practically meaningful.

A chi-square test of independence was performed to examine the relationship between parental status and participation in an addiction group. The relationship between these variables was significant, $X^2(1, N = 1,219,828) = 937.26, p = < .01$. Parents participated at a slightly higher rate than non-parents (see Table 2). While there is a statistically significant result, the effect size is so low ($\Phi = .028$) that the relationship is negligible or not practically meaningful.

Table 2

Summary of Current Participation for Parents and Non-Parents

Class Type	Parental Status	% Participating	% Not Participating
Adjustment	Parent	38	62
	Non-Parent	40.2	59.8
Addiction	Parent	40.7	59.3
	Non-Parent	37.7	62.3

A chi-square test of independence was performed to examine the relationship between the reasons for participation for parents and non-parents in an adjustment group. The relationship between these variables was significant, $X^2(5, N = 471,018) = 12453.64, p = < .01$. Over 60% of parents and non-parents cited “self-improvement” as their primary reason for participation. Slightly more parents cited “self-improvement” than non-parents (see Table 3). Over 20% of parents and non-parents cited “required” as their primary reason for participation. Slightly more non-parents cited “required” than parents (see Table 3). While there is a statistically significant result, the effect size is so low ($\Phi = .163$) that the relationship is negligible or not practically meaningful.

A chi-square test of independence was performed to examine the relationship between the reasons for participation in an addiction group for parents and non-parents. The relationship between these variables was significant, $X^2(5, N = 484,773) = 21562.71, p = < .01$. Over 60% of parents and non-parents cited “self-improvement” as their primary reason for participation. More parents cited “self-improvement” than non-parents (see table 3). Over 15% of parents and non-parents cited “required” as their primary reason for participation. More non-parents cited “required” than parents (see table 3). While there is a statistically significant result, the effect size is so low ($\Phi = .211$) that the relationship is a weak positive or not practically meaningful.

Table 3
Motivation for Participation for Parents and Non-Parents

Class Type	Parental Status	Motivation for Participation					
		% Self-Improvement	% Family	% Job Inside	% Job Outside	% Required	% Other
Adjustment	Parent	69.4	4.9	0.4	2.7	20.0	2.6
	Non-Parent	62.1	3.3	3.4	0.8	25.8	4.7
Addiction	Parent	77.2	2.7	0.6	1.5	15.3	2.8
	Non-Parent	62.9	1.4	0	0	33.3	2.3

Comparison of Participation by Parent Gender

A chi-square test of independence was performed to examine the relationship between gender of parent and current participation for adjustment group. The relationship between these variables was significant, $X^2(1, N = 866,340) = 148.65, p = < .01$. Male parents participated at a slightly higher rate than female parents (See Table 4). While there is a statistically significant

result, the effect size is so low ($\Phi = .013$) that the relationship is negligible or not practically meaningful.

A chi-square test of independence was performed to examine the relationship between gender of parent and current participation for addiction group. The relationship between these variables was significant, $X^2(1, N = 866,340) = 2956.45, p = < .01$. Female parents participated at a higher rate than male parents (See Table 4). While there is a statistically significant result, the effect size is so low ($\Phi = -.058$) that it is negligible or not practically meaningful.

Table 4

Summary of Current Participation for Male and Female Parents

Class Type	Parent Gender	% Participating	% Not Participating
Adjustment	Male	38.2	61.8
	Female	35.8	64.2
Addiction	Male	39.9	60.1
	Female	50.9	49.1

A chi-square test of independence was performed to examine the relationship between the reasons for participation for male and female parents in an adjustment group. The relationship between these variables was significant, $X^2(5, N = 329,383) = 1454.89, p = < .01$. Over 65% of male and female parents cited “self-improvement” as their primary reason for participation. Slightly more males cited “self-improvement” than females (see Table 5). Over 19% of males and female parents cited “required” as their primary reason for participation. Slightly more females cited “required” than males. While there is a statistically significant result, the effect size is so low ($\Phi = .066$) that the relationship is negligible or not practically meaningful.

A chi-square test of independence was performed to examine the relationship between the reasons for participation for male and female parents in an addiction group. The relationship between these variables was significant, $X^2(5, N = 351,358) = 1801.53, p = < .01$. Over 74% of male and female parents cited “self-improvement” as their primary reason for participation. Slightly more males cited “self-improvement” than females (see Table 5). Over 14% of males and female parents cited “required” as their primary reason for participation. Slightly more females cited “required” than males (see Table 5). While there is a statistically significant result, the effect size is so low ($\Phi = .072$) that the relationship is negligible or not practically meaningful.

Table 5

Motivation for Participation for Male and Female Parents

Class Type	Parent Gender	Motivation for Participation					
		% Self-Improvement	% Family	% Job Inside	% Job Outside	% Required	% Other
Adjustment	Male	69.5	5.1	0.4	2.7	19.8	2.5
	Female	68.1	1.1	0	2.5	23.2	5.0
Addiction	Male	77.4	2.9	0.6	1.5	14.7	2.8
	Female	74.5	0.8	0	0.7	21.6	2.3

Comparison of Participation by Parent Gender and Youngest Child’s Age

A conditional test of independence was attempted to determine if the relationship between parents’ gender and participation in an adjustment group was impacted by youngest child’s age. However, the homogeneity of odds ratio was significant, and therefore, the assumptions of the Cochran-Mantel-Haenszel were not met. In light of this, separate Chi-square

tests were run for each age group (see Table 6). All tests were significant but had very small effect sizes. For the age groups under 5, female parents had a slightly higher participation rate. For the 6-12 years and 13 and up group, males had a slightly higher rate.

A conditional test of independence was attempted to determine if the relationship between parents' gender and participation in an addiction group was impacted by youngest child's age. However, the homogeneity of odds ratio was significant, and therefore, the assumptions of the Cochran-Mantel-Haenszel was not met. In light of this, separate Chi-square tests were run for each age group (see Table 6). All tests were significant but had very small effect sizes. For all of the age groups, female parents had a slightly higher participation rate.

Table 6

Results of Chi-Square for Parent Gender and Class Participation by Age of Youngest Child

Class Type	Age of Youngest Child	Weighted Sample Size	% Male Parent Participating	% Female Parent Participating	Test Stat	Df	Phi
Adjustment	2 or younger	78,852	33.4	39.7	95.01**	1	-.034
	3-5 years	110,130	36.1	45.7	264.31**	1	-.049
	6-12 years	169,005	38.9	33.1	226.02**	1	.037
	13 or older	254,051	36.8	34.7	32.66**	1	.011
Addiction	2 or younger	78,853	43.3	60.2	597.96**	1	-.087
	3-5 years	110,130	46.5	58.8	402.78**	1	-.060
	6-12 years	169,006	39.8	56.9	1937.34**	1	-.107
	13 or older	254,052	38.7	48.9	754.26**	1	-.054

Note: **indicates $p < .01$, * indicates $p < .05$

Chapter 5: Discussion

Introduction

Chapter 5 includes synopses of major findings and a discussion of implications for future research. This chapter culminates with a presentation/discussion of limitations, areas for future research, and concluding remarks.

Participation

Descriptive statistics were used to determine the frequency of participation in 12-step (aka. addiction) and cognitive behavioral intervention (CBI) (aka. adjustment) groups for incarcerated parents and incarcerated nonparents. The difference between incarcerated parents and incarcerated nonparents was significant; however, the effect size was weak. The rate of participation for prisoners without children was 2% higher in adjustment groups than it was for incarcerated parents. In contrast, the rate of participation for incarcerated parents in 12-step groups was 3% higher than non-parents. I was unable to find any other studies pertaining to participation differences between parents and non-parents in CBI or 12-step groups to use in examining the potential reasons for these findings. However, as discussed extensively below, it may be that parents are more likely to be required to participate in 12-step groups if they demonstrate any substance use issues related to their criminal behavior. Additionally, participation in addiction treatment may impact whether parents may regain custody of their children upon release from prison, which may impact participation rates.

Descriptive statistics were also used to determine the frequency of participation in 12-step and CBI groups for male and female incarcerated parents. The rate of participation in each, 12-step and CBI groups, for both male and female incarcerated parents was above 35%.

However, the survey did not inquire about previous participation in such groups. Such information might have impacted the data significantly, providing more insight.

Although small, the practical difference in participation was significant between male and female parents. Data revealed that female inmates who are parents, participated in 12-step groups more often than male parents. This, in part, may be due to the socialization of females towards relational methods of support (Crespi, 2004). 12-step groups provide support through uniting individuals with a common problem (e.g. substance abuse) in order to focus on a common solution (e.g. sobriety). Twelve-step groups encourage participants to focus on the connections they have with others, rather than the differences between one another, therefore being relational in nature.

In contrast, incarcerated male parents participated in adjustment groups at a significantly higher rate than female parents, with a small effect size. Adjustment groups are cognitive and behavioral in nature. This is consistent with male socialization, where men often find support around an activity focused outside themselves (Fournier, Geller, & Fortney, 2007). For instance, it is not uncommon for men to talk with friends while playing basketball or video games, rather than sitting and having a conversation as the focus of the activity. However, through activity men are able to address issues related to their relationships and other problems they may be experiencing.

The small practical difference in male and female participation in adjustment groups may be explained by the fact that women in prisons and those with SUDs are more likely to have experienced significant relational trauma that make relational connections potentially more threatening (James & Glaze, 2006). Additionally, this lack of participation may be compounded by the psychologically unsafe nature of doing therapeutic work on a prison unit, where

vulnerability is perceived as a weakness that may be targeted for further victimization.

Therefore, even if these women are attracted to relationally focused groups, it may feel safer to engage in a group that is focused on an external activity (e.g. workbook) being it does not put the female inmate in as much of a psychologically vulnerable position. This outcome was found in a study of female trauma survivors with SUDs who utilized a book club to increase relational connection in a half-way house (Holman, MacGilvary, Salem, & Talbot, 2019).

One potential method that combines relational and an external activity is Animal Assisted Therapy (AAT) groups with process components, which are led by therapists trained in AAT. Several previous studies using AAT process-oriented groups with females housed on a prison mental health unit indicated that this intervention was effective with a medium to large effect sizes for improving PTSD, anxiety, and depressive symptomology among women with SUDs and past relational trauma (Holman, Ellmo, Wilkerson, & Johnson, 2020; Holman, Wilkerson, Ellmo, & Skirius, 2019). This type of treatment allows participants to learn, grow, and heal while their main focus is on something external (e.g. the dog). It is the externalization aspect that makes the process seem safe, thus allowing participants to progress in their rehabilitation.

Similarly, several studies have shown Animal Assisted Therapy (AAT) to be successful when treating incarcerated males, for this reason. This is consistent with the interpretation of why adjustment groups may be more attractive to male participants in prison settings (Britton & Button, 2005; Chandler, 2006). Consequently, this type of group (AAT) may also be an effective ‘adjustment group’ to consider in programming on male units. Further, based on my findings, when developing programming on male units, resources may be better utilized for adjustment groups like AAT, among others.

Although gender socialization may be the reason for the differences demonstrated, there are other potential explanations, which should be further explored through future research. Some explanations that I am unable to examine, due to limitations in data collection methods, are whether the groups were offered on all units surveyed, whether the groups were mandated for some participants, or whether there were incentives for participation, such as potential shortening of date-to-release. Another potential limitation is that I could find no other studies examining similarities or differences between male and female parents who were incarcerated.

Motivation

In addition to examining rates of participation, this study examined the inmates' motivation for participation in each group type by gender and parental status. When interpreting the data, it is important we consider that inmates could only choose one reason for participation within the PIAAC Prison study. Therefore, they may have had multiple reasons for participation, which I am unable to determine from the data collected. Additionally, inmates were only allowed to choose male or female gender; therefore, non-binary gender was not an option. Further research may want to explore motivation for group participation utilizing a more comprehensive array of variables.

When examining reasons for participating in 12-step and CBI groups, both parents (12-step = 77.2% and CBI = 69.4%) and non-parents (12-step = 62.9% and CBI = 62.1%) cited 'self-improvement' as their primary reason for participating; however, the practical difference between these was small. Similarly, 'self-improvement' was the most cited reason for participation in both CBI and 12-step groups for male parents (12-step = 77.4% and CBI = 69.5%) and female parents (12-step = 74.5% and CBI = 68.1%). While interpreting this data, it is important to consider potential for social desirability in response bias. Inmates may wish to

appear as though they are choosing to better themselves to be perceived by the interviewer in a more positive light. Additionally, when prisoners attend parole hearings, it is common that they may receive a more favorable outcome if they have evidence of participation in addiction or adjustment groups. Parole board members may perceive voluntary participation in these groups more favorably because these groups are likely to focus on improvements in behavior that the parole board is targeting in determining readiness for release.

‘Required’ was the second most cited reason for participation for all groups. However, for addiction groups, parents (15.3%) cited ‘required’ as the reason for participation at less than half the rate of non-parents (33.3%), while the rates for parents and non-parents for attendance in adjustment groups (CBI) was relatively even (parents = 20.0%; non-parents = 25.8%). These data seem counter-intuitive because it shows that non-parents are more likely to have mandated addiction treatment than parents, although the rates of addiction do not differ significantly between these groups.

It is possible that parents may not claim to have addictions because they may fear that addiction would interfere with their ability to re-gain custody of their children upon release. This would be supported by a recent publication discussing Angela Davis’ work as a political activist, academician, and philosopher, that among mothers with addictions, “Seizing [children from parents] is more likely to happen if women admit to drug problems, seeking rehabilitation” (Schenwar, 2014, p. 95). She continues, “[the mother’s] admissions are used as evidence of their incapacity to be good mothers” (Schenwar, 2014, p. 95). If this attribution is correct, future researchers should examine potential systemic biases that drive such mandates.

Interestingly, however, female parents (12-step = 14.7% and CBI = 19.8%) cited ‘required’ at higher rates than male parents (12-step = 21.6% and CBI = 23.2%) for both

addiction (12-step) and adjustment (CBI) groups. Therefore, taken together, the data indicates that male parents are less likely to be mandated to addiction groups than both male and female non-parents, and male parents are also less likely to be mandated to either addiction or adjustment groups than female parents. This results in males who are parents having some of the lowest rates of mandated treatment among prisoners. This is significant when considering the Bureau of Justice Statistics (BJS) indicates there were, on average, over 1,000 males and only 81 females sentenced to prison per 100,000 residents between 2007-2017 (Bronson & Carson, 2019). However, BJS also indicates that only 14% of male prisoners had mental health diagnoses compared to 20.5% of female inmates (Bronson & Berzofsky, 2017). Therefore, female inmates are diagnosed with mental illnesses more often than male inmates. If they, in fact, have more mental health problems, it may make sense that they would be mandated for treatment more often. Nevertheless, this does not explain the reasons for incarcerated male parents being mandated to treatment less often than incarcerated male or female non-parents.

It may be that there is systemic gender bias influencing mandated treatment. Traditional gender roles indicate that 'parenting' is primarily a female duty, not a male duty, (Katz-Wise, Priess, & Hyde, 2010) which would explain why male parents are mandated for treatment less often than female parents or non-parents. Additionally, women are more likely to be socialized to disclose psychological distress than males and therefore be diagnosed with a mental health disorder more often than men (WHO, 2020). Furthermore, men who disclose psychological distress in a prison setting may be discounted as malingering, therefore not receive diagnoses they may actually have. The lack of a diagnosis may impact whether or not they receive treatment for mental/behavioral health issues. Another consideration is that females are

pathologized more often than men, even being given mental health diagnoses when they have other medical problems.

One implication is that male parents may be underrepresented in treatment groups if they are not being mandated for treatment. This should be further explored by future research. Additionally, researchers should examine any potential systemic gender biases that may impact access to treatment for both males and females, whether they are parents or not, particularly as related to diagnosing mental illness in prisons and mandating treatment in prison settings. Furthermore, an implication for practice for working with the ‘required’ group participants, clinicians may need more training in motivational interviewing. This could allow them to better facilitate groups with individuals who are mandated, thus likely to resistant to change.

Participation and Age of Youngest Child

When examining parental participation and age of their children, females demonstrated significantly higher rates of participation in addiction groups regardless of the age of their children. However, these effect sizes were small, indicating little practical difference between groups. One potential explanation is that mothers are more likely to be the primary guardian for children, and addiction treatment is more often required for women to maintain custody. This relates to the potential gender bias discussed above. Additionally, if women are more likely to have children removed from their custody when they have an addiction problem, then they may be more likely to have mandated treatment in order to regain custody.

Mothers with children under age five were slightly more likely to participate in adjustment groups than male parents. However, male parents participated at slightly higher rates if children were school age. When children are younger, mothers are more likely to be identified as the primary parent who provides what children need on a day-to-day basis. However, as

children get older and more independent, society is more likely to expect fathers to be more involved and responsible in parenting tasks. Although these were significant differences, they also demonstrated small effect sizes.

The data collected in this study was limited. If the Program of International Assessment of Adult Competencies (PIAAC) prison study explored more variables, then it would provide more context for us to make sense of the data. For instance, it may have been helpful if the data gathered included children's gender, the total number of children, who is the primary guardian, and the age of the prisoner when the first child was born. Each of these variables could potentially explain differences between groups with more nuance. Therefore, future research should explore these additional variables to improve our understanding of these phenomena.

Limitations

As discussed above, a number of limitations exist in the study. To begin, self-report data has been shown to be impacted by a social desirability to be liked (Holden & Passey, 2006). With this, it is possible that inmates may have not been truthful in their responses about their motivation to participate in groups. Moreover, a disadvantage of working with the incarcerated population is the lack of trust on the part of the inmate. It is unknown if rapport had been established prior to investigation. Creating a relationship beforehand might have allowed inmates to be more transparent in their responses.

There were multiple constraints in the data collection methods. First, it is impossible to determine whether the groups in question were accessible on all of the units surveyed. While most prisons offer CBI and 12-step groups, I have no idea what groups were available to whom. For this reason, it is impossible to conclude if 'no' was selected for participation due to a lack of availability or if the inmate did not have a desire to engage in the groups. Second, it is unknown

if the groups were sanctioned for some participants, and if so, by whom, or if incentives were offered for participation. Third, the background questionnaire only asked about current participation in groups, omitting those who had partaken in them previously. This likely impacted the attendance numbers by underrepresentation. Next, inmates were limited to selecting only one option as their motivation to participate. This impeded the ability of individuals to adequately express reasons when more than one existed.

Another limitation is that there seems to be a lack of prison culture knowledge on behalf of those who created the Prison Background Questionnaire. Had they known more about the environment, they may have thought to ask about things such as the type of crimes committed, the number of times an inmate had been incarcerated, and the expected date of release, to name a few. Furthermore, I could not locate any reliability or validity information pertaining to the background questionnaire.

Lastly, I could find no other studies examining similarities or differences between male and female parents who were incarcerated, specifically, as it relates to group participation rates and motivation to seek treatment. This limits the understanding of these populations as a whole and interferes with the ability to make sense of the results. Despite these shortcomings, this study provides important information.

Implications for Practice

The results of this study showed lack of participation on behalf of male parents. One implication is that male parents may be underrepresented in treatment groups if they are not being mandated for treatment. With this, male parents may need to be sanctioned in order to increase their involvement.

Due to the high number of inmates who cited ‘required’ as their motivation to participate, clinician may need more training in Motivational Interviewing (MI). Using these skills when working with mandated participants may help with advancement through the stages of change. This, in turn, might compel a person who, at first, did not want to change their behavior to view modification from a positive perspective.

Results of this study showed that incarcerated parents participated in 12-step and CBI groups at a rate of 40% or below. These numbers, while not alarmingly low, might positively benefit the children of inmates as well as society if more inmates who are parents were involved. Finding methods to specifically market to this population might impact involvement and increase this rate.

As previously discussed, developing a relationship with inmates prior to collection of information may be necessary. Because the number of inmates who have experienced trauma in their past is so high, their ability to trust may be fractured. Therefore, without a relationship where rapport has been established, honest responses might not be procured.

Lastly, it may be beneficial to add more opportunities for relational groups with an external focus. Due to the number of inmates with a history of trauma, the fear of vulnerability may keep them from pursuing involvement in a group that could foster connection, such as a 12-step group. By offering relational groups with an external focus, progress might be made in fostering safe connections by allowing them to occur in a more organic manner.

Implications for Future Research

There are numerous indications for future research, specifically as it relates to the counseling profession. It is important to examine any potential systemic gender biases that may impact access to treatment for incarcerated individuals, regardless of gender or parental status.

Particularly, as related to diagnosing mental illness and mandating treatment in prison settings. Moreover, while differences in male and female participation in groups type might be due to gender socialization, other potential explanations exist and should be further explored.

As previously mentioned, further research may want to explore motivation for group participation utilizing a more thorough collection of variables. Allowing for a more individualized response might contribute to a more comprehensive understanding. Furthermore, aspects such as availability and access of groups, as well as any potential incentives for participation could illuminate underlying factors that are not accessible through current data collection methods.

Future research may benefit from investigating additional information about the children of incarcerated parents. Aspects such as age, gender, and who their primary guardian is could be telling. It may also be helpful to gather data on the age of the prisoner at the birth of the first child, total number of children, and future custody prospects. Additionally, prospective research could profit from use of the Adverse Childhood Experiences (ACE) Questionnaire. The resulting ACE score, as well as investigation into inmate history of mental illness and substance use disorder, might explain differences between groups with more distinction.

Researcher's should explore the specifics of criminal involvement. Investigating elements such as duration of time spent in prison, number of times inmate has been incarcerated, and expected release date could be enlightening. Moreover, differentiation between types of crimes could provide valuable information. For example, if the is crime instrumental, such as theft, assault, or robbery, or if the crime is expressive in nature, such as interpersonal violence, including child abuse (James & Gilliland, 2017). Information such as this would allow for a

better understanding of the population and their needs, allowing for creation of groups focused on specific areas of concern.

Finally, examination into the geographic location of the prison might enable a better understanding of the data. For example, knowing if a prison is located in the bible belt might allow us to make more sense of specific aspects of the prison culture as well as the inmates and their behavior. All of these research ideas could provide a greater awareness of the incarcerated population, which would allow for better marketing of groups within the prison system.

Conclusion

This study highlights the relationship between parenthood and the participation and motivation to seek treatment for substance use disorder treatment for incarcerated male and female inmates. Moreover, it highlights the lack of literature on the subject and the need for further research in the area. The results of this study are important when considering the impact of parental incarceration on children in society and the need for successful interventions. Lastly, the results of this study indicate the Program for the International Assessment of Adult Competencies (PIAAC) Prison Study Background Questionnaire is not adequate in providing the information necessary to comprehend the fundamental aspects of incarcerated parent's motivation to seeking treatment for addiction and adjustment issues.

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Appendix

Institutional Review Board
Division of Research and Innovation
Office of Research Compliance
University of Memphis
315 Admin Bldg
Memphis, TN 38152-3370

April 7, 2020

PI Name: Shelly Wilkerson
Co-Investigators:
Advisor and/or Co-PI: Leigh Holman
Submission Type: Admin Withdrawal
Title: The Impact of Parenting on Substance Use Disorder Treatment and Motivation in
Incarcerated Offenders
IRB ID: PRO-FY2020-284

From the information provided on your determination review request for “The Impact of Parenting on Substance Use Disorder Treatment and Motivation in Incarcerated Offenders”, the IRB has determined that your activity does not meet the Office of Human Subjects Research Protections definition of human subjects research and 45 CFR part 46 does not apply.

This study does not require IRB approval nor review. Your determination will be administratively withdrawn from Cayuse IRB and you will receive an email similar to this correspondence from irb@memphis.edu. This submission will be archived in Cayuse IRB.

Thanks,

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