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Eloisa Deshazer

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INVESTIGATING THE LEVEL OF EVIDENCE OF ADVERSE CHILDHOOD EXPERIENCES AND PARENTING PRACTICES: A SYSTEMATIC REVIEW

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

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by

Eloisa Deshazer

May 2024

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ABSTRACT

Background: Adverse childhood experiences (ACEs) are associated with mental and physical health outcomes of children, but less is known about how ACEs impact parenting. **Objective:** This study systematically reviewed the evidence of the association between parental adverse childhood experiences and parenting behaviors. **Methods:** The study employed a rigorous methodology, including searching several electronic databases, such as the CSUSB search engine, EBSCOhost Academic Search Premiere, PsycINFO, PubMed, and ScienceDirect. The keywords used for the search process included Adverse Childhood Experiences, ACEs, Maltreatment, Adverse Experiences, Traumatic Experiences, and Parenting or Childrearing. Inclusion criteria were restricted to studies published between 2014 and 2024. **Results:** In total, seven studies were identified. Most of the studies (85.00%) were conducted within the United States. The findings of this review revealed that there is a significant relationship between parental ACEs and parenting, with parents who have experienced ACEs being more prone to displaying harsh, authoritarian, or permissive and inconsistent parenting styles. Similarly, the results indicate that the number of ACEs experienced by parents is directly proportional to the negative parenting outcomes. **Conclusion:** Although the limited number of studies and heterogeneity of participants' gender restrict the findings' generalizability, this review calls for interventions to address parental ACEs to improve parenting practices and promote positive child outcomes. Further

research should focus on using diverse and larger sample sizes to explore this association further.

ACKNOWLEDGEMENTS

To my family, thank you for your understanding and unwavering support.

DEDICATION

To all the parents who have experienced ACEs and are working to break the cycle of trauma for their children, this research is dedicated to you. Your resilience, strength, and dedication to providing a safe and nurturing environment for your children inspire us all. May this research on ACEs and parenting practices provide you with the knowledge and tools you need to continue your journey toward healing and creating a better future for your family.

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CHAPTER ONE

PROBLEM FORMULATION

Introduction

Adverse childhood experiences (ACEs) are a complex and multifaceted issue that has garnered considerable attention from public health experts. The Centers for Disease Control and Prevention (CDC) has identified ACEs as a major public health concern due to their severe and chronic impact on an individual's physical and cognitive health. This chapter seeks to provide readers with a comprehensive understanding of ACEs in the United States through five distinct sections. The first section defines adverse childhood experiences as they are known in the United States. The second section provides a brief history of ACEs. The third section explores the prevalence of ACEs, while the fourth section delves into their impact. The chapter concludes by examining the risk factors associated with ACEs.

Problem Definition

According to the CDC (2021), *adverse childhood experiences*, commonly referred to as ACEs, encompass a range of stressful and traumatic events that occur during childhood between the ages of 0 and 17 years. These events are classified into three categories: abuse, neglect, and household dysfunction, with each classification further separated into multiple subcategories (CDC, 2021). Abuse can be categorized into subcategories such as physical, sexual, or

emotional, whereas neglect can be either emotional or physical. Household dysfunction includes witnessing violence within the family, having a parent with a mental health or substance abuse disorder, experiencing parental separation or divorce, or having an incarcerated parent. The examples provided are not exhaustive, as many other traumatic experiences can affect an individual's health and well-being (CDC, 2021).

History

The term ACEs was coined by the investigators of the CDC-Kaiser Permanente study in the 1990s (Felitti et al., 1998). Dr. Vincent Felitti, a specialist in internal medicine and epidemiology, was the principal investigator in the study and analyzed the correlation between childhood trauma and health outcomes later in life.

The ACE study originated from observations made in the mid-1980s during an obesity program at Kaiser Permanente, San Diego. At the time, the program had experienced many dropouts, and upon further investigation, researchers found that most of the dropouts had been successfully losing weight. Researchers then conducted interviews with almost 200 of those individuals. To their surprise, they unexpectedly discovered that childhood maltreatment was common among the participants and had occurred before their obesity. Many of those interviewed reported an association between the two, with obesity serving

as a coping mechanism for problems that had never been addressed before (Felitti et al., 1998).

From 1995 to 1997, researchers carried out the ACE study, investigating how traumatic childhood events may negatively impact adult health. As part of the research, a survey regarding ACEs was sent via mail to 13,494 adult individuals who had undergone a standardized medical assessment. The study received responses from almost 10,000 individuals. The researchers analyzed seven types of ACEs, including physical, psychological, or sexual abuse, violence towards the mother, residing with relatives struggling with substance use, mental health problems or suicidality, or incarceration. The researchers then analyzed how many ACE categories were encountered by people and how they related to their adult behavior, health, and illness. Key findings indicated that ACEs were vastly more prevalent than recognized or acknowledged, with specific groups being more susceptible to experiencing them due to societal and economic circumstances. Moreover, the study findings showed a strong connection between ACEs and subsequent adult health and wellness consequences (Felitti et al., 1998). This counterintuitive discovery has since sparked an explosion of interest in the topic.

Prevalence

Childhood trauma, including ACEs, is a consequential issue in the United States, affecting an immense portion of the population. Following the publication of the ACE study, the CDC declared ACEs a major public health concern (CDC,

2019). Data from the Behavioral Risk Factor Surveillance System (BRFSS) showed that a significant percentage of adults in the United States have experienced at least one ACE (CDC, 2021). It was estimated that over 60% of adults have had at least one ACE, while 17% have experienced four or more (CDC, 2021). Moreover, the study published by Fellitti et al. in 1998 showed the association between the different types of adverse childhood experiences. For example, 52% of those who experienced psychological abuse also experienced physical abuse. These findings suggest that abuse tends to co-occur. The data also showed that particular groups, such as females aged between 25 and 34 years, American Indian or Alaska Native adults who are not of Hispanic origin, adults identifying with two or more races, non-high school graduates, and those unemployed or disabled, were more likely to report having four or more ACEs. These statistics highlight the urgent need for proactive measures and effective interventions to address ACE in the United States.

Impact

Adverse childhood experiences can have a profound impact on both physical and mental health outcomes in childhood and later in life. ACEs can lead to changes in the brain's stress response system, thus increasing physical and mental health problems (Danese & McEwen, 2012). Indeed, the impact of ACEs on physical and mental health has been widely studied and documented. Studies have unequivocally found the consequences of ACEs to be devastating,

affecting multiple areas of an individual's life, and long-lasting, with effects that persist to adulthood.

Mental Health

Childhood Exposure to ACEs has been linked to attention-deficit/hyperactivity disorder (ADHD) in children. The influence of ACEs on ADHD diagnosis was examined using a nationally representative sample of children in the United States. (Walker et al., 2021) In this study, it was found that there was a strong association between ACEs and ADHD diagnosis. The association exhibits a gradient pattern, with a higher prevalence of ADHD observed with an increased number of ACEs. Children with one, two, or three or more ACEs had odds of ADHD diagnosis 1.39, 1.92, and 2.72 times higher, respectively, than children with no ACEs. Of the ACEs studied, living with someone with a mental illness was most strongly associated with an increased risk of ADHD diagnosis, followed closely by parent/guardian incarceration. (Walker et al., 2021) Furthermore, a secondary analysis study found that children exposed to ACEs both before the age of 5 and between the ages of 5 and 9 were associated with ADHD diagnosis at the age of 9. These findings are in line with previous studies that have linked ACEs to poor developmental and behavioral outcomes.

Adulthood The long-term consequences of ACEs on mental health are also a cause for concern. Studies investigating the relationship between ACEs and mental health have revealed that those who have encountered ACEs are significantly more prone to developing mental health conditions, such as post-

traumatic stress disorder (PTSD), anxiety, and depression in adulthood. (Felitti et al., 1998; Anda et al., 2006; Jimenez, et al., 2017). Specifically, adults who have experienced a higher number of ACEs are more likely to display symptoms of depression than those who have had fewer or no ACEs. Those who reported being subjected to emotional abuse during their childhood are 3.5 times more likely to meet the diagnostic criteria for major depressive disorder (MDD) than those who have not experienced emotional abuse (Jimenez et al., 2017). Additionally, ACEs can increase the risk of suicidality in adolescents and adults (Dube et al., 2001). According to a study conducted by Dube et al. (2001), it was found that out of 17,337 participants, 3.8% of them had a history of attempting suicide at least once in their lifetime. The prevalence of suicide attempts increased drastically by 2 to 5 times as the number of ACEs reported in any category increased. Furthermore, ACEs have been connected to the development of substance use disorders, as individuals who have experienced ACEs may turn to drugs or alcohol to cope with the trauma they have experienced (Dube et al., 2003). Research has also found that those who had encountered five or more ACEs were significantly more likely to report drug addiction than those who had not experienced ACEs, with a seven to ten times greater likelihood (Dube et al., 2003).

Physical Health

Childhood Aside from affecting mental health, ACEs have also been associated with various physical health issues during childhood. For instance,

studies have found a correlation between ACEs and the onset of asthma in children. In a study by Ross et al. (2021), the researchers examined the relationship between cumulative and individual ACEs and asthma severity by studying children aged between 0 and 17 years who had an asthma diagnosis. The results showed that ACEs, especially household economic hardship, having a parent who served time in jail, and witnessing household or neighborhood violence, were each associated with a higher likelihood of moderate/severe caregiver-reported asthma. More specifically, children who witnessed parental violence had an even greater chance of developing moderate/severe asthma.

Adulthood***.*** One of the most significant impacts on physical health in adults is the increased risk of long-term diseases such as cancer, heart disease, and diabetes. (Felitti et al., 1998; Anda et al., 2006; Hughes et al., 2017). The study conducted by Felitti et al. in 1998 analyzed the relationship between the number of ACE categories and disease measures. More than half of the respondents reported at least one ACE category, with one-fourth reporting two or more categories of childhood exposures. The study revealed a graded relationship between the number of ACE categories and the adult health risk behaviors and diseases that were studied. Those who had experienced more categories of adverse childhood exposures were more likely to suffer from adult diseases such as cancer, heart disease, and diabetes. The study also found that the seven categories of adverse childhood experiences were strongly interrelated, meaning

that individuals who had multiple categories of childhood exposure were likely to have multiple health risk factors later in life.

Risk Factors

Risk factors increasing the likelihood of experiencing ACEs can be categorized into individual, family, and community factors. However, the following list is only some, but not all, risk factors. It is important to note that while individual, family, and community risk factors can increase the likelihood of experiencing ACEs, ACEs can affect individuals from all backgrounds and socioeconomic levels (CDC, 2021).

Individual

Individuals may have different levels of vulnerability to ACEs based on certain risk factors. These risk factors may include age, gender, race, ethnicity, and disabilities or chronic illnesses (CDC, 2021). According to the BRFSS statistical findings, females are likelier to experience specific ACEs, such as sexual abuse and neglect. Adults who identify as American Indian or Alaska Native and those who identify as non-Hispanic but of multiple races face a heightened risk of experiencing adverse childhood experiences. (CDC, 2021) Lastly, a report by the American Academy of Pediatrics (AAP) demonstrated that children with chronic illnesses, namely asthma or diabetes, are likelier to experience trauma, including ACEs (Lê-Scherban et al., 2018)

Family

Family risk factors can often lead to ACE. The CDC (2021) lists various family-level factors that put children at risk, such as parental mental health issues, drug and alcohol problems, domestic violence, divorce or separation, and imprisonment. Finkelhor and colleagues (2015) analyzed data from the 2014 National Survey of Children's Exposure to Violence and discovered that children of parents with mental health illnesses are more susceptible to experiencing traumatic events, including ACEs. Mental illness can affect a parent's ability to provide adequate care and support for their children, resulting in neglect or abuse. Furthermore, children living with a parent with a substance use disorder are at an increased risk of neglect, physical abuse, and emotional abuse. (Peleg-Oren et al., 2006) That is because parental substance use can increase the likelihood of family violence or instability. Exposure to domestic violence puts children at a higher risk of experiencing physical, emotional, and psychological abuse. Moreover, children who experience parental divorce may have a higher probability of experiencing emotional and behavioral problems. Research indicates that divorce can negatively impact a child in various areas of life, including relationships, academics, and emotional well-being. A large meta-analysis revealed that children with divorced parents tend to score lower on measures of academic achievement, behavior, and relationships compared to children living with both parents (Amato et al., 2010). When parents divorce, they must both adapt to their new role as single parents, which often means a loss of

quality time for the children who must now split their time between both parents. Consequently, children may have a weakened relationship with their parents, which can diminish their emotional security. Other studies have shown that children from single-parent households are twice as likely to experience emotional and behavioral issues compared to children from two-parent households (Kelleher et al., 2000).

Community

According to the CDC, poverty, unemployment, lack of access to healthcare services, and exposure to crime and violence are some community risk factors associated with ACEs. Children brought up in economically challenging situations are at a higher risk of experiencing adverse childhood experiences like neglect, abuse, and household dysfunction. Similarly, children of unemployed parents are likelier to experience ACEs, including emotional and physical abuse. Children living in underserved communities are more likely to encounter ACEs, including physical abuse and neglect. The National Child Traumatic Stress Network also highlights that children who witness or experience violence in their communities are at an increased risk of experiencing trauma, including ACEs.

Cumulative Risk Factor Model

The cumulative risk factor model is used to better understand the relationship between ACEs and adverse outcomes. This model suggests that the more ACEs a person experiences, the higher their likelihood of experiencing

adverse outcomes like mental health problems, physical illnesses, and social difficulties. (MacKenzie et al., 2011)

Parents

For parents who have experienced ACEs, the impact can be particularly challenging. Not only do they face the same risk factors as their children, but they may also struggle with providing them with a safe and nurturing environment. ACEs can affect a person's ability to regulate emotions, form healthy attachments, and cope with stress. As a result, parents who have experienced ACEs may struggle to meet their children's emotional and physical needs, which can perpetuate the cycle of ACEs and increase the risk of adverse outcomes for their children.

Children

Likewise, for children, the model suggests that the accumulation of ACEs increases the likelihood of adverse outcomes, as each additional ACE further impacts the child's development and well-being. For instance, a child who experiences multiple ACEs, such as abuse, neglect, and household dysfunction, is at a higher risk for developing mental health issues than a child who experiences only one ACE.

It is important to note that the cumulative risk factor model is not deterministic. Just because someone has experienced ACEs does not mean that they will inevitably experience adverse outcomes. With the proper support,

resources, and interventions, individuals and families can break the cycle of cumulative risk and build resilience in the face of adversity.

Conclusion

In conclusion, ACEs are a significant public health concern in the United States due to their severe and long-lasting impact on an individual's physical and cognitive health. ACEs can range from abuse and neglect to household dysfunction. The ACE study conducted in the 1990s found a strong correlation between childhood trauma and negative health outcomes in adulthood. ACEs are prevalent in the United States, with over 60% of adults experiencing at least one ACE and 17% experiencing four or more. Certain groups are more susceptible to experiencing ACEs due to societal and economic circumstances. The impact of ACEs on physical and mental health is well established; however, less is known about how childhood adversity impacts parenting behaviors.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Theoretical frameworks have postulated that parental influence is a fundamental determinant of a child's developmental trajectory, generating extensive academic inquiry in this domain. When researching parenting, scholars can take different approaches, including studying parenting practices, dimensions, or styles, which are all interconnected with how parents interact with their children; however, they each refer to different aspects of that interaction. Parenting practices refer to specific actions parents take to socialize their children (Darling & Stesuch, 1993), such as helping them with homework or attending school functions. On the other hand, parenting dimensions are different aspects of parenting, such as warmth, control, and autonomy. (Powers, 2013) Parenting styles are more comprehensive and enduring patterns of parenting behaviors that reflect parents' attitudes, beliefs, and values, which remain consistent across various situations and over time. (Baumrind, 1991) Understanding the differences among parenting practices, dimensions, and styles is crucial in comprehending the factors that influence child development and the impact of parental behavior on their growth. This paper will use parenting styles and parenting practices interchangeably.

Parenting Styles

When it comes to parenting styles, there is a wealth of research available on the topic. One of the most influential studies was performed by Baumrind (1967), where she identified three distinct parenting styles: authoritarian, authoritative, and permissive. In addition to Baumrind's work, Maccoby and Martin's (1983) study on uninvolved parenting also sheds light on the adverse effects that can emerge from a lack of parental involvement. Each approach will be examined in greater detail since each has unique characteristics that can significantly impact a child's development and behavior.

Authoritative

Parents who demonstrate high levels of warmth and support while maintaining appropriate control and discipline demonstrate this parenting style. Authoritative parents set clear expectations and rules for their children while allowing them to express their opinions and make decisions independently. Authoritative parenting has been linked with positive outcomes for children, including greater academic achievement, adequate mental health, and more positive social relationships (Hayek et al., 2022; Lamborn et al., 1991). In addition, Padilla-Walker et al. (2012) discovered that children exhibited higher levels of empathy and prosocial behavior when their parents practiced authoritative parenting. Over a one-year period, Padilla-Walker conducted a study that analyzed how authoritative parenting and adolescents' prosocial behavior are related to each other. The study drew data from Time 2 and 3 of the

Flourishing Families Project and involved reports from 319 two-parent families with an adolescent child. Cross-lag analyses revealed that there exists a bidirectional relationship between parenting and prosocial behavior, with the adolescents' prosocial behavior having a significant impact on subsequent parenting.

Authoritarian

This parenting style is denoted by high levels of control and discipline but low levels of warmth and support. Authoritarian parents typically have strict rules and expectations for their children, and they may use punishment or threats to enforce those rules. While this style of parenting can lead to obedience in children, it is also associated with adverse outcomes such as lower self-esteem and poorer mental health. (Zakeri H. & Karimpour, 2011; Keith et. al 2016) A recent study found that authoritarian parenting is related to more elevated levels of anxiety and depression in children (Romero-Acosta et al., 2021). In this cross-sectional study, 710 students between the ages of 8 and 13 years completed three screening instruments, including a parenting practices scale and two self-reports, to evaluate anxiety and depressive symptoms. Two hierarchical multiple regression analyses were conducted, and the results indicated that 38.6% of parents used authoritative parenting, while 38% used neglectful parenting styles. The study found that the symptoms of depression and anxiety varied based on the parenting style used. Students who perceived that their parents used

authoritarian or neglectful parenting styles reported more depressive symptoms than those whose parents used authoritative parenting styles.

Permissive

Permissive parenting is distinguished by high levels of warmth and support but low levels of control and discipline. Permissive parents tend to be lenient with their children and may avoid setting rules or enforcing consequences. This permissive style of parenting can lead to children who are impulsive and lack self-discipline, as well as an increased risk of substance use and other negative outcomes. One study found that permissive parenting was associated with lower levels of academic achievement in children. (Borack et al., 2016). In the study by Borack and associates, 110 university students were selected through a simple random sampling technique. Data was collected using standard questionnaire data collection procedures. The collected data was then analyzed using the Pearson Product Moment Correlation coefficient to determine the association between PARQ and academic performance. Additionally, correlation analysis was performed to investigate the relationship between the parenting styles of mothers and fathers with academic performance separately. The results indicated that permissive parenting styles were negatively correlated with academic performance.

Uninvolved

According to Baumrind, low levels of warmth and control mark the uninvolved parenting style. Parents who are uninvolved in their children's lives

may be emotionally distant and may not provide them with adequate support or guidance. This parenting approach is associated with a range of negative consequences for children, including poor academic performance, increased risk of relational, social, and indirect aggression, and decreased social competence. (Borack et al., 2016; Kawabata et al., 2011) In a meta-analytic review conducted by Kawabata et al. in 2011, the association between parenting behaviors and relational aggression in children was investigated. The review was based on 48 studies that included 28,097 children. Parenting measures used in these studies were sorted into 10 groups by experts to differentiate between various parenting strategies. The results of the meta-analyses indicated that uninvolved parenting was linked to increased levels of relational aggression. In addition, Goldstein & Naglieri, 2011 found that uninvolved parenting can have a significant impact on a child's social skills, confidence, and decision-making abilities. These effects can last throughout adolescence and development, making it difficult for them to form and maintain relationships. Moreover, uninvolved parenting can also negatively affect the child's development of autonomy. Certain behaviors such as manipulation, disengagement, pressuring, intrusion, power assertion, and love withdrawal can have detrimental effects on the child's autonomy development.

Parental ACEs and Parenting

Past studies have investigated the impact of parental experience of childhood abuse on children. In general, findings indicate that parental experience of ACEs adversely affects their ability to parent effectively.

Specifically, parents may be more inclined to adopt authoritarian, permissive (Leslie & Cook, 2015), or uninvolved parenting styles (Bouchard et al., 2016; Liu et al., 2019), which can lead to negative consequences for their children. These consequences may include poor academic performance, increased risk of relational, social, and indirect aggression, and decreased social competence. (Borack et al., 2016; Kawabata et al., 2011) Furthermore, parents who have experienced ACEs may experience heightened stress, role reversal, and a diminished sense of parental competence. (Alexander et al., 2000; Bailey et al., 2012). In some cases, they may resort to using harsh physical discipline (Chung et al., 2009).

Research has also shown that specific ACEs, such as child abuse and child sexual abuse, can also negatively impact later parenting behaviors (Bailey et al., 2012; Banyard, 1997; Roberts et al., 2004). Parents who have experienced childhood sexual abuse may exhibit higher levels of depression, anxiety, low self-esteem, decreased maternal self-confidence, and greater negativity towards their children (Banyard, 1997; Roberts et al., 2004). Emotional abuse, neglect, and witnessing family violence have been found to increase hostility during parent and child interactions (Bailey et al., 2012). In addition, witnessing domestic violence can lead to increased maternal stress. Research conducted by Wolfe and his colleagues in 1985, found a notable association between domestic violence and parenting. The study involved 142 mothers who evaluated their children's behavior and provided information on family violence and maternal

stress. The results showed that mothers who had encountered domestic violence had rated their children's behavior as more problematic and less socially competent compared to those in the control group. This suggests that the effects of domestic violence can spill over and lead to increased stress in parenting.

Summary of Systematic Reviews Conducted on ACEs

Impact of ACE on Mental Health Outcomes

Several systematic reviews have been conducted to investigate the correlation between adverse childhood experiences and mental health outcomes. The reviewed literature indicates a significant link between ACEs and the development of mental health disorders, including depression, anxiety, PTSD, substance abuse disorders, and suicidal behavior (Sahle et al., 2022). The likelihood of developing these problems increases with each additional ACE experienced. Hughes and colleagues conducted a systematic review and meta-analysis study, analyzing 37 articles with 253,719 participants. The review included 26 cross-sectional studies and 11 cohort studies, all of which relied on retrospective, self-reported data on ACEs. The findings of this analysis indicate that individuals who have been exposed to four or more Adverse Childhood Experiences (ACEs) are at a higher risk of developing anxiety, depression, and suicidal thoughts. Family functioning plays an integral role in the relationship between ACEs and mental health problems. Children and adolescents who experience ACEs in families with poor communication, low levels of warmth, and

high levels of conflict are more likely to face mental health matters such as depression, anxiety, PTSD, and behavioral problems. (Scully et al., 2020)

Moreover, internalizing behaviors from ACEs can significantly impair long-term biopsychological development in individuals. (Morgan et al., 2021) Psychological resilience has been ascertained to mediate the relationship between ACEs and adverse health outcomes effectively. However, as found by Morgan and associates, ACEs are linked to reduced psychological resilience, which can ultimately manifest as anxiety and depression. Another study suggests a strong association between ACEs and the development of repetitive negative thinking (RNT) in adulthood. The review highlights that those who have experienced ACEs are more likely to engage in RNT. RNT can manifest as worry, rumination, and intrusive thoughts, which can also lead to anxiety and depression. The review also notes that factors like resilience, cognitive processes, and coping mechanisms can further influence the relationship between ACEs and RNT. (Mansueto et al., 2021) Finally, a study by Moreira and colleagues revealed a compelling correlation between ACEs and the emergence of psychopathic characteristics, including a lack of empathy, impulsivity, and callousness. The study's findings indicate that as the number of ACEs experienced by an individual increases, the probability of developing psychopathic traits also rises incrementally (Moreira et al., 2020).

Impact of ACE on Physical Health Outcomes

Mounting evidence demonstrating the relationship between exposure to adverse childhood experiences and adult health outcomes continues to grow. Recent studies have shown that individuals who encounter such experiences during their formative years face a greater threat of developing various health issues in both children and adults, including child and adult obesity (Schroeder et al., 2021; Wiss et al., 2020), cardiovascular disease (Godoy et al., 2020), headache disorders (Sikorski et al., 2023), and cancer (Hu et al., 2021).

The systematic review and meta-analysis by Wiss et al., 2020, found a close link between adverse childhood experiences and an increased risk of adult obesity, with a dose-response relationship between the number of ACEs and the odds of obesity. The study identified several plausible mechanisms through which ACEs may lead to obesity, including altered neuroendocrine function, disrupted regulation of appetite and energy balance, and psychological distress. In comparison, the findings of Schroder and associates indicate that ACEs have a significant correlation with childhood obesity. Notably, the research reveals that girls may be more vulnerable to the obesity-related implications of ACEs than boys. Further, sexual abuse has a greater impact on childhood obesity in comparison to other ACEs, and the co-occurrence of multiple ACEs may also increase the risk of childhood obesity.

In another study, it was shown how specific ACEs, such as abuse, household dysfunction, and neglect, can activate the stress response system

chronically, leading to dysfunction in the autonomic, neuroendocrine, and inflammatory systems. (Godoy et al., 2020) This dysfunction can contribute to the development of familiar risk factors such as diabetes, hypertension, smoking, and obesity, which can ultimately result in the onset of Cardiovascular Disease and premature mortality. Individuals who have experienced four or more ACEs face a significantly increased risk of developing cardiovascular disease and premature mortality, nearly double that of those who have not experienced any ACEs. (Godoy et al., 2020)

A recent finding by Sikorski et al. was published in 2023, showing the significant association between ACEs and an increased risk of developing primary headache disorders. The study emphasized that the biological theory of allostatic load, which describes the prolonged physical and mental strain caused by chronic stress, may explain the link between ACEs and primary headache disorders. Researchers found a link between individuals who experienced one ACE and primary headaches; as the number of ACEs increased, so did the odds of primary headaches. Lastly, Hu et al. uncovered that individuals who experienced adverse childhood experiences have a higher risk of acquiring cancer in adulthood. Specifically, individuals who experienced abuse, neglect, and household dysfunction had a higher risk of cancer, particularly lung cancer, liver cancer, and cervical cancer.

Gaps in Knowledge

While there are extensive systematic reviews examining the effects of ACEs on mental and physical health outcomes, there are minimal systematic reviews on parental ACEs and their association to the influence of parenting styles. This research is important for several reasons. First, parenting styles are a critical factor in the development and well-being of children. Children who experience negative parenting styles are at an increased risk of developing behavioral, social, and emotional problems. Second, the current literature has primarily focused on the effects of ACEs on mental and physical health outcomes. While this research is essential, it does not provide a comprehensive understanding of the impact of ACEs and their influence on parenting practices. Finally, additional research on this topic can inform policies and practices to prevent ACEs and support families affected by ACEs. By identifying the specific parenting practices impacted by ACEs, policymakers and practitioners can create targeted interventions that address the unique needs of these families.

Theory

The theoretical framework for understanding the worthiness of studying the impacts of ACEs on parenting practices is the social learning theory. The psychological theory of social learning highlights the significance of environmental factors, including observation and imitation, in molding an individual's conduct. (Bandura, 1977) According to this theory, children learn through observation and modeling of their parents or caregivers, and this

learning process can significantly impact their developmental trajectory. In the context of ACEs research, the social learning theory implies that parents who have experienced ACEs may be more likely to exhibit negative parenting behaviors due to their own adverse experiences. These negative parenting behaviors can include harsh discipline, emotional unavailability, and a lack of warmth and support. Studying the impacts of ACEs on parenting styles is essential because it can provide insight into how early experiences shape parenting behaviors and the potential implications for children's outcomes. By identifying the risk factors associated with negative parenting behaviors, researchers can develop interventions that can help prevent or mitigate their effects. Furthermore, understanding the relationship between ACEs and parenting styles can help researchers identify which parenting styles are associated with positive child outcomes and which are associated with negative child outcomes.

Research Question

The objective of this research is to address the following inquiry: What is the level of evidence on the association between parental ACEs and parenting practice? This inquiry will be achieved by identifying and analyzing relevant research articles. The study aims to determine the amount of research conducted on this topic and the consistency of the findings across the studies.

Significance of Study

The significance of this study is to investigate the level of evidence that parental adverse childhood experiences have on parenting practices. This paper is designed to describe and explain the intricate relationship between adverse childhood experiences and parenting practices, shedding light on how the former shapes the latter. By examining this relationship, researchers may be able to identify potential risk factors for negative parenting behaviors and develop interventions to help parents who have experienced childhood trauma to provide a safe and supportive environment for their children.

CHAPTER THREE

METHODS

Introduction

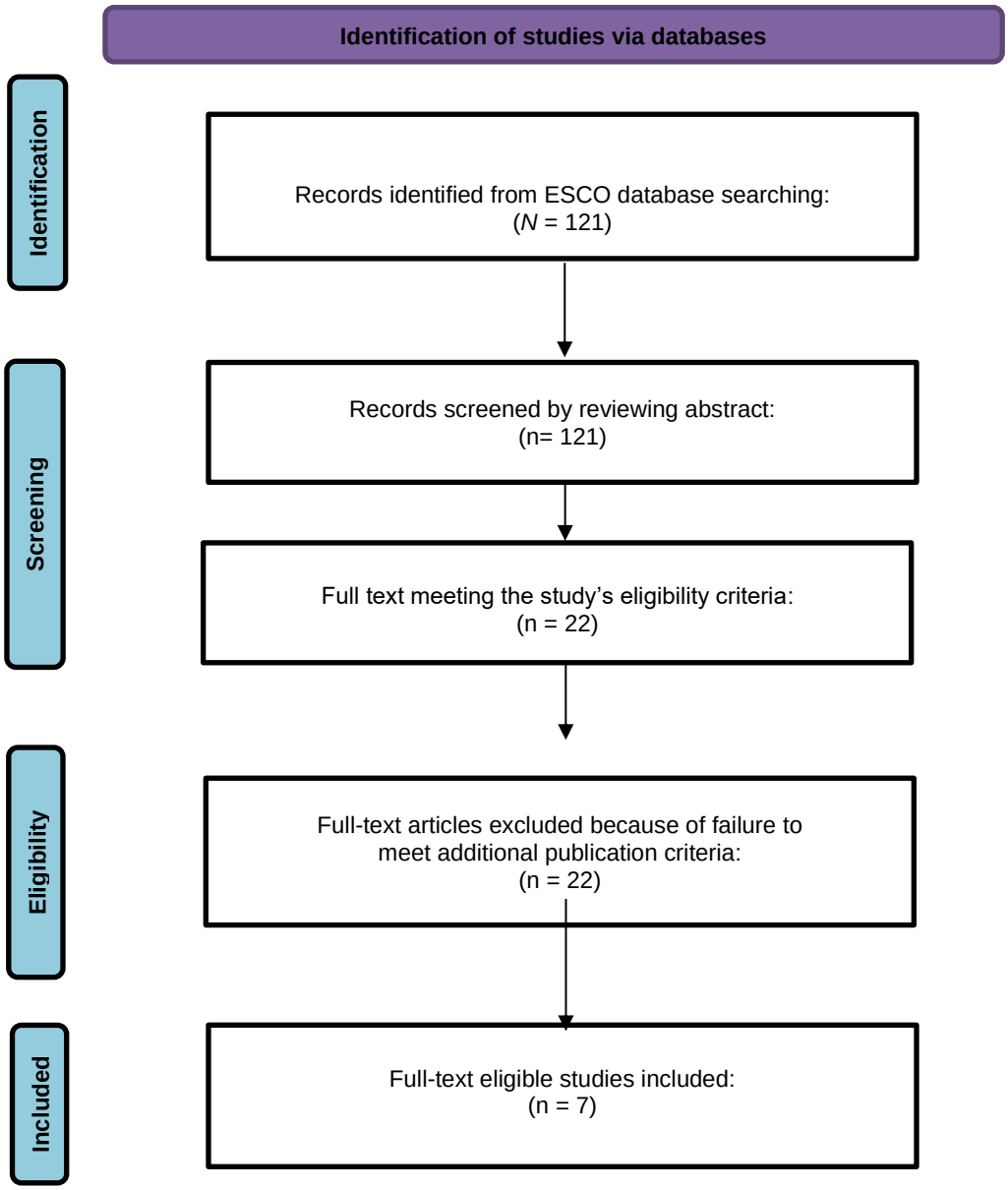
In the period between November and December of 2023, an extensive and meticulous systematic search for empirical research studies was conducted across multiple databases. These included the CSUSB search engine, EBSCOhost Academic Search Premiere, and PubMed. The search was focused on seven specific terms: (1) ACEs and parenting, (2) Parental ACES and Parenting, (3) Adverse Childhood Experiences and Parenting, (4) Adverse Experiences and Parenting, (5) Trauma and Parenting, (6) Adversity and Parenting, (7) Maltreatment and Parenting.

All the articles and literature uncovered during the search were closely scrutinized and manually screened, adhering to specific criteria for inclusion and exclusion. In general, the search was limited to publications in the English language, the availability of full-text articles, and academic journals and literature. Inclusion criteria include studies that investigate the relationship between Adverse Childhood Experiences (ACEs) and parenting, studies that explore the impact of parental ACEs on parenting, and studies that examine the effects of ACEs on child-rearing practices. Exclusion criteria include studies that do not explore the relationship between ACEs and parenting styles, studies that do not examine the impact of parental ACEs on parenting, studies that do not explore

the effects of ACEs on child-rearing practices, and studies conducted outside of the United States.

To present a thorough and all-encompassing overview of the latest research discovered in the last ten years, all articles were restricted to the publication years 2014-2023. The study did not impose any limitations based on the gender or demographic criteria of the participants, as the research question strives to explore the relationship between ACEs and parenting styles across different populations.

Table 1
PRISMA Chart



CHAPTER FOUR

RESULTS

Introduction

The association between adverse childhood experiences and parenting practices has yet to be systematically reviewed. Given the importance of understanding this association, this chapter aims to provide a comprehensive systematic analysis of the findings from the identified studies on this topic.

The chapter begins with a description of the quality of the studies selected for this systematic review. Then, each study's methodology and findings will be provided, including specific research questions, author information, study aim, sample characteristics and size, study design, measurements, and critical findings. The studies are grouped by the outcomes examined, beginning with parent-child conflict, followed by parenting stress, mother-child interaction, positive parenting, hostile tendencies and harsh parenting behavior, and parenting style.

Quality

The present study undertook an extensive literature search, leading to a preliminary yield of 76,509 articles. After removing duplicates and conducting a careful screening procedure based on the titles and abstracts of 17,546 articles, 22 full-text articles were selected for further eligibility review. Ultimately, seven articles were deemed suitable for inclusion in the study. All seven studies

included in the analysis were ranked as high quality based on the Newcastle-Ottawa Scale (NOS) assessment criteria. (Wells et al., al 2014) The Newcastle-Ottawa Scale (NOS) for cross-sectional studies assesses the quality of nonrandomized studies. It consists of eight items grouped into three categories: selection of participants, comparability of groups, and ascertainment of exposure/outcome. The NOS assigns points to each item and calculates a total score, with higher scores indicating better study quality.

Recruitment Settings

The selected studies represent diverse recruitment strategies. One study drew upon data from the Young Women and Child Development Study (YCDS), a longitudinal long-term study that began collecting data in 1987 and ended in 2007. The YCDS researchers aimed to investigate how parental behavior could be a factor in the relationship between young mothers' exposure to adversity and their children's marijuana use during adolescence. A total of 240 diverse participants were followed for a total of 17 years. At the time of recruitment, only participants under 18, unmarried, and planning to conceive were eligible to participate (Okine et al., 2023). Another study utilized data from the Preschoolers' Adjustment and Intergenerational Risk (PAIR) project. The PAIR project is another longitudinal research study that sought to investigate how children and their caregivers handle emotional regulation and adversity exposure. Participants were selected from organizations that cater to families with incomes below the federal threshold (Head Start centers, WIC offices, and

food pantries) and through a partnership with the Department of Family Services (DFS). The sample consisted mostly of women, 89% of whom were mothers (Griffith et al., 2022). Another four studies included participants seeking or receiving services from community clinics or centers, such as a university-based family therapy clinic (Leslie & Cook, 2015), the New Haven Mental Health Outreach for Mothers (MOMS) (Lange et al., 2018), a specialized infant and toddler outpatient psychiatric clinic (Tedgard et al., 2018), and early childhood centers serving children from low-income families (Guss et al., 2020). One study did not specify recruitment other than stating they recruited women giving birth to a child (Williams et al., 2022). Thus, it can be inferred that there were seven unique samples in this review, comprising 969 parent-child dyads.

Sampling Methods

Several of the studies utilized robust sampling methods to ensure that the participants were representative of the target population despite the use of convenience sampling. Four studies described their meticulous sampling techniques to minimize bias. These studies employed sampling frames that accurately depict the focus population. The purposeful sampling technique used by these studies facilitated the selection of participants based on specific criteria that are pertinent to the research question. However, several studies contained homogenous low-income populations, high percentages of participants who identified with one specific ethnicity, or highly educated participants, limiting generalizability. Various recruitment strategies were used, including email, flyers,

and word-of-mouth. Despite these limitations, all studies clearly reported their findings, and many highlighted potential confounds in the discussion section when proposing alternative explanations for unexpected findings.

Participants

In terms of the characteristics of participants, four studies sampled mothers, while only three studies collected data from both mothers and fathers. Additionally, five studies reported on the racial and ethnic backgrounds of participants, with the majority of African American/Black participants being featured in four studies and one study featuring a majority of white participants.

Design

Most of the studies implemented a cross-sectional design to examine the association between adverse parental childhood experiences and parenting behavior. Two studies used a longitudinal design.

Measures

All seven studies employed various measurement techniques, including validated instruments, observations, and interviews with participants to assess parenting practices.

Adverse Childhood Experiences

All of the studies included participants who had experienced childhood adversity but varied in their assessment and definition of adverse childhood experiences. Four studies measured childhood adversity using assessment tools such as the ACE Questionnaire (Felitti et al., 1998), the Childhood Trauma

Questionnaire (Bernstein et al., 1994), and the PAIR Intergenerational Trauma Measure (PAIRIT). These tools comprised similar subscales (e.g., physical, sexual, and emotional abuse, emotional and physical neglect, violence exposure, natural disaster, household dysfunction, parental incarceration, parental substance abuse, death of parents). One study used clinical scales (e.g., intrusive experiences, defensive avoidance, dissociation, anger/irritability, and anxious arousal) to measure mothers' experiences of trauma. Another study conducted in-depth interviews that inquired about childhood experiences, including the nature of the family environment. Yet, another study used a needs assessment to collect data about mothers and their families. In the needs assessment, mothers were asked questions regarding their own ACEs.

Parenting Practices

Measurement of parenting behavior included parent-child conflict, parenting stress, mother-child interactions, positive parenting, hostile tendencies, parenting style, and harsh parenting.

Description of Studies

Parent-Child Conflict

Guss et al. (2020) implemented a cross-sectional study with parent-child dyads receiving services from early childhood centers serving low-income children and families. The study examined the relationship between parents' adverse experiences and parent-child conflict, as well as parents' executive function and parent-child conflict. Researchers explored whether parents' ability

to regulate their behavior and attention was influenced by their adverse childhood experiences and, if so, whether it influenced their relationship with their children. Seventy-three parent-child dyads (89% mothers and 11% fathers) choose to participate in the study through convenience sampling. Data came primarily from the parents completing interviews and surveys. Parental adverse experiences were measured using a self-report survey and informed by the original ACEs study (Anda et al., 2006; Felitti et al., 1998). Parent-child relationships were measured using the conflict scale of the Child-Parent Relationship Scale (CPRS; Pianat, 1992). The CPRS assesses perceptions of the parent's relationship with their child by asking about the extent of conflicts, closeness, and dependence. The conflict scale demonstrated acceptable reliability and consisted of eight items that specifically addressed the difficult aspects of the relationship, while the closeness subscale measured positive parenting behaviors using three items. The researchers found that Parental ACEs were negatively associated with parental ability to regulate their behavior and attention. Higher parental ACEs were related to more parent-child conflict, and parents with a history of ACE exhibited less positive parenting behaviors. Parents with lower executive function were more likely to exhibit negative parenting behaviors and were associated with poorer parent-child relationships. The findings suggest that parents who have a history of adverse childhood experiences may have more difficulty regulating their own behavior and attention, leading to more conflicts with their

children. This could ultimately affect their ability to exhibit positive parenting behaviors.

Mother-Child Interaction

Williams et al. (2022) conducted a longitudinal study to investigate the relationship between maternal history of childhood abuse, dissociation, and impaired parenting. Specifically, the researchers sought to determine whether there was a relationship between maternal ACEs and parenting and, if so, whether the experience of dissociative symptoms could explain this relationship. A total of 119 mother-child dyads comprising mothers between the ages of 16 and 43 were included in the study. Of the total participants, 58 mothers had experienced moderate to severe sexual or physical abuse and made up the maltreatment group (MG). The comparison group (CP) consisted of 61 mothers who had either not experienced or had very little early childhood maltreatment. Parental ACE was established by the mother's completion of the Childhood Trauma Questionnaire (CTQ). The CTQ is a self-reporting instrument with five subscales: physical and emotional abuse, physical and emotional neglect, and sexual abuse. Mother-child interactions were measured through direct observation. Researchers videotaped the mothers interacting with their infants for twenty minutes. The mothers were instructed to play with their infant "as usual." Using the Emotional Availability Scales (EAS), the videotapes were independently coded by two experienced raters (interrater reliability), who were unaware of the group assignments of the mothers. The EAS rates the mother-

child interactions on sensitivity, structuring, non-intrusiveness, and non-hostility. Mothers of the maltreatment group showed less sensitivity, structuring, non-intrusiveness, and non-hostility compared to mothers who had no or minimal childhood abuse. In the CTQ assessment, notable variations were observed in the scoring between different groups. Specifically, the maltreatment group scored higher on the assessment compared to the comparison group. Additionally, mothers of the maltreatment group exhibited significantly higher levels of dissociative symptoms when compared to the mothers from the comparison group. The findings suggest that mothers who have experienced childhood abuse may exhibit lower emotional availability and parenting skills compared to mothers who have not experienced abuse. High dissociation among mothers was also associated with lower maternal sensitivity, non-intrusiveness, and emotional availability. These results indicate that maternal history of childhood abuse and dissociation may have significant implications for mother-child interactions and parenting behavior.

Positive Parenting

Lange et al. (2018) performed a cross-sectional study with low-income mothers within the New Haven community exhibiting signs of depression. The study examined the relationship between parent's adverse childhood experiences and their influence on later parenting stress and practices. The sample comprised 81 eligible participants, selected from 333 women participating in a Stress Management course offered by the Mental Health Outreach for Mothers

(MOMS) partnership. To qualify for the Stress Management course, individuals needed to meet certain criteria, including being a parent or caregiver of children under the age of 18, having a score of 16 or above on the Center for Epidemiologic Studies Depression Scale (CESD) indicating a presence of depression, and residing within the New Haven community. Parental ACE was measured using a needs assessment tool that focused on gathering information about the participant's motherhood experience, physical and emotional health, and basic needs. The tool included a section where mothers were asked eight questions that were specifically related to their own ACEs. These ACE questions were based on the original ACE study but were modified to be answerable with a simple yes or no response. Out of these eight questions, three were related to abuse, while the other five were related to household dysfunction. The Positive Parenting Practices (PPP) was used to measure how often parents engaged in positive parenting, specifically rewarding behaviors with their child. The PPP measured rewarding behaviors such as smiles, hugs, and special privileges. Measurement of ACEs using the needs assessment tool revealed that 67% of mothers reported experiencing at least one ACE. Findings from the PPP measurement revealed no statistically significant relationships between ACEs and positive parenting practices. These results imply that there was no measurable association or correlation found between ACEs and positive parenting practices. In other words, the presence or absence of ACEs in a

parent's past did not have a significant impact on their ability to display positive parenting practices.

Hostile Tendencies and Harsh Parenting Behaviors

Griffith et al. (2022) conducted a cross-sectional study involving parents of children between the ages of three and five years. The study examined the association between parents' exposure to adversity and their inclination to attribute hostile intent to ambiguous situations. Additionally, the investigation explored whether parents exposed to childhood adversity are more prone to exhibit a hostile attribution bias in their parenting behavior and the parent-child relationship. Data was gathered from the Preschooler's Adjustment and Intergenerational Risk (PAIR) project. As stated previously, the PAIR project is a research study that aims to investigate how young children and their caregivers manage emotional regulation and exposure to adverse situations over time. The study participants were selected from organizations that serve families with incomes below the federal threshold, such as Head Start centers, WIC offices, and food pantries. Additionally, some participants were recruited through a partnership with the Department of Family Services (DFS). The final sample size consisted of 324 parent participants. Parental tendencies of hostility, child-specific hostility, and aggressive responses were measured using the Parental Hostile Attribution Questionnaire (Parental HAQ). The questionnaire consisted of six scenarios in the form of a vignette depicting interactions between adults and children. The parents of 324 children, aged between three and five years,

responded to hypothetical social scenarios examining a) their general tendency to attribute hostile intent to the ambiguous behavior of others and b) hostile attributions made specifically to their child, using a six-point Likert scale. Parental adverse childhood experiences were measured using the PAIR Intergenerational Trauma (PAIRIT). This measuring tool is comprised of the ACE questionnaire, the Life Events Checklist, and the Trauma History Questionnaire. All three tools are meant to aid in capturing a comprehensive assessment of exposure to a broad range of adverse experiences.

The study found that parents who had experienced more adversity in their own lives were likelier to exhibit a hostile attribution bias in their parenting interactions. Specifically, parents who reported more adversity exposure had higher levels of general hostile attribution bias, meaning they were more likely to interpret ambiguous situations as hostile. Parents who reported more adversity exposure had higher levels of child-specific hostile attribution bias, which means they are more likely to perceive their children's behavior as hostile. The findings indicate that parents who have experienced more adversity in their childhood may be more prone to exhibiting hostile attribution bias in their parenting interactions. This could result in less positive and more negative parenting interactions, which may negatively impact the parent-child relationship.

In a longitudinal study, Okine et al. (2023) utilized data from a community sample of adolescent mothers who were pregnant or parenting. These mothers had previously received services from prenatal clinics, social service agencies, or

alternative public-school programs. Okine et al. (2023) were interested in examining the role of maternal adverse childhood exposure on parenting behaviors and the offspring's substance use behavior. Data from the Young Women and Child Development Study (YCDS) was used for this study. A summary of the YCDS has been provided above. To evaluate the childhood adversity of mothers, researchers relied on the Adverse Childhood Experience Study (Anda et al., 2002), which involved mothers answering a questionnaire with nine items related to their childhood experiences. The Conflicts Tactics Scale evaluated harsh parenting practices, including punitive discipline, spanking, and physical aggression toward their offspring. The mother's psychological functioning was evaluated using the Brief Symptom Inventory (BFI), specifically the areas of anxiety, depression, hostility, and interpersonal sensitivity. Results reveal an association between adverse childhood experiences of mothers and negative mental health outcomes, which, in turn, were found to be predictive of harsh parenting behaviors. As a result, maternal harsh parenting behavior was found to increase the likelihood of their children's marijuana use indirectly. Additionally, most mothers reported experiencing at least three adverse experiences. The findings suggest that parents who have experienced adverse childhood experiences may be at risk of using harsh parenting behaviors. This can, in turn, increase the likelihood of their children engaging in risky behaviors such as marijuana use.

Parenting Style

Leslie and Cook (2023) carried out a cross-sectional study with mothers between 29 and 54 years old who had a history of trauma exposure and with at least one child. In this study, researchers set out to understand the probable moderating influence of parenting styles on the connection between maternal trauma and adolescent depression. Specifically, the study sought to explore whether parenting style can serve as a protective element for adolescents who have mothers with a history of trauma. One hundred thirteen parent-child dyads comprised the sample and were recruited from a university-based mental health clinic offering family therapy. The sample was ethnically diverse, with 54% identifying as African American, 22% White, and 10% Hispanic. Trauma Symptoms Inventory (TSI) was used to measure maternal adverse childhood trauma. The Parenting Practice Questionnaire was used to measure the mother's parenting style, such as authoritarian, authoritative, and permissive. The Beck Depression Inventory was used to measure adolescent depression. Youths were asked to rate their feelings of depression using a Likert scale. Findings demonstrate that mothers who experience a higher number of adverse experiences are more likely to employ an authoritarian or permissive parenting style than those who experience a lower number of adverse experiences. No significant relationship between the mother's level of trauma and the child's level of depression was revealed. However, mothers who experienced a higher number of ACEs and adopted an authoritarian parenting style had adolescents

who experienced more depression than those whose mothers adopted a different parenting style. These findings imply that a mother's experiences of adverse childhood events (ACEs) can have an impact on her childrearing style and, if adopting a negative parenting style, it can, in turn, impact the child's mental health.

CHAPTER FIVE

DISCUSSION

Introduction

This study aimed to explore the extent of evidence regarding the correlation between parental adverse childhood experiences and parenting practices. Despite the abundance of research articles that can be obtained from academic databases through targeted search terms, a more thorough examination revealed that the number of studies conducted on this subject is significantly limited. Still, six of the seven studies indicated an association between parental ACEs and parenting practices. One study did not find a significant association between ACEs and positive parenting practices, more specifically, rewarding behaviors toward their child. The six studies provided evidence that led to the conclusion that the association between parental ACEs and parenting practices is mediated by other variables, which signifies an indirect association. A summary of the significant findings from the seven articles analyzed follows below.

Summary of Findings

In one study, it was found that parents with a history of ACES struggle with regulating their behavior and attention, which negatively affects their parenting skills (Gus et al., 2018). They tend to exhibit less positive parenting behaviors, leading to an elevated risk of conflict in their relationship with their

children. The study further revealed that as the number of ACEs increased, the intensity of parent-child conflict also increased.

In another study, dissociation was measured as a predictor of self-reported and observed parenting in mothers with a history of ACEs (Williams et al., 2022). Higher levels of dissociation in mothers were linked to increased bonding impairment, higher levels of parental stress, reduced maternal sensitivity, decreased maternal non-intrusiveness, and lower emotional availability in mother-child interactions. Additionally, mothers with ACESs exhibited lower sensitivity, structuring, non-intrusiveness, and non-hostility on the emotional availability scales. Taken together, the results suggest that mothers who experience dissociation may have difficulty with self-regulation when it comes to parenting their children.

Yet, another study contributed to the existing literature by establishing a positive association between the cumulative exposure of maternal ACEs during the early stages of life and the stress levels experienced by mothers in parenting (Lange et al., 2018). The study further revealed that this association follows a dose-response relationship. The parents who participated in the study reported a rise in their stress levels, which, in turn, led to an increase in the challenges associated with parenting, such as difficulties in managing their child's emotions and behavior.

The association between parental ACES and parenting practice was further strengthened by another study, which highlighted the role of parental

ACES and hostile attribution bias in parenting interactions (Griffith et al., 2022). Evidence from this research indicated that parents who have encountered greater adversity in their own lives are more likely to exhibit a hostile attribution bias in their parenting interactions despite the absence of cues that indicate such intent. In this regard, parents who reported higher adversity exposure tended to demonstrate a higher degree of hostile attribution bias in general scenarios and with their children; this implies that such attribution can negatively impact parenting.

Another similar study found a correlation between maternal ACEs and a mother's use of harsh parenting behaviors (Okine et al., 2023). The researchers of this study explained that childhood adversity can disrupt the acquisition of emotional, cognitive, and behavioral capacities, which are essential for healthy and nurturing parenting.

In another investigation, research findings supported the link between the experiences of trauma and suboptimal parenting (Leslie & Cook et al., 2023). Specifically, it was found that mothers who have undergone significant levels of trauma tended to adopt either authoritarian or permissive parenting styles, as opposed to those who have experienced less trauma. Moreover, the study also revealed a strong correlation between these two styles, wherein mothers exhibiting high levels of authoritarian behavior were also likely to exhibit high levels of permissive behavior. As previously stated, it is widely recognized that these parenting styles can significantly impact children's overall well-being.

Lastly, findings of yet another study conducted on parents who suffered from specific ACEs, such as emotional and physical abuse, revealed that most parents reported their parents to have had a conflictual relationship (Tedgard et al., 2018). Such relationships significantly hamper a child's development, making them more susceptible to long-lasting effects on their ability to regulate stress. The study also found that most parents reported experiencing high levels of parental stress, which manifested in different ways, such as difficulty in regulating their own emotions towards their children, excessive worrying, and intense feelings of guilt concerning their child.

Limitations

There are several limitations that should be considered when interpreting the findings of the seven research studies mentioned. In terms of selection bias, it is important to highlight that five of the seven studies included in the analysis had samples consisting exclusively of mother-child dyads. Meanwhile, only two studies incorporated mother-child and father-child dyads in their samples. This is worth documenting as it can limit the generalizability of the findings to father-child relationships, as the dynamics of father-child relationships are distinct from those of mother-child relationships. Another limitation is the possibility that the study's participants may not accurately represent the general population. One considerable factor derived from this research is the racial/ethnic composition of the participants. Four of the studies being examined included participants who identified as Black or African American. Among these four studies, three had

over 50% of the sample participants identifying as Black or African American, while the fourth study had 32%. Two of the remaining studies did not provide any racial or ethnic demographic data, making it difficult to determine if any selection bias was present. Only one of the studies retained a sample size of 48% of participants who identified as White. This information shows that there may be potential limitations to the generalizability of the results of these studies, particularly those with a high percentage of Black or African American participants.

Lastly, all seven studies relied on self-reported instruments, such as questionnaires, surveys, and scales, to measure participants' experiences or perceptions of parenting rather than measuring these directly. The reliance on such self-report instruments may be subject to biases, such as social desirability or response bias, which may affect the accuracy and reliability of the results. One way to address the potential biases associated with self-reported measures could be to supplement them with other data collection methods, such as behavioral or physiological measures; this could provide a more comprehensive and objective understanding of participants' experiences or perceptions.

Conclusion

Overall, the studies analyzed reveal a high level of evidence, considering six studies found an association between ACEs and parenting practices. However, further research is necessary to contribute to this association. The results of the studies underlined the need for additional support and resources for

parents who have experienced ACEs. A trauma-informed approach is necessary to effectively manage their stress and trauma, which, in turn, can improve their parenting skills and positively affect their children's well-being. These findings have important implications for professionals working with parents who have experienced ACEs as they need to adopt a comprehensive approach to support families. The support, resources, and interventions provided should address the root causes of stress and trauma and help build resilience in parents to create a stable and nurturing environment for their children. Furthermore, several studies revealed a recurring trend: many parents encounter difficulties in managing or regulating their emotions and behavior in the context of parenting. This indicates a pressing need for further exploration of the underlying factors that contribute to such challenges and the development of effective interventions that can support parents in this critical aspect of child-rearing.

One suggestion for future research is to screen parents for ACEs. The healthcare industry has already started implementing such strategies, but other professionals working with parents who have experienced ACEs should also consider adopting such practices. These professionals should be aware of the potential impact of past trauma on parenting practices. They should engage with parents to explore how their childhood experiences can shape their parenting practices and work with them to develop alternative strategies to manage stress and regulate emotions. Additionally, professionals should be aware of hostile attribution bias in parenting interactions and help parents develop strategies to

recognize and challenge these biases. Overall, the findings underscore the importance of screening parents who have experienced ACEs and adopting a trauma-informed approach to support healthy parent-child relationships and positive child outcomes.

Table 2

Summary of Studies Included in the Systematic Review

Study Aim (Authors)	Study Design	Sample Size	Parental ACE Measurement	Outcomes (Measurement)	Significant Findings
To examine relations between parents' ACEs and parent-child conflict, as well as parents' executive function and parent-child conflict (Gus et al., 2018)	Cross-Sectional	73 parent-child dyads	Original ACE questionnaire	Parent-child conflict (Child-Parent Relationship Scale) Parental executive function (BRIEF-A Inventory)	Parents who had experienced ACEs had lower levels of executive function. Higher parental ACEs were related to more parent-child conflict. Parents with a higher number of ACEs exhibited less positive parenting behaviors.
To investigate the relationship between maternal history of childhood abuse, dissociation, and impaired parenting practices (Williams et al., 2022)	Longitudinal design with comparison group	119 mother-child dyads	The Childhood Trauma Questionnaire (CTQ)	Mother-child interaction (Direct observation)	The maltreatment group had higher dissociation scores than the non-maltreatment group. High dissociation predicted lower maternal sensitivity, lower emotional availability, less sensitivity, structuring, and non-intrusiveness.
To examine the relationship between the early ACEs of parents and their later parenting stress and practices (Lange et al., 2018)	Cross-Sectional	81 women	Needs assessment	Positive Parenting (Positive Parenting Practices)	No statistically significant relationships between parental ACEs and positive parenting practices.

Study Aim (Authors)	Study Design	Sample Size	Parental ACE Measurement	Outcomes (Measurement)	Significant Findings
To examine the relationship between parents' exposure to adversity and their tendency to attribute hostile intent to ambiguous situations (Griffith et al., 2022)	Cross-sectional	324 caregivers	PAIR Intergenerational Trauma (PAIRIT)	Parental tendencies of hostility, child-specific hostility, and aggressive responses (Parental Hostile Attribution Questionnaire)	Parents who experienced more childhood adversity were likelier to exhibit a hostile attribution bias in their parenting interactions.
To understand the potential moderating effect of parenting style on the relationship between maternal trauma and adolescent depression (Leslie et al., 2015)	Cross-sectional	113 mother and adolescent dyads	Trauma Symptoms Inventory	Parenting style (Parenting Practice Questionnaire)	Mothers who experience a higher number of ACEs were more likely to employ an authoritarian or permissive parenting style than those who experience fewer ACEs.
To examine the experiences of adults who were raised by parents with substance abuse problems and how it affects their own parenting behavior (Tedgard et al., 2018)	Cross-sectional	19 parent-child dyads	In-depth interviews utilizing the ACE study questionnaire	Attachment Style (Attachment Style Questionnaire)	Parents with ACE described having high parental stress in their own parenting The majority of parents with ACE reported having an insecure attachment style.

Study Aim (Authors)	Study Design	Sample Size	Parental ACE Measurement	Outcomes (Measurement)	Significant Findings
To examine the role of parental behavior as a mechanism underlying the mother's exposure to adversity and their children's marijuana use (Okine et al., 2023)	Longitudinal	240 mother-child dyads	Original ACE questionnaire	Harsh parenting Practices (Conflicts Tactics Scale)	There is an association between maternal ACEs and negative mental health outcomes, which predicted harsh parenting behaviors.

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