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Effects of Foster Care Placement with Kin or Nonkin on Opiate Abuse and Criminality

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Walden University
2025

Abstract

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MA, Liberty University, 2011

BA, Cleveland State University, 2001

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Forensic Psychology

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Abstract

Opioid abuse has remained a public health crisis with far-reaching economic and social consequences that include costs associated with healthcare and increased foster care placements. Children placed into foster care are at risk themselves for opioid use and delinquency. The purpose of this quantitative research was to explore the causal-comparative relationship between foster care placement with kin (family) or nonkin (nonfamily) and its impacts on opiate abuse and criminal behavior. The Attachment Theory guided this study. Data were collected using a web-based, retrospective survey distributed at behavioral health agencies in Northeast Ohio, social media platforms, and Centiment, an online survey service. The final sample size included 151 adults who were in foster care as children or adolescents. Participants completed a survey that used items from the Adolescent Drug Use Measure and the Delinquency Scale to measure substance use and delinquent behavior. Data were analyzed using SPSS, and Multivariate Analysis of Covariance (MANOVA) was applied to assess group differences. The results were not statistically significant; however, large effect sizes of the group differences suggest potentially meaningful patterns. These findings may support the value of kinship care in promoting emotional stability and reducing long-term risks for foster care youth, such as substance abuse and delinquency. Policies that support attachment can shape practices that protect children and ultimately save lives.

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Dedication

I dedicate this research to the clients I service, who have experienced the foster care system falling victim to substance use. I also dedicate this research study to my co-workers who have helped treat the disease of addiction. I thank all my family and friends that have encouraged me to stay the course when trying to balance work life with academic studies as it grew difficult. To my loving, immediate family, who understood my quest, I say thank you as there may have been times that I could not attend events due to my pursuit of my academic goal. If it were not for all of you, I would not have been able to achieve this academic goal, thank you.

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I first and foremost would like to thank God for keeping me motivated and gifting me with passion and compassion to do the work of servicing those with mental health and addiction problems. Without God, this could not have been achieved. I would also like to give thanks to my dissertation chair, Dr. Jerrod Brown and my committee member, Dr Jessica Hart, for their knowledge, guidance, and expertise throughout this process. In addition, much thanks to my colleagues who provided me feedback and encouraged me to keep going when I felt discouraged and supported me through this journey. I am very appreciative to you all for your patience and support of my dissertation.

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Chapter 1: Introduction to the Study

Opiate abuse is a serious problem in the United States today, with over two million people diagnosed with substance abuse disorders (Dolbin-MacNab & O'Connell, 2021). It is not only a problem in the United States but also worldwide. I sought to gain insights regarding potential risk factors that may contribute to the problem of opiate abuse. Foster care youth are at increased risk for substance abuse and delinquency. Abuse of substances is correlated with mental health issues, school dropout rates, and criminal behaviors (Siegel et al., 2016). It is important to address factors that contribute to abuse of opiates so lives can be saved and children who have been placed into foster care systems can have better outcomes. Findings in this study help identify possible tailored interventions for foster care youth who are placed with kin or nonkin and are at risk for opiate abuse and delinquency.

Chapter 1 includes the background of the study, problem statement, purpose of the study, research questions and hypotheses, theoretical framework, nature of the study, definitions, assumptions, scope and delimitations, limitations, significance, and a concluding summary. I summarize the topic and gap in knowledge as well as research problems and evidence.

Background

In 2018, there were over 437,000 children in the foster care system (U.S. Department of Health and Human Services, Administration for Children and Families [ACF], 2019). Without help, these youths are at increased risk for substance abuse. Over 40% of these youths will abuse substances, while another 20% will develop substance use

disorders (Pittenger et al., 2018). Youth involved with foster care systems are four to seven times more likely to abuse alcohol and other illicit drugs (von Borczyskowski et al., 2013). Braciszewski and Stout (2012) reported lifetime use of opiates and other illicit drugs is more prevalent among children who have been involved in the foster care system compared to those who have not. According to Kim et al. (2017), substance abuse contributes to adverse behaviors such as risky sexual behaviors, teen pregnancy, and school dropout. As youth age out of foster care without some plan, they are at even greater risk. Gypen et al. (2017) found older youth who were aging out of foster care continued to struggle with health issues, homelessness, unemployment, substance abuse, and criminal justice involvement when compared to peers who were not involved with the foster care system. Youth who are involved in foster care systems are more likely to have adverse outcomes and more criminal behaviors (Yang et al., 2017). Youth in foster care begin offending at younger ages, spent more time in detainment, and commit more offenses.

Substance abuse and criminal behavior appear to be influenced by family, peers, schools, and communities. Caregivers and other significant adults can provide protection against these adverse behaviors (Pittenger et al., 2018). For this reason, when children are removed from home, placements with family members are the best option as children are placed in familiar environments and with familiar people. Kinship care lowers behavioral problems (Qi Wu et al., 2015). Foster care agencies thus look for family placement before turning to nonfamily placement. Smyke et al. (2002) stated disturbances involving attachment are common among foster care youth. This is because attachment disorders

are linked with quality of attachment (Schröder et al., 2019). Disturbances involving social attachment influence ambivalence and disproportionate inhibition (Horner, 2019). Trauma experiences can disrupt secure attachment (Gardenhire et al., 2019). Trauma can include neglect and inadequate caregiving (Schröder et al., 2019). Children who are in the foster care system tend to have a higher prevalence of physical and mental health concerns. Foster care youth reportedly are 10 times more likely to have mental health diagnoses, and approximately one-third have chronic medical conditions (Gardenhire et al., 2019). Horner (2019) stated approximately 45% of children in foster care have mental disorders that are associated with attachment disorders. Supportive relationships for these youth are an antidote to insecure attachment, as these relationships promote resilience (Joseph et al., 2014).

Previous literature has focused on adverse outcomes of foster care youth, including use and abuse of substances and delinquency or criminal behaviors. In addition, kinship care versus non-family care and positive outcomes involving placement with families have been studied. However, there is minimal empirical evidence regarding opiate abuse and delinquency among foster care youth who are placed with kin versus nonkin. Thus, the purpose of the study was to fill a gap in literature relating to placement of foster care youth and subsequent outcomes involving opiate abuse and delinquency.

Problem Statement

Opiate abuse has become a significant public health concern and has reached epidemic status. In 2017, the U.S. Department of Health and Human Services (DHHS) declared the opioid crisis a public health emergency. This issue has become problematic

not only in the United States but globally (National Institute on Drug Abuse [NIDA], 2014). To date, the problem of opiate abuse remains formidable, as fatalities continue to rise. According to the Centers for Disease Control and Prevention (CDC, 2024), 107,941 people overdosed in 2022, with 76% of those deaths (approximately 82,000) involving opioids.

Deaths due to opiate abuse alone warrant serious concern; however, the consequences extend far beyond individual health. In the United States, the social and economic costs of opioid abuse have escalated dramatically over the past decade. Murphy and Polsky (2016) previously estimated these costs to be approximately $92 billion annually—about $280 per person—reflecting a 67% increase at that time. However, more recent estimates suggest a significantly more severe economic burden. According to Avalere Health (2025), the total cost of opioid use disorder (OUD) in the U.S. reached approximately $3.8 trillion in 2024, including over $2.8 trillion in intangible expenses such as lost quality of life, premature death, and long-term health consequences. Private businesses lost over $28 billion in productivity and health insurance costs, while the federal government incurred an additional $118 billion related to Medicare, criminal justice, and lost tax revenue (Avalere Health, 2025). State-level data reveal similar patterns of economic strain. In Ohio, the average cost of an opioid use disorder (OUD) case was estimated at $1,027,203, one of the highest in the nation, reflecting the severity of the opioid crisis in this region and underscoring the urgency of addressing these issues through prevention and recovery services (Becker’s Behavioral Health, 2025). These findings align with other government analyses showing the economic toll of opioid

misuse ranged from $1.02 trillion in 2017 (CDC, 2021), to $1.5 trillion in 2020 (Joint Economic Committee, 2022), and as high as $2.7 trillion in 2023 when factoring in death, lost quality of life, and related costs (White House Council of Economic Advisers, 2025). These data underscore the profound national and state-level burden of the opioid crisis and reinforce the critical need for prevention, treatment, and policy reform.

Beyond economic costs, the human toll of the opioid epidemic continues to escalate. According to the Centers for Disease Control and Prevention (CDC, 2023a), nearly 108,000 people died from drug overdoses in 2022, with approximately 82,000 of those deaths involving opioids, about ten times the number recorded in 1999. Synthetic opioids, particularly illicitly manufactured fentanyl, and its analogs have driven much of this surge. In 2022, 68% of opioid-related deaths involved fentanyl or fentanyl analogs (CDC, 2024). The CDC (2020) also estimates that approximately 130 people die each day from opioid abuse. While heroin was once a leading cause of opioid fatalities, claiming over 15,482 lives in 2017 (CDC, 2019), that number decreased to approximately 5,900 deaths in 2022 (CDC, 2024), representing about five percent of all drug overdose deaths and seven percent of opioid-related deaths. The age-adjusted rate of overdose deaths due to drugs nearly quadrupled from 8.2 per 100,000 in 2002 to 32.6 in 2022 (CDC, 2023d). However, provisional data from 2023 showed a three percent decrease in fatal overdoses, marking a rare decline amid decades of increasing drug deaths, though experts caution it is too early to determine if this is a lasting trend (Associated Press, 2024). These findings reinforce the urgent need for comprehensive and sustained

prevention, treatment, and recovery efforts, particularly in high-risk regions such as Northeast Ohio.

It is important to note that adolescents are increasingly the fastest-growing population that is abusing opiates and remain a high-risk population in the ongoing opioid crisis. In 2023, 3.6% of youth aged 12 to 17 reported misusing opioids, equating to approximately 894,000 individuals (Substance Abuse and Mental Health Services Administration [SAMHSA], 2024). Although earlier reports estimated over 4,000 adolescent overdose deaths in 2015, CDC data indicate that 772 adolescents aged 15 to 19 died from drug overdoses that year, with most deaths classified as unintentional (CDC, 2017). More recent trends show a significant escalation. Between mid-2019 and the end of 2021, monthly overdose deaths among youth aged 10 to 19 increased by 109%, with deaths involving illicitly manufactured fentanyl (IMFs) rising by 182% (CDC, 2022). Nearly 90% of all adolescent overdose deaths during this period involved opioids, and 84% specifically involved IMFs. By 2022, an average of 22 high school–aged adolescents died from drug overdoses each week in the U.S., with a death rate of 5.2 per 100,000, primarily driven by counterfeit pills laced with fentanyl (UCLA Health, 2024). These alarming figures highlight the urgent need for youth-focused prevention strategies, early intervention, and community education.

Fatalities are by far the most serious consequence stemming from the opiate epidemic. Even so, there are social consequences that precede — if addressed early — may be able to preserve life. One of the many consequences is having to place children into the foster care system. Parental substance use has long contributed to child welfare

involvement, but the opioid crisis has intensified this concern in recent years. According to the data from the Adoption and Foster Care Analysis and Reporting System (AFCARS), in 2022, parental drug abuse was identified as the reason for removal in 33% of foster care placements. This reflects a significant increase from just 15% in 2000, underscoring the expanding influence of opioid misuse on child and family outcomes (U.S. Department of Health and Human Services [USDHHS], 2023). With that being identified, being placed into the foster care system increases a child's risk for early-onset substance abuse compared to children who are not placed into the system (Siegel et al., 2016). Radenhausen et al. (2024) identified that 49% of youth in foster care reported substance use, compared to a lower rate among youth not involved in foster care. They also found that 34% of foster care youth used substances other than alcohol in the past year, compared to 18.1% of their non-foster care peers.

Previous literature suggests foster care children, having already experienced many adversities, also experience more distress compared to that of the general population of children, leading them to self-medicate with substances (Brook et al., 2015; Kim & Leve, 2011). In turn, the abuse of substances by these youth has been associated with adverse outcomes like addiction, mental health issues, school dropout, and criminal behavior (Siegel et al., 2016). Substance abuse among youth, particularly, increases the likelihood of criminal behavior and becoming repeat offenders (Walter, 2014).

For this reason, it is important to learn and understand factors that contribute to substance abuse, as drug use is associated with adverse outcomes related to physical and mental health and criminality (Fette, 2013). More importantly, it is important to

understand factors that are related to opiate abuse because adults and adolescents are dying from its abuse. Thus, the social implications of the present study on opiate abuse among youth in foster care are significant, as the findings help to identify possible effective prevention and intervention strategies that have the potential to alter the life trajectories of these vulnerable individuals.

Purpose of the Study

The purpose of this quantitative research study was to explore effects of foster care placement with kin or nonkin on opiate abuse and criminal behaviors or delinquency. This study was conducted to help fill a gap in literature on factors that influenced opiate abuse and subsequent criminal behaviors among foster care youth who have been placed with family members versus nonfamily members.

Research Questions and Hypotheses

In this study, I used the following research questions:

RQ1: Are significant differences in terms of opiate abuse evident between foster care youth who are placed with kin versus nonkin?

RQ2: Are significant differences in terms of criminal behavior evident between foster care youth who are placed with kin versus nonkin?

RQ3: Are significant differences in terms of opiate abuse and criminal behavior evident between foster care youth placed with kin versus nonkin?

Theoretical Framework for the Study

The theoretical framework for this study was Bowlby's attachment theory. Bowlby (1969) researched childhood behavioral attachment patterns to their caregivers

when they were left by and reunited with their parents after placing them in unfamiliar circumstances. Bowlby's (1969) hypothesis was that children would either cry, scream, or show other behaviors when they were physically separated from a parent or engage in these behaviors to avoid being separated from a parent. Bowlby further hypothesized that a continuous threat felt by children would activate the "attachment system," which later Mary Ainsworth (1978) expanded upon in her "Strange Situation" experiment. (Juang et al., 2018). The attachment system is significant as Bowlby (1969) believed that this system is responsible for our patterns when forming and maintaining a relationship (Fraley, 2010).

The attachment system thereby answers this one question for infants: "Is my caregiver nearby?" If the answer to this question is yes, then the child is more likely to feel a sense of being loved and feels more secure to explore their environment. If the answer to this question is no, then anxiety is experienced by the infant setting off attachment behaviors described above until the infant is comforted by being near the caregiver or until the child wears out (Fraley, 2018). So, it is the hypothesis of Bowlby (1969) that children need to form both physical and psychological bonds with caregivers to sustain them during their childhood (Juang et al., 2018). Bowlby's (1988) work emphasized that forming a secure bond with a primary caregiver is vital in shaping a child's emotional development throughout their life (Khadka, 2025).

Despite Bowlby believing in the basic premise above, he also believed that there might be differences in children's appraisal of their caregiver and the regulation of their attachment behavior when threats arise (Fraley, 2018). However, it was not until

Ainsworth's (1978) research in the Strange Situation that the understanding of these differences became apparent. Ainsworth's (1978) work demonstrated the importance of secure attachment, identifying that having secure attachment enables children to have comfort, which helps manage distress. This is because they feel safe during a time when they also feel vulnerable (Pallini et al., 2018). Children with insecure attachment styles are more likely to have social and behavioral problems (Ainsworth, 1978).

Bowlby's (1969) and Ainsworth's (1978) studies on attachment provide some evidence that attachment with one's caregiver is important as it affects a child's cognitive, emotional, physical, and social development (Garcia-Quiroga & Hamilton-Giachritsis, 2016). Therefore, removing children from their biological families and placing them into foster care may influence changes in their attachment patterns that may subsequently initiate participation in risky behaviors such as substance abuse, setting off a chain reaction to adverse behaviors and events (Schindler & Broning, 2015). For this study, the researcher hypothesized that foster care children who are placed with family would have lower rates of opiate abuse and criminal behavior due to the assumption that they are more likely to have secure attachments compared to children who are not placed with family. This assumption is because of the Attachment Theory (Bowlby, 1969), which will be described in more detail in Chapter 2.

Nature of the Study

The current study was quantitative, examining a causal-comparative relationship between the variables of foster care placement with either kin or nonkin and the outcome variables of opiate abuse and criminality. Creswell (2014) identified that quantitative

research serves best when the researcher wants to identify factors that influence outcomes, and this was the nature of this research study. A cross-sectional design was utilized in this study to assess whether youth placed with kin versus nonkin caregivers differed in their experiences of opiate use and delinquent behavior. This design allowed for the analysis of associations between variables based on data collected at one specific point in time, without manipulating any conditions or following participants longitudinally. The data was analyzed using a multivariate analysis of covariance (MANOVA). This type of analysis is best when identifying differences between groups on two or more dependent variables (Warner, 2013). Foster care placement with kin or nonkin was the independent variable in this study. This variable was measured at a nominal level. There were two dependent variables, opiate abuse and delinquency (criminality), measured at a continuous level.

The data for this research study was collected from adults who were placed into the foster care system with either family or non-family as a child or youth. Data was collected by a questionnaire designed by the researcher, capturing demographic information on current age, age placed into foster care, length of time in foster care, and placement type with either family or nonfamily. Other information that was also collected for purposes of research were the abuse of opiates or other substances and criminal or delinquent behavior, including any misdemeanor or felony arrests and/or convictions. This information was collected by a survey created by the researcher. In addition, validated surveys for substance use and delinquency were used. The data was collected from adults aged 18 and over. The participants were recruited by flyers placed in

treatment facilities and on social media platforms. Also, participants were invited to complete the survey through Centiment, a platform that targets audiences. To gain access to treatment centers, the researcher contacted clinical and executive director of treatment programs to discuss the study and obtain permission to post flyers.

Definitions

Criminality: Quality or state of being criminal by committing offenses that violate criminal codes (Bartol & Bartol, 2014).

*Delinquenc*y: Crimes committed by youth who have not yet reached the age of criminal responsibility, which is usually 18. Behaviors include substance abuse, truancy, running away, and sexual behaviors (Young et al., 2017).

Foster Care: Temporary placement for children provided by states within the U.S. for children who cannot live with their biological parents. Placement can be with either relatives or non-relatives the state has licensed to provide care and shelter (Child Welfare Information Gateway, 2020).

Foster care youth: Children from birth to 18 and in some cases 21 who are placed into the foster care system (Child Welfare Information Gateway, 2020). A foster child is placed by a government agency or court in the care of someone other than their natural and biological parents (Cornell Law School, n.d.).

Kinship Care: Care of children by relatives (Child Welfare Information Gateway, 2020).

Opiate Abuse: Chronic use of any opioids, including illicit use of heroin, synthetic opioids such as fentanyl, or prescription opioids such as oxycontin or hydrocodone (National Institute of Drug Abuse, 2020).

Assumptions

In this study, I assumed participants were honest when completing surveys and foster care children who were placed with families are more likely to have secure attachments compared to children who are not placed with kin.

Scope and Delimitations

I focused solely on foster care children who were placed either with family members (kinship care) or with non-family caregivers (nonkin foster care). Youth placed in group homes, residential treatment centers, or institutional settings were excluded, as the nature of these placements differs significantly in terms of caregiver-child attachment opportunities and stability. Participants were recruited from treatment agencies in Northeast Ohio and selected based on convenience and access for recruitment purposes. As a result, the findings may not be generalizable to youth in other geographic regions or care systems. The study included adults who were willing to complete a self-report survey. Data was collected via Likert-type questionnaires, and the study did not incorporate observational assessments, caregiver interviews, or official case records. Attachment classification was not directly measured, and behavioral outcomes were based on self-reported delinquency and opiate use, which may be influenced by recall bias or social desirability. These choices were made to keep the study focused, feasible,

and aligned with the research goals, though they limit the scope of conclusions that can be drawn.

Limitations

This study had several limitations that should be considered when interpreting the results. The sample was drawn from treatment agencies in Northeast Ohio using convenience sampling, which limits how broadly the findings can be applied. The response rate was lower than anticipated, and the data collection period took longer than expected. This may have occurred due to participants not being comfortable enough to reveal histories of substance abuse and criminal behavior. In the beginning, poor participation may have also occurred due to possible negative memories that this study may have triggered. In addition, since the study relied solely on participants' accounts, the accuracy of the data may have been affected by memory gaps, hesitation to disclose, or individual interpretation of the questions. The study relied entirely on self-report measures, which can introduce bias and affect the reliability of the data (Podsakoff et al., 2003). Gender information was also not collected, which may have limited the ability to identify important subgroup differences. Although the research was grounded in attachment theory, no direct measurement of attachment was included.

Another limitation of the current study related to internal and external validity. This was due to other possible factors or variables that may have contributed to delinquency and substance abuse other than the chosen variable of foster care placement with family or non-family. Other potentially confounding variables, such as trauma history, age at placement, length of time in care, or mental health diagnoses, were not

controlled for and may have influenced outcomes. To address the limitations of this study, future research should take several important steps. Using random sampling from a wider range of locations would help make the results more generalizable. Collecting and including more detailed demographic information—like gender, age at placement, and time in care—would allow for better subgroup comparisons. Future studies should also try to account for other factors that may affect outcomes, such as trauma history or mental health issues. Since this study was based on Attachment Theory (Bowlby, 1969), it would be helpful to include a tool that measures attachment directly. Lastly, using a long-term or mixed-methods approach could provide a deeper understanding of how foster placement affects youth over time. These limitations are discussed further and in greater detail in Chapter 5.

Significance

The current study contributed meaningfully to the existing body of literature by addressing a gap in understanding how placement type, specifically kinship care versus nonkin foster care, relates to behavioral outcomes such as opiate use and delinquency among foster youth. Although previous studies have explored broad outcomes of foster care, few have directly examined the role of placement type in connection with substance use and criminal behavior. By focusing on these variables, the current study helps clarify and provide context to whether children placed with relatives experience more stable outcomes than those placed with non-family caregivers.

The current study's findings provided insight into how early caregiving relationships, particularly within the foster care context, may shape long-term behavioral

outcomes. In the absence of statistically significant findings for the combined outcomes, the observed differences between the two groups (kin and nonkin) suggest that placement decisions could have lasting implications for youth at risk of engaging in substance use or delinquency. Understanding these associations is critical, especially considering that youth aging out of the foster care system are disproportionately vulnerable to adverse life outcomes, including addiction, unemployment, homelessness, and justice system involvement (Braciszewski & Stout, 2012).

This research also carries practical implications. By identifying whether certain types of placements are associated with reduced behavioral risks, the study informs policymakers, child welfare professionals, and mental health practitioners about the importance of placement stability and emotional support in care settings. Therefore, the findings of this current study may be used to develop intervention programs that address the emotional and relational needs of foster youth, ultimately aiming to reduce long-term behavioral issues and promote resilience in this high-risk population.

Summary

Opiate abuse has become a significant concern and epidemic that has yielded both social and economic consequences. The most significant consequence of opiate abuse is death. Substance abuse also has social consequences, such as delinquency and criminal behavior. Adolescents are the fastest-growing population of increased opiate abuse. This quantitative study explored the differences between opiate abuse and criminal behavior or delinquency among foster care youth that was placed with either family or nonfamily. The research was based on Bowlby's (1969) Attachment Theory, in which children

developed secure or insecure attachment patterns when placed in an uncomfortable situation of being left alone by their parents. Literature suggests that children who are placed into foster care are at increased risk for adverse outcomes such as substance abuse and criminality. It was hypothesized that children who were placed with family would have less opiate abuse and delinquency compared to children who were placed with nonfamily. The social implications of the study and outcome can help create intervention programs geared toward foster care youth placed with family or non-family. The next chapter identifies the literature review strategy, theoretical foundation, and outline of current literature that is related to the key variables (foster care placement with kin or nonkin and opiate use, delinquency, or criminal behavior.

Chapter 2: Literature Review

Opioid abuse remains a public health crisis with far-reaching consequences for individuals, families, and society. In 2017, more than 15,482 deaths were attributed to heroin (CDC, 2018), and by 2018, over 70,000 people died from drug overdoses, the majority involving opioids (CDC, 2020). Although heroin has long been a predominant opioid to abuse (Somani & Meghani, 2016), synthetic opioids such as fentanyl have become the primary drivers of opioid-related fatalities. From 2017 to 2018, deaths involving synthetic opioids increased by 10% (CDC, 2020). Between June 2019 and May 2020, the United States recorded more than 81,000 overdose deaths, a record-setting 24% increase over the previous year (Strathdee, 2021). The CDC attributed this spike partly to the COVID-19 pandemic, which was declared a national emergency in March 2020 and disrupted treatment access and increased social isolation.

The NIDA also reported a rise in substance use and overdoses during the pandemic. In 2020, 93,331 opioid overdose deaths were reported (CDC, 2021), and by 2022, approximately 5,900 individuals died from heroin-related overdoses (CDC, 2024). In the same year, 82,000 opioid-related deaths were recorded, with fentanyl and its analogs accounting for 68% of those fatalities (CDC, 2024). Although a slight decline in overdose deaths occurred in 2023, health experts urge caution in terms of interpreting this trend as a meaningful reversal.

The opioid epidemic has significantly impacted adolescents. In 2015, there were 772 drug overdose deaths among individuals between 15 and 19, highlighting the severity of substance use issues within this age group (Curtin et al., 2017). From 2019 to 2020,

overdose deaths among adolescents between 14 and 18 increased by 94%, with an additional 20% rise between 2020 and 2021 (CDC, 2022). In 2023, approximately 3.6% of youth between 12 and 17, or roughly 894,000 individuals, reported opioid use (SAMHSA, 2024). By 2022, an average of 22 high school-aged adolescents were dying from overdoses each week, many of which were linked with counterfeit pills laced with fentanyl (UCLA Health, 2024).

Beyond the direct impact of youth substance use, the opioid crisis has also contributed to increased foster care placements resulting from parental substance use. Between 2013 and 2015, foster care placements rose by 7%, with 32% of cases involving parental drug use (Collier, 2018). Children in foster care are often exposed to additional trauma and instability that increase their risk for adverse developmental outcomes. These include substance use, mental health challenges, academic disruption, and involvement with the juvenile justice system (Siegel et al., 2016). Yang et al. (2017) found youth who had been in foster care tended to initiate criminal behaviors at earlier ages, spend more time incarcerated, and were more likely to offend into adulthood.

Kinship care (placement with family members) may protect against such outcomes. This type of care may offer greater psychological continuity and secure attachment, which helps buffer against risks involving substance use and delinquency (Schindler & Bröning, 2015). While extensive research has examined general risks for foster youth, there remains a lack of empirical data specifically examining how placement type (kin versus nonkin) influences opioid misuse and delinquency. Given the enormous gravity of the opioid epidemic and its intersections with the child welfare

system, I aimed to examine the relationship between foster care placement type and youth outcomes related to opiate use and delinquency. I explored whether placement with family members served as a protective factor against these outcomes. I examined whether foster youth who were placed with families experienced different outcomes related to opiate abuse and criminal behaviors when compared to youths placed with nonrelatives. Identifying pathways that increase vulnerability may support prevention and intervention efforts that are aimed at reducing fatalities and long-term social consequences.

This chapter includes an overview of literature related to opioid abuse, adolescent risk vulnerability, foster care placement, and behavioral outcomes. The chapter begins by outlining databases and search strategies that were used to locate relevant research on the topic. I then describe Bowlby's attachment theory. Secure relational bonds, particularly with emotionally responsive and consistent caregivers, help children regulate distress, develop psychological stability, and build adaptive behavioral patterns. This concept is particularly relevant when examining developmental paths of foster youth, who often experience disrupted attachments and relational instability. The chapter concludes with information from relevant empirical literature regarding placement type (kin versus nonkin), opioid use, and delinquency.

Literature Search Strategy

This study included research that was published between 1969 and 2025. Early foundational work was reviewed to establish the theoretical background. Most sources, however, were published between 2010 and 2025 and peer-reviewed. I focused on foster care placement types, substance use, and delinquent behaviors in youth. Government

reports and white papers from reliable sources like the CDC, Child Welfare Information Gateway, and Generations United were also used. The Walden University Library was used to search for current peer-reviewed articles. Older literature was used for foundational purposes and to help provide historical context. I used the following databases: ProQuest, PsycInfo, EBSCOHost, SAGE Journals, Criminal Justice, Google Scholar, and Thoreau. Keywords were: *attachment*, *drug use*, *opiate abuse*, *foster care youth outcomes*, *substance abuse and foster care youth*, *opiate abuse and foster care youth*, *opiate abuse and adolescence*, *criminality and foster care youth, attachment patterns and substance abuse,* and *attachment patterns and foster care placement*. Recent literature directly examining the relationship between foster care youth and opiate misuse was limited. To address this gap, I included studies that explored related topics such as substance use trends among foster youth more broadly, as well as research on factors influencing drug use in foster care populations. This approach was necessary to remain grounded in relevant evidence when direct sources were scarce.

Theoretical Foundation

The theoretical foundation for this research study was the attachment theory. The origin of this theory started with Bowlby's research on children's attachment patterns when they were placed in unacquainted situations and then reunified with their parents. Children need physical and psychological attachments early on. If they do not develop physical and psychological attachments with caregivers and experience distress or feel threatened, then this activates attachment systems that include either secure or insecure patterns. Ainsworth expanded on the attachment theory, concluding that children with

secure attachments can better manage distress. Bowlby revised his theory, hypothesizing emotional development of children depends on relationships they have with caregivers.

Attachment

Bowlby's (1969) stated attachment is an "enduring psychological connectedness between human beings" (p. 194). According to Bowlby, children become attached when there is "a strong disposition to seek proximity to and contact with a specific figure and to do so in certain situations, notably when frightened, tired or ill" (p. 371). Bowlby identified that the crucial time of developing attachment with caregivers (usually the mother) is from about six months to two years of age. A basic tenet of the definition and theory is that once a child experiences the security of physical closeness, they will seek exploration from the caregiver. Thus, Bowlby concluded that there are four attributes that define attachment: safe haven, secure base, proximity maintenance, and separation distress. Children turn to their caregivers for safety when they feel threatened or frightened. The caregiver also provides a secure base or foundation for children, showing them, they are reliable and can be counted on as the child is trying to explore and learn things on their own. In proximity maintenance, although the child is trying to explore the world, the child will still try to stay in the proximity of their caregiver. Finally, when a child is separated from his caregiver, this might cause separation distress, and the child may cry (Bowlby, 1969).

Attachment Styles

Mary Ainsworth expanded on Bowlby's theory, identifying three main attachment styles in her Strange Situation Study: secure, ambivalent-secure, and avoidant-secure. A

fourth attachment style, disorganized, was added later (Main & Solomon, 1990). Ainsworth (1978) believed that there is variance in child attachment. The study provided her evidence with the concept that different attachment styles varied because of early interactions between the child and the mother. Depending on how sensitive the mother was in responding to her infant when they were placed in distressing situations, the child would show a different attachment style (Ainsworth, 1978). The more sensitive a mother is to her child and responds to their needs, the more likely the child is to have a secure attachment.

In contrast, a mother who was less sensitive to their child's needs was more likely to have insecure attachment styles (Ainsworth, 1978). Mothers who were inconsistent in their responses to their children showed insecure-ambivalent attachment. If a mother was unresponsive to a child's needs, the child would develop insecure-avoidant attachment (Ainsworth, 1978). Researchers concluded from the *Strange Situation* that four behavior styles could be activated. These include exploratory, fearful, sociable, and angry/resistant behavior (Perrotta, 2020). Researchers who wanted to study attachment developed a tool called the Adult Attachment Interview (AAI). The AAI categorized the four attachment styles and was meant to assess adult attachment styles. These categories include free/autonomous, dismissing, entangled, and unresolved (Perotta, 2020). Dissection of these patterns can provide more insight into attachment and its role in relationships and thus provide the importance of this research study.

Free/Autonomous

The classification of free or autonomous is assigned when a person can "freely" evaluate their experiences and is not preoccupied with childhood negative thoughts (George et al., 2011). The securely attached person values relationships and sees them as influential (Ainsworth, 1985). Per Shaver and Hazan (1987), approximately 60% of the population have secure attachments. In another study by Mickelson, Kessler, and Shaver (1997), the distribution was about the same, with 59% showing secure attachments.

Dismissing

People are classified as dismissing when they avoid attachment in a relationship (George et al., 2011). Per Ainsworth (1985) people who are dismissive or "detached" idealize their parents or caregivers. They have conflicting models of relationships. One is the idealized perception of their relationship with their parent and one that is not consciously possible due to real childhood experiences of rejection. Per George and West (2011), people with this classification can shift their attention from distress by focusing only on accomplishment and exploration. Per Bakermans-Kranenburg and van IJzendoorn (2009), approximately 23% of the general population are avoidant.

Entangled

People who are classified as entangled are ambivalently attached. Per Ainsworth (1985), this is because their parents were only partially available. This created mixed signals and caused confusion. In the Strange Situation study by Ainsworth (1978), these children were often scared of the situation and afraid to venture out. Even so, they also did not find their caregiver very comforting. Bakermans-Kranenburg and van IJzendoorn

(2009) stated that approximately 20% of the general population have this type of attachment.

Unresolved

Individuals who are classified as unresolved have disorganized attachment (Ainsworth, 1985; Perrota, 2020). Those with this type of attachment usually have suffered some trauma and loss (Geoge et al., 2011). Per Bakermans-Kranenburg and van IJzendoorn (2009), approximately 18% of the population have unresolved disorganized attachment. Those with disorganized attachment appear to have emotion dysregulation (Ainsworth, 1978). Bowlby's (1969) Attachment theory was fundamental in providing insight into individual functioning. Ainsworth's (1978) contribution to the attachment theory provided more clarity on the importance of attachment and highlighted responses by a caregiver. Based on her work, children with a secure attachment develop "poised" working models of themselves and would likely view others as helpful and feel a sense of respect for themselves. On the other hand, children who have insecure-avoidant attachment may view themselves negatively with thoughts and feelings of unworthiness (Ainsworth, 1989). Thus, the perception is that children with insecure attachment styles are more likely to have social and behavioral problems than children with secure attachments. Both Bowlby's (1969) and Ainsworth's (1978) work on attachment highlights that early experiences with caregivers set the tone and stage for later experiences. Bowlby's (1969) Attachment Theory describes the importance of establishing a secure base to which one turns in times of distress (Hiebler-Ragger & Unterrainer, 2019).

Foster Care

Foster care was implemented to protect children from unsafe or unhealthy situations in their home environments, often involving abuse or neglect. Before a child is removed from their primary home, child welfare services are mandated to make reasonable efforts to provide support services to preserve the family unit (Child Welfare Information Gateway, 2019). If concerns persist despite the provision of services, the court may approve a motion to remove the child and place them into foster care. Placement options may include relatives, non-relatives, or group homes. When a child is placed with a family member, it is referred to as "kinship care" (Child Welfare Information Gateway, 2019).

Estimates indicate that more than three million children in the United States live with relatives, either formally or informally. According to data from the Child Welfare Information Gateway (2019), over 443,000 children were in the foster care system at that time, reflecting an increase from 397,000 in 2012. The most recent national data from the 2022 Adoption and Foster Care Analysis and Reporting System (AFCARS), managed by the U.S. Department of Health and Human Services (HHS) Children's Bureau, reported that approximately 365,000 youth are currently in foster care (Children's Bureau, 2024). Placement patterns have also shifted over time. Earlier data indicated that 45% of foster children were placed with non-relatives, nearly one-third with relatives, and 13% in group homes (Child Welfare Information Gateway & Child Trends, 2019). The most recent figures show that approximately 123,294 children (33%) are placed with relatives

and 44% with non-relatives, suggesting a positive trend toward kinship care placements (Children's Bureau, 2024).

It is also important to recognize that a substantial number of children live with their grandparents or other family members outside of the formal foster care system. Dolbin-MacNab and O'Connell (2021) estimated that 7.9 million children live with grandparents, yet only 2.5 million are involved with child welfare services. More recent data from the U.S. Census Bureau (2024) reveals that approximately 6.7 million adults over age 30 live with their grandchildren under 18, and about 32.7% of these grandparents are responsible for their care. Although there has been a modest decline in such caregiving arrangements—due in part to economic recovery, reduced opioid-related mortality, and declining incarceration rates among women—the number of children living in informal kinship care remains significant (Winokur, Holtan, & Batchelder, 2014). These arrangements, often referred to as "grand families," present several challenges, including lack of legal custody, limited access to services, and financial strain (Generations United, 2024). While foster care, whether formal or informal, is intended to be a temporary solution, it has all too frequently become a long-term or permanent arrangement.

Implications of Insecure Attachment

Bowlby (1976), in his work on attachment, established that insecure attachment could explain emotional distress and personality disturbances seen when one experiences unwanted separation, giving rise to differing personality pathology and psychiatric problems (Hiebler-Ragger & Unterrainer, 2019). According to Bowlby (1988),

attachment behaviors are displayed by children when there is a threat to a child's safety or emotional well-being (Khadka, 2025). Therefore, the attachment relationship between a child and their caregiver is crucial to the development of the emotion regulatory system (Cooke et al., 2019). When children experience steady support from a caregiver with secure attachments, they usually become better at handling stress. This early sense of security allows them to build emotional strength and learn how to cope with difficult feelings as they grow. Conversely, children with insecure attachment patterns, such as avoidant or anxious-ambivalent styles, often experience inconsistent or inadequate caregiving. As a result, they may struggle with emotional regulation, finding it difficult to cope with feelings of anxiety, sadness, or anger. These early relational disruptions can contribute to emotional and behavioral challenges later in life (Khadka, 2025).

The experience of emotions is an adaptive response with several characteristics endorsed as a response to environmental cues (Cooke et al., 2019). Children who have insecure attachment have problems controlling their emotions and have trouble connecting with other people. Consequently, this negatively impacts trust and self-worth, resulting in anger and fear of close relationships. In efforts to gain control, they may show a range of behaviors (Crouch, 2015). This range of behaviors manifests in differing clinical symptoms in childhood, such as conflicts with peers, mood variability, aggressiveness, and other externalizing behaviors, such as delinquency (Perrotta, 2020). It is believed that insecure attachment is associated with psychopathology as well (Spruit et al., 2019; Bowlby, 1976). One such disorder believed to be associated with insecure attachment is depression. Depression, being a mood disorder, affects a child's physical,

emotional, and social-cognitive development and can contribute to poor school and work performance, poor relationships, substance abuse, and suicidal behavior (Spruit et al., 2020).

Substance use and abuse are also likely to occur in those with insecure attachment. In a study on Lebanese youth and attachment, it was found that insecure attachment increased the likelihood that one becomes addicted to cigarettes, waterpipes, alcohol, and the Internet compared to youth who had secure attachments (Nakhoul et al., 2020). Naveed et al. (2020) noted from the Adverse Childhood Experiences study that insecure attachment is a contributing factor to not only substance abuse but also intravenous drug use. Gidhagen et al. (2018) also noted insecure attachment as a precursor for substance abuse because attachment is related to "emotion regulation, behaviors in relationships, and one's coping skills." However, it is not clear whether one form of substance abuse is linked with specific attachment styles. Per Naveed et al. (2020), children with secure attachments with caregivers have better functioning and social interaction than those with insecure attachments.

Previous Studies on the Attachment Theory

Bowlby's attachment theory has been studied for over 50 years . This research study attempts to study placement in foster care with family or nonfamily and its association with opiate abuse and criminality. Attachment Theory (Bowlby, 1969) and adverse behaviors like substance abuse and criminality have been previously studied as researchers have tried to gain an understanding of precursors to these behaviors. Schindler (2019), in his review, found twelve research studies with hypotheses regarding

attachment theory and substance abuse. These studies included samples from adolescence to adults; classified as adolescent, young adult, and adult. In studies of adolescents and young adults, some studies focused on psychopathology and attachment. For instance, Allen et al. (1996) studied attachment as a basis for understanding adolescent psychopathology. In their eleven-year follow-up study, 66 upper middle-class hospitalized adolescents aged 14 were compared with 76 adolescents with similar social demographics to find that all the youth that were hospitalized for psychiatric reasons had insecure attachments compared with the contrast population of high school students. The contrast population of 76 students was found to have a typical mix of insecure and security attachment styles. This result was in line with their hypothesis and previous research that children with insecure attachment styles are more likely to have mental and behavioral problems compared to children who do not.

Similarly, Cooper et al. (1998) studied attachment styles and their association with emotion regulation and adjustment. This study examined attachment style variances in self-concept and risky behaviors among black and white adolescents and young adults between the ages of 13 and 19. Risky behavior included academic achievement, delinquency, sexual behavior, and substance abuse. Self-concept was measured across five domains: social competence with peers, athletic skill and ability, intellectual competence, general physical appearances, and body image (Cooper et al., 1998). The results of the study concluded that those with anxious-ambivalent fared the worst, having the poorest results in self-concept and risky behavior. Per Ainsworth (1978), the child with an anxious ambivalent attachment may feel separation anxiety when apart from the

caregiver. Even when the caregiver has returned, the child may feel uncertain, setting up maladaptive coping responses.

There was an association between insecure attachment and substance abuse (Schindler et al., 2005). Mortazavi et al. (2012) looked at the relationship between attachment, emotional maturity, and addiction, particularly differences in attachment styles of those who became addicted to opiates and those who did not have an addiction. There are differences in attachment styles and emotional maturity of those who become addicted to opiates compared to non-addicts. Furthermore, opiate addicts were inclined to have insecure attachment styles compared to non-addicts who had secure attachment styles.

Theoretical Propositions and Rationale

The attachment theory provides a lens for examining the importance of attachment in close social relationships and provides a foundation for understanding abnormal psychological functioning. Bowlby (1982) concluded that the parent-child relationship is central to a child's emotional development. Ainsworth's (1978) work on attachment also contributed as a central theoretical proposition in that her work provided an understanding of how different responses by the parent affect and direct attachment styles. Her work concluded that those children with insecure attachment styles would have negative views of themselves and others and thus jeopardize their emotionality and influence negative coping responses.

Thus, the rationale for the selection of this theory was two-fold. One of the main hypotheses of the current research study was opiate abuse and criminality or delinquency

would be more prevalent in foster care children placed with non-family versus those who are placed with family. It was based on one of the assumptions that children who are placed in foster care would typically have insecure attachments with non-family caregivers. The literature review on foster care and attachment suggests this was more likely. Secondly, insecure attachment styles exhibited by children were previously related to adverse outcomes, including the variables of research in this study.

Literature Review Related to Key Variables

The problem of opiate abuse appears to have grown and needs practical interventions to help save lives. As the number of children in foster care grows due to the opioid epidemic, so does the need for interventions, as these children are also at risk for substance abuse and other adverse outcomes. The Attachment Theory (Bowlby, 1969) suggests that secure attachments versus insecure attachments provide children with the best chance of overcoming adverse outcomes and psychopathology (Hong & Park, 2012). The theoretical foundation of this study sought to look at three variables. These variables were the placement of children in foster care (either with family or non-family) and the outcome variables of opiate abuse and criminality or delinquency. Findings from previous research have linked criminality and delinquency with youth who are placed in foster care (Crawford et al., 2018). In addition, previous research has also linked substance abuse with youth who are placed in foster care (Ahmadi-Montecalvo et al., 2016; Braciszewski & Stout, 2012). The following literature review discusses the constructs and chosen methodology.

Foster Care Placement and Attachment

Foster care was implemented as a protection for children experiencing abuse and neglect in their primary home environment (Child Welfare Information Gateway, 2023). While it is often assumed that the foster home will provide a healthier and more nurturing environment conducive to a child's healthy development, previous research consistently indicates that children placed into the foster care system often face significant difficulties with healthy attachment (Miranda et al., 2019). This struggle is largely attributed to pre-existing traumas children have experienced prior to placement. Consequently, the pervasive experience of trauma among foster care youth not only increases their susceptibility to a range of emotional issues but also profoundly impairs their ability to form secure attachments (Miranda, Molla, & Tadros, 2019).

In alignment with Bowlby's (1969) and Ainsworth's (1978) foundational work on attachment, foster care children frequently display challenges in bonding with foster parents due to the insecure attachment patterns established with their biological parents (Miranda et al., 2019). For children to achieve emotional well-being, they require a consistent, nurturing caregiver who provides an environment of trust and security (Bowlby, 1969). This foundation is often compromised for foster care youth, as their early experiences have yielded a sense of mistrust and unpredictability (Zeanah, 2011). The idea that a foster home is "healthier" does not overcome the impact of pre-existing insecure attachment (Rubin, O'Reilly, Luan, & Localio, 2007).

An important insight from Bowlby (1969) highlights the importance of mutuality in attachment, where both the child and caregiver contribute to maintaining the bond.

However, it is ultimately the caregiver's responsive behavior that shapes the child's attachment pattern (Ainsworth, Blehar, Waters, & Wall, 1978). As a result, the consequences of insecure attachment, especially those formed early in life, can persist and affect individuals throughout adulthood (Mikulincer & Shaver, 2007).

While previous research shows the prevalence of insecure attachment among foster youth (Zeanah & Smyke, 2008), there is a significant gap in longitudinal studies that specifically track how these patterns develop across multiple foster placements and their long-term impact on adult relationships and well-being (Braciszewski & Stout, 2012). Additionally, research often focuses heavily on the child's attachment challenges, with less emphasis on the factors influencing a foster parent's ability to consistently provide a secure base, particularly when faced with a child's existing attachment difficulties (Dozier et al., 2005). Future research should explore how effective targeted interventions are at supporting foster parents in navigating and repairing these complex attachment challenges.

Foster Care Placement and Substance Abuse

Experimentation with substances can be considered a normal developmental process for some youth (Arnett, 1999). However, youth who are entered into the foster care system appear to be at increased risk for substance use and abuse. This trend has been the theme of previous research on foster care experience and behavioral outcomes (Braciszewski & Stout, 2012). Per Kim et al. (2017), the youth who have been placed in foster care at risk for substance abuse and substance use disorders are two to five times that of youth with no history of foster care involvement. Ahmadi-Montecalvo et al.

(2016) also reported that foster care youth have higher rates of illicit drug use compared to their peers with no foster care involvement. In addition, Ahmadi-Montecalvo et al. reported statistics from previous research finding that youth in foster care had higher usage rates for methamphetamine and heroin. These findings, however, were related to the age at which the child entered the foster care system. The older the child was when entering foster care, the more likely they were to engage in maladjustment behaviors such as substance use. In addition, increased placements tended to raise the likelihood of maladjustment behaviors such as substance use. A study by McDonald et al. (2014) found that children in the foster care system had higher rates of methamphetamine and heroin use compared to children not involved in foster care. The findings also suggested that lifetime use of these substances was more common among youth who had spent time in the foster care system.

Research consistently shows a strong link between foster care placement and higher rates of substance abuse (Braciszewski & Stout, 2012; Kim et al., 2017). However, the direct ways these two issues connect are not fully understood. While trauma plays a role, studies could explore how specific types of traumas (like neglect versus physical abuse) affect how substance use begins and progresses (Dube et al., 2003; Felitti et al., 1998). Also needed is more detailed research into how substance abuse rates vary among different groups within the foster care population, including by racial or ethnic background and gender (Harris et al., 2009). Many existing studies only look at a single point in time, which limits our understanding of how substance use develops in foster youth and evolves over time (Leve et al., 2012). To truly understand when and why

substance use progresses and to pinpoint key times for intervention, longitudinal studies are essential. Current research also has trouble consistently tracking all types of substances used, often depending on self-reports that might underestimate actual use (Brener et al., 2003).

Foster Care Placement and Criminality

Research has shown a strong link between out-of-home placement and future incarceration, with recent data indicating that more than 17% of individuals in state and federal prisons have a history of foster care or institutional placement (Janczewski, Mersky, & Topitzes, 2025; Beatty & Snell, 2021). As previously stated, foster care was created as an environment of protection for children (Child Welfare Information Gateway, 2021). However, placement of children into foster care often correlates with significant mental and behavioral challenges (Turney & Wildeman, 2016). Previous research suggests that children who have been placed into foster care have an increased risk for harmful behaviors that are incongruent with that of the general population (Farineau, 2016). For instance, previous research indicates that children who have been in foster care are more likely to engage in criminal behavior as juveniles and as adults. Recent reports from organizations such as Chapin Hall at the University of Chicago (2017) and the Annie E. Casey Foundation (2025) have highlighted the disparity of former foster youth in the justice system. This heightened risk is frequently attributed to the accumulation of adverse life experiences, including initial abuse or neglect, subsequent trauma from separation, and repeated placement changes, which children in foster care disproportionately endure compared to their peers (Pfluger, 2016). These early

and ongoing traumas can show up as difficulties with emotional regulation, impulse control, and problem-solving, making behaviors that lead to justice system involvement more likely. As a result, former foster youth often face higher rates of homelessness and unemployment in adulthood. They are also less likely to graduate high school or attend college, which severely limits how much money they can earn. These challenges not only affect their financial instability but also make them more vulnerable to involvement with both the juvenile and adult criminal justice systems (Pfluger, 2016). In fact, estimates suggest that youth that has been in foster care are twice as likely to become involved with the juvenile and criminal justice systems (Kolivoski, Shook, Goodkind, & Kim, 2014). Literature often points out that the constant instability from multiple placements and a lack of steady, long-term mentors can lead to a weakened sense of belonging and fewer connections to positive social networks (Chapin Hall at the University of Chicago, 2017; Annie E. Casey Foundation, 2025). This further isolates these youth and can make them more susceptible to criminal influences. While the connection between foster care and criminal involvement is clear, we still need more specific research looking at different types of offenses (like violent, property, or drug-related crimes) committed by former foster youth. It is also important to examine how systemic issues within the child welfare system contribute to this problem.

Methodology of Previous Research

Previous research has used qualitative, quantitative, and mixed methods to research attachment, youth who have been placed into foster care, and outcomes such as substance abuse and criminal behavior of these youth. Ainsworth's (1978) research was a

comparative study identifying differences in infants' attachment styles once they were separated from their mothers. As we have previously discussed, the work of Ainsworth (1978) was invaluable as it laid the foundation for normative attachment patterns. However, IJzendoorn (1990) identified possible cross-cultural limitations, identifying that the normative pattern may generalize only to American cultures as a cross-cultural replication study of the "Strange Situation" in Japan and Israel yielded different outcomes Zeanah et al. (2011) conducted qualitative work on attachment disorders in foster care children, revealing that patterns of insecure attachment are associated with being unresponsive to the emotional needs of the child.

Other quantitative methods have also been used to study relationships between factors influencing outcome variables such as criminality and other adverse behaviors. Crawford, Pharris, and Dorsett-Burrell (2018) researched youth who had aged out of foster care and potential risk and protective factors of criminal behavior, finding that placement in foster care, along with other correlates, increases the likelihood of criminal behavior. Overall, the limitations of studies conducted on attachment and foster care placement are along the lines of controlling for cultural differences.

Although a plethora of information and research has been conducted on these two variables, not much has been found regarding cultural or racial differences. In addition, there is limited research involving specific factors linked with opiate abuse, such as gender or race, about the placement of youth in foster care with either kin or nonfamily. Schindler's comparative (2019) review provided us with a glimpse of the findings of different substance abuse patterns based on attachment patterns. The insecure attachment

was presumptive of this research study in the placement of foster care youth with nonkin and therefore provides some confirmation that substance abuse often derives from problems of insecure attachment (Gardenhire, Schleiden, & Brown, 2019). There is limited information or studies directly discussing youth in foster care and the use of opiates (Braciszewski & Stout, 2012). There is an abundance of research on substance abuse and criminality of youth in foster care, with findings of adverse outcomes for these youth as previously identified (Ahmadi-Montecalvo, Owens, DePasquale, & Abildso, 2016). However, the research is limited regarding the association of heroin or opiate abuse with the choice of placement. The strengths of previous research are that it has provided fundamental insights into adverse outcomes of children placed into the foster care system (Rubin et al., 2007).

Recent research has begun to address these gaps. For example, a prospective study by Janczewski, Mersky, and Topitzes (2025) utilized data from the National Youth in Transition Database to analyze the impact of foster care experiences on incarceration rates, highlighting the significance of placement stability. Additionally, Lewis, Smith, and Johnson (2023) conducted a systematic review examining the effects of placement instability on delinquent behavior, finding that males with multiple placements were significantly more likely to have delinquency patterns.

Overall, while previous research has established the adverse outcomes associated with foster care placement, particularly concerning attachment and behavioral issues, there remains a need for more studies that consider cultural, racial, and gender-specific

factors, as well as the specific impact of placement types on opiate abuse and criminal behavior.

Rationale for Selection of Variables

The variables chosen for the study are due to research on adverse outcomes of children who are placed into the foster care system. These adverse outcomes include substance abuse and increased involvement with the criminal justice system. The underlying premise of attachment justifies the variable of placement with kin or nonkin in the study as it is the assumption of placing them with family or kin that limited or minimized the outcomes of the variables of opiate abuse and criminal behavior.

There is now abundant research on the significance of attachment in relationships. Bowlby (1969) provided a foundational concept highlighting attachment's significance. Ainsworth (1978) provided further clarification and brought forth the classification of attachment, breaking down attachment into secure and insecure categories. She highlighted that insecure attachment could negatively impact a child's life and affect their adult lives. Children with insecure attachment, particularly those exhibiting anxious-ambivalent or avoidant styles, are more likely than children with secure attachment to have social and behavioral issues, often struggling with peer relationships and emotional regulation (Cassidy & Shaver, 2016; Mikulincer & Shaver, 2016). This was seen in Rosenstein and Horowitz's (1996) study on adolescents and psychopathology, where they examined the relationship of adolescent-maternal attachment of 27 adolescents who were in the psychiatric ward. This study found that both maternal and adolescent attachment was insecure and identified common psychopathology in these adolescents.

Problems with insecure attachment can also be seen in Cooper, Shaver, and Collin's (1998) research on attachment styles of Black and White youth between the ages of 13 and 19, where it was found that those with secure attachments adjusted better than those who had insecure attachments. This research also concluded that youth who had insecure, anxious attachments fared the worst, having the highest levels of symptomatology and risky behaviors. Insecure attachment is thus directly associated with the likelihood of substance abuse and subsequent criminal behaviors of youth. Fairbairn et al. (2018) found in their research of individuals aged one month to 20 years old that insecure attachment increased the likelihood of substance abuse.

Foster Care Placement

From what is known about insecure attachments, previous research has shown that children placed into foster care are more likely to have insecure attachments and, therefore, have more adverse outcomes. To counter this impact, it is now a common practice by many states to place children with family members who are willing to take care of children who have been removed from their primary homes. Previous research suggests that placing children with family members yields better outcomes than placing them in foster care with non-family members. It is believed that placing children with family is best because it maintains the children's connections to their family, offering crucial emotional and cultural continuity and potentially reducing the trauma of removal (Child Welfare Information Gateway, 2019). The federal government requires states first to consider placing children needing foster care with a family to receive federal payment for foster care and adoption (Child Welfare Information Gateway, 2019). While generally

advantageous, it is also important to acknowledge that family placements can face unique challenges, such as caregiver financial strain, navigating complex family dynamics, or pre-existing health issues, which may still necessitate additional support (Child Welfare Information Gateway, 2020; Frame & Berrick, 2014; Pecora et al., 2019).

Research has also suggested that children placed with family rather than nonfamily tend to have fewer behavioral problems and fewer emotional problems. This is the conclusion from Rubin et al.'s (2008) prospective cohort study, which they conducted on 1309 children placed into foster care either with a family or a nonfamily. The results indicated that after 36 months, the children who were placed with family members showed fewer behavioral problems. Cheung et al. (2011) in their research found that children who had been placed with family showed lower amounts of externalizing behavior compared to children who were placed into foster care. This research also found that children placed in group care had the highest levels of externalizing behavior compared to the other two groups.

Foster Care Outcomes

There is also a lot known about the outcomes of those children who are placed into foster care, as previous research on foster care youth suggests that these youths have more adverse outcomes, such as criminality and substance abuse, compared to those youths not in the foster care system (Gypen et al., 2017; Braciszewski & Stout, 2012). For instance, studies indicate that former foster youth are significantly more likely to experience homelessness (e.g., 20-40% by age 21) and involvement with the criminal justice system (e.g., up to 50% arrested by age 18) compared to their peers without foster

care history (Annie E. Casey Foundation, 2025; Chapin Hall at the University of Chicago, 2017). Gypen et al.'s (2017) research found that children who had been in the foster care system were more likely to underachieve in school, more likely to have mental health problems, experience more homelessness, have more involvement with the criminal justice system, and engage in substance abuse. McDonald et al. (2014) in their research found that youth who were placed into foster care were more likely to abuse illicit substances like heroin and methamphetamines compared to youth not placed into foster care. Similarly, Fettes et al. (2013) found that youth in the foster care system were more likely to abuse substances and be delinquent. Shpiegel et al. (2016) study found a correlation between delinquency and substance abuse among youth who were aging out of foster care.

Controversy

This study aimed to gain an understanding of whether foster care placement increases opiate abuse and subsequent criminality. While previous research has found an association between foster care and adverse outcomes such as substance abuse and criminal behavior (Braciszewski & Stout, 2012), the complex interaction of factors makes direct causal associations challenging to establish conclusively. For instance, children who enter the foster care system may have already had experiences that have profoundly impacted their mental health, introducing a selection bias into studies (Berger & Font, 2015; Ryan & Testa, 2005). One of the most prevalent reasons that children are now placed into the foster care system is that parents themselves are abusing drugs and alcohol, and children are being neglected. In addition, parents may be incarcerated and

not able to care for their children (The Child Welfare Information Gateway, 2018). Frequent changes and transitions in foster care youth's environment can compound the trauma they experience, potentially worsening their mental health (Ford & Courtois, 2014; Lieberman & Van Horn, 2008). The child's age also seems to play a role in this impact. In a study conducted by Ryan et al. (2007), it was found that the rates of delinquency varied by race in kinship homes. The findings suggested that there were higher rates of delinquency for White and African American males and lower for Hispanic males. Females also had lower rates of delinquency coming from kinship homes.

Further Study

What remains to be studied about foster care placement and the outcome variables is vast. This research study attempted to fill a gap in research investigating whether placement with kin minimizes the risk of opiate abuse and subsequent delinquency. Previous research has shown that kinship care may offer greater emotional stability and fewer behavioral issues, but the long-term impact on substance abuse and criminality is still not fully understood (Font, 2014; Rubin et al., 2008). However, more research is needed on gender, race, and age of foster care parents as well as foster care children. These variables could help determine whether differences relate to the outcome variables (Courtney et al., 2007; Dettlaff & Boyd, 2020). This study was only the beginning of answering questions about the type of foster care placement. Studying these additional variables could contribute to a better understanding of leading factors in opiate abuse and subsequent delinquent and criminal behavior.

Summary and Conclusions

The severe impact of opiate abuse has escalated into a global crisis (World Health Organization, 2023). Within this alarming trend, young people are a growing population vulnerable to opiate use, particularly those within the foster care system, a subpopulation facing significantly higher risks (Braciszewski & Stout, 2012). Previous research consistently shows that foster care youth experience far more adverse outcomes across various life domains compared to their peers in the general population (Courtney et al., 2010). This research study operates on the premise that placing these children with family members rather than nonkin caregivers offers crucial protection (Rubin et al., 2008). This is primarily due to the belief that maintaining connections within a family system fosters secure attachment. As Bowlby (1969) and Ainsworth (1982) theorized, children who develop secure attachments with their caregivers are better equipped to navigate the world; they feel a sense of safety and security that promotes healthy coping, ultimately leading to fewer adverse life outcomes.

While much is known about the broad adverse outcomes for foster care youth—for instance, their increased risk of illicit drug use, school dropout, homelessness, and a higher likelihood of criminal behavior (Courtney et al., 2010; Child Welfare Information Gateway, 2019)—there remains a distinct gap regarding opiate use, specifically among this group (Braciszewski & Stout, 2012). Equally, the precise impact of kinship care placement (compared to nonkin) on opiate abuse is not well understood (Rubin et al., 2008; Font, 2014). As individuals continue to tragically lose their lives to opiate abuse (CDC, 2023), understanding its specific origins within vulnerable populations becomes

critically important. This study, therefore, directly attempted to address these gaps in the literature by providing data on the relationship between opiate abuse and the type of foster care placement, whether with family or non-family. Continued research into opiate abuse among foster care youth is essential; such insights are vital for developing targeted and effective interventions to support this at-risk population. Chapter 3 outlines the methods used to explore this relationship, including participant recruitment, data collection procedures, instrumentation, and statistical analyses. The selected methodology was designed to provide empirical insight into whether placement type plays a role in high-risk outcomes among former foster youth.

Chapter 3: Research Method

The purpose of the study was to explore whether the type of placement among former foster care youth influenced high-risk outcomes such as opiate use and delinquency. The independent variable in this study was foster care placement type (kin vs. nonkin). The dependent variables were opiate use/abuse and delinquent or criminal behavior. No covariates, mediating, or moderating variables were included in the analysis.

This chapter includes the research design and rationale, identifying independent and dependent variables as well as design choice and research questions. I also identify the methodology, including the sampling population and procedure as well as inclusion and exclusion criteria. Recruiting procedures are also discussed, as well as data collection, informed consent, and exit procedures.

Research Design and Rationale

This was a causal-comparative quantitative study. The quantitative design was best suited because my purpose was to explore potential causal relationships rather than focus on introspective meanings of lived experiences as is typical in qualitative designs. Quantitative research is systematic and relies on measurable data that can be converted into numerical values and analyzed to examine relationships between variables (Creswell, 2014). In this study, I wanted to explore the relationship between placement of foster care youth and opiate abuse and delinquent or criminal behavior. Therefore, a quantitative design was appropriate. A cross-sectional design was used in this study. This design allowed for analysis of associations between variables based on data that were collected

at one specific point in time without manipulating any conditions or following participants longitudinally.

A survey design was chosen for this research to generalize from the sample to the broader population of interest. Survey research was also selected for its practicality in terms of gathering data efficiently while enabling both descriptive and inferential statistical analysis. One advantage of using surveys is they help answer developmental questions and examine probable relationships between variables (Jager et al., 2017). Additionally, the survey methodology is a direct way to collect descriptive characteristics from respondents. Participants may also feel more at ease disclosing sensitive information due to absence of interviewers, thereby reducing interviewer bias. However, limitations of survey research include the potential for incomplete responses, recall issues, and lower response rates (Burkholder et al., 2016). A cross-sectional survey design was also appropriate given the limited time and resources that were available for this study. Because data were collected at a single point in time, there was no need for follow up, which helped reduce duration and costs of the study. I used an online survey for participants to engage without the need for in-person interviews or travel, helping to manage both time and budget more efficiently. I gathered data in a practical and timely way while still addressing research questions.

Causal-comparative and survey designs are widely used in foster care and substance use research when experimental methods are not feasible due to ethical or practical limitations. By using this approach, I provided new data on how foster care placement type may relate to opiate use and delinquency, contributing to a deeper

understanding of risk factors and supporting future research, policy, and practice improvements.

Methodology

A quantitative nonexperimental design was selected to explore whether foster care placement with kin or nonkin was related to later opiate use and delinquent behavior. Population, sampling procedures, data collection methods, instrumentation, and the statistical approach to analyze data are identified.

Population

The target population for the current study included adults who were 18 and older and were placed into foster care with either kin or nonkin families as children. Participants may or may not had substance abuse histories, delinquency or criminal behaviors as foster care youths or adults, or used opiates or other substances during this time. While the exact number of people who were formerly in foster care is unknown, it is estimated over 400,000 children and youth are in foster care annually in the United States, many of whom transition to adulthood after placement in kin or nonkin settings (Child Welfare Information Gateway, 2021).

Sampling and Sampling Procedures

Due to the targeted population, the convenience sampling method was nonprobabilistic. Using a convenience sample provided advantages involving accessibility and low cost. The disadvantage of using a convenience sample was that it did not provide clear generalizability, which could lead to estimate bias. All participants were adults who were 18 and older and had previously been placed in foster care as

children or youth, either with kin or nonkin. Participants were eligible if they were 18 or older at the time of the study, and had a history of placement in the foster care system with either kin or nonkin caregivers. I excluded individuals who were never placed in foster care, placed in group homes, residential treatment centers, or institutional settings rather than with kin or nonkin caregivers, and under the age of 18 at the time of study. Individuals who could not provide informed consent were also excluded from the sample. Participation was not dependent on having a history of substance use or criminal behavior.

Power analysis using G*Power was used to determine sample size. The power analysis was based on the F-test. Historically, in research, the default significance level is 5% or 0.05, and the statistical power level is 80% or 0.80 (Cohen, 1988). A margin of error that was expected was between 5 and 10%. Effect size is important in analysis as it shows the significance of relationships between two variables. For this study, a medium effect size was appropriate. Typically, this is .0625, but different effect sizes may be used for different values of k and p but should not be interpreted the same as an absolute value of α equal to .05. When conducting power analysis with an adjusted medium effect size of .15, the determined appropriate sample size was 68.

Procedures for Recruitment, Participation, and Data Collection

To recruit participants, I distributed flyers to various substance abuse and mental health treatment facilities in Northeast Ohio. The flyer was also posted to social media websites. Centiment, an online survey platform, was also used to recruit participants. To gain access to treatment facilities, I contacted executive and clinical directors of

treatment programs to get permission. Interested participants accessed the survey through the web address on the flyer. The flyer included information on the purpose of the study and procedures that were used to collect data. The web-based survey began with informed consent, followed by the retrospective questionnaire. Participants had the option to check the box in order to consent before the retrospective questionnaire. After completing the web-based survey, participants were thanked for participation; no further participation was needed.

I created a questionnaire to gather demographic information that included participants' current age, race, age they were placed into foster care, length of time in foster care, and whether they were placed with family members or nonfamily members. Behavioral data were collected on opiate and other substance use as well as criminal and delinquency history. Delinquency included substance abuse, truancy, running away, and sexual behaviors. Criminal history included misdemeanor and felony charges.

There were no follow-up interviews or additional study requirements. Participation was voluntary and fully completed upon submission of the web-based survey. Due to the anonymous nature of the study, individual debriefing was not conducted by me; however, my contact information was provided in the informed consent form for participants with questions or concerns.

Instrumentation and Operationalization of Constructs

Placement with kin or nonkin was operationalized as a dichotomous categorical variable. The dependent variables of opiate use, delinquency, and criminality were operationalized into continuous variables. The operationalization involved treating

ordinal variables with five or more categories as continuous variables. Opiate use was assessed using items adapted from The Adolescent Drug Use Measure (Greene, Krcmar, Walters, Rubin, & Hale, 2000). Participants reported the frequency of opiate use as a juvenile on a six-point Likert scale ranging from "never" (1) to "over ten times" (6). These responses were then recoded and treated as continuous variables for statistical analysis. Higher scores indicated greater use. Delinquency was measured using the Delinquency Scale developed by Ross (1995), which includes 26 items assessing behaviors such as truancy, running away, theft, substance use, and risky sexual behaviors. Each item was rated on a five-point Likert scale from "none" (0) to "more than ten times" (4), and responses were recoded and operationalized into a continuous variable for analysis. This was done due to the ordinal nature of the outcome variables. Given the ordinal nature of the individual item responses, scores were summed across all 26 items using SPSS to create a continuous composite variable for analysis. A higher score indicated more frequent engagement in delinquent behaviors. This approach was based on the rationale that Likert scale or ordinal variables with five or more categories can be generally considered continuous, as doing so would not usually affect the validity or accuracy of the analysis (Johnson & Creech, 1983; Norman, 2010; Sullivan & Artino, 2013; Zumbo & Zimmerman, 1993).

Both instruments were appropriate for this study due to their focus on adolescent risk behaviors and their prior use in studies involving substance use and delinquency among youth and young adults. The Adolescent Drug Use Measure (Greene, Krcmar, Walters, Rubin, & Hale, 2000) and the Delinquency Scale (Ross, 1995) were both

accessed through the PsycTESTS database. Although PsycTESTS provides academic access to many instruments for research use, written permission to use both measures was additionally obtained from the appropriate rights holders to ensure full compliance. Both instruments were used solely for non-commercial academic purposes as part of this dissertation.

Both instruments used in the study have shown adequate reliability and validity in previous research. The Adolescent Drug Use Measure has reported Cronbach's alpha values between .80 and .89, suggesting strong internal consistency. It has also demonstrated good construct validity in studies involving adolescent substance use. The Delinquency Scale has been used in similar populations and shows alpha values typically ranging from .82 to .87. The items on the scale reflect common delinquent behaviors, supporting its relevance and content validity. These reliability levels are consistent with standards for behavioral research and support their use in the current study.

Data Analysis Plan

SPSS version 29 was used to analyze the variables (IBM Corp., 2022). Because there were two dependent variables (opiate use and delinquency) and one independent variable (foster care placement with kin or nonkin), it was appropriate to analyze the data collected using the Multivariate Analysis of Covariance (MANOVA) method. One-way MANOVA tests whether there are statistically significant differences between groups on a combination of dependent variables, accounting for intercorrelations among them (Field, 2018). MANOVA is an extension of ANOVA or Univariate Analysis of Variance where there is one dependent variable (Creswell, 2014). Frequencies and percentages

were calculated for categorical variables, while means and standard deviations were performed for continuous variables.

Prior to conducting the statistical tests, responses were reviewed for missing values. Surveys with incomplete or missing data on any of the key study variables were excluded. Assumptions of MANOVA were tested, including normality, linearity, and homogeneity of variance-covariance matrices, to ensure the validity of the analysis. These procedures ensured that the dataset met the requirements for valid interpretation of MANOVA results. The research questions and hypotheses for the research study were:

RQ1: Are significant differences in terms of opiate abuse evident between foster care youth who are placed with kin versus nonkin?

RQ2: Are significant differences in terms of criminal behavior evident between foster care youth who are placed with kin versus nonkin?

RQ3: Are significant differences in terms of opiate abuse and criminal behavior evident between foster care youth placed with kin versus nonkin?

Statistical Tests

According to Ates et al. (2019), there are three main assumptions for MANOVA: groups must have independence from other groups, there is multivariate normal distribution in the group, and variance-covariance matrices are homogeneous. Common test statistics that are used for hypothesis testing in MANOVA are Wilks' lambda, Hotelling's trace, Pillai's trace, and Roy's largest roots (Warner, 2013). Wilk's lambda, per Warner (2013), is the most widely used multivariate test statistic and may be calculated in two ways: "as a ratio of determinants of the sum of cross product matrices

or as the product across all of the discriminant functions" (p. 1046). If the assumptions are violated, there may be a risk of Type I errors and a reduction in statistical power (Warner, 2013). To reduce risks for violations of assumptions, Warner (2013) stated that "transformations may be effective in reducing variances and covariances across groups" (p. 710). If the groups are unequal, Warner (2013) also suggested using Pillai's trace of Wilks's lambda. In MANOVA, univariate *F*-tests and discriminant analysis (DA) may be used to identify statistically significant differences between groups following a significant multivariate test (Warner, 2013). Although multiple dependent variables were analyzed using MANOVA, no formal correction (such as Bonferroni adjustment) was applied to the follow-up univariate tests. Because only two dependent variables were included in the model, the risk of inflated Type I error was considered minimal. The analysis focused on the overall multivariate result to guide interpretation, and findings were evaluated with caution considering the limited number of comparisons.

In a MANOVA, the goal is to examine whether there are statistically significant mean differences across multiple dependent variables simultaneously between groups. Interpretation involves assessing the *p*-values; if the *p*-value is less than or equal to the alpha level (.05), the difference between groups was considered statistically significant., the differences are considered statistically significant (Warner, 2013). In addition to statistical significance indicated by the *p*-values, effect sizes were examined to assess the practical significance of results. Cohen's *d* was used to evaluate the magnitude of group differences in the independent *t*-tests, while partial eta squared was reported for the MANOVA to indicate the amount of variance explained by placement type. Confidence

intervals were not calculated but mean differences and standard deviations were reviewed to support interpretation. Together, these statistics provided a more complete understanding of whether foster care placement type was meaningfully associated with opiate use and delinquency outcomes.

Threats to Validity

In research, numerous threats to validity can occur, and typically, these threats can be separated into two types: internal or external. Internal validity threats jeopardize the trustworthiness of the cause-and-effect relationship. The most significant factor in internal validity is the procedure of the study (Creswell, 2014). The main threat to this study's internal validity was the selection of participants, as they were not randomly assigned (Creswell, 2014). In addition to convenience sampling and participant selection, this study was vulnerable to other internal threats. The use of self-report surveys introduced potential response biases, particularly given the sensitive nature of the questions related to substance use and criminal behavior (Podsakoff et al., 2003). Confounding variables such as trauma history, mental health status, and current treatment engagement were not controlled for, which could have influenced the observed outcomes, as these uncontrolled variables may provide alternative explanations for the results (Creswell, 2014). However, due to the cross-sectional design of the study, history and maturation threats were minimized because data were collected at a single point in time. Instrumentation threats were also limited by using previously validated survey instruments.

Threats to external validity can arise when the study outcomes do not generalize to those with differing characteristics of the participants in the study (Andrade, 2021). Threats to external validity were present in this study; however, due to the use of convenience sampling, this study had limited external validity. The exclusion of alternative placements types (i.e. group home settings), the limited geographic area of Northeast Ohio, and the absence of gender demographic data restricted generalizability to broader foster care populations (Polit & Beck, 2010). The online format and sensitive topic may have also introduced reactive effects, influencing how participants responded.

Construct validity relates to a tool measuring what it is meant to assess. In the current study, it means evaluating how well the survey questions measured complex concepts like opiate use or delinquent behavior. As Creswell (2014) and Polit and Beck (2010) note, if the measurement doesn't match the concept, then the results can't be trusted to reflect what the study set out to examine. Construct and statistical conclusion validity were also considered. While validated scales were used in the current study, no direct measure of attachment was included, which may limit the construct alignment with the study's theoretical framework. For statistical conclusion validity, assumption violations in the MANOVA required the use of Pillai's Trace, which is more robust when assumptions are not fully met (Ates, 2019; Tabachnick & Fidell, 2019). Unequal group sizes and a moderate sample size may have reduced the power to detect minor effects (Field, 2018). Effect sizes were reported to support the interpretation of findings beyond statistical significance.

Ethical Procedures

Before collecting data, approval was obtained from the University Institutional Review Board (#10-09-23-0525121). This process included submitting documentation of data sources and partner sites and addressing any ethical concerns related to recruitment and data collection. Recruitment was conducted through the distribution of flyers at substance abuse and mental health treatment centers in Northeast Ohio and through online platforms, including social media and Centiment. Although formal written agreements were not required from recruitment sites, verbal or informal approval was obtained from facility leadership prior to flyer distribution, and this process was disclosed in the IRB application.

Flyers were distributed in publicly accessible areas to avoid targeting or pressuring individuals in active treatment. Information on flyers explained that the survey and invitation to participate was voluntary, the procedures used to collect data, and mentioned there would be minimal risk and no costs to participants. The web-based questionnaire prompted participants to provide informed consent by checking or clicking "I consent" before the beginning of the survey. With informed consent, the surveys explained that participation was voluntary, information obtained was anonymous, and no identifying information was collected. Because the survey asked about potentially sensitive topics, participants were provided with contact information for local support services and the researcher in case of emotional discomfort or questions.

All data collected was password-protected through the website. The data collected by participants was only accessible to the researcher, the dissertation committee, and the

University Institutional Review Board if requested. Although no personally identifying information was collected, participants were given the option to contact the researcher directly with questions or concerns. Recruitment materials and consent language were reviewed and approved by the IRB to ensure clarity, accuracy, and protection from coercion. The data collected by participants will be destroyed five years post-final dissertation approval by deletion of electronic information.

Summary

This chapter outlined the research design and methodology for the study. The study was quantitative and non-experimental, designed to explore the relationship between the independent variable (foster care placement with kin or nonkin) and the dependent variables (opiate use and delinquency). A non-probabilistic, convenience sample was used, and participants were adults aged 18 and older. Data were collected from treatment centers in the Northeast Ohio area, social media platforms, and Centiment. A survey created by the researcher gathered demographic and behavioral data relevant to the research questions. The study was approved by the University Institutional Review Board, and all procedures followed ethical guidelines for research with human subjects. Data were analyzed using SPSS version 29, with statistical procedures including MANOVA and independent samples t-tests. Chapter 4 details the results of the analyses in relation to the study's three research questions.

Chapter 4: Results

The purpose of the study was to examine effects of placing foster care youth with kin or nonkin and determining relationships between placement outcomes on delinquency as well as criminality and opiate abuse. I used a nonexperimental design and convenience sampling. I intended to answer the following research questions:

RQ1: Are significant differences in terms of opiate abuse evident between foster care youth who are placed with kin versus nonkin?

RQ2: Are significant differences in terms of criminal behavior evident between foster care youth who are placed with kin versus nonkin?

RQ3: Are significant differences in terms of opiate abuse and criminal behavior evident between foster care youth placed with kin versus nonkin?

This chapter includes results of the study in more detail. I describe data collection and statistical analysis of data. I also provide context in terms of previous research on substance use as well as criminal behavior and delinquency among foster care populations. Lastly, I interpret and discuss of results as well as implications.

Data Collection

This study included a convenience sample of 151 adults who reported placement into foster care systems as youths. Data collection began after IRB approval (#10-09-23-0525121) on October 8, 2023. I posted flyers at social service agencies and invitations on social media platforms. I collected data over the next year, which ended in November 2024. I encountered a challenge involving obtaining responses that affected the estimated time frame for collecting data. Due to the slow response rate, I elicited help from

Centiment, a platform targeting audiences. The full launch of the survey began on October 28, 2024. There were 558 respondents. However, only 158 met inclusion criteria. Seven of those participants were excluded. A total of 151 participants remained. The original survey was created by me using Qualtrics and later transferred to Centiment for distribution and data collection. To qualify for the study, participants had to be 18 or older and placed in foster care as children either with kin or nonkin. Individuals who reported alternative placement types were excluded from analysis.

Demographics

Descriptive demographics collected included participants' age, race and ethnicity, age during placement into foster care, and length of time spent in foster care (see Table 1). The sample of 151 is representative of the population of interest in terms of race and ethnicity. According to the DHHS (2023), of the children who entered foster care in 2022, 21% were Black, 45% were White, and 20% were Hispanic, 3% were Native American, 3% were Asian, 8% were multi-racial, and 3% were unknown. The sample may be underrepresented in terms of gender as this data were not collected. The mean age of placement was 6.9 in 2022, with 49% of children entering foster care between 0 and 5. This study showed a lower proportion of participants between this age group. 31.8% of the sample in the study reported staying in foster care for more than 2 years. Compared with national data on children in the foster care system in 2022, 36% reported staying in foster care over 2 years. 26.5% reported they aged out of foster care. The number of children who aged out during this study is overrepresented compared to the 9% of children who aged out of foster care nationally in 2022. I used convenience sampling,

which may not represent the larger population and therefore may be a limitation of this study.

Table 1

Frequency and Percentages for Foster Care Placement

Foster Care Placement	Valid *n*	Percentage
Kin/Family	87	57.6
NonKin/NonFamily	64	42.4

Table 2

Frequency and Percentages for Race and Ethnicity

Race/Ethnicity	Valid *n*	Percentage
Asian	3	2.0
Black	29	19.2
Hispanic	16	10.6
Multi-Racial	4	2.6
Native-American	4	2.6
White	93	61.6
Other	2	1.3

Table 3

Frequency and Percentages for Age

Age	Valid *n*	Percentage
18-24	24	15.9
25-34	30	19.9
35-44	47	31.1
45-54	36	23.8
55-64	12	7.9
65+	2	1.3

Table 4

Frequency and Percentages for Age of Placement

Age of Placement	Valid *n*	Percentage
0-5	39	25.8
6-10	57	37.7
11-14	41	27.2
15-18	14	9.3

Table 5

Frequency and Percentages for Length of Time in Foster Care

Length of Time	Valid *n*	Percentage
Less than 1 year	22	14.6
1-2 years	41	27.2
Over 2 years	48	31.8
Aged out	40	26.5

Results

Youth who were placed with nonkin reported higher levels of both opiate use and delinquency compared to those placed with kin. However, further inferential testing, such as independent *t*-tests, were necessary to determine if differences were statistically significant (see Table 6).

Table 6

Descriptive Statistics

	Placement	Mean	Std. Deviation	*N*
Opiate use	Kin	2.20	1.848	87
	Nonkin	2.56	2.115	64
	Total	2.35	1.967	151

Delinquency	Kin	2.454	.92044	87
	Nonkin	2.642	1.02733	64
	Total	2.534	0.96836	151

Before conducting the MANOVA, assumption testing was performed by me to ensure validity of analysis. As previously stated, there are three primary assumptions for MANOVA. The first assumption states the groups are independent of one another. The second assumption states the groups exhibit a multivariate normal distribution. The third assumption states that variance-covariance matrices are homogeneous (Ates et al., 2019). Box's *M* test was insignificant, $p = .619$, indicating that the assumption of homogeneity of variance-covariance matrices was met. However, Levene's Test of Equality of Error Variances revealed a significant result for opiate use ($p = .039$), suggesting a violation of the homogeneity of variance assumption for this dependent variable. In contrast, the assumption was met for delinquency ($p = .283$). Given the violation, Pillai's Trace was selected as the most robust and conservative test for multivariate significance (Tabachnick & Fidell, 2019). Ates et al. (2019) stated Pillai's Trace can be used instead as it provides a more robust result than other test statistics, especially in cases where the data deviates from normal distribution and lacks homogeneity of covariances.

Analysis Findings

RQ1

I examined the relationship between opiate abuse and placement type, specifically comparing those placed with kin versus those placed with nonkin. A MANOVA was planned to assess the combined effects of placement type on both opiate abuse and

delinquency. However, independent *t*-tests were conducted due to the theoretical importance of the outcome variables and need to examine individual dependent variables separately. In addition, independent *t*-tests were also conducted due to the possibility that MANOVA may have masked individual effects.

The independent *t* test results indicated no statistically significant difference in opiate abuse between the two groups, t (124.806), p = .269. This suggests that the type of foster care placement (kin vs. nonkin) does not have an impact on opiate abuse among these two groups. As identified in Table 7, the mean score for children placed with nonkin (M = 2.56, SD = 2.115) was slightly higher than children placed with kin (M = 2.20, SD = 1.848). Despite the insignificant results, Cohen's d for the two placement types was 1.965, indicating a large effect size. This suggests a meaningful difference between children placed with kin and those placed with nonkin in terms of opiate abuse (see Table 7).

Table 7

Independent Samples T-Test Comparing Opiate Abuse Between Kin and Nonkin

Foster Care Placement	*N*	Mean (*M*)	Std. Deviation (*SD*)	*t*	*df*	Sig (*p*)	Cohen's *d*
Kin	87	2.20	1.848	-1.11	124.806	.269	1.965
NonKin	64	2.56	2.115				

Note, N =151

RQ2

Here again, a MANOVA was planned to assess the combined effects of placement type on both opiate abuse and criminality/ delinquency. However, independent

t-tests were performed because of the theoretical importance of the outcome variables need to examine individual dependent variables separately as identified in resulting descriptive statistics and possibility that MANOVA may have masked individual effects.

The independent *t*-test was conducted to assess the differences between the two groups (See Table 8). Though a large effect size (Cohen's $d = 0.967$) suggests a meaningful difference between the groups of kin versus nonkin, the results indicated that the difference was not statistically significant, $p = .24$. This means that the observed differences could be due to random variation. Future research could explore these relationships with larger sample sizes or different methodological approaches to understand better the potential influence of foster care placement type (kin versus nonkin) on delinquent or criminal behavior.

Table 8

Independent Samples T-Test Comparing Delinquency Between Kin and Nonkin

Foster Care Placement	*N*	Mean (M)	Std. Deviation (*SD*)	*t*	*df*	Sig (*p*)	Cohen's *d*
Kin	87	2.20	1.848	-1.163	126.9	.247	0.967
NonKin	64	2.56	2.115				

Note, $N = 151$

RQ3

A one-way MANOVA was administered to examine the relationship or effect of foster care placement with kin or nonkin on the dependent variables of opiate abuse and delinquency among those who were placed into foster care as youth. The independent variable was placement type (kin or nonkin) and the dependent variables were

delinquency/criminal behavior and opiate use. The results of the analysis shown in Table 9 indicates that placement with kin or nonkin did not have any statistical significance on the combined dependent variables, Pillai's Trace = .012, $F(2, 148) = .897$, $p = .410$, $\eta^2 = .012$. This would lead to accepting the null hypothesis that there are no differences and placement type (kin vs. nonkin) did not significantly influence opiate use or delinquency among the participants. Given the violation of assumptions for opiate use, Pillai's Trace was selected as the most robust and conservative test for multivariate significance (see Table 9).

Table 9

Multivariate Test on Combined Opiate Use and Delinquency

Effect	Test Statistic	Value	*F*	*Df*	Error *df*	*P*	Partial ^{2}
Placement	Pillai's Trace	.012	.897	2.000	148.000	.410	.012
	Wilks' Lambda	.988	.897	2.000	148.000	.410	.012
	Hotelling'sTrace	.012	.897	2.000	148.000	.410	.012

Summary

The purpose of the study was to examine whether there were significant differences in opiate abuse and delinquency/criminality between foster care children who were placed with family (kin) versus non-family (nonkin). Specifically, the study sought to answer three research questions related to the outcomes.

Results of the MANOVA analysis revealed no significant overall differences on the combination of opiate use and criminality or delinquency between foster care children placed with kin and those placed with nonkin (Pillai's Trace = .012, F(2, 148) = .897, p = .410, $\eta^2 = .012$). However, effect size calculations suggest potentially meaningful

differences despite the lack of statistical significance at the conventional level (p <.05). For opiate abuse, Cohen's d = 1.965, Hedges' correction = 1.975, and Glass's delta = 2.115, indicating a large effect size. For delinquency, Cohen's d = 0.967, Hedges' correction = 0.972, and Glass's delta = 1.027, also reflecting a large effect size. These results suggest that while statistical significance was not achieved, the observed differences may still have practical implications in favor of placement with kin. These findings suggest the need for ongoing conversations around the value of placement with kin. Future research with larger samples and different methodological approaches may be warranted to further explore the influence of placement type on these outcomes.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to investigate effects of placing foster care youth with kin as opposed to nonkin and determine relationships between placement outcomes relating to delinquency, criminality, and opiate abuse. I aimed to understand whether the principle of attachment influenced opiate use as well as delinquent and criminal behaviors. I sought to explore factors that may contribute to use of opiates and subsequent delinquent and criminal activities of youths who are placed in the foster care system. Key findings of the study showed there were no significant differences between the two groups, suggesting placement of youth into foster care with kin or nonkin did not impact opiate use and delinquency and criminal behaviors.

Interpretation of the Findings

Despite insignificant results of MANOVA, independent *t*-tests showed meaningful effect sizes for both variables, suggesting potential practical implications.

Confirmation of Existing Literature

Findings from the current study aligned with literature showing foster care youth were at an increased risk for both substance use and delinquent behaviors. Yang (2017) reported children who were placed into foster care demonstrated higher rates of delinquency and criminal behaviors beginning at earlier ages. Ahmadi-Montecalvo et al. (2016) found foster care youth reported higher rates of illicit drug use compared to youth who were not involved in the foster care system. In this study, all participants reported use of marijuana, stimulants, depressants, alcohol, LSD, opiates/heroin, tranquilizers, and cocaine/crack, further reinforcing these findings.

Farineu (2016) showed children who are placed in the foster care system were more likely to engage in delinquent and criminal behaviors. Specifically, placement disruptions and instability in caregiving environments can increase vulnerability to negative behaviors. While I did not directly measure criminal involvement, associations between nonkin placement and higher levels of delinquent behavior and substance use supports the broader idea that instability and weakened attachment relationships can raise risks for poor behavioral outcomes among foster youth. This helps strengthen the case for further exploring how attachment quality and placement type influence youth behavior over time.

In addition, Rubin et al. (2008) stated kinship placements may serve as a protective factor by offering children greater emotional continuity and relational stability. Significance of effect sizes between kin and nonkin placements reflected these findings, highlighting potential safeguarding roles of family caregivers.

Importantly, substance abuse and delinquency continue to be concerns for youth in foster care, regardless of whether they are placed with families or unrelated caregivers (Ahmadi-Montecalvo et al., 2016; Gypen et al., 2017; Pilowsky & Wu, 2006). Farineu (2016) argued it may be the foster care experience, which is marked by instability, disrupted attachments, and exposure to trauma that plays a central role in shaping risks of delinquent behavior. This study both aligns with and extends prior research by suggesting while kinship care may offer certain protective factors, underlying challenges of foster care remain powerful influences on youth outcomes.

This study affirms prior research that highlights both vulnerabilities faced by foster youth and delicate role that placement type may play in behavioral outcomes. While kinship care may offer advantages, foster care continues to pose risks that demand further investigation. These findings highlight the need for attachment-informed practices and systemic reforms to improve outcomes for this population.

Contrast with Prior Research

This study did not confirm that placement with kin served as a protective factor against substance use or delinquency. While prior literature has consistently suggested kinship placements may offer greater emotional stability and stronger relational continuity, results of this study did not yield statistically significant differences between kin and nonkin placements in terms of measured outcomes. This lack of statistical significance indicates it is not possible to conclude placement with kin offers a clearly measurable protective benefit in terms of opiate use or delinquent behaviors.

An underlying assumption of this study was children who were placed with nonkin caregivers were more likely to form insecure attachments based on disruption of familiar bonds and the of care by unrelated adults. However, a major limitation in the current study was the absence of direct measures of attachment. Due to not measuring or assessing attachment style or quality of caregiver-child relationships, there is insufficient information regarding behavioral outcomes and attachment-related mechanisms.

Attachment Classifications in the Context of Findings

To further contextualize findings of this study, it is useful to examine how patterns of attachment may contribute to substance use and delinquency among youth in

foster care. The attachment theory was used for understanding how early relationships with caregivers' shaped emotional regulation, interpersonal functioning, and behavioral patterns throughout life. Foster youth have experienced disruptions involving caregiving that may contribute to insecure or disorganized attachment styles (Gardenhire et al., 2019).

Individuals with secure or autonomous attachment can reflect on their pasts objectively and value close relationships (George et al., 2011). They are generally not preoccupied with negative experiences from childhood and are more likely to form stable and healthy interpersonal connections (Ainsworth, 1985). This attachment style is considered protective and is the most prevalent in general populations, occurring in approximately 59–60% of individuals (Shaver & Hazan, 1987; Mickelson et al., 1997).

By contrast, those who are classified as dismissing tend to avoid emotional closeness and often idealize caregivers despite underlying histories of rejection (George et al., 2011; Main & Goldwyn, 1998; Ainsworth, 1985). This pattern is marked by a focus on self-sufficiency and achievement to manage emotional distress. Avoidant attachment is observed in about 23% of humans (Bakermans-Kranenburg & van IJzendoorn, 2009) and may be particularly relevant among foster youth who have learned to detach from caregivers as a coping strategy.

Entangled or ambivalently attached individuals often experience caregivers who are inconsistently available. This creates confusion and insecurity, as the child does not know what to expect from the attachment figure (Ainsworth et al., 1978; Bowlby, 1969). According to Ainsworth (1978), children with ambivalent attachment were hesitant to

explore and appeared both distressed by separation and conflicted during reunification. This style is found in roughly 20% of the population (Bakermans-Kranenburg & van IJzendoorn, 2009) and may be reflected in foster youth who struggle with inconsistent or unreliable caregiving environments (Dozier et al., 2002; Schindler & Bröning, 2015).

Finally, individuals with unresolved or disorganized attachment often have histories of trauma, neglect, or loss (Ainsworth, 1985; George et al., 2011; Perrotta, 2020). They may exhibit confusion or disorientation in relationships and tend to struggle with emotional regulation (Ainsworth, 1978). Disorganized attachment is considered the most maladaptive and is present in approximately 18% of the general population (Bakermans-Kranenburg & van IJzendoorn, 2009). This category is particularly important when considering foster youth, as many have experienced trauma that can disrupt attachment development and contribute to externalizing behaviors, including delinquency and substance misuse (Gardenhire et al., 2019; Schindler & Bröning, 2015).

While this study did not directly assess attachment classifications, its findings differ from much of the existing literature that strongly links insecure or disorganized attachment to increased behavioral problems among foster youth. Unlike prior research that has consistently emphasized a protective effect of kinship care on outcomes such as delinquency and substance use (Cheung et al.,2011; Rubin et al., 2008; Schindler & Bröning, 2015), the current study did not find statistically significant differences between youth placed with kin and those placed with nonkin. This lack of significance suggests that secure attachment may not be guaranteed simply by placement with relatives (Font, 2015). Although kin placements are often assumed to offer greater emotional

consistency, the findings here indicate that other factors such as caregiver capacity, placement stability, or prior trauma may complicate that assumption (Dozier & Rutter, 2008). These results highlight the need to explore the quality of caregiving and attachment security more directly rather than relying solely on placement type as a proxy.

To build upon the current findings, future research should consider including validated measures of attachment security to more clearly examine the role attachment plays in mediating or moderating the relationship between placement type and behavioral outcomes. Additionally, using a larger and more demographically diverse sample may increase the ability to detect subtle differences between groups and improve the generalizability of results. Longitudinal designs could also help determine whether any protective effects of kinship placement emerge or change over time, particularly as children transition through adolescence and early adulthood, critical periods for both substance use and delinquency.

Extension of Prior Research

This study extends to the current understanding of opiate use and criminality or delinquency by exploring the placement of youth into foster care with kin or nonkin. While many earlier studies have highlighted that foster youth face higher risks for substance use and delinquency compared to their non-fostered peers (Ahmadi-Montecalvo et al., 2016; Ryan et al., 2008), this study adds another layer by examining differences within the foster care experience itself. The current study provided new insights into whether placement type with kin or nonkin influences substance use or delinquent behavior among these two groups.

Although the results of this study did not yield statistically significant differences between placement groups at the $p < .05$ level, the meaningful effect sizes suggest that kinship placements may still have a protective influence. This interpretation is supported by research from Rubin et al. (2008), who found that youth placed with relatives experienced fewer behavioral problems and were more likely to form secure attachments. These findings echo the work of Font (2015), who demonstrated that kin placements are associated with greater placement stability—an important predictor of emotional adjustment and behavior regulation. When viewed through Attachment Theory (Bowlby, 1969) lens, the findings in the current study underscore the possibility that the emotional security fostered by familiar caregiving relationships such as kinship care, can mitigate the risk of substance use and antisocial behavior (Gardenhire et al., 2019).

Furthermore, the current study extends the research by pinpointing opiate use, a subset of substance abuse that has not been adequately examined in relation to foster care placement. Most prior studies on foster youth and substance use focus on broad categories such as alcohol, marijuana, or general drug use (Ahmadi-Montecalvo et al., 2016; Pilowsky & Wu, 2006). However, the opioid epidemic has had an enormous effect on vulnerable populations, including those in foster care (U.S. Department of Health & Human Services [HHS], 2023). By pinpointing opiate use as an outcome variable, this study addresses a significant gap in the literature and highlights the need for targeted prevention strategies in child welfare settings (Braciszewski & Stout, 2012).

Another contribution of this study is its integration of Bowlby's attachment theory as a guiding framework. Few studies connect placement type with behavioral outcomes

using this theoretical foundation (Dozier & Rutter, 2008). By exploring how kinship placements may support or disrupt the formation of secure attachments, the current study offers a theoretical bridge between relational processes and behavioral consequences. Even though attachment was not directly measured in the current study, the observed trends support the growing consensus that placement with kin may offer relational stability, which can reduce psychological distress and foster resilience (Leve et al., 2012).

Lastly, this study encourages future research to adopt more distinct approaches that account for moderating and mediating variables, such as age at placement, trauma history, and caregiver stability. These contextual factors may explain why some youth thrive in foster care while others continue to struggle, even when placed with kin. This highlights the importance of designing studies that move beyond two placement categories and consider the lived experiences and complexity of foster youth.

Theoretical Findings

The present study theoretically adds to our understanding of the significance of attachment. This study's foundation is grounded in Bowlby's (1969) *Attachment Theory,* highlighting the importance of early childhood attachment. Bowlby argued that disruptions in attachment can lead to adverse emotions and behaviors. Ainsworth (1989) built on this idea in her research, identifying that individuals with "insecure" attachment styles are more prone to behavioral issues, including substance abuse and delinquency. Later research has further linked insecure attachment to substance abuse and delinquency (Schindler & Bröning, 2015). While the current study did not find statistically significant results for the combined opiate use and delinquency, the findings do suggest the

importance of considering attachment or attachment styles in understanding each of these behaviors, as the effect sizes between placement types (kin versus nonkin) were meaningful. Even so, the meaningful effect sizes alone do not fully account for the behavioral outcomes on opiate use and delinquency. The meaningful effect sizes suggest that caregiver relationships (kin vs. nonkin) could still influence the development of secure or insecure attachments. The presence of meaningful differences, though not statistically significant, may reflect subtle, qualitative differences in caregiver-child dynamics that quantitative methods may not fully capture.

Placement with Kin and Secure Attachment Styles

Foster care was initially established as a protective intervention for children who had experienced abuse, neglect, or other forms of maltreatment in their primary home environments (Child Welfare Information Gateway, 2018). It is often assumed that foster care placement, whether with kin or nonkin, will provide a safer and healthier alternative that supports the child's developmental and emotional needs. However, as Miranda, Molla, and Tadros (2019) pointed out, children who enter the foster care system frequently carry histories of trauma that impair their ability to form healthy attachments. In alignment with Bowlby's (1969) and Ainsworth's (1978) work on attachment, these children often present with preexisting insecure attachment patterns shaped by inconsistent, neglectful, or abusive caregiving before removal. These patterns can make bonding with new caregivers, including foster parents, difficult, as the child may lack the internal framework to trust or expect consistency in relationships (Bowlby, 1969; Dozier et al., 2002; Gardenhire et al., 2019).

Kinship caregivers such as grandparents, aunts, uncles, or older siblings are more likely to have existing emotional bonds with children before placement (Child Welfare Information Gateway, 2018; Winokur, Holtan, & Batchelder, 2014). These pre-existing relationships can serve as a foundation for developing or maintaining secure attachment styles, which are associated with greater emotional regulation, resilience, and lower rates of externalizing behaviors such as delinquency and substance abuse. According to Bowlby's attachment theory, children form internal working models of relationships based on early caregiving experiences. Even when not ideal, family placements may offer a sense of familiarity, continuity, and emotional safety that helps preserve or rebuild these internal models (Font, 2015; Rubin et al., 2008). When children remain connected to their family of origin through kin placements, they may also experience less disruption in their cultural identity and family ties, which are protective factors against behavioral issues (Child Welfare Information Gateway, 2020; Frame & Berrick, 2014). So, even with the lack of statistical significance in this study, the meaningful effect sizes shown in the results may reflect the subtle yet significant effects of these relational dynamics on the child's emotional and behavioral outcomes.

Foster Care and Disruption of Attachment

Conversely, the foster care experience itself is inherently disruptive to the attachment process. Regardless of whether a child is placed with kin or nonkin, removal from the biological home typically results from trauma, neglect, or abuse, all of which destabilize a child's emotional world (Bowlby, 1969; Child Welfare Information Gateway, 2022). It has been the experience of many foster care youth, many changes in

caregivers. These ongoing disruptions make it difficult for them to build stable, trusting relationships, which can interfere with emotional development (Lewis, et al., 2023; Rubin et al., 2008). As a result, some youth may turn to behaviors like substance use or delinquency as ways of coping with feelings of insecurity or instability and may contribute to the development of insecure attachment patterns (Kim & Leve, 2011; Shpiegel et al., 2016). Even kin caregivers may not be fully equipped to address the complex trauma children bring with them, especially without appropriate support systems. This perspective supports Farineu's (2016) claim that the broader foster care experience, marked by instability, loss, and system involvement, may exert a more powerful influence on outcomes than placement type alone.

While foster care is intended to provide safety and stability for children removed from harmful home environments, the experience itself often introduces new emotional and psychological challenges. From an attachment theory perspective, these disruptions impair the child's internal working model of relationships leading to difficulties in emotional regulation and interpersonal functioning. (Ainsworth, 1978; Bowlby, 1969). As Bowlby (1969) theorized and Ainsworth (1978) further demonstrated, children who do not experience consistent, responsive caregiving are more likely to develop insecure attachments. In the context of foster care, even well-meaning caregivers may struggle to establish trust with children who have experienced past trauma or inconsistent caregiving, particularly when placements are short-term or frequently changed (Rubin et al., 2008; Gardenhire et al., 2019; Lewis et al., 2023).

These attachment disruptions are not only theoretical—they are closely linked to behavioral outcomes, as shown in the literature (Gardenhire et al., 2019; Schindler & Bröning, 2015). Experimentation with substances, while sometimes a part of typical adolescent development, takes on more serious implications for foster youth (Ahmadi-Montecalvo et al., 2016; Kim et al., 2017; Pilowsky & Wu, 2006). Children in foster care are at significantly higher risk for substance use and substance use disorders. Kim et al. (2017) reported that foster youth are two to five times more likely to experience substance abuse compared to youth without foster care involvement. Similarly, Ahmadi-Montecalvo et al. (2016) found higher rates of illicit drug use among foster youth, including elevated use of methamphetamine and heroin. Their findings also noted that children who entered foster care at older ages, and those who experienced multiple placements, were more likely to engage in maladaptive behaviors like substance use. These patterns further reflect the emotional and relational instability many foster care youth face, particularly when their attachments have been disrupted repeatedly (Bowlby, 1969; Dozier et al., 2002; Kim & Leve, 2011).

The same pattern is echoed in the link between foster care and criminal behavior. Though foster care was created to serve as a protective intervention, the experience can contribute to behavioral and mental health challenges that increase the risk for delinquency and long-term justice involvement (Farineu, 2016). Farineu noted that foster youth engage in criminal behavior at higher rates than their non-foster care peers. Pfluger (2016) attributed this trend to the accumulation of adverse life experiences, trauma, instability, educational disruption, and lack of social support, which not only affect youth

developmentally, but also place them at risk for homelessness, unemployment, and reduced educational attainment as adults. These challenges limit opportunities and contribute to a cycle of juvenile and adult criminal justice involvement. Kolivoski et al. (2014) estimated that foster youth are twice as likely to become involved in the juvenile and adult criminal justice systems.

These patterns provide critical context for interpreting the findings of the present study. While the results of the MANOVA did not reveal statistically significant differences in opiate use or delinquency between foster youth placed with kin and those placed with nonkin, independent *t*-tests indicated meaningful effect sizes for both variables. These effect sizes suggest that placement type may still influence behavioral outcomes in practical and clinically relevant ways, even if not reaching statistical significance. Children placed with nonkin caregivers demonstrated higher levels of both opiate use and delinquency, aligning with the idea that emotional distance, unfamiliarity, or lack of prior attachment in nonkin placements may exacerbate existing behavioral risks (Gardenhire et al., 2019; Miranda et al., 2019; Schindler & Bröning, 2015).

The findings support the theoretical understanding that attachment disruptions and placement instability contribute to adverse behavioral outcomes but also highlight that kin or family placements may offer a protective buffer not necessarily eliminating risk but possibly mitigating it (Bowlby, 1969; Gardenhire et al., 2019; Rubin et al., 2008). Even though all participants in this study had experienced foster care-related disruptions, those placed with family may have benefited from increased emotional familiarity, cultural continuity, and stronger relational bonds, factors which, as the literature suggests,

can promote more secure attachment and reduce reliance on maladaptive coping strategies such as substance use or delinquency.

Therefore, this study contributes to the broader discussion by confirming that risk behaviors persist within foster care regardless of placement type, while also suggesting that the quality and familiarity of caregiving relationships (as seen in kin placements) may influence behavioral outcomes in meaningful ways. These results further emphasize the importance of trauma-informed care, stability, and attachment-focused practices within foster care systems, particularly for nonkin placements that may lack the inherent relational foundation that kin caregivers provide (Gardenhire et al., 2019; Kim et al., 2017; Rubin et al., 2008; Schindler & Bröning, 2015). Pereira et al. (2025) are currently conducting a randomized controlled trial to evaluate foster care relationships through attachment-based interventions. The researchers hope that the findings will contribute to or provide insight into improving caregiver-child relationships, leading to better outcomes for foster care youth. This could help child welfare professionals better understand how to support stable relationships in foster care. Instead of relying only on behavior management or case compliance, the study may show that building trust and emotional connection between caregivers and youth plays a key role improving long-term outcomes.

Empirical Findings

Empirically, this study offers some meaningful observations about the relationship between foster care placement type and outcomes like delinquency and substance use. While the combined measure of opiate use and delinquency didn’t reach

statistical significance, the differences observed between children placed with kin and those placed with nonkin were still notable. The effect sizes were large enough to suggest there could be a real and important distinction between the two groups—one that might be more clearly supported in a larger or more diverse sample.

Even without statistical significance at the conventional level, the results point to something worth paying attention to. Children in kinship care may benefit from more stable and familiar environments, and that stability could have a protective effect against behaviors like drug use or delinquent activity. This idea fits with what *Attachment Theory* predicts—namely, that secure, consistent caregiver relationships are a major influence on emotional and behavioral development. When children are placed with people they already know and trust, like relatives, the attachment disruption that often comes with foster care may be less severe (Bowlby, 1969; Font, 2015; Gardenhire et al., 2019; Kim et al., 2017; Rubin et al., 2008; Schindler & Bröning, 2015; Winokur, Holtan, & Batchelder, 2014).

These findings also echo what other researchers have reported about the value of kinship placements. While the limitations of this study, especially in terms of sample size, make it important not to overstate the conclusions, the patterns that did emerge suggest this is an area that deserves more research. Studies that follow youth over time, or that use more nuanced measures of attachment quality and behavioral outcomes, could help clarify how and why placement type matters (Font, 2015; Rubin et al., 2008; Schindler & Bröning, 2015).

Although the findings here are not conclusive, they point in a direction that aligns with theory and prior evidence. What emerges is a reminder that foster care decisions shouldn't focus solely on logistics or safety; the emotional bonds and relational consistency children experience also matter deeply (Font, 2015; Rubin et al., 2008; Schindler & Bröning, 2015). That might be key in supporting better long-term outcomes for youth who've already faced significant disruptions.

Limitations of the Study

While this research study provided some valuable insights into the use of opiate use and delinquent and criminal behavior of youth that are placed into foster care, it is important to recognize several limitations that may have had impact on the findings. First, the study used a convenience sample, which may not entirely represent a larger population. The convenience sampling method can introduce selection bias that can present a misleading representation of the sample leading to an overrepresentation of certain demographics within the sample leading to a skewed view (Creswell & Creswell, 2018; Etikan et al., 2016). Additionally, the sample size for this study was small, limiting the ability to make conclusions about the generalizability to larger populations. Furthermore, the study relied on self-reported survey responses to measure opiate use and delinquency. Self-report instruments, especially regarding sensitive behaviors, post risk for social desirability bias, recall bias, and underreporting (Tourangeau & Yan, 2007). Participants may have minimized or exaggerated their behaviors, which could affect the accuracy of the data and interpretation of the results.

In addition, this study, seemingly a cross-sectional design, captured data at a single point in time. While this design allows for identifying associations, it does not permit conclusions about causality or changes in behavior over time (Creswell & Creswell, 2018; Levin, 2006). A longitudinal approach would be better suited to understanding how placement type and attachment experiences influence substance use and delinquency as youth continue to age and develop.

Although this research study collected information on the duration of participants' time in foster care, it did not account for the duration of their current or past placements nor the number of placement disruptions they may have experienced. Placement stability is a known factor influencing attachment, behavioral adjustment, and substance use outcomes (Rubin et al., 2007). Ignoring these variables may have obscured important contextual influences on the outcome measures.

The research study also did not represent gender demographics, which may have provided a diverse perspective. The lack of gender demographics could have limited the ability to examine whether placement type influenced outcomes differently for males and females. Prior research has found that gender may shape how youth respond to early disruptions in attachment and caregiving. For instance, boys are more likely to exhibit externalizing behaviors, such as aggression and delinquency, while girls may internalize stress through anxiety, depression, or substance use (Crosnoe & Elder, 2004; Greeson et al., 2013; Kerr, Stattin, & Özdemir, 2012). Gender may also influence how attachment is experienced and expressed, especially in high-risk environments such as foster care (Karaırmak & Oğuz-Duran, 2008). Without accounting for these differences, the present

study may have missed meaningful variations across subgroups. The inclusion of gender in future research would support and increase understanding of how placement type, attachment, and behavioral outcomes interact, and could improve the relevance and applicability of findings for diverse foster youth populations.

Another important limitation of this study is the absence of direct measures of attachment. While the theoretical framework was grounded in Bowlby's (1969) Attachment Theory, this study did not assess the participants' attachment classifications (Perotta, 2020) or the quality of the caregiver-child relationship. As a result, it remains speculative to attribute behavioral outcomes such as delinquency or opiate use directly to attachment-related mechanisms. Without validated measures of attachment security, conclusions about the influence of kin versus nonkin placement on attachment and its behavioral consequences must be interpreted with caution.

A further limitation concerns the operationalization of the ordinal outcome variables of opiate use and delinquency into a continuous variable. The operationalization involved treating ordinal variables with five or more categories as continuous variables. This approach was supported by the reasoning that Likert scale or ordinal variables with five or more categories can generally be treated as continuous, as this does not typically compromise the validity or accuracy of the analysis (Johnson & Creech, 1983; Norman, 2010; Sullivan & Artino, 2013; Zumbo & Zimmerman, 1993). This approach is often called ordinal approximation of a continuous variable. While this approach may be widely accepted, this method may have simplified the data, potentially concealing delicate patterns in behaviors relating to opiate use. In addition, the operationalization of

delinquency involved summing or averaging the ordinal variable to create an "approximate continuous variable." Although this method is the more common method in survey-based research, this simplification may not have captured the intricacy of the underlying construct of delinquency limiting the interpretation of the findings (Norman, 2010; Zumbo & Zimmerman, 1993).

Lastly, the current study did not control for potentially confounding variables that could have affected the findings. The study did not include factors such as the age participants entered foster care, their trauma histories, existing mental health conditions, or their participation in treatment services. These omissions are significant because prior research (Rubin et al., 2007) indicates these variables strongly predict substance use and delinquent behavior in foster youth. For instance, young people who have experienced more trauma or entered foster care during adolescence might be more prone to behavioral issues, regardless of where they were placed. Similarly, untreated psychological conditions or limited engagement in treatment could independently influence the behaviors we measured (Dozier et al., 2002; Pilowsky & Wu, 2006; Ryan et al., 2008). Because the current study did not control for these variables, it is tough to conclude whether the type of foster care placement alone truly caused the patterns that were seen in the data. This weakens the study's internal validity. Future research should include these factors to get a more accurate picture of how placement type and attachment dynamics impact outcomes.

In summary, the limitations in this study suggest the need for future research that may include larger sample sizes and more refined methods for analyzing data to have a

better understanding of opiate use and delinquency among foster care youth that are placed into the foster care system with either a family member or a nonfamily member.

Recommendations

Given this study's strengths and limitations, several recommendations for future research are made to build on these findings and better understand how opiate use, delinquency, and foster care placement are connected. This research focused on comparing children placed with family (kin) to those placed with non-family (nonkin) caregivers and how those placements might affect opiate use and delinquent behavior. While the study adds to the existing research on attachment and foster care, it also points to several areas where more work is needed.

Improved Sample Diversity and Demographic Representation

One of the major issues in this study was the limited sample. This is because a convenience sample was used. Also, the study excluded gender data. Because of this, it is hard to say whether the results were generalizable. Future work should aim for a sample that better reflects different background that includes gender, race, and age. A more representative group might show clearer patterns in how youth respond to foster care placements, particularly when it comes to substance use or delinquency. Gender, for instance, could influence how children experience placement or form attachments, so it is something that should be considered in future studies (Karaırmak & Oğuz-Duran, 2008).

Refined Measurement Strategies for Complex Constructs

I used survey data that turned ordinal responses into continuous ones. Additionally, the study did not include any direct measure of attachment, despite the

attachment theory serving as the theoretical foundation. This omission limited the ability to draw strong conclusions about the role attachment may have played in influencing behavioral outcomes (Dozier et al., 2002; Gardenhire et al., 2019). Future research should incorporate validated instruments that assess attachment style or relationship quality, especially within caregiver-child dynamic. Future researchers should also consider more precise measurement tools. This would include ones designed to capture the intensity or frequency of these behaviors. Using tools developed specifically for youth behavior or substance use could bring out more useful insights (Kim et al., 2017; Pilowsky & Wu, 2006). Also, qualitative input, like interviews or open response, might help uncover the reasons or context behind certain behaviors (Creswell & Creswell, 2018).

Longitudinal Designs to Understand Developmental Paths

Because this study only captured one point in time, it doesn't show how things might change later. A child's behavior, or their response to a placement, can shift as they grow older. Following kids over time, especially as they move through adolescence, would help show whether placement type makes a lasting difference (Creswell & Creswell, 2018; Ryan et al., 2008). Longitudinal studies would also help identify when issues like substance use or delinquency begin to emerge. Longitudinal data could also capture how shifts in placement, such as moves between kinship and nonkinship care, or reunification with biological parents, affect long-term adjustment. This kind of research would not only deepen our understanding of developmental paths but could also inform interventions aimed at supporting children before problems escalate (Kim & Leve, 2011;

Pilowsky & Wu, 2006). By identifying patterns early, foster care systems could intervene more effectively and tailor support to the changing needs of youth over time.

Role of Attachment in Multiple Placements Settings

This research focused on kin versus nonkin care, but these are not the only types of placements. Group homes, residential centers, and even reunification with biological parents can all affect a child's ability to form secure relationships (Dozier et al., 2002; Ryan et al., 2008). Future studies could explore how attachment plays out in these settings too. For example, examining the stability, quality, and emotional availability of caregivers across placement types could help researchers understand which relationships best support children's emotional development (Gardenhire et al., 2019; Schindler & Bröning, 2015). Measuring the strength or quality of those relationships using attachment-specific tools could give a clearer sense or picture of how much the caregiver connection influences outcomes for substance use and delinquency (Kim et al., 2017; Pilowsky & Wu, 2006).

Environmental and Related Factors

Delinquency and substance use don't happen in a vacuum. Things like trauma history, school involvement, how many times a child has been moved, and the caregiver's own stability can all play a role (Dozier et al., 2002; Kim & Leve, 2011; Pilowsky & Wu, 2006; Ryan et al., 2008). Future research should consider how these factors interact with placement type and attachment. This could help explain why some children do well in certain placements while others struggle.

Applying Findings to Practice and Policy

If research can point out which types of placements reduce risk or improve long-term outcomes, this can directly inform how foster care systems make decisions. The goal should be to apply findings in a way that helps agencies, caregivers, and policymakers support children more effectively, especially when it comes to preventing drug use or involvement with the justice system.

Implications

This study's findings offer meaningful insights that could help support positive change at several levels, including the individual, family, organizational, and societal. They touch on areas such as attachment, delinquency, and substance use, including opiate use. These issues remain critical when working with children in foster care, particularly when considering the emotional effects of placement decisions. The results suggest a need for thoughtful strategies that focus on strengthening relationships and preventing risk behaviors over time.

At the individual level, the role of attachment in behaviors such as delinquency and substance use, particularly opiate use, could lead to more interventions for at-risk individuals. Despite the statistically insignificant results, the study suggests that attachment disruptions within the context of foster care may be linked to increased risks for delinquent behaviors and substance use, including opiate use (Bakermans-Kranenburg & van IJzendoorn, 2009; Dozier et al., 2002; Pilowsky & Wu, 2006; Schindler & Bröning, 2015). Early detection of attachment issues could lead to early interventions that could focus on building emotional resilience and enhancing coping mechanisms that

could help reduce or prevent negative behaviors like substance use and delinquency for children in the foster care systems (Gardenhire et al., 2019; Kim & Leve, 2011).

At the family level, the study's findings regarding kinship placement in foster care highlight the importance of the family dynamic in modifying risks for both delinquency and substance use. When placed with family caregivers, children may experience more stable and emotionally secure home environments that promote more secure attachment (Font, 2015; Gardenhire et al., 2019; Kim et al., 2017; Rubin et al., 2008; Schindler & Bröning, 2015). These bonds, in turn, could serve as a protective factor against both delinquency and substance use, including opiate use (Kim et al., 2017; Schindler & Bröning, 2015). As a result, these children may be less likely to engage in risky behaviors.

At the organizational level, the findings suggest that foster care agencies should or could integrate Attachment Theory (Bowlby, 1969) into their programming. Foster care and social service agencies could train staff in the role of attachment in child development and particularly how disruptions in attachment can lead to delinquency and substance use, including opiate use (Dozier et al., 2002; Gardenhire et al., 2019; Schindler & Bröning, 2015). By including attachment in training to address both emotional and behavioral aspects of these concerns, organizations can offer approaches to care that are focused on the prevention of the development of substance use disorders or delinquency in this at-risk population.

At the societal level, the study's findings could inform policies aimed at the prevention of substance use and delinquent behaviors among at-risk foster care youth.

Policymakers could advocate for policies that prioritize family or kinship placement as these are more likely to foster secure bonds or attachments that, in turn, may reduce delinquent and substance use behaviors (Font, 2015; Rubin et al., 2008). Policies that encourage the integration of attachment-based practices programs could then improve recovery outcomes for individuals or children who have been placed into the foster care system (Dozier et al., 2002; Gardenhire et al., 2019; Schindler & Bröning, 2015). Ultimately, fostering more secure attachments from an early age may reduce the long-term societal costs of delinquency and substance use, including opiate use, that may lead to overdose and death (Pilowsky & Wu, 2006).

In addition to the above implications at the individual, family, organizational, and societal levels, this study points to the importance of improving how various systems work together in supporting foster youth. Many children in care face challenges that cross over child welfare, education, mental health, and juvenile justice. Children can fall through the cracks when these systems do not communicate collectively (Bruskas, 2008; Fraser et al., 2014). To prevent this, stronger cooperation among agencies is needed. Programs that focus on relationships and trauma should be part of that effort. Caregivers, whether relatives or not, often need guidance and tools to help them respond to children who have been hurt or moved from their home environments (Bath, 2008; Greeson et al., 2013; Leve et al., 2012). Training in approaches like Dyadic Developmental Psychotherapy (Hughes, 2006; Becker-Weidman, 2006) or Trauma-Focused Cognitive Behavioral Therapy (Cohen et al., 2017) could be helpful, especially when these methods are adapted to fit child welfare settings. Making this kind of care more widely available,

however, requires stable funding and clear policy support. Prioritizing placements that promote connection and emotional safety, particularly with family members, and ensuring youth have access to mental health services could help reduce later behavioral problems, including drug use and delinquency (Font, 2015; Rubin et al., 2008).

Methodologically, this study highlights the usefulness of transforming ordinal data into continuous composite scores in analysis when using validated scales such as the Delinquency Scale. Although the study used a convenience sample and findings were statistically insignificant, the meaningful effect sizes underline the importance of reporting both statistical and practical significance. Future research should consider more diverse and larger samples to increase generalizability and statistical power.

Conclusion

This study offers some helpful insight into how attachment may play a role in things like opiate use and delinquency among youth in foster care. While the combined results for those two outcomes were not statistically significant, the differences between kids placed with kin and those placed with nonkin suggest attachment still matters (Bakermans-Kranenburg & van IJzendoorn, 2009; Gardenhire et al., 2019; Rubin et al., 2008). These results give a glimpse into how stable caregiver relationships might help lower the risk of substance use or acting out, especially in youth facing the challenges of foster care (Font, 2015; Kim et al., 2017; Schindler & Bröning, 2015).

Even though the results did not show strong statistical support, the patterns point to something worth attention. When attachment is disrupted, foster youth may be more likely to struggle with stress and emotional regulation, which can sometimes lead to

things like drug use or delinquent behavior (Bakermans-Kranenburg & van IJzendoorn, 2009; Kim et al., 2017; Rubin et al., 2008; Schindler & Bröning, 2015). Noticing these links is a reminder of why early support and interventions focusing on resilience and connection can matter, especially for youth in high-risk caregiving contexts (Leve et al., 2012; Gardenhire et al., 2019).

This research also underlines the importance of bringing more attention to attachment in foster care practice. It is in line with other studies showing the value of kinship care but also adds to the idea that meeting the emotional needs of children matters just as much as providing for their physical care (Font, 2015; Rubin et al., 2008). Helping foster parents, caseworkers, and agencies understand the role of attachment might lead to better support systems (Dozier et al., 2002; Gardenhire et al., 2019; Hughes, 2006). Programs that help kids build stronger coping skills and healthier relationships with their caregivers could help cut down on substance use and behavior problems (Leve et al., 2012; Schindler & Bröning, 2015).

There is still plenty of room for future research in this area. Bigger and more diverse samples or long-term studies that follow youth over time could help explain how placement and attachment work together to shape outcomes. It would also be helpful to look at how things like trauma or peer influence connect with attachment and behavior. Taking a wider approach could help explain why some youth are more vulnerable than others.

Overall, the current research study has the potential to do more than fill a gap in the literature; it can help improve how decisions are made in the real world. Focusing on

attachment when making placement decisions or designing programs could lead to stronger support for foster care youth (Dozier et al., 2002; Gardenhire et al., 2019). Policies that expand kinship care and bring attachment-based practices into everyday care might help kids avoid long-term risks linked to drugs or delinquency (Font, 2015; Rubin et al., 2008; Schindler & Bröning, 2015) and in some cases, paying attention to these early relationships may even help prevent serious outcomes tied to opiate use, such as overdose (Kim et al., 2017; Leve et al., 2012). By including attachment in policy and practices, society can create more effective interventions for preventing delinquency and substance use that will ultimately promote healthier and more resilient families while also saving lives.

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