# CHILDHOOD TRAUMA AND THE IMPACT ON EDUCATION

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A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

Liberty University, Lynchburg, VA

2024

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## ABSTRACT

This research aims to evaluate the complex relationship between childhood trauma and mental health disorders of bipolar, anxiety, and depression and their impact on education. Childhood trauma and mental health disorders have been on the rise, creating the need to understand their impact on educational outcomes. Thus, the study's purpose is to comprehend the present gaps in comprehending how these elements, childhood trauma, and mental health disorders affect educational outcomes such as grades and attendance rates. Data from 1000 students between the ages of 12 to 18 years from New York City was utilized. The method of analysis used for this research was Multi Linear Regression (MLR) and it helped understand the complex relationship between the variables. The results indicated that bipolar disorder was a significant predictor of GPA and attendance rates. This depicted the major challenges that students with bipolar disorder experience while trying to maintain their academic achievement. In conclusion, students with bipolar disorder tend to have poor academic grades and low attendance rates. In recommendation, future research should assess the effectiveness of intervention approaches in therapeutic and academic contexts to help and serve students with mental health disorders, especially bipolar disorder.



*Keywords*: Childhood trauma, mental health disorders, anxiety, depression, bipolar

## Dedication

I would like to dedicate this dissertation to my amazing husband, Stanley B Davis Sr. Without you, I would not have been motivated enough to continue my dream of earning my doctorate. To my children, Stantavious Davis & LaShonta Walker, thank you for understanding all my frustrations during those times I didn't have to give attention to you due to my work. To my family and friends, I am forever grateful for your understanding and for being there the most when I needed you. Lastly, to my mother, Idhelia Hunter, my grandmother, Eliza Hunter, and my grandfather, Moses Hunter, I couldn't be who I am today had it not been for each one of you. I pray I have made each of you proud. And I pray you are looking down from heaven smiling and cheering me on as I get ready to step across the finish line.

**Acknowledgment**

I would like to take the time to acknowledge the people listed below who have listened to me complain, understood me forgetting things, bared with me through those difficult times while in school and stood with me through those hard times. Thank you so much for going through this process with me. Your dedication and unwavering support will not go unnoticed. I appreciate every single word of encouragement you have given me and I thank you for wiping my tears even when you did not know. Thank you for believing in me and giving me the faith that I needed to get this done. Not only did I do it but we did it. I love y'all and thanks again for your unwavering support. I appreciate each and everyone one of you.

Stanley B. Davis Sr.

Stantavious Davis

LaShonta Walker

Tommie Lee Swanson

Veatrice Thomas

James Ray

Kaneatria Davis

DeKoslyn Robinson

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# CHAPTER ONE: INTRODUCTION

## Overview

This introductory chapter provides a foundation for an in-depth exploration of the complex relationship between childhood trauma and mental health disorders of bipolar, anxiety, and depression and their impact on education. The introduction equips readers to understand the main elements that formed the context and purpose of this study. This foundational understanding paved the way for an improved exploration of the complex connections between early traumatic experiences and subsequent mental health challenges in the educational context.

## Background

Childhood trauma, coupled with the mental health disorders of bipolar disorder, anxiety, and depression, is a grave issue and has received wide attention recently, especially regarding its effect on a student's educational journey and well-being. Approximately 80% of children ages 2–17 have experienced at least one type of trauma, and two-thirds (66%) experienced more than one type of trauma, as reported by the National Survey of Children's Exposure to Violence (Conners Edge et al., 2022). About one in four children are abused before age 18, and about one in seven are abused or neglected yearly. Nationally, the youngest children are at the highest risk of being exposed to violence (Conners Edge et al., 2022). For example, in 2020, infants aged from birth to 12 months experienced high victimization rates of approximately 25% (Conners Edge et al., 2022). Young children are also more likely to experience domestic violence than older children. The most frequently reported forms of abuse were neglect, physical abuse, sexual abuse, lack of supervision, and parental drug addiction (Conners Edge et al., 2022).

Trauma, which can include experiences that contribute to conditions like bipolar disorder, anxiety, and depression, arises from events or circumstances that are perceived as physically or

emotionally harmful or life-threatening, leading to lasting impacts on one's functioning and overall well-being (Substance Abuse and Mental Health Services Administration, Trauma and Justice Strategic Initiative, 2012). Pedrelli et al. (2014) stated that mental health disorders and challenges are quite common in adolescents and college-age students. This may be attributed to stress linked to academic load and traumatic experiences from their homes and families (Pedrelli et al., 2014). In the United States, almost all adolescents have the opportunity to receive an education up to high school. Nonetheless, nearly a quarter of them fail to complete high school; approximately a third of high school graduates do not pursue college, and roughly half of those who do enter college do not attain a 4-year degree (Mojtabai et al., 2015). This is mainly attributed to mental health disorders and trauma, which prevent them from achieving their educational expectations (Mojtabai et al., 2015).

The consequences of childhood trauma and mental health disorders extend beyond individual experiences, affecting academic relationships, interactions with teachers and peers, as well as academic expectations and aspirations (Conners Edge et al., 2022). Frieze (2015), Parker et al. (2019), and M. E. Johnson (2018) described an increased need to address the impact of childhood trauma along with the associated mental health disorders on education. Frieze (2015) explored the cognitive and emotional problems that trauma, including those associated with bipolar disorder, anxiety, and depression, can create, affecting attention, memory, and emotional regulation. Frieze (2015) and M. E. Johnson (2018) emphasized the need for trauma-informed teaching practices considering the intricate interplay between childhood trauma and mental health disorders to create a safe and supportive learning environment. Frieze (2015) provided valuable insight into understanding how trauma affects students' ability to learn and behave in educational settings.

While the connection between childhood trauma, mental health disorders, and education is multifaceted, it is imperative to recognize that it goes beyond a simple cause-and-effect relationship. Traumatic effects manifest in diverse ways, like cognitive challenges, emotional disturbances, and impairments in social interaction and participation in learning, particularly when mental health disorders are involved (Lloyd, 2018). This complexity necessitates more in-depth research to understand the association between trauma symptoms, mental health disorders, and educational attainment in learners (Hardner et al., 2018).

Addressing the impact of childhood trauma and mental health disorders on education is not a task that can be undertaken with one-size-fits-all solutions. The school-based strategies currently implemented to address childhood trauma and mental health disorders have gaps, necessitating a more holistic approach to educating and caring for students affected by trauma (Temkin et al., 2020). As educators, researchers, and policymakers struggle with the complex impacts of childhood trauma, including its association with mental health disorders on education, they may need a holistic approach to address the issue. Schools must also be encouraged to adopt a comprehensive trauma-informed approach that extends beyond policies and technical guidance and one which recognizes the intricate association between trauma and mental health disorders (Temkin et al., 2020).

**Historical Context**

The past three decades have witnessed increased cases of mental health disorders in young children due to high cases of traumatic events, including domestic violence and divorce (Porche et al., 2011). Scholarly articles and historical documents provide valuable insight into the evolving awareness regarding the influence of trauma on students' educational journeys (Center for Substance Abuse Treatment, 2014; Darling-Hammond et al., 2020). Historical

accounts emphasize the shift from ignoring the effects of trauma to adopting a trauma-informed approach.

Between 1980–2010, there were increased cases of mental health disorders in young children due to high cases of traumatic events, including domestic violence and divorce (Green et al., 2010; Porche et al., 2011). This was due to the less attention given to mental health elements linked to school dropout cases (Porche et al., 2011). Such situations forced many adolescents and school-age children to drop out of their studies despite improved academic resources (Porche et al., 2011). In 2011, the dropout rate for young people aged 16 to 24 stood at 9.4%, a slight decline in rates over the past three decades, from the 1980s to the 2000s (Laird et al., 2007). Estimates suggest that as many as one-third of students may leave school prematurely, posing an even more profound problem (Porche et al., 2011). According to the National Center for Education Statistics (2022), in 2010, the dropout rate was 8.3%; by 2021, it had reduced to 5.2%. However, even though the percentage has significantly reduced, more must be done to curb this dropout rate. Thus, there is still an increased dropout crisis, and this is also attributed to abuse or physical violence (Mennen et al., 2022).

Historically, childhood trauma was often ignored or minimized by society and professionals, and its effects were attributed to other factors, such as genetic predisposition, personality traits, or moral weakness (Lanius et al., 2010). The education systems in the early 2000s often lacked awareness of the effects of trauma and were dominated by disciplinary and punitive methods (Stratford et al., 2020). Over time, research has revealed the long-term and complex effects of childhood trauma on the brain, body, and behavior of individuals, as well as the intergenerational transmission of trauma. It reshapes neural development, disrupting emotional regulation and cognition (Campbell, 2022). It is linked to physical health issues,

elevating the risk of chronic diseases and pain. Psychological well-being is often compromised, leading to conditions like anxiety and depression (Campbell, 2022). Some students are triggered by traumatic events or prolonged exposure to stressful environments, which worsen psychological distress or disorders (Schnurr et al., 2002). Trauma survivors may exhibit aggression or self-destructive tendencies (Van der Kolk, 2000).

Revolutionary work in psychology and education has revealed the psychological scars left by traumatic experiences and increased discussions about trauma-sensitive learning methods (Cardona, 2021). The relationship between trauma and post-traumatic stress disorder (PTSD) diagnoses is well-established; however, it is essential to delve deeper into the specific traumatic experiences and their varying impacts on individuals. Beyond PTSD, psychological trauma has been associated with a range of adverse effects, including increased rates of depression and anxiety (Bryant, 2019). In exploring this connection, it is crucial to examine the nuanced manifestations of trauma and their distinct effects on mental health outcomes. Trauma has been linked to PTSD diagnoses, and other adverse impacts also related to psychological trauma include increased depression and anxiety (Bryant, 2019). According to the Center for Substance Abuse Treatment (2014), the use of models such as acceptance and commitment therapy helps students to accept and be aware of their feelings. Darling-Hammond et al. (2020) further indicated that mindful practices involving awareness of one's situation promote neural integration, helping one cope and become resilient. Historical context reinforces contemporary efforts to incorporate trauma-related practices into educational settings. Over the past decade, as research has revealed the long-term effects of childhood trauma, educational institutions have realized the need for a more compassionate and supportive approach (Cardona, 2021; Stratford et al., 2020).

**Social Context**

Social norms, cultural values, and community support systems influence traumatized students (Barker et al., 2023; Ford et al., 2015). According to Ford et al. (2015), the consequences of trauma and post-traumatic stress disorder (PTSD) differ from person to person. Individual variations arise from a combination of distinctive personal traits, the social milieu, cultural heritage, and the specific cultural guidelines and support structures accessible to individuals, their families, and their communities.

Barker et al. (2023) highlighted how a school culture or environment helps students deal with mental health. Schools provide education and act as a sanctuary for students from diverse backgrounds (Barker et al., 2023). These social dynamics affect students' ability to cope, participate, and succeed in the educational environment (Barker et al., 2023). For example, a school's cultural stigma surrounding mental health and trauma can influence a student's willingness to seek support. At the same time, community resources and family structures can mitigate or exacerbate the effects of trauma (Bartlett & Smith, 2019). Recognizing the importance of social context reveals the need for holistic interventions that consider individual experiences and broader social factors. Schools with trauma-informed approaches must be culturally sensitive, offer inclusive support systems, and work with families and communities (Darling-Hammond et al., 2020). However, as Temkin et al. (2020) stated, there is a scarcity of rigorous evaluations for interventions administered by schools, highlighting significant gaps in knowledge regarding the successful expansion of efforts to prepare educators to address trauma effectively.

## Conceptual/Theoretical Frameworks

The conceptual and theoretical framework provides a theoretical foundation for understanding how childhood trauma and mental health disorders of bipolar, anxiety, and depression shape educational experiences. Scholarly journal articles and seminal works in psychology and education shed light on adverse childhood experiences (ACEs) study and social cognitive theory (Bandura, 1986; Cavanaugh, 2016). These frameworks provide a lens for understanding the association between childhood trauma, mental health disorders, and educational outcomes.

### *ACE Model*

ACE research explores the profound impact of early adversity on health and well-being across the lifespan (Cavanaugh, 2016). ACE refers to various experiences that have been grouped into three significant categories: abuse, neglect, and household dysfunction (Cavanaugh, 2016). ACE was developed into a model or framework by the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente due to elements such as widespread recognition and its impact on public health (Cavanaugh, 2016). In the context of education, awareness of ACEs can inform educators and policymakers about the importance of addressing the underlying trauma experienced by students to improve their educational outcomes (Cavanaugh, 2016).

### *The Social Cognitive Theory*

The social cognitive theory highlights how individuals learn from observing others and the influence of their environment on their actions (Bandura, 1986). This theory's principles, which involve concepts such as self-regulation, self-efficacy, the exploration of behavior, cognition, and observational learning, are essential to understanding its connection to childhood trauma and mental health disorders in the context of education (Nabavi, 2012). Social cognitive

theory can help educators understand how students may develop coping mechanisms and behaviors based on their observations and experiences. By considering this theory, educators can design interventions that support positive behavior change and emotional regulation among traumatized students. Integrating these theoretical frameworks can enrich understanding of the multifaceted dynamics and ultimately help develop targeted interventions for traumatized students in educational settings.

## Problem Statement

Existing research examining the complex relationship between childhood trauma, coupled with mental health disorders of bipolar, anxiety, and depression, and its impact on education offers valuable insights and significant gaps (Lecy & Osteen, 2022; Thomas et al., 2019). Although many studies have revealed the detrimental effects of childhood trauma and co-occurring mental health disorders on students' academic performance and well-being, there is a pressing need for more rigorous, longitudinal studies. The studies should assess the efficacy of existing programs on educational resources, practices, and school environments and crucial factors such as student health, mental well-being, academic achievements, and broader academic and climate-related outcomes (Heinrich et al., 2023; Thomas et al., 2019).

Research examining the impact of childhood trauma on education often yields mixed results, leaving researchers and practitioners to grapple with divergent outcomes. Some studies have highlighted clear links between traumatic experiences, stress, bipolar disorders, anxiety, depression, and academic struggles, while others have suggested more subtle connections that need to be explored more deeply (Darling-Hammond et al., 2020; Khoury et al., 2010). These differences in results point to the need for systematic and comprehensive studies that go beyond surface-level associations and delve deeper into the underlying mechanisms contributing to these

effects. Furthermore, the populations examined in existing studies often lack the diversity to capture the wide range of experiences that students bring to educational institutions (Theisen-Womersley, 2021). There is a need to understand how different types of traumas, cultural contexts, and socioeconomic contexts influence the presentation and severity of academic challenges (Theisen-Womersley, 2021). Without a comprehensive understanding of these nuances, intervention and support strategies may not meet the unique needs of all students affected by childhood trauma.

Also, the tools and approaches used to assess the impact of childhood trauma and mental health disorders on education cannot fully capture the complexity of this relationship (Theisen-Womersley, 2021). Many studies rely on standardized measures that may not capture all traumatic experiences or adequately account for contextual factors (Menschner & Maul, 2016; Verbitsky et al., 2020). This limitation highlights the need to develop and use innovative assessment methods that address the diversity of trauma and mental health disorders of bipolar, anxiety, and depression and their impact on students' learning experiences. The problem is the lack of a complete and unified understanding of how childhood trauma and bipolar disorder, anxiety, and depression affect academic grades and school attendance, as evidenced by widespread inconsistencies and limitations in the available literature.

## Purpose Statement

This study addressed existing gaps in understanding by examining how childhood trauma and mental health disorders of bipolar, anxiety, and depression affect the educational outcomes of academic grades and school attendance. The study's population comprised approximately 500 students aged 12 to 18 years old in New York City, encompassing various socioeconomic and cultural backgrounds. Participants were selected using a collaborative approach with school

counselors and administrators, ensuring the representation of those who have experienced childhood trauma, including abuse, neglect, natural disasters, and community violence. In the study, the connection between childhood trauma experiences and mental health disorders (specifically bipolar, anxiety, and depression) was established through detailed diagnostic assessments conducted by licensed mental health professionals. These assessments involved in-depth interviews, standardized psychological tests, and clinical evaluations, ensuring accurate diagnoses. The study further employed multiple linear regression analysis to examine how these specific diagnoses, resulting from traumatic experiences, influence academic grades and school attendance.

## Significance of the Study

This study addressed a significant gap in existing research on the association between childhood trauma, mental health disorders of bipolar, anxiety, and depression, and educational outcomes of academic grades and school attendance. Recent literature highlighted the complex relationship between early traumatic experiences and their impact on students' educational outcomes (Downey & Crummy, 2022). By delving into this connection, this study aimed to provide valuable insight into how childhood trauma and mental health disorders affect academic grades and school attendance.

The implications of this study are two-fold. First, it enriches the theoretical landscape by validating and extending established frameworks that depict how childhood trauma and mental health disorders affect learning processes and educational outcomes. Second, the findings have practical implications that pave the way for informed interventions and strategies to support traumatized students in educational settings. Findings from this study can help educators,

administrators, and policymakers develop trauma-informed approaches to create nurturing environments that ultimately promote overall student well-being and educational success.

## Research Questions

**RQ1:** Are the mental health disorders of bipolar, anxiety, and depression associated with lower grades in students who have experienced childhood trauma?

**RQ2:** Are the mental health disorders of bipolar, anxiety, and depression associated with lower attendance in students who have experienced childhood trauma?

**RQ1:** Is childhood trauma and the mental health disorders of bipolar, anxiety, and depression associated with low academic grades?

**RQ2:** Is childhood trauma and the mental health disorders of bipolar, anxiety, and depression associated with low school attendance?

## Definitions

1. *ACE Research* – Studies and investigations related to Adverse Childhood Experiences (ACEs).
2. *Academic Performance* – Refers to the measurable achievements of students in educational settings, including their grades, standardized test scores, and other indicators of learning outcomes (T. Robinson, 2020).
3. *Anxiety* – This is a stress-sensitive psychiatric disorder caused by childhood trauma (Quidé et al., 2020).
4. *Bipolar Disorder (BD)* – mood disorder marked by dramatic changes in mood, energy levels, concentration, and the aptitude to perform daily tasks (Quidé et al., 2020).

5. *Childhood Trauma* – Refers to experiences in a child's early life that involve actual or perceived threats to the child's physical or psychological well-being (Dye, 2018).
6. *Child Maltreatment* – Refers to various forms of abuse and neglect experienced by children, such as physical, emotional, or sexual abuse, as well as neglectful behaviors by caregivers (Bartlett et al., 2016).
7. *Chronic Childhood Trauma* – This refers to enduring, long-term exposure to adverse experiences during the formative years of an individual's life (Larson et al., 2017).
8. *Coping Mechanisms* – Strategies that encourage individuals to engage in specific activities to counter the impact of adversities, driven by their awareness of how these activities positively influence their emotional state and well-being (Downey & Crummy, 2022).
9. *Corticotropin-releasing Hormone (CRF)* – This is a hormone released into the portal circulation from the median eminence, a part of the brain, and it stimulates the secretion of Adrenocorticotrophic Hormone (ACTH) from the anterior pituitary gland into the bloodstream (Vuppaladhadiam et al., 2020).
10. *Educational Outcomes* – Encompasses a range of achievements and measures in the educational context, including academic performance, cognitive development, socio-emotional growth, and the overall well-being of students (Romano et al., 2014).
11. *Post-Traumatic Stress Disorder (PTSD)* – This is a psychiatric disorder that develops in individuals who have experienced or witnessed a major traumatic

event, leading to a range of symptoms including re-experiencing the trauma, active avoidance, alterations in cognitions and mood, and arousal, persisting for more than one month after the traumatic exposure (Bryant, 2019).

12. *Social Support* – A protective factor against stressful situations and a catalyst for building resilience in individuals who have experienced trauma. It encompasses emotional, tangible, and informational assistance from family, friends, educators, and other supportive relationships (Downey & Crummy, 2022).
13. *Standard Abuse* – Includes neglect, emotional, sexual, and physical abuse (Lecy & Osteen, 2022).
14. *Trauma-Informed Care* – An approach that involves comprehending the impact of trauma on both children and adults, acknowledging and addressing the consequences of trauma, and actively striving to prevent any actions or practices that could potentially re-trigger or re-traumatize individuals who have experienced trauma (Bilbrey et al., 2022).
15. *Traumatic Events* – Encompasses abuse, emotionally damaging experiences, warfare, catastrophes, accidents, aggression, neglect, and instances of loss (Dye, 2018).
16. *Well-being* – Encompasses individuals' overall quality of life, emotional state, and psychological functioning. It includes mental health, life satisfaction, and a sense of purpose and meaning (T. Robinson, 2020).

## Summary

This chapter evaluated the complicated relationship between childhood trauma, mental health disorders of bipolar, anxiety, and depression, and their educational repercussions. Recent

scholarly works have highlighted the importance of childhood trauma and mental health disorders in education and emphasized the need for a comprehensive study to reveal its implications. The historical context shows that over time, from past neglect to contemporary practices, there has been increasing recognition of the profound impact of trauma on students' learning experiences. Social context reveals how social norms, cultural expectations, and community support systems shape students' ability to cope with the effects of trauma. The conceptual and theoretical framework illuminates the ACE theory and the social cognitive theory, which provide insight into the complex connections between trauma, bipolar disorder, anxiety, depression, cognitive processes, behavior, and educational outcomes. Gaps in the existing research field were addressed through a well-defined problem statement, suggesting a need to explore these connections further. This study aimed to uncover the impact of childhood trauma and mental health disorders of bipolar, anxiety, and depression on academic grades and school attendance and identify effective interventions to support traumatized students in educational settings. In doing so, this study may contribute to the existing knowledge base and provide valuable insights into critical areas related to the impact of childhood trauma and mental health disorders on education.

# CHAPTER TWO: LITERATURE REVIEW

## Overview

Chapter two focused on a comprehensive literature review, a critical element that contributed to the depth and context of the study. This section delved into existing knowledge about childhood trauma, mental health disorders of bipolar, anxiety, and depression, and their complex links to educational outcomes. Childhood trauma stands as a notable concern demanding in-depth investigation and focus. Traumatic experiences during childhood can have repercussions on students' mental health, academic achievements, and overall welfare (Larson et al., 2017). Therefore, the following literature review revealed and synthesized this topic's subtle layers and complexities, emphasizing the relationship between childhood trauma, mental health disorders of bipolar, anxiety, and depression, and their impact on education.

## Conceptual or Theoretical Framework

The literature review's theoretical foundation incorporated ACE theory and social cognitive theory, facilitating a thorough examination of how childhood trauma and mental health disorders of bipolar, anxiety, and depression influence education. This approach considers interrelated systems, trauma-informed practices, bipolar disorder, anxiety, depression, enduring outcomes, and behavioral factors, enabling the formulation of impactful support strategies to bolster the academic accomplishments and overall welfare of traumatized students within educational environments.

### Adverse Childhood Experiences (ACE) Study

The ACE theory has been pivotal in understanding the enduring effects of adverse childhood experiences on various aspects of an individual's life. This research identified a range of negative experiences, such as abuse, neglect, and family dysfunction, and showed that these

are significantly associated with adverse health and social outcomes in adulthood (Felitti et al., 1998). The Centers for Disease Control conducted a research study between 1995 and 1997, revealing the widespread prevalence of adverse childhood experiences (ACEs; Felitti et al., 1998). ACEs encompass 10 distinct experiences categorized into abuse, neglect, and household dysfunction. The findings from the study indicated that approximately 64% of individuals encounter at least one ACE, with 22% of the population facing three or more ACEs (Felitti et al., 1998). The experiences are linked to various detrimental outcomes, including significant health issues later in life, such as diseases related to obesity and premature mortality (Felitti et al., 1998). In education, ACE research emphasizes the need to accentuate the influence of trauma on students' emotional, social, and cognitive development (Felitti et al., 1998). By recognizing the long-standing consequences of childhood trauma, practitioners and policymakers can implement strategies that provide targeted support and resources to mitigate potential adverse effects on student educational outcomes.

Examining the effects of adverse childhood experiences (ACEs) on education is vital in understanding how the theory can help prevent the negative impacts linked to trauma (Webster, 2022). ACE covers a range of negative experiences, such as abuse, neglect, and family dysfunction. Webster's (2022) research discovered how the ACEs affect students' emotional, social, and cognitive development in the context of education. By focusing on a nationally representative sample of young children, the research highlighted the predictive power of cumulative ACE count, indicating higher odds for adverse health and developmental outcomes as ACE scores increase. Specific ACEs, such as financial hardship and living with someone with a mental illness, significantly influenced children's health and developmental challenges (Webster, 2022). Webster's findings emphasized the concept of a "risk cascade," where the

cumulative effect of ACEs predicts adverse outcomes, underscoring the vital role of professionals like pediatricians and early childhood educators in identifying ACEs and providing crucial resources and referrals to affected families. The study underscored the importance of secure parent-child attachments as protective factors, mitigating the adverse effects of ACEs and fostering resilience in children facing adversity, providing essential insights for intervention strategies, and promoting positive developmental trajectories. Thus, by examining the "risk cascade" or long-term consequences of ACEs, this dissertation research highlighted the need for targeted support and resources to mitigate potential adverse effects on students' educational outcomes.

According to Parker et al. (2019), a high percentage of children experience at least one major traumatizing event before reaching adolescence. Thus, the conclusion is that trauma-informed training for educators, specifically through Compassionate Schools programs, leads to enduring changes in mindset and behavior among participants. The authors demonstrate the effectiveness of such training in enhancing educators' understanding of trauma and fostering trauma-informed attitudes. Notably, the positive impact was universal across diverse participant characteristics such as gender, race, program, position, and years of experience. This suggests that trauma-informed education initiatives can be widely beneficial, offering a promising approach to addressing the effects of childhood trauma in educational settings (Parker et al., 2019). The findings highlight the importance of incorporating trauma-informed practices into teacher training programs and school curricula to create supportive environments for students who have experienced trauma.

The ACE theory contributes to the literature by providing empirical evidence of the lasting effects of childhood trauma on all aspects of a person's life. In education, research reveals

how specific ACEs manifest as learning and behavioral problems, for instance, “property destruction, physical aggression, disruptive talking in the classroom, and name calling on the playground” (Barnett, 2020, p. 2; Stewart-Tufescu et al., 2022). By identifying these problems and understanding their root causes, educators and practitioners can develop interventions to address the underlying problems and properly support affected students, which help improve understanding of the complex relationship between childhood trauma and education and provide insight into strategies to promote resilience and positive educational outcomes for students with ACEs.

**Social Cognitive Theory**

Bandura’s social cognitive theory centers on the dynamic interrelationship among cognitive mechanisms, conduct, and external influences in shaping human actions (Bandura, 1986). This framework underscores the significance of observational learning, self-management, and self-efficacy convictions. In childhood trauma and education, this theory provides insights into how traumatic experiences and mental health disorders influence students’ self-perceptions, beliefs about their capabilities, and coping strategies (Govindaraju, 2021). Students who have experienced trauma may exhibit altered self-efficacy beliefs and coping mechanisms that can impact their engagement and performance in the educational setting. Understanding these dynamics can inform the development of interventions that bolster students’ self-efficacy, resilience, and adaptive learning strategies.

According to Wang et al. (2022), traumatic experiences shape students’ academic achievements and mental well-being through the lens of social cognitive theory. Their study aimed to understand how trauma-induced changes in self-efficacy and coping mechanisms affect student engagement and performance in educational institutions. Their research uncovered the

complexities of these psychological mechanisms. The areas of exploration included the erosion of students' confidence in their academic abilities due to trauma, the diverse coping strategies employed, and the subsequent influence of these factors on student engagement—a vital factor in determining academic success (Wang et al., 2022). This research offered valuable insights into understanding and supporting students who have undergone traumatic experiences, providing crucial guidance for educators and policymakers in fostering a supportive and conducive learning environment. Thus, incorporating social cognitive theory into this study enriched the literature by providing insight into mental processes, considering that childhood trauma affects students' educational experiences.

The social cognitive theory's stress on observational learning, self-efficacy, and adaptive strategies are consistent with the challenges, including mental health disorders, that traumatized students may face (Benight et al., 2018). By evaluating how trauma affects students' self-esteem and coping mechanisms, the current study contributes to a deeper understanding of the barriers these students face in academic contexts. In the context of interventions to improve students' academic achievement and school attendance, applying social cognitive theory (SCT) becomes pivotal. SCT posits that learning occurs in a social context through observation and modeling of others, incorporating cognitive, behavioral, and environmental influences. When applied to interventions for traumatized students, SCT can guide the development of programs that enhance self-efficacy and create supportive social environments. For instance, interventions can include mentoring programs where students observe positive behaviors and coping strategies modeled by peers or educators. By enhancing students' self-efficacy, teaching coping mechanisms, and providing opportunities for positive social interactions, interventions rooted in SCT can empower students to overcome the challenges posed by trauma, thereby improving their academic

outcomes and attendance (Benight et al., 2018). In essence, SCT informs the design of interventions by emphasizing the dynamic interplay between cognitive processes, behavior, and external influences, ensuring a comprehensive approach to supporting traumatized students in educational settings.

## Related Literature

### Prevalence of Childhood Trauma

Chronic childhood trauma is a primary societal and public health concern in the United States. Around 80% of United States adolescents and children have been exposed to victimization (Larson et al., 2017). Such exposures are highly linked to various problems, including substance use, participation in risky sexual behaviors, emotional and behavioral issues, and academic difficulties. According to Larson et al. (2017), existing approximations estimate that around 1 in 5 children and adolescents are diagnosed with mental health disorders that pose long-standing life impairments. Unfortunately, approximately 70% of these individuals fail to receive essential mental health services, with a marked difference presented in youths from minority groups and lower socioeconomic status (Larson et al., 2017).

Mental health disorders tend to have negative impacts on social and academic functioning, restricting educational opportunities, achievement, social mobility, and employment (Conners Edge et al., 2022). Thus, untreated mental health challenges can lead to adverse behaviors and may even negatively affect one’s health, leading to severe disability and increased mortality rates, especially from suicide. Thus, schools play a vital role in preventing, recognizing, and treating mental health disorders and issues, especially in young children.

## Factors Influencing the Occurrence of Childhood Trauma

Several factors influence the occurrence of childhood trauma. These factors include socioeconomic status, family dynamics, and community elements (Gu et al., 2022). Additionally, the presence of a supportive social network, access to mental health services, and educational opportunities also play significant roles in mitigating the impact of childhood trauma and fostering resilience in affected individuals (Gu et al., 2022).

### *Socio-economic Status*

Bartlett and Smith (2019) stated that early trauma usually happens to families living in extreme poverty and with low social capital, leading to ethnic, racial, and socioeconomic disparities. For young adolescents to thrive and flourish, they must attend safe and well-resourced schools, believe that their hard work and success in schools will positively influence their future, and participate in rigorous coursework preparing them for college and employment (Balfanz, 2009). Otherwise, young adolescents who do not experience an academic life that aligns with these beliefs and attributes will likely complete school without confidence, preparation, or motivation for their future (Crosby et al., 2018).

Unfortunately, a student's natural response to trauma will likely lead to negative school behaviors, including suspension and discipline referrals, while poverty at home negatively affects a student's school behavior (Cole et al., 2005; Wolpow et al., 2009). Owen et al. (2015) stated that students from early middle school who receive suspensions are likely to receive more before completing their middle school experience. They also found uneven suspension rates among Black students in middle school, with Black females receiving suspensions approximately four times the rate of White females (Owen et al., 2015). Black males get suspended three times more than White males (Owen et al., 2015). The significant differences between the two groups

demonstrate the urgent need to adopt approaches to help deal with traumatic experiences in students from underprivileged families.

### *Family Dynamics*

Bartlett et al. (2016) stated that child maltreatment is a significant and prevalent public health issue in the United States. Roughly one in seven children in the US has experienced child abuse or neglect within the past year (Centers for Disease Control and Prevention [CDC], 2022). Nevertheless, it is essential to note that these numbers might be low, considering that most cases go unreported. In 2020, there were disturbingly 1750 recorded children's deaths from abuse and neglect in the United States (CDC, 2022). Also, children living in poverty are highly susceptible to abuse and neglect. The challenges linked to poverty usually create significant stress within families, increasing the probability of neglect and child abuse, hence trauma (Cunningham, 2017).

Child abuse and neglect cases are five times more prevalent for children with poor socioeconomic status (CDC, 2022). Child maltreatment poses a significant financial burden. In 2018, approximately $592 billion costs were linked to child abuse and abandonment in the United States (CDC, 2022). Thus, such increased costs have also contributed to increased child trauma cases, considering that not many individuals can afford to cater for treatments linked with trauma (CDC, 2022). The inability to cater to the expenses of society has also facilitated increased health issues such as diabetes and heart disease (CDC, 2022). While these costs are significant and affect society at large, individual families, particularly those with limited financial means, might struggle to afford the necessary treatments for conditions resulting from child trauma, such as mental health services (Hodgkinson et al., 2017). Thus, both the societal

burden of addressing child abuse and the financial challenges faced by affected families in accessing appropriate treatments contribute to the complexity of the issue.

Child maltreatment leads to increased cases of "major depression, bipolar disorder, anxiety disorders, post-traumatic stress disorder (PTSD), substance abuse, personality disorders, and psychoses" (Teicher et al., 2014, p. 2). Family disruptions and several instances of loss and separation usually trigger and intensify these detrimental effects**.** These cumulative traumatic experiences typically lead to increased complex symptoms and presentations, which have far-reaching impacts on a child's mental health. Such events usually contribute to emotional distress and instability for children, leading to traumatic experiences. The breakdown of the family unit can alter the support systems and protective elements that influence a child's sense of safety and well-being. Parents must consider their children's well-being and monitor their behaviors to recognize whether they are experiencing anxiety or other health challenges (Ashikkali et al., 2020). This helps create a safe environment for them.

### *Community Factors*

Traumatic experiences present themselves in several forms and can affect individuals, families, whole communities, and even nations. For example, specific communities and schools tend to have a significant refugee population that experienced trauma from their original countries, usually due to displacement, famine, and violence (Cavanaugh, 2016). These people have experienced significant challenges and may bring their psychological and emotional burdens from their previous experiences to their new society. Thus, there is a need to identify and address the exceptional needs of such individuals and offer support and resources that enhance their integration and healing into their new society. Other elements of community factors include violence, racism, nonviolent ecological stressors, and natural disasters.

### *Violence*

There is a significant connection between exposure to violence and trauma. One example is during a school shooting, where students who happened to be at the shooting scene are likely to have increased levels of trauma compared to those on the other side of the school. According to Alvarez (2020), race should be a significant issue when comprehending the youth's exposure to violence and its effect on trauma. One of the most commonly highlighted vulnerabilities is that of Black children in urban areas since they are likely to be at increased risk of trauma from such exposure (Alvarez, 2020). Unfortunately, children of color who live in urban communities are usually more stigmatized for living in "high crime areas" even without any proof that their exposure to violence leads to their involvement in violent behavior (Alvarez, 2020). This insinuates that the study of youth trauma involves racial elements, stressing the significance of considering race when evaluating the impact of violence exposure in children.

### *Racism*

Racism promotes trauma via several approaches, including direct experiences of discrimination, environmental disparities, racial profiling, internalized racism, systemic inequalities, and exposure to microaggressions (National Center for Biotechnology Information, 2017). Such adverse experiences will likely lead to significant alienation, fear, self-doubt, and emotional distress. An example is when a child experiences racial terms, and peer comments can leave them with long-lasting emotional damage. Also, exposure to indirect racism forms such as microaggressions can impact their self-esteem and lead to persistent invalidation (Harris-Britt et al., 2007). When a child witnesses police racially profiling an individual of their ethnicity or race, they will most likely develop increased anxiety and a continuous sense of threat. Living in

societies impacted by environmental racism with reduced resources and increased exposure to pollution will also negatively affect their mental and physical health, leading to trauma.

### *Nonviolent Ecological Stressors*

Exposure to nonviolent ecological stressors also negatively affects a child's mental and emotional well-being (Coley et al., 2015). Nonviolent ecological stressors, such as witnessing a parent's arrest, are likely to lead to trauma in children. However, such impacts usually differ based on the age of the child. According to Alvarez (2020), younger children will present internalizing behaviors such as hyperarousal and emotional stress, while much older ones will display externalizing behaviors, for instance, inappropriate behaviors and irritability**.**

### *Natural Disasters*

Natural disasters like famine, drought, and earthquakes adversely impact a child's well-being and mental health (Makwana, 2019). These natural disasters inflict severe trauma, leading to long-lasting psychological and emotional scars. Famine, characterized by a scarcity of food and resources, exposes children to malnutrition, hunger, and the suffering and death of loved ones. The constant fear of survival and the struggle to find food can lead to anxiety, depression, and a sense of helplessness in children. They may also be forced into hazardous situations while seeking a livelihood, further aggravating their exposure to trauma. The long-standing impacts of famine can manifest via physical and mental health issues, adversely affecting children's development and future well-being (Makwana, 2019).

Drought is also traumatic for children, especially in agricultural communities dependent on water for their livelihoods (Stanke et al., 2013). Extended water scarcity leads to crop failure, livestock losses, poverty, and distress, creating an emotionally upsetting environment for children. Witnessing their parents' struggles to provide necessities can lead to insecurity and

anxiety about their future. Drought-induced migration in search of water and food interrupts children's education and social networks, aggravating their psychological burden and impacting their mental health. Earthquakes also lead to profound fear and helplessness in children who experience or witness them (Makwana, 2019). Collapsing buildings and loss of lives create chaos and confusion, leading to separation from family and loss of homes (Wang et al., 2022). The ongoing fear of aftershocks and the uncertainty of safety can lead to increased anxiety and stress (Stanke et al., 2013). Rebuilding communities after an earthquake can be challenging, further affecting children's emotional well-being as they cope with the loss of stability (The New York University Child Study Center, 2006).

**Childhood Trauma and its Effects**

Childhood trauma is recognized as a notable risk factor for the emergence of mental health disorders in adulthood and is linked to heightened susceptibility to the detrimental effects of stress and adversity (Valladares-Garrido et al., 2023). During the COVID-19 pandemic, childhood trauma significantly increased poor mental health (John-Henderson, 2020; Xie et al., 2021). According to Gu et al. (2022), childhood trauma, encompassing various adverse experiences such as physical abuse, sexual abuse, neglect, emotional maltreatment, and household dysfunction, can have significant and permanent implications on an individual's mental health. In particular, childhood trauma is significantly linked to the growth and exacerbation of mental health disorders, including bipolar disorder, anxiety disorders, and depression, which can lead to poor academic performance and other psychosocial effects.

Understanding the complexity between childhood trauma and these mental health conditions is crucial for clinicians, researchers, and policymakers alike.

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### *Mental Health Disorders of Bipolar, Anxiety, and Depression*

**Bipolar Disorder.** Bipolar disorder (BD) is a mood disorder marked by dramatic changes in mood, energy levels, concentration, and the aptitude to perform daily tasks. These mood changes encompass both manic and depressive episodes with periods of stability in between (Quidé et al., 2020). Manic episodes are characterized by heightened irritability and impulsive behavior, sometimes resembling symptoms seen in psychosis, like hallucinations and delusions. Delusions are observed in about one-third of people during acute bipolar manic episodes (Quidé et al., 2020). Contrastingly, depressive symptoms involve increased despondency and pessimism, often leading to feelings of despair. BD impacts around 1% of the universal population, resulting in long-term psychological, physical, and cognitive challenges, which impose substantial economic and societal burdens (Quidé et al., 2020). Similar to other mental health illnesses within the mood-psychosis spectrum, the advancement of BD is believed to be influenced by the interplay between genetic and environmental risk elements (N. Robinson & Bergen, 2021).

Notably, childhood trauma (CT) exposure is a significant environmental risk factor contributing to the onset of BD (Guillen-Burgos et al., 2023).

The prevalence of childhood trauma (CT) exposure tends to receive reduced attention, but it is estimated to range between 25% (in the UK) and potentially as high as 40% (in the USA), and in some instances, up to 50% in individuals with psychotic disorders (Álvarez et al., 2014; Duhig et al., 2015; Koenen et al., 2010; May-Chahal & Cawson, 2005). Various studies have shown that persons with bipolar disorder (BD) are approximately 2.63 times more likely to report experiencing CT in contrast to those without BD (Quidé et al., 2020; Varese et al., 2012). This likelihood is even higher, at around 2.72 times, for people with psychosis (Varese et al., 2012). Moreover, people with BD who have a history of CT are approximately 1.85 times more expected to encounter their first episode at a younger age, experience augmented swift cycling and exhibit more adverse manifestations of the disorder equated to those without a CT history (Quidé et al., 2020).

According to Watson et al. (2014), the significant prevalence and incidence rates, chronicity of symptoms, and psychosocial impairment associated with bipolar disorder emphasize the critical need to understand its underlying causes and risk factors. Bipolar disorder has a strong hereditary component, and psychosocial stressors are believed to contribute to the onset of initial and subsequent episodes (Watson et al., 2014). While childhood trauma is recognized as a predictor of poor outcomes in major depressive disorder, its impact on bipolar disorder has received relatively limited attention. Early parental loss is more prevalent in individuals with bipolar disorder, while others have reported conflicting findings, indicating either lower or similar rates of childhood stressful life events compared to healthy individuals (Agid et al., 1999; Horesh et al., 2011). Notably, children and adolescents with bipolar disorder

tend to experience a higher frequency of adverse life events and fewer positive events in contrast to their counterparts without the disorder (Watson et al., 2014).

**Anxiety.** Exposure to childhood trauma has emerged as a notable risk factor for the development of mental health conditions in adulthood, rendering individuals more susceptible to the effects of stress and adversity (Heim et al., 2008). When trauma occurs at a young age, it can trigger an excessive activation of the hypothalamus, leading to the release of corticotropin-releasing hormone (CRF), subsequently resulting in elevated stress hormone levels such as cortisol and adrenaline (Bomysoad & Francis, 2020; Loewy et al., 2019; Vitriol et al., 2017). If these elevated hormone levels persist, they can induce neurobiological alterations in the cerebral cortex, predisposing the child to the onset of psychiatric disorders in adulthood (Bomysoad & Francis, 2020; Loewy et al., 2019; Vitriol et al., 2017).

Early-life trauma can result in the excessive activation of the hypothalamus, prompting the release of corticotropin-releasing hormone (CRF), subsequently elevating stress hormones like cortisol and adrenaline (Bomysoad & Francis, 2020; Loewy et al., 2019; Vitriol et al., 2017). Sustained high levels of these stress hormones can induce neurobiological changes within the cerebral cortex, potentially laying the groundwork for mental health disorders in adulthood (Dziurkowska & Wesolowski, 2021). Notably, a connection exists between childhood trauma and mental health challenges, for instance, indications of anxiety and depression in adolescence (Valladares-Garrido et al., 2023). This observation aligns with prior research consistently demonstrating that childhood trauma is a potential risk factor influencing the onset, severity of symptoms, and progression of depression and anxiety disorders (Bomysoad & Francis, 2020; Dziurkowska & Wesolowski, 2021; Loewy et al., 2019).

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To comprehend the link between childhood trauma and anxiety disorders, various theoretical frameworks come into play. One framework to consider is the stress-diathesis model, which proposes that an amalgamation of inherent genetic traits and external stress-inducing factors brings about a person's susceptibility to establishing anxiety disorders (Belsky & Pluess, 2009; Colodro-Conde et al., 2017). Childhood trauma can be a significant environmental stressor capable of triggering anxiety issues in those genetically predisposed (Valladares-Garrido et al., 2023).

Moreover, childhood trauma may foster maladaptive management mechanisms and cognitive misrepresentations, encompassing negative self-perception, feelings of helplessness, and challenges regulating emotions (Compas et al., 2017). These dysfunctional forms may endure into adolescence and adulthood, consequently elevating the likelihood of experiencing anxiety disorders. Early traumatic involvements can interfere with the usual growth of neural

circuits, resulting in modifications in brain structure and function, thereby amplifying susceptibility to mental health difficulties (Compas et al., 2017). The incidence of anxiety symptoms is likely to exhibit a modest rise in children, possibly attributable to the ongoing developmental changes during childhood and adolescence (Bernaras et al., 2019). This developmental stage renders them particularly susceptible to environmental influences, unfavorable interpersonal relationships, educational challenges, discrimination, and social exclusion that can impact their mental well-being (Bernaras et al., 2019).

Early intervention and assistance are imperative for children who have endured traumatic experiences. Strategies like "family-based interventions, eye movement desensitization and reprocessing (EMDR), and trauma-focused cognitive-behavioral therapy (TF-CBT)" have demonstrated the potential to alleviate the adverse implications of childhood trauma on mental well-being (Dorsey et al., 2016; Leenarts et al., 2012; Lewey et al., 2018, p. 457; Wethington et al., 2008). These therapeutic methods seek to tackle trauma-related cognitive alterations, enhance emotional regulation capabilities, and cultivate a nurturing atmosphere conducive to recovery (Lewey et al., 2018).

**Depression.** Depression is a significant contributor to the global burden of disease, and it occupies the top spot in middle- and high-income countries (Negele et al., 2015). According to Wittchen et al. (2011), depression has been described as the "most burdensome disorder of all diseases in the EU" (p. 669). Recurrence rates for depression are notably high, with a 50% likelihood after the initial episode, 70% following the second, and a staggering 90% after the third occurrence (Negele et al., 2015). Even short-term psychotherapy provides no safeguard, as 50% of patients experience relapse (Negele et al., 2015). According to the World Health Organization (WHO; 2014), depression currently ranks as the fourth leading cause of disability

worldwide. It is anticipated to rise to the second position by 2020 (Kessler & Bromet, 2013). One major form of depression that highly affects individuals who have experienced childhood trauma is major depressive disorder (MDD; Yu et al., 2019).

Major depressive disorder is a prevalent mental health condition characterized by a variety of symptoms, including persistent low mood, diminished interest, reduced self-esteem and energy levels, changes in body weight, sleep disturbances, and disruptions in cognitive functions like attention and memory (American Psychiatric Association, 2013; Yu et al., 2019). These symptoms significantly impact an individual's daily functioning and elevate the risk of suicide (Chesney et al., 2014). Furthermore, experiences of childhood trauma involving physical, sexual, or emotional abuse, as well as instances of physical or emotional neglect, have been linked to the onset and persistence of both depressive and anxiety disorders (Hovens et al., 2010). Nevertheless, the precise neurobiological mechanisms that underlie the diverse symptoms of MDD remain unclear (Kupfer et al., 2012; Otte et al., 2016).

The human brain boasts a staggering number of synapses, estimated to be between 100 and 1,000 trillion (Yu et al., 2019). This intricate neural system lends itself to scientific exploration through a network-oriented approach, utilizing modern network theory (Bassett & Sporns, 2017). Researchers have used this approach to uncover resting-state networks (RSNs; Fox & Raichle, 2007; Smith et al., 2013). These networks play pivotal roles in brain functioning and the development of diseases, including major depression. Studies have identified specific abnormalities in multiple RSNs in individuals with MDD compared to those without the condition (Williams, 2016). In particular, functional magnetic resonance imaging research consistently reports reduced functional connectivity (hypoconnectivity) within the frontoparietal network (FPN; Hamilton et al., 2011; Lui et al., 2011). Moreover, there is increased connectivity

(hyperconnectivity) within the default mode network (DMN; Greicius et al., 2007; Sheline et al., 2010). Heightened connectivity between the DMN and FPN has been observed in patients with MDD.

The FPN is responsible for executive control over attention and emotions, while the DMN is involved in internally focused attention and self-referential processing (Bressler & Menon, 2010; Raichle, 2015). Dysfunction within these networks is closely intertwined with MDD (Otte et al., 2016). Trauma can disrupt the functional connectivity patterns within the frontoparietal network (FPN) and default mode network (DMN) of the brain, leading to abnormalities observed in individuals with major depressive disorder (MDD; Yu et al., 2019). Specifically, trauma can exacerbate hypoconnectivity within the FPN, impairing executive control over attention and emotions, and enhance hyperconnectivity between the DMN and FPN, affecting internally focused attention and self-referential processing. These disruptions in neural networks are closely linked to the development and manifestation of MDD symptoms in individuals who have experienced trauma.

Antidepressant medications are ineffective for 20 to 30% of individuals grappling with significant depression, and one-third of those who initially respond to treatment relapse within a year (Negele et al., 2015). The population of depressed patients comprises a diverse group with varying etiologies. Many multifactorial models of depression include childhood traumatic experiences as a psychosocial factor in its development (Schulte-Körne & Allgaier, 2008). Epigenetic investigations further support the idea that genetic susceptibility alone is insufficient to trigger depression; it requires concurrent early trauma exposure. Caspi et al. (2003) demonstrated that early separation trauma can activate the 5-HTTLPR allele, consequently regulating critical neurotransmitters and precipitating depression. Childhood trauma serves as a

significant source of heterogeneity within this context, which may also be contingent upon the type of trauma experienced (Negele et al., 2015).

It is important to note that adolescents seeking mental health support may display a heightened frequency of depressive symptoms. This pattern could be attributed to the persisting stigma and negative perceptions of mental health services and professionals (Eigenhuis et al., 2021). As a result, an urgent requirement exists for efficient intervention approaches targeting adolescents' mental health (Colizzi et al., 2020). Within this spectrum of strategies, self-directed cognitive-behavioral interventions emerge as adaptable methods applicable in diverse contexts, including educational institutions, community settings, healthcare facilities, and recreational camps (Naeem et al., 2019).

***Health Impacts***

Traumatic events pose adverse effects on children's well-being and mental health. As cited in Frieze (2015), the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) defines a traumatic experience as a "serious threat to a person's physical and psychological being" (p. 28). Trauma usually forces children to perceive themselves negatively due to their inability to make sense of their experiences. Some of the symptoms that a child experiencing trauma is likely to experience include "post-traumatic stress disorder, anxiety problems, depressive symptoms, dissociation … school dropout, violence perpetration, internalizing problems (i.e., post-traumatic stress disorder), alcohol-related problems, and illicit drug use" (p. 28).

Externalizing behaviors—for instance, aggression, hyperactivity, impulsivity, and oppositional defiant behaviors—are also linked to childhood trauma (Liu, 2004). These disruptive and challenging habits can negatively affect a child's social functioning, leading to

challenges in the learning environment and complicated associations with peers and teachers (Frieze, 2015). Early identification of trauma-informed approaches in response to externalizing behaviors can help traumatized children heal and establish positive relationships despite hardships (Cohen & Mannarino, 2015).

Adverse childhood experiences (ACEs) and trauma facilitate poor health outcomes in adults, such as obesity, stroke, heart disease, and mental and behavioral health issues, such as suicide, substance abuse, and depression (Blodgett & Lanigan, 2018; Hovens et al., 2015; Manian, 2021). Also, the more ACEs a child experiences, the higher the risk of adverse outcomes (Blodgett & Lanigan, 2018). Trauma increases the risk of developing unhealthy eating patterns and struggles with weight management. Also, children may grow up to use drugs as a coping mechanism, which can lead to addiction and further health difficulties. Unfortunately, childhood trauma is also linked to a higher risk of suicidal ideation and suicide attempts, as the emotional pain and distress from traumatic experiences can become devastating (Bahk et al., 2017).

Addressing the health impacts of childhood trauma is critical. Professionals must utilize trauma-informed approaches to recognize and support at-risk individuals early on (King et al., 2019). By availing timely interventions, mental health support, and access to suitable resources, society can alleviate the harmful effects of childhood trauma on health and promote better overall well-being for those affected (Shah et al., 2020).

### *Academic Performance*

Childhood trauma tends to have significant effects on a child's academic performance. Trauma's cognitive and emotional impact can obstruct learning, leading to poor educational outcomes (Berger, 2019). Children experiencing trauma will likely struggle with problem-

solving skills, memory, and concentration, making it challenging to participate fully in class. According to Chafouleas et al. (2019), various studies note that post-traumatic stress disorder (PTSD) and children's exposure to trauma led to a significant drop in math and reading performance. According to Frieze (2015), trauma can impact a child's self-esteem and belief in their academic abilities and reluctance to pursue their educational goals. The emotional distress linked to trauma may force students to avoid school, increasing their absenteeism rate, disrupting their learning, and obstructing their academic progress. Due to childhood trauma, a child is likely to repeat grades in school when they fail to meet their grade level expectations. According to Frieze (2015), trauma can impact a child's self-esteem and belief in their academic abilities, reducing motivation and reluctance to pursue their educational goals. The emotional distress linked to trauma may force students to avoid school, increasing their absenteeism rate, disrupting their learning, and obstructing their academic progress. Due to childhood trauma, a child is likely to repeat grades in school when they fail to meet their grade level expectations.

Trauma-induced behavioral issues can also present themselves, aggravating students' inability to focus and participate in educational projects (Chafouleas et al., 2019). The altered trust and attachment caused by trauma can make it challenging for children to develop positive relationships with their peers and teachers, hence facilitating disengagement and isolation from their learning environment (Chafouleas et al., 2019). The accrued effects of these elements can lead to a higher risk of academic failure, reduced grades, and poor academic accomplishments (Chafouleas et al., 2019).

According to M. E. Johnson (2018), once children experience traumatic distress, their brains activate survival centers while restraining the learning centers**.** Children's neurophysiological reactions to trauma linked to victimization usually comprise two continuums:

the hyperarousal continuum, which involves fight, flight, and freeze, and the dissociation continuum. Thus, the child may present their fight or flight response via aggression or rebelliousness toward adults, leading to disciplinary actions that alter their learning relationships and negatively affect relationships with staff members. Freezing responses, categorized by physical and cognitive impassiveness, are connected to academic impediments, teacher disrespect, and poor test performance, leading to confrontations and corrective approaches. Dissociative responses, including memory suppression, disruption, and misunderstanding, are usually linked to disengagement, underperformance, and defiance or apathy (Altintas & Bilici, 2018).

### *Childhood Trauma and Mental Health as Mechanisms for School Drop Out*

The dropping out of school is not a sudden event but rather a gradual phenomenon that commences as early as first grade (Porche et al., 2011). Various factors, including socio-demographics, family stressors like frequent relocations and divorce, and the resources available to both the parents and the child, influence it (Stapley et al., 2021). Multiple behavioral indicators, such as chronic tardiness, absenteeism, and interpersonal conflicts, have been shown to predict school dropout (Suh & Suh, 2007). Furthermore, delinquent behaviors and substance use are also predictive factors for school dropout, even when academic and demographic factors are considered (Newcomb et al., 2002).

According to Bomyea et al. (2017), traumatic stress interferes with information processing, leading to subsequent behavioral and psychiatric consequences. These processing difficulties include intrusive memories, nightmares, and flashbacks related to the trauma causing harm to oneself or others, avoidance, heightened arousal, attention difficulties, distractibility, and attachment disorganization. While both internalizing and externalizing problems can result from

trauma, externalizing behaviors may present more immediate challenges within a school environment (Panuccio et al., 2022). These processing difficulties stemming from traumatic stress, including intrusive thoughts, avoidance, and heightened arousal, can lead to a range of behavioral problems in students. These behaviors, include especially externalizing problems like aggressive behaviors, such as physical aggression, bullying, fighting, forceful conduct, bringing weapons to school, and committing acts of serious violence (Turanovic & Siennick, 2022).

Early experiences of trauma, which can disrupt children's ability to regulate physiological arousal and lead to a loss of self-control, are associated with self-destructive behaviors, conduct issues, and substance misuse (Van der Kolk & Fisler, 1994). Teachers often interpret challenges related to self-regulation as disruptive classroom behaviors (Olson et al., 2009). Attentional processes can also contribute to these challenges (Compas & Boyer, 2001). Symptoms such as "disorganized or agitated behavior" stemming from trauma are another aspect that teachers may observe as disruptive (American Psychiatric Association, DSM-IV, 1994, p. 428). Attempts to numb emotional distress through substance use and abuse can further expose adolescents to additional trauma (Gutierres & Van Puymbroeck, 2006; Rodgers et al., 2004). This can create a cycle that perpetuates disruptive behaviors in the classroom (Kingston & Raghavan, 2009). Due to the prevalence of zero-tolerance policies, such conduct and substance use behaviors can lead to suspensions and expulsions, exacerbating developmental challenges (American Psychological Association Zero Tolerance Task Force, 2008). Individuals who exhibit socially unacceptable responses to trauma and those experiencing significant subsequent psychological distress may face an elevated risk of school dropout (Porche et al., 2011).

## Interventions and Support for Traumatized Children: Trauma-informed Approaches in School

This section explored strategies specifically designed to support students who have experienced trauma. These approaches include trauma-informed care (TIC), cognitive behavioral intervention for trauma in schools (CBITS), bounce back, modular approach to therapy for children with anxiety, depression, trauma, or conduct problems (MATCH ADTC), trauma-focused coping in schools (TFC)/multimodality trauma treatment (MMTT), and classroom- and school-based counseling (Bartlett et al., 2016; Chafouleas et al., 2019). These interventions aim to create a nurturing educational environment that addresses the unique needs of traumatized students, contributing to their overall well-being and academic success.

### *Trauma-Informed Care*

According to Bartlett et al. (2016), trauma-informed care (TIC) is a practical approach to meeting the needs of traumatized children, especially those in the child welfare (CW) system. Joining child mistreatment with traumatic experiences, especially in the CW system, can have harmful effects. TIC reduces behavior complications and post-traumatic symptoms (Bartlett et al., 2016), creating a nurturing space for healing and resilience. As a foundational component of trauma-informed approaches in schools, TIC plays a pivotal role in fostering an environment that supports traumatized children's well-being and educational success. When applied to a student in foster care exhibiting signs of trauma, TIC involves creating a safe and structured environment where the child's specific needs are understood and met. Educators and staff undergo training to recognize the signs of trauma and respond with empathy and understanding. Consistency and predictability become fundamental, with clear routines established to stabilize the child. Fostering a trusting relationship is paramount, encouraging students to express their feelings in a

safe space (Bartlett et al., 2016). Trauma-sensitive classroom strategies are implemented, such as offering options for emotional management and avoiding potential triggers. Collaboration between the school, foster care system, and mental health professionals ensures a holistic approach where everyone involved is informed about the child's needs and progress. By embracing these trauma-informed practices, the school creates an environment where the student feels valued, understood, and safe, promoting healing and resilience in the face of trauma.

### *Cognitive Behavioral Intervention for Trauma in Schools (CBITS)*

According to Chafouleas et al. (2019), cognitive behavioral intervention for trauma in schools (CBITS) is an evidence-centered, school-based treatment for childhood trauma, and a school mental health expert usually provides small group and individual sessions. CBITS enables learners to recognize traumatic events and alter their thought processes. The intervention approach is student-centered, allowing them to select the specific traumatic event they want to address. Individual sessions are usually held to discuss the student's experience, separately from the group sessions. This approach utilizes homework, which allows mental health professionals to evaluate and promote a student's skill generation. This intervention approach has shown effectiveness in Native American and immigrant populations via randomized controlled trials.

One notable advantage of the CBITS program is its cultural sensitivity, as the program's manual has been translated into five languages: Spanish, Korean, Russian, Armenian, and Japanese (Chafouleas et al., 2019). Additionally, CBITS has undergone adaptation into another program known as Support for Students Experiencing Trauma (SSET; Jaycox et al., 2009). SSET is designed to be administered by school personnel who may not possess formal clinical training, such as teachers and school counselors (Jaycox et al., 2009). While only preliminary data are

available, it shows promise as a practical approach for practitioners working within a school-based context, potentially serving as a consultation-based intervention (Chafouleas et al., 2019).

### *Bounce Back*

According to Chafouleas et al. (2019), bounce back is a cognitive-behavioral therapy (CBT) centered intervention approach for children aged 5–11. It combines two intervention approaches: "Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) and Cognitive Behavioral Intervention for Trauma in Schools (CBITS)" (p. 10). Its creators, Jaycox, Sheryl H. Kataoka, Marleen Wong, and Arlene Fink, revised the features to ensure it is suitable for adaptation and execution in schools and with less parental participation linked to TF-CBT. Bounce back is provided by a school-centered clinician, comprising 10 group sessions that take approximately 50–60 minutes each. It includes "psychoeducation, exposure to avoided stimuli, a narrative retelling of the traumatic event, relaxation strategies, and cognitive coping" (p. 9). It also involves 2–3 individual sessions that last for approximately 20–30 minutes and stress a retelling of the traumatic event to lessen harmful reactions linked to the memory of the event. Lastly, the approach includes around one to three sessions involving parents, making it more effective for working parents and school-centered practitioners.

### *Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH ADTC)*

MATCH ADTC is a modular intervention to address symptoms and comorbidities linked to trauma exposure (Chafouleas et al., 2019). Unlike the group intervention approaches, MATCH ADTC, created by Chorpita in 2004, is exclusively delivered to individual students with modules for conduct challenges, depression, and anxiety (Chafouleas et al., 2019). Within trauma-informed approaches in schools, MATCH ADTC operates as a versatile toolkit, allowing

educators to select and combine modules that align with each student's specific needs and circumstances (Chafouleas et al., 2019). This adaptability enhances the intervention's effectiveness and underscores its capacity to address the diverse ways trauma may manifest. As a result, MATCH ADTC serves as evidence of the evolving landscape of trauma-focused interventions, promoting tailored and holistic support to ensure the well-being and success of traumatized students within the educational environment.

### *Trauma-Focused Coping in Schools (TFC)/ Multimodality Trauma Treatment (MMTT)*

According to Chafouleas et al. (2019), TFC/MMTT is a cognitive-behavioral-oriented treatment encompassing 14 group sessions, each stressing precise skills and goals such as anxiety management and cognitive coping. The educator or clinician meets with students midway through the intervention to evaluate progress and make any essential plan adjustments. It does not involve parental involvement. One significant benefit of the program is that it is easier to adapt to individuals of all ages. TFC/MMTT's student-centered approach emphasizes practical coping tools. Group sessions and mid-intervention meetings ensure personalized support. Its adaptability and independence from parental involvement enhance accessibility. TFC/MMTT nurtures resilience and well-being in trauma-informed schools, empowering traumatized students for academic and emotional success.

### *Classroom and School Based Counselling*

According to Cavanaugh (2016), classroom strategies and school-based counseling are vital for processing traumatic experiences. These strategies may comprise "supports for student safety, positive interactions, culturally responsive practices, peer supports, targeted supports, and strategies that support the individualized needs of students" (Cavanaugh, 2016, p. 42). Culturally responsive practices establish an inclusive and understanding environment for all learners by

acknowledging and respecting their diverse backgrounds. School-centered counseling, which primarily includes social justice education, can be influential in solving trauma-associated problems and promoting emotional well-being. Also, collaboration between community and school resources is essential for providing comprehensive support for traumatized children since it facilitates access to external services, expertise, and additional support networks. By merging these approaches, learning institutions can better meet the unique needs of traumatized learners, promoting a safe, supportive, and healing educational environment.

**Implications for Educational Policy and Practice**

Currently, most students are experiencing stress, anxiety, and other mental health issues due to increased cases of global crises, for instance, geopolitical conflicts, climate change, and the COVID-19 pandemic (Wiedermann et al., 2023). Categorizing traumatized children and adolescents, taking into account their distinct risks, geographical contexts, socioeconomic backgrounds, and other pertinent factors, offers educators and mental health professionals an opportunity to customize interventions tailored to the unique requirements of each subgroup (Clement et al., 2014; Patel et al., 2007; Wright et al., 2006). As a preventive measure, initiatives may involve educating young individuals about climate-related issues and empowering them to take proactive steps (Schreiner et al., 2005). Establishing support networks that facilitate open discussions about eco-anxiety and impart coping strategies can be valuable (Boluda-Verdu et al., 2022; Pihkala, 2020). Psychological support and trauma therapy are crucial for those directly affected by or displaced due to environmental crises and conflicts (Makwana, 2019). Additionally, implementing peace education initiatives and conflict resolution curricula can contribute to mitigating the impacts of climate-induced stress (Vestal & Jones, 2004). Introducing financial literacy programs and vocational training opportunities to equip young

people with skills to explore economic challenges and uncertainties represents another proactive approach to prevention (Wiedermann et al., 2023).

Despite implementing preventive measures in many educational settings, there remains a significant shortfall in essential resources, support systems, and training for instructors and mental health professionals (Fagan et al., 2019). This deficiency can hamper preventive approaches and may lead to increased mental health challenges (Fagan et al., 2019). Adaptations in educational institution policies play a crucial role in addressing scholars' complex mental health issues (Atkins et al., 2010). These adaptations should include deliberately incorporating mental health policies and topics into the curriculum (Atkins et al., 2010). Specific modules could be introduced to understand mental health conditions better, emphasizing the significance of resilience, self-care, and healthy coping approaches (Wiedermann et al., 2023). Moreover, integrating relevant subjects such as financial literacy, conflict resolution, and climate change equips students to understand global stressors and manage their influence on mental well-being (Wiedermann et al., 2023). According to Wiedermann et al. (2023), while the presence of mental health professionals within learning institutions is growing, there should be a heightened emphasis on defining their responsibilities and establishing clear referral trails to exterior mental health services, strengthening the care network. Educational institutions are advised to form associations with local community establishments to influence their expertise and resources. Schools should collaborate with local organizations focused on mental health, financial literacy, and environmental issues to provide programs and workshops that promote a well-informed and supportive learning environment (Wiedermann et al., 2023).

According to Wiedermann et al. (2023), disciplinary processes and evaluations must indicate an institution’s dedication to mental health support. Identifying mental health issues,

primarily through students' academic performance, and formulating strategies to help learners cope and improve can promote a healthy learning environment; hence, improving their well-being and performance (Wiedermann et al., 2023). This corresponds to a broader societal change toward comprehending and solving mental health issues as an essential aspect of one's overall health. Thus, integrating these approaches into institutions' policies will ensure that mental health support is fully provided to students.

Policy recommendations are essential for treating trauma and preventing its adverse impacts on children (Soleimanpour et al., 2017). Evidence-centered initiatives help enhance family stability, access to quality care, and parental support for traumatized children or those at risk (Soleimanpour et al., 2017). Integrating trauma-informed approaches into educational policies will help students overcome traumatic experiences and improve their academic achievements (Perez & Appalachia, 2021). Training and technical assistance to educators are also essential for supporting traumatized children (L'Estrange & Howard, 2022). Equipping school staff and teachers with knowledge on understanding traumatic effects and implementing the approaches will help them to develop compassionate and responsive learning outcomes (McGruder, 2019; Ozaslan et al., 2022; Soleimanpour et al., 2017). Collaboration between schools, mental health experts, and community organizations ensures that traumatized children receive comprehensive support (Wiedermann et al., 2023). Developing school-wide support systems and interventions is essential for solving the effects of traumatic events. Implementing these approaches establishes a culture of trust and safety, benefiting all students (Wiedermann et al., 2023). Schools can implement evidence-based interventions promoting resilience and coping skills, supporting all students' well-being and academic performance (Wiedermann et al., 2023).

## Summary

This literature review provided a comprehensive examination of childhood trauma, mental health disorders of bipolar, anxiety, and depression, and their multifaceted implications within educational settings. It began by introducing the overarching concerns and highlighting their significance in understanding students' academic experiences and well-being. The review then established a foundational understanding of childhood trauma and mental health disorders by outlining a range of adverse experiences during formative years. Subsequently, it explored the direct consequences of childhood trauma and mental health disorders of bipolar, anxiety, and depression on school dropout rates, shedding light on the behavioral indicators and symptoms that hinder traumatized students' academic success and may lead to disengagement from the educational system.

Furthermore, the literature review delved into the intricate mechanisms through which childhood trauma affects mental health and, consequently, school dropout rates. It emphasized how early trauma can contribute to the development of mental health conditions in adulthood, rendering individuals more susceptible to stress, physical illness, and adversity. The section underscored the impact of trauma-related processing difficulties on behavior and psychiatric consequences, which can impede students' success in school.

The final segment introduced a spectrum of interventions and support strategies designed to assist traumatized students within the school environment. These approaches aim to cultivate a nurturing educational atmosphere that caters to the unique needs of traumatized students, ultimately enhancing their well-being and academic achievement. Additionally, the review addressed the implications for educational policy and practice, highlighting the importance of policy recommendations, educator training, and collaborative efforts between schools and

community resources in addressing the effects of trauma on students. Overall, this literature review provided a comprehensive overview of childhood trauma and mental health disorders of bipolar, anxiety, and depression's complex relationship with academic outcomes and mental health, offering insights into potential interventions and policy considerations to support traumatized students in educational settings.

# CHAPTER THREE: METHODS

## Overview

This section described the effects of childhood trauma and mental health disorders of bipolar, anxiety, and depression on educational outcomes to comprehend the link between traumatic experiences and academic performance. For a long time, childhood trauma and mental health disorders of bipolar, anxiety, and depression have been identified as significant factors negatively contributing to educational outcomes and students' overall well-being (Cruz et al., 2022). Thus, the aim was to understand better how these variables impact students' experiences across age groups and educational levels. To achieve this, the archival research design was used to explain ways childhood trauma and mental health disorders influence students' experiences across various age groups and educational levels. In contrast to traditional research methods, the archival research design involved analyzing existing records and data from students who have encountered trauma within diverse educational contexts. Analyzing the association between childhood trauma, bipolar disorder, anxiety, depression, and educational outcomes helped expand current knowledge and understanding.

## Design

For this study, the archival research method was selected to evaluate the multifaceted relationship between childhood trauma, focusing on mental health disorders such as bipolar disorder, anxiety, and depression and their impact on educational outcomes**.** Unlike controlled experiments conducted in a laboratory setting, archival research provides a unique perspective by examining existing data collected for learning purposes and academic research. The selection of archival research is based on its ability to provide relevant historical data to answer the research questions. According to Das et al. (2018), archival data are usually collected and stored before

the research starts and are projected to be used later. By examining records and information about people who experienced childhood trauma and mental disorders, this research aimed to explore real-life scenarios, providing a deeper understanding of real-life phenomena. In this context, archival research are valuable because they allow researchers to study these phenomena in their natural environment, outside the constraints of artificial experimental settings (Lumen Learning, n.d.). Childhood trauma and mental disorders are sensitive subjects whose research must be approached with ethical considerations. The archival approach ensured that the research was conducted responsibly and respected the privacy and well-being of those involved.

## Research Questions

The research mainly aimed to understand the impact of childhood trauma and mental health disorders of bipolar, anxiety, and depression on educational outcomes in students in various educational settings. Thus, research questions included:

**RQ1:** Are the mental health disorders of bipolar, anxiety, and depression associated with lower grades in students who have experienced childhood trauma?

**RQ2:** Are the mental health disorders of bipolar, anxiety, and depression associated with lower attendance in students who have experienced childhood trauma?

## Hypotheses

**H1:** The mental health disorders of bipolar, anxiety, and depression are associated with lower academic grades in students who have experienced childhood trauma.

**H2:** The mental health disorders of bipolar, anxiety, and depression are associated with lower attendance rates in students who have experienced childhood trauma.

## Research Questions

**RQ1:** Are childhood trauma and the mental health disorders of bipolar, anxiety, and depression associated with low academic grades?

**RQ2:** Are childhood trauma and the mental health disorders of bipolar, anxiety, and depression associated with low school attendance?

## Hypotheses

**H1:** Childhood trauma and mental health disorders such as bipolar disorder, anxiety, and depression are likely to lead to lower academic grades.

**H2:** Childhood trauma and mental health disorders such as bipolar disorder, anxiety, and depression are likely to lead to lower school attendance rates.

## Participants and Setting

Participants in this archival study were high school students selected from school archives in the New York City metropolitan area for the year 2023. This study focused on existing data from the historical record to comprehensively examine the effects of childhood trauma on educational outcomes. The archival records include students representing various socio-economic and cultural backgrounds from several schools in various parts of the city. A convenience sampling method was used to select participants from archival data. This non-random sampling approach allowed the inclusion of students for whom data were readily available in the archives of the selected schools. The participants in this study were students between the ages of 12 and 18, and their data indicated that they had experienced childhood trauma. Traumatic experiences come in many forms, including abuse, neglect, natural disasters, and social violence.

The data collection period for this archival study was from January 2023 to June 2023. This period was carefully selected to match typical academic programs and academic standards so that archival data reflect the typical school experiences of participants. This study aimed to provide a clear historical perspective on the relationship between childhood trauma and educational outcomes, focusing on periods unaffected by exceptional circumstances such as pandemic disruptions.

Ethical considerations are fundamental in research (Resnik, 2020). I worked closely with the records manager to ensure participants' ethical treatment and confidentiality. Access to archived data was sought directly from the educational institution and the appropriate authorities that oversee Blackboard systems. A formal request was made that clearly stated the purpose of the investigation and ensured compliance with data privacy regulations. Confidentiality and anonymity were guaranteed to all participants. The extracted data did not include identifiable information. Because this archival study was based on existing data and all data were anonymized to protect participants' identities, informed consent was not required. The inclusion criteria was broad and aimed at capturing a comprehensive range of traumatic experiences. Inclusion criteria for mental disorders in this study included individuals who were clinically diagnosed with a specific condition, such as bipolar disorder, anxiety disorder, or depression, by a licensed mental health professional according to standardized diagnostic criteria. In this case, the criteria applied was either yes or no (depicted using 1 and 0) to determine if one had the predictor variables or not. The participants' mental disorders had to be enough to warrant continued special attention in the study. Participants exposed to various forms of trauma, including abuse, neglect, natural disasters, and community violence, were included in the study.

This approach allowed an inclusive interpretation of the impact of childhood trauma on educational outcomes.

## Instrumentation

The utilization of archived data applied in this study was essential in enhancing the collection of valid and reliable data that correctly reflected the research objectives. This archival study focused on accessing and analyzing pre-existing data from educational institutions' archives, explicitly utilizing the Blackboard platform. Blackboard is a widely used educational technology platform that integrates various functions, including course management, online learning, and student information management (Heirdsfield et al., 2011).

The archival data for this study were obtained from the Blackboard platform, an integrated educational system. Blackboard stores a wealth of student information, including enrollment data, grades, course attendance, and contact logs, creating rich data sets for analysis (Heirdsfield et al., 2011). Access to archived data was facilitated by permissions obtained from each educational institution that used the Blackboard platform. The data collection process included obtaining relevant data from a given semester, including student demographics, course enrollment, grades, and attendance records. This process allows a researcher to objectively analyze a certain period without being affected by exceptional circumstances.

Once obtained, the data were stored and managed securely using appropriate data management tools to comply with privacy and data protection regulations. Advanced statistical method, SPSS, was used for comprehensive data analysis. Descriptive and inferential analyses further examine the relationships between childhood trauma, grades and attendance, and mental health disorders of bipolar, anxiety, and depression. In this archival research, the focus was on the accuracy and reliability of archival records. Steps to ensure data integrity were taken,

including cross-checking, validation, and careful documentation of data sources. The researcher adhered to the established standards of archival research, emphasizing the authenticity and credibility of the historical documents used (Lumen Learning, n.d.).

## Procedures

The Institutional Review Board at Liberty University approved data collection and subsequently granted permission for necessary modifications (see Appendix A). Following this permission, the archival study was accessed on the Blackboard platform. Access to archived data was sought directly from the educational institution and the appropriate authorities that oversee Blackboard systems. A formal request was made that clearly stated the purpose of the investigation and ensured compliance with data privacy regulations (Appendix A).

After obtaining consent, data extraction took place on the Blackboard platform. Specific data sets, such as student demographics, course enrollment, grades, and attendance records, were identified. Custom scripts output these datasets into a structured digital format, ensuring consistency and reliability. To protect personal information during transmission and storage, incoming data were securely stored in encrypted files.

Data security was ensured by encryption and secure storage protocols. Personally Identifiable Information (PII) was anonymized or replaced with a unique code to protect privacy. Access to the data set was restricted to authorized research personnel only. Data were stored on secure servers and accessed via encrypted connections to prevent unauthorized access.

Detailed documentation of data extraction scripts, cleaning procedures, and analysis methods were maintained for transparency and reproducibility. To protect student identities, research results were published in aggregate form. The report included a description of data set

sources, data cleaning process, analysis methods, and interpretation of results in the context of childhood trauma and educational outcomes.

## Data Analysis

Various statistical procedures evaluated the association between childhood trauma and mental health disorders of bipolar, anxiety, and depression on educational outcomes for data analysis. The analysis focused on understanding the intricate associations between these variables, employing rigorous statistical methods to draw meaningful conclusions. Clear and concise reporting of these statistical analyses was crucial for effectively communicating the research findings to academic and non-academic audiences.

### Hypothesis 1

To test the null hypothesis that childhood trauma and the mental health disorders of bipolar, anxiety, and depression lead to low academic grades, multiple linear regression (MLR) analysis was employed. This analysis quantified the degree of association between the variables, corresponding to research question 1. Assumption tests for normality and linearity were conducted as part of the MLR analysis. Beta coefficients and significance levels were reported, and Cohen's conventions were utilized to determine the effect size. The alpha level were set at .05

### Hypothesis 2

Multiple regression modeling was employed to investigate the influence of childhood trauma and mental health disorders of bipolar, anxiety, and depression on school attendance. This approach allowed for examining how childhood trauma and mental health disorders of bipolar, anxiety, and depression predict differences in these outcomes while controlling for potential covariates. Assumption tests for multicollinearity, independence, and homoscedasticity were

conducted. Beta coefficients and significance levels were reported. The alpha level was set at .05.

## Summary

This chapter provided a detailed overview of the research methodology used in this study, including the study design, participants, instruments, procedures, and data analysis methods to examine the relationship between childhood trauma, mental health disorders of bipolar, anxiety, and depression, and educational outcomes. The selected archival research design was suitable for collecting data from students from different educational institutions using the Blackboard platform. Multiple regression modeling explored the complex relationships between childhood trauma, mental health disorders (bipolar, anxiety, and depression), and educational outcomes. This chapter emphasized the importance of validity and quality assurance in planning and conducting studies.

# CHAPTER FOUR: FINDINGS

## Overview

This study's purpose was to look at the effect of childhood trauma, the mental health disorders of bipolar, anxiety, and depression, and the associated effects on academic grades. Low school attendance as an effect of these factors was also a related factor to be considered. School attendance and academic grades are two factors that affect each other exclusively (Keppens, 2023), and the findings point to the existence and verification of these relationships.

## Descriptive Statistics

The study involved 1000 participants, examining the impact of childhood trauma and mental health disorders (bipolar, anxiety, and depression) on academic grades and school attendance. Descriptive statistics revealed a moderate variability in academic performance with an average GPA of 3.18 and a standard deviation of 0.41, as depicted in Table 1. The mean attendance was 83.44%, with a standard deviation of 7.51. Approximately 51% of participants experienced trauma. Bipolar disorder exhibits even distribution, each with a mean of 0.50, while anxiety is slightly more prevalent with a mean of 0.51.

**Table 1**

*Descriptive Statistics for Key Variables in the Dataset (N=1000)*

| Variables | *N*=1000 | Mean | Std Deviation | Min. | Max. |
|---|---|---|---|---|---|
| **GPA (Grade Point Average)** | 1000 | 3.18 | 0.41 | 2.30 | 4.00 |
| **School Attendance Percentage (%)** | 1000 | 83.44 | 7.512 | 65.20 | 95.60 |
| **Childhood Trauma (Binary: 0/1)** | 1000 | 0.50 | 0.50 | 0 | 1 |
| **Depression (Binary: 0/1)** | 1000 | 0.49 | 0.50 | 0 | 1 |
| **Bipolar Disorder (Binary: 0/1)** | 1000 | 0.50 | 0.50 | 0 | 1 |
| **Anxiety (Binary: 0/1)** | 1000 | 0.51 | 0.50 | 0 | 1 |

*Note*. The table displays descriptive statistics for all variables.

# Results

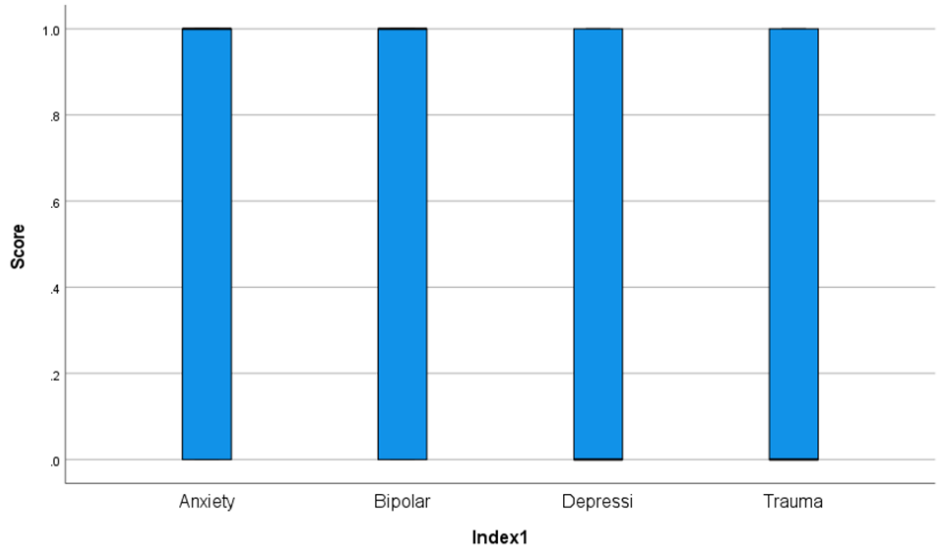
## Data Screening

During the data screening step, the dataset quality and integrity were evaluated. All 1000 participants' information was reviewed for completeness, compliance, and accuracy with research procedures. A logical approach was taken by excluding participants with incomplete information, preserving the dataset's reliability without compromising the sample size, which remained at 1000 (Mikolajewicz & Komarova, 2019). This comprehensive process aimed to identify and address any potential issues that could compromise the validity of the data. This involved a thorough examination of the dataset to guarantee its suitability for the intended analysis. Fortunately, this rigorous screening process that involved data validation and logical consistency checks ensured that the dataset adhered to the necessary assumptions for the chosen statistical methods. This paved the way for a vigorous analysis and accurate interpretation of the research results.

The data screening utilized boxplots for four variables: anxiety, bipolar, depression, and trauma. Each boxplot is rectangular, ranging from a minimum score of 0 to a maximum score of 1 (See Figure 1). This suggests the data represents a binary presence or absence of each variable, with 1 indicating a client has that variable and 0 indicating they do not. Notably, all the boxplots lacked whiskers, implying there are no data points outside the main cluster for any variable. Since boxplots lacked whiskers, it suggests there are likely no outliers present in the data for any of the four variables (anxiety, bipolar, depression, trauma). This is because whiskers typically extend from the box to encompass the middle 50% of the data (interquartile range), with any data points beyond them considered potential outliers.

**Figure 1**

*Box Plot for the Variables*




**Hypotheses One**

**$H_{01}$:** The mental health disorders of bipolar, anxiety, and depression are associated with lower academic grades in students who have experienced childhood trauma.

**$H_{a1}$:** The mental health disorders of bipolar, anxiety, and depression are associated with lower attendance rates in students who have experienced childhood trauma.

***Assumption Testing***

To evaluate the assumptions crucial for MLR, four key diagnostic tests were conducted. Firstly, the normality assumption was thoroughly tested through visual inspection of histograms (See Figure 1) and normal probability plots for GPA (See Figure 2). The results revealed a close approximation to normal distribution for these variables. Furthermore, residual plots, confirmed the reliability of the dataset for MLR analysis (See Figure 3). This comprehensive approach to assumption testing fortified the validity of the subsequent MLR analyses and interpretations. Furthermore, the assumptions of homoscedasticity and independence of residuals were assessed

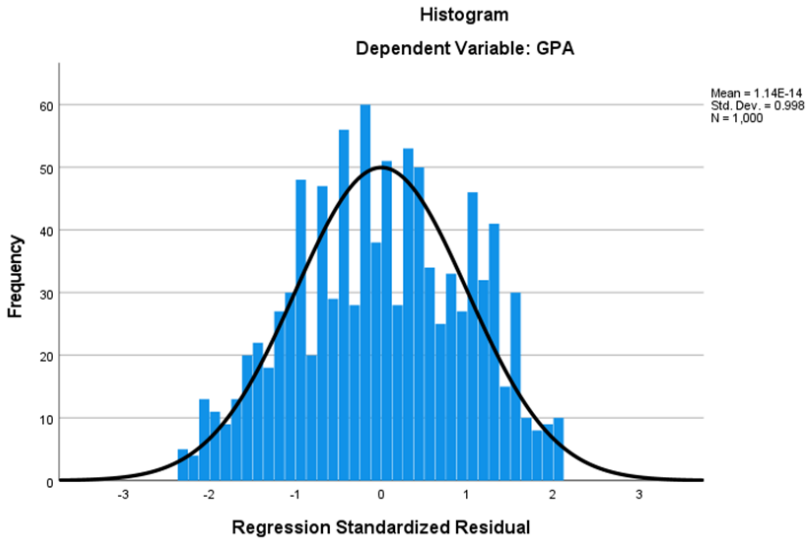
through residual plots, confirming the reliability of the dataset for MLR analysis (See figure 4). Alongside these, the assumption of Homogeneity of Regression Slopes was tested and included in the collinearity statistics table (See Table 2).

To evaluate the assumptions crucial for MLR, four key diagnostic tests were conducted. Firstly, the normality assumption was thoroughly tested through visual inspection of histograms (See Figure 1) and normal probability plots for GPA (See Figure 2). The results revealed a close approximation to the normal distribution for these variables. Furthermore, residual plots confirmed the reliability of the dataset for MLR analysis. This comprehensive approach to assumption testing fortified the validity of the subsequent MLR analyses and interpretations. Furthermore, the assumptions of homoscedasticity and independence of residuals were assessed through residual plots, confirming the reliability of the dataset for MLR analysis (See figure 3). Alongside these, the assumption of Homogeneity of Regression Slopes was tested and included in the collinearity statistics table (See Table 4).

With a mean of 1.14E-14, a standard deviation of 0.998, and a sample size of 1000, the symmetrical shape of the histogram for regression standardized residuals in the context of Hypotheses One (H01 and Ha1) indicates that the model's predictions for academic grades (GPA) in relation to childhood trauma and mental health disorders are well-distributed around the mean (Figure 2). The nearly zero mean aligns with the expectation that, on average, the model accurately predicts GPA. The symmetrical distribution implies that the residuals are evenly distributed on both sides of the mean, supporting the notion that childhood trauma and mental health variables, such as bipolar disorder, anxiety, and depression, do not exhibit a systematic bias in predicting lower academic grades.

**Figure 2**

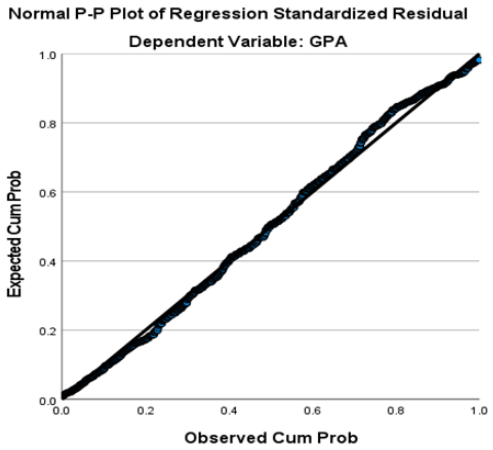
*Histogram Depicting Frequency of GPA in Relation to Predictors*




In the normal probability plot (P-P plot), data points are plotted against the expected values from a theoretical normal distribution See Figure 3. Clusters observed around the diagonal line indicate that the residuals, representing differences between observed and predicted academic grades (GPA), closely follow a normal distribution. This alignment with normality enhances the credibility of the regression model, suggesting that the model's predictions for academic performance are consistent with the assumption of normality. The presence of clusters around the diagonal line signifies the reliability of the model in capturing the variability in GPA and reinforces the robustness of the analysis.

**Figure 3**

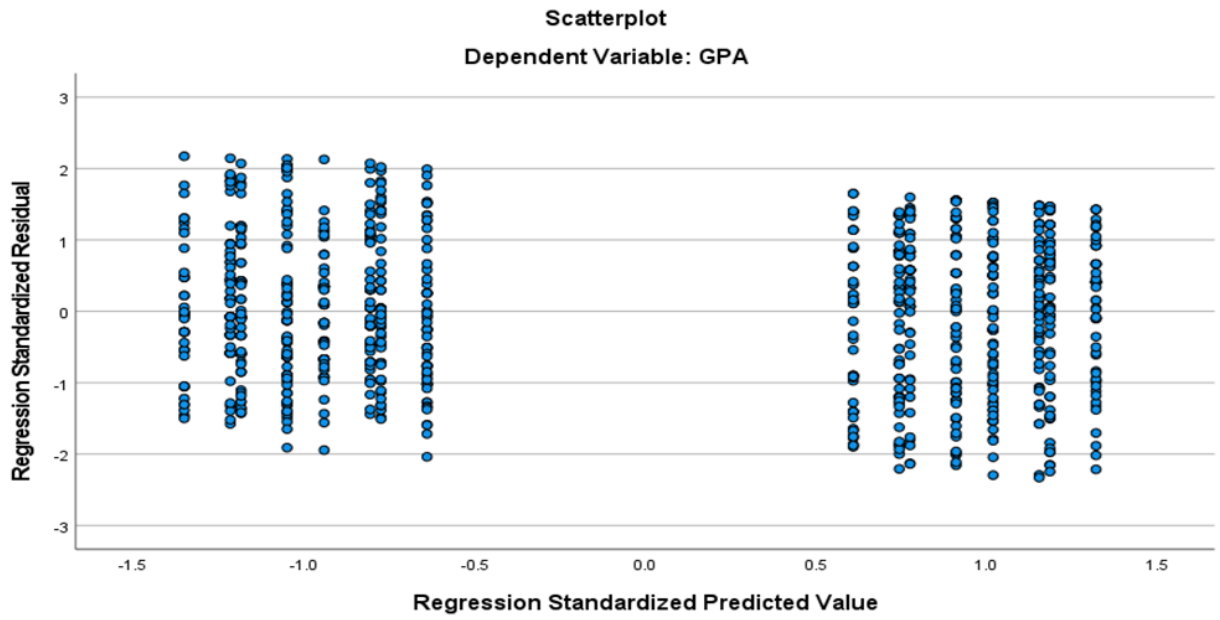
*Normal P-P Plot in Relation to GPA*




In the cluster plots, the presence of clusters between -1.3 to -0.6 and another between 0.6 and 1.4 along the x-axis as shown in Figure 3 suggests distinct groups within the data. The linear clustering along the y-axis, ranging from -2.5 to 2.2, implies a systematic relationship (as shown in Figure 3). The multitude of clusters signifies potential variations in the impact of bipolar disorders on academic grades. The complexity of the clusters indicates that these variables could have nuanced effects on GPA, influencing academic performance differently across various subgroups. The presence of homoscedasticity in the residual scatterplot indicates that the regression model adequately captures the relationship between bipolar disorder and academic grades, without any systematic bias in the prediction errors.

**Figure 4**

*Scatterplot of the Dependent Variable in Relation to the Predictors*




Collinearity diagnostics serve as a crucial assessment of potential multicollinearity issues within the model (Shrestha, 2020). In this analysis, the values of tolerance for predictors, including trauma, depression, anxiety, and bipolar, are near 1 (See Table 2). Tolerance measures the proportion of variance in one predictor that is not explained by the other predictors (Shrestha, 2020). The values close to 1 indicate that these variables are not highly correlated, reassuring the reliability of the regression model. This indicates acceptable levels of collinearity, reassuring the reliability of the regression model and the independent contribution of each variable to the prediction of GPA.

Correlation coefficients show the relationships between variables (Schober et al., 2018). Notably, bipolar demonstrated noteworthy, standardized coefficient, underscoring its distinct contributions to the prediction of academic performance. Only bipolar has a negative influence on GPA, shown by its beta value of -0.285 as shown in Table 2. This beta value indicates that

bipolar disorder is the only variable affecting GPA. This shows that individuals with a history of bipolar disorder tend to experience a negative effect on their academic grades. Furthermore, squaring the beta value ($0.285^2 = 0.081$) reveals that bipolar disorder accounts for approximately 8.1% of the variance in GPA. This suggests that only bipolar disorder affects overall academic performance.

**Table 2**

*Coefficients*

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Zero-order | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 3.285 | .028 | | 117.752 | .000 | | | | | |
| | Trauma | -.024 | .025 | -.029 | -.969 | .333 | -.034 | -.031 | -.029 | 1.000 | 1.000 |
| | Anxiety | .032 | .025 | .040 | 1.310 | .191 | .048 | .041 | .040 | .998 | 1.002 |
| | Bipolar | -.231 | .025 | -.285 | -9.384 | <.001 | -.287 | -.285 | -.285 | .998 | 1.002 |
| | Depression | .016 | .025 | .020 | .668 | .504 | .027 | .021 | .020 | .998 | 1.002 |

a. Dependent Variable: GPA

***Data Analysis***

ANOVA (Analysis of Variance) is a crucial statistical test that assesses whether the means of different groups are statistically different from each other (Dugard et al., 2022). In the context of regression analysis, ANOVA is applied to examine the overall significance of the regression model as a whole. In the results provided, the ANOVA table (See Table 3) indicates a highly significant F-statistic ($F = 24.194$, $p < 0.001$). This low p-value suggests that the observed variation in GPA cannot be attributed to random chance alone; rather, the independent variables (childhood trauma, bipolar disorder, anxiety, and depression) collectively contribute significantly to explaining the variability in academic performance. The F-statistic represents the ratio of explained variance to unexplained variance (OpenStax, 2023). In this case, F-statistic signifies that the regression model does a better job of explaining the variance in GPA than a model with

no predictors. This statistical significance enhances the confidence in the model's ability to predict GPA based on childhood trauma and mental health variables.

The p-value associated with the F-statistic being less than 0.001 is crucial. According to Di Leo and Sardanelli (2020), p-value below the classical threshold of 0.05 (or in this case, much lower) indicates that the observed results are highly unlikely to have occurred by chance. Therefore, it provides strong evidence against the null hypothesis, suggesting that the regression model, including childhood trauma and mental health variables, is indeed meaningful in explaining variations in academic performance. This ANOVA result emphasizes that the variables under consideration are not randomly associated with GPA but contribute significantly to understanding and predicting academic outcomes.

**Table 3**

*ANOVA between GPA and the Predictors*

**ANOVA[a]**

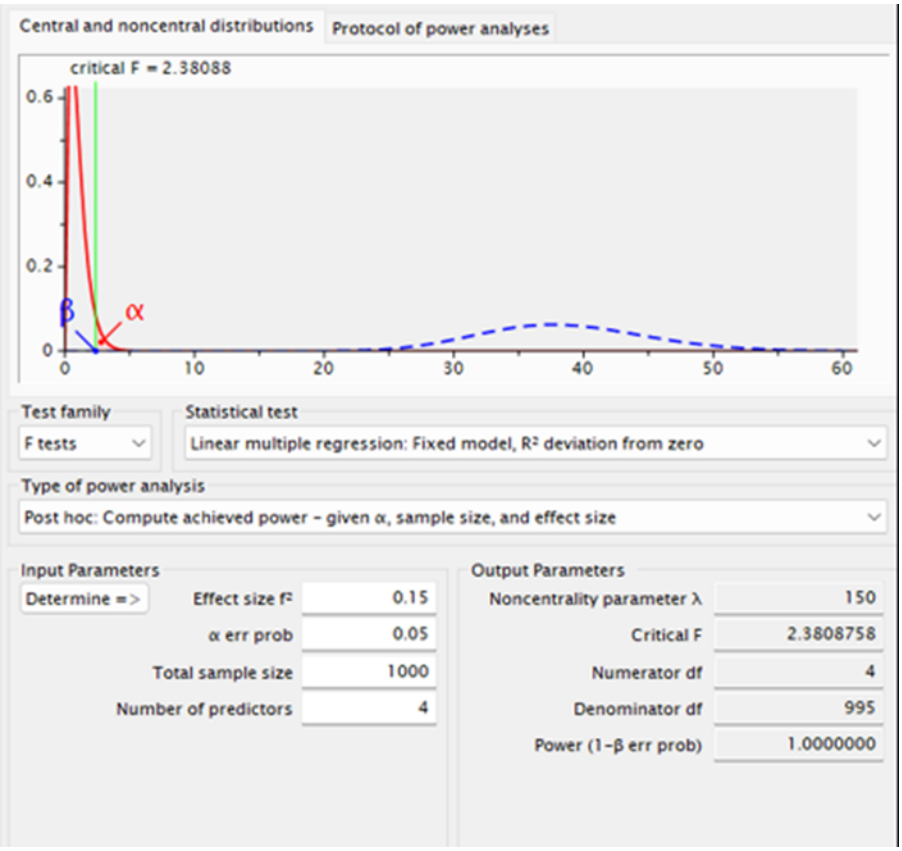
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 14.014 | 4 | 3.504 | 23.173 | <.001[b] |
| | Residual | 150.438 | 995 | .151 | | |
| | Total | 164.453 | 999 | | | |

a. Dependent Variable: GPA

b. Predictors: (Constant), Depression, Trauma, Anxiety, Bipolar

**Figure 5**

*Gpower Post Hoc Analysis*




A post-hoc analysis using G*Power was conducted to further explore the effect size of the statistically significant correlation observed between childhood trauma and GPA. The analysis revealed an effect size ($f^2$) of 0.15, which falls within the category of a small effect size (See Figure 5). While the large sample size of 1,000 participants contributed to a high power (1.00), signifying a strong ability to detect even weak effects, the magnitude of the association between childhood trauma and GPA remains minimal.

This finding suggests that despite the statistically significant correlation, the practical influence of bipolar disorder on GPA scores in this study is limited. While students with a history of bipolar disorder might tend to have slightly lower GPAs on average, the effect size

indicates this association is weak. Bipolar disorder might interact with other variables, such as social support systems or access to academic resources, to exert a more substantial influence on GPA in certain situations. Other mental health variables (depression, anxiety) exhibit weak correlations with GPA, suggesting that these factors might have limited direct impact on academic outcomes.

All specified variables were entered into the regression model, indicating that childhood trauma, bipolar disorder, anxiety, and depression are considered as potential predictors of GPA (Table 4). This step ensures that each of these variables is included as potential predictors of GPA, allowing for a comprehensive examination of their individual and collective effects on academic performance. This approach aligns with the study's objective to evaluate the varied relationships between childhood trauma, mental health disorders, and academic outcomes.

**Table 4**

*All the Variables Entered*

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Depression, Trauma, Anxiety, Bipolar[b] | . | Enter |

a. Dependent Variable: GPA

b. All requested variables entered.

The model summary in Table 5 indicates that the selected predictors collectively explain 8.5% of the variance in GPA. The Adjusted R Square, at 0.082, accounts for the effect size of the predictors. While the overall model is statistically significant, a substantial portion of GPA variance remains unexplained.

**Table 5**

*Model Summary of GPA and the Predictors*

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .292[a] | .085 | .082 | .38883678940 | .085 | 23.173 | 4 | 995 | <.001 |

a. Predictors: (Constant), Depression, Trauma, Anxiety, Bipolar

b. Dependent Variable: GPA

**Hypotheses Two**

**$H_{02}$:** Childhood trauma and mental health disorders such as bipolar disorder, anxiety, and depression are associated with lower school attendance rates in students who have experienced childhood trauma.

**$H_{a2}$:** Childhood trauma and mental health disorders such as bipolar disorder, anxiety, and depression are associated with lower school attendance rates in students who have experienced childhood trauma.

***Assumption Testing***

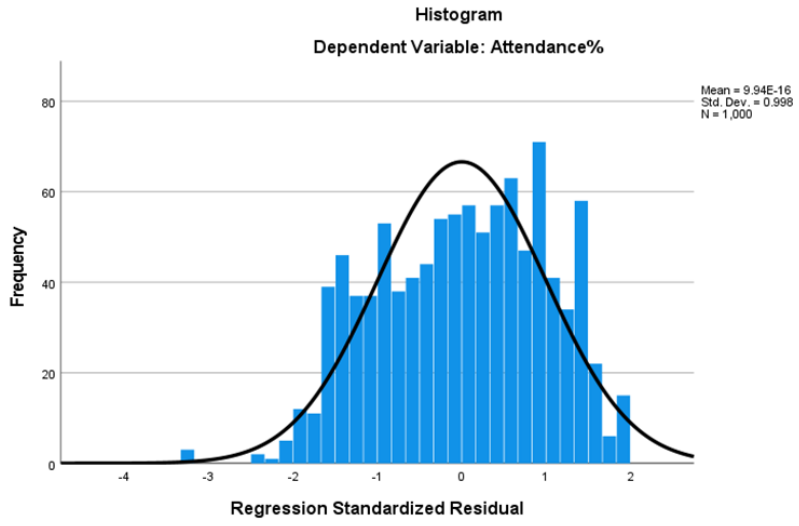
To evaluate the assumptions crucial for MLR concerning attendance rates, various diagnostic tests were conducted. Firstly, the normality assumption was thoroughly tested through visual inspection of histograms (See Figure 6) and normal probability plots for attendance (See Figure 7). The results revealed a close approximation to a normal distribution for these variables. The histogram displayed a symmetrical shape, indicating that, on average, the model accurately predicts attendance rates. Additionally, the normal probability plot showed a linear distribution along the y-axis, suggesting a systematic relationship. The range of residuals falling within acceptable limits (-3 to 2) further supported the normality assumption. Furthermore, the assumptions of homoscedasticity and independence of residuals were assessed through residual

plots, confirming the reliability of the dataset for MLR analysis (See Figure 8). The symmetrical distribution around the mean (mean of 9.94E-16, standard deviation of 0.998) indicated no systematic bias in predicting lower school attendance based on childhood trauma and mental health disorders (bipolar disorder, anxiety, and depression). This comprehensive approach to assumption testing fortified the validity of the subsequent MLR analyses and interpretations. Moreover, the assumption of homogeneity of regression slopes was tested and included in the collinearity statistics table (See Table 10).

With a mean of 9.94E -16, a standard deviation of 0.998, and a sample size of 1000, the histogram for regression standardized residuals in relation to Hypotheses Two (H02 and Ha2) provides insights into the model's predictions for school attendance rates concerning childhood trauma and mental health disorders. The symmetrical shape indicates that, on average, the model accurately predicts attendance rates (See Figure 6). The distribution around the mean suggests that there is no systematic bias in predicting lower school attendance based on the specified mental health factors such as bipolar disorder, anxiety, and depression.

**Figure 6**

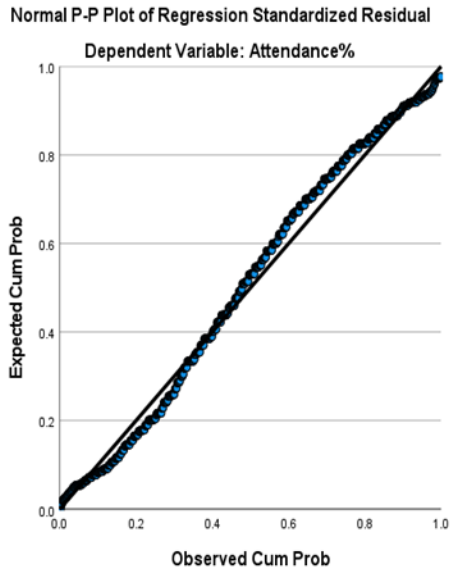
*Histogram Showing the Frequency of Attendance*



There are two distinct clusters along the x-axis, one between -1.5 and -1 and another between 1 and 1.5 (See Figure 7). The linear distribution along the y-axis indicates a systematic relationship, and the range from -3 to 2 suggests that the residuals are within acceptable limits. The symmetrical distribution implies that the residuals are evenly distributed on both sides of the mean, supporting the notion that childhood trauma and mental health variables, such as bipolar disorder, anxiety, and depression, do not exhibit a systematic bias in predicting lower academic grades.

**Figure 7**

*Normal P-P Plot in Relation to Attendance*

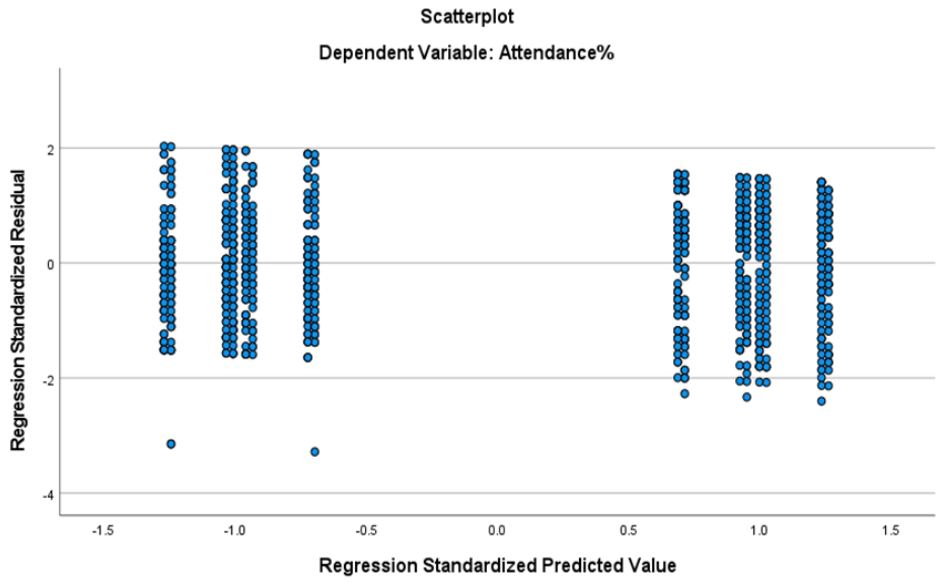



There are two distinct clusters along the x-axis, one between -1.5 and -1 and another between 1 and 1.5 (See Figure 8). The linear distribution along the y-axis indicates a systematic relationship, and the range from -3 to 2 suggests that the residuals are within acceptable limits. The absence of pronounced patterns or outliers indicates a reasonable fit of the regression model, supporting the hypothesis that only bipolar disorder may be strongly predictive of lower attendance rates. Thus, the presence of homoscedasticity in the residual scatterplot suggests that

the regression model depicts the association between mental health disorders, particularly bipolar disorder, and school attendance, without showing any systematic bias in the prediction accuracy related to attendance rates.

**Figure 8**

*Scatterplot of the Dependent Variable in Relation to the Predicators*




***Data Analysis***

The ANOVA results underscore the statistical significance of the regression model in predicting school attendance rates ($p < 0.001$) as shown in Table 6. The F-statistic of 13.142 reveals that the inclusion of childhood trauma and mental health variables, such as bipolar, trauma, anxiety, and depression, significantly contributes to explaining the variance observed in school attendance. This implies that the collective influence of these variables is not a result of random chance, further reinforcing the validity and importance of considering these factors in understanding and predicting school attendance patterns.

**Table 6**

*ANOVA*

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 2828.986 | 4 | 707.247 | 13.142 | <.001[b] |
| | Residual | 53546.918 | 995 | 53.816 | | |
| | Total | 56375.904 | 999 | | | |

a. Dependent Variable: Attendance%

b. Predictors: (Constant), Depression, Trauma, Anxiety, Bipolar

The correlation analysis shows the associations between school attendance (Attendance%) and the mental health variables. Notably, the negative correlation of -0.221 ($p < 0.001$) between bipolar and attendance% is a crucial finding (See Table 7). This indicates that individuals with a history of bipolar disorder are more likely to have lower school attendance rates. The statistical significance of these correlations adds confidence to the observed associations, suggesting that these relationships are unlikely to be due to random chance. This insight contributes valuable information to understanding how specific mental health conditions, such as bipolar disorder, might impact school attendance patterns.

**Table 7**

*Correlation Table on Attendance% and the Predictor Values*

**Correlations**

| | | Attendance% | Trauma | Anxiety | Bipolar | Depression |
|---|---|---|---|---|---|---|
| Pearson Correlation | Attendance% | 1.000 | .017 | .006 | -.221 | .032 |
| | Trauma | .017 | 1.000 | .004 | .016 | -.006 |
| | Anxiety | .006 | .004 | 1.000 | -.032 | -.030 |
| | Bipolar | -.221 | .016 | -.032 | 1.000 | -.026 |
| | Depression | .032 | -.006 | -.030 | -.026 | 1.000 |
| Sig. (1-tailed) | Attendance% | . | .298 | .427 | <.001 | .153 |
| | Trauma | .298 | . | .448 | .306 | .423 |
| | Anxiety | .427 | .448 | . | .156 | .173 |
| | Bipolar | .000 | .306 | .156 | . | .206 |
| | Depression | .153 | .423 | .173 | .206 | . |
| N | Attendance% | 1000 | 1000 | 1000 | 1000 | 1000 |
| | Trauma | 1000 | 1000 | 1000 | 1000 | 1000 |
| | Anxiety | 1000 | 1000 | 1000 | 1000 | 1000 |
| | Bipolar | 1000 | 1000 | 1000 | 1000 | 1000 |
| | Depression | 1000 | 1000 | 1000 | 1000 | 1000 |

All variables, including bipolar, trauma, anxiety, and depression, were simultaneously entered into the regression model using the Enter method (See Table 8). This approach allowed for a comprehensive analysis of the combined impact of these variables on school attendance.

**Table 8**

*GPA and the Predictor Variables Entered*

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Depression, Trauma, Anxiety, Bipolar[b] | . | Enter |

a. Dependent Variable: Attendance%

b. All requested variables entered.

The model summary (Table 9) is an indicator of the overall effectiveness of the regression model in explaining the variance in school attendance. With a significant p-value of less than 0.001, the model demonstrated statistical significance, reinforcing the idea that childhood trauma and mental health variables collectively contribute to the prediction of school attendance rates. The R-squared value of 0.050 implies that approximately 5% of the variability in Attendance% is accounted for by the predictors included in the model (See Table 9). Although this percentage may be considered modest, it is statistically significant, indicating that the variables under consideration play a meaningful role in understanding and predicting variations in school attendance patterns.

**Table 9**

*Model Summary of Attendance % and the Predictors*

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .224[a] | .050 | .046 | 7.336 | .050 | 13.142 | 4 | 995 | <.001 |

a. Predictors: (Constant), Depression, Trauma, Anxiety, Bipolar

b. Dependent Variable: Attendance%

The coefficients provide a detailed understanding of the unique impact of each predictor on school attendance. The standout observation is the substantial negative impact of bipolar, as evidenced by a Beta value of -0.221 ($p < 0.001$), as shown in Table 10. This result indicates that individuals with a history of bipolar disorder are more likely to experience lower school attendance rates. The negative Beta coefficient implies that bipolar disorder is associated with a decrease in school attendance. The R-squared value of 0.050 implies that approximately 5% of the variability in Attendance% is accounted for by the predictors included in the model (See Table 9). The squared part correlation (.221 x .221) provides a more accurate estimate of the variance in attendance specifically explained by bipolar disorder (approximately .048). This value is preferable because it isolates the effect of bipolar disorder, removing the influence of any other potential predictors that might have been included but were not statistically significant.

**Table 10**

*Coefficients*

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Zero-order | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 84.752 | .526 | | 161.037 | .000 | | | | | |
| | Trauma | .308 | .464 | .021 | .665 | .506 | .017 | .021 | .021 | 1.000 | 1.000 |
| | Anxiety | -.008 | .464 | -.001 | -.017 | .987 | .006 | -.001 | -.001 | .998 | 1.002 |
| | Bipolar | -3.321 | .464 | -.221 | -7.150 | <.001 | -.221 | -.221 | -.221 | .998 | 1.002 |
| | Depression | .402 | .464 | .027 | .865 | .387 | .032 | .027 | .027 | .998 | 1.002 |

a. Dependent Variable: Attendance%

## Summary

This comprehensive study involving 1000 participants study investigated the relationship between childhood trauma and mental health disorders and academic performance. Descriptive figures revealed a complicated picture of academic achievement, with bipolar disorder acting as a major negative predictor of GPA, which shows the substantial hurdles for bipolar patients to maintain academic achievement. Effect sizes have been small despite statistical significance, suggesting various other potentially influential factors that have to be explored. Moreover, the study unearthed a compelling association between mental health disorders - particularly bipolar disorder - and diminished school attendance rates. These results highlighted the heterogeneity in academic performance and attendance and also underscored the need for differentiated interventions and supports for students with mental health difficulties. The results shed light on the intricate determinants of educational outcomes and stressed the need for whole student solutions to student health and success.

# CHAPTER FIVE: CONCLUSIONS

## Overview

This chapter summarizes the culmination of the research and offers information on the implications and value of the study's findings. In conclusion, this analysis synthesizes the results of the research questions and hypotheses. A quantitative approach, descriptive statistics, and correlations were utilized to determine associations and patterns among child trauma, mental illness, GPA, and attendance. The robust conclusions are based on careful data analysis from 1000 sample participants. Nonetheless, considering the sample specificity, limits of generalizability were recognized. Causation is still elusive despite the associations identified, showing the careful examination in deriving the conclusions. This chapter offers a summary of research findings and an essential appraisal of the method utilized to enable a more varied evaluation of the study's contribution and its probable influence on additional investigation and applied interventions.

## Discussion

The research's objective was to evaluate the links between childhood trauma and selected mental health conditions (bipolar disorder, depression, and anxiety) with effect on academic performance and college attendance. Utilizing data from 1000 respondents, the results gave crucial information concerning the correlations between childhood trauma, psychological well-being, and educational outcomes. This study adds knowledge on how these variables influence students' academic experiences.

### Research Question 1: Association between Childhood Trauma and Mental Health Disorders with Academic Grades

Descriptive statistics revealed a moderate level of academic variability, with an average GPA of 3.18 and approximately 50% reporting childhood trauma. Correlation and regression analyses elucidated weak negative correlations between childhood trauma and GPA, with bipolar disorder standing out as a substantial negative predictor of academic performance. This underscored previous research (S. L. Johnson, 2005; Muneer, 2016) highlighting bipolar disorder's detrimental impact on various life aspects. Despite statistical significance, effect sizes remained small, suggesting the influence of unexplored variables on academic outcomes. The findings emphasized the need for tailored interventions addressing bipolar disorder's nuanced impact on academic achievement, prioritizing holistic support for students' well-being and educational success.

It is vital to note that childhood trauma, depression, and anxiety did not predict poorer academic performance in this analysis. This unexpected finding not only provided a positive outlook but also contradicted prevailing literature on the adverse effects of these conditions on academic achievement (S. L. Johnson, 2005; Muneer, 2016). Even though studies have usually connected anxiety, depression, and childhood trauma with academic challenges (Watt et al., 2020; Xia et al., 2023), my findings identified different contributing factors to the determinant of academic success. This difference showed the intricacy of mental health's effect on education and implied that more investigation is required into the interactions among factors impacting educational success.

**Research Question 2: Association between Childhood Trauma and Mental Health Disorders with School Attendance**

Descriptive statistics revealed a mean attendance of 83.44%, with moderate variability indicated by a standard deviation of 7.512. Approximately 50% of participants experienced

trauma, and anxiety exhibited a slightly higher prevalence with a mean of 0.51. Correlation analysis showed a significant negative correlation between bipolar disorder and attendance, suggesting lower attendance rates among individuals with bipolar disorder. The regression model, while explaining a modest attendance variance, underscored the collective impact of childhood trauma and mental health variables on attendance patterns. The results partially substantiated the hypothesis that childhood trauma and mental health disorders, notably bipolar disorder, are associated with decreased school attendance rates. The negative beta coefficient emphasized the specific role of bipolar disorder in shaping attendance patterns. These findings contradict the prevailing literature (Finning et al., 2019; Porche et al., 2011), which often associates childhood trauma, depression, and anxiety with poor school attendance. Additionally, childhood trauma, depression, and anxiety did not emerge as predictors of lower attendance in this study's sample, challenging existing assumptions regarding their impact on school attendance.

## Implications

The study's results substantially impact counseling, ministry, and marriage and family practice, offering valuable insights that can influence community care and counseling methodologies. These implications emphasize the study's relevance with the developed theoretical frameworks and knowledge base within these disciplines. The results offer counseling, ministry, and family practice professionals a varied picture and understanding of the association between childhood trauma, mental health disorders, academic performance, and school attendance, informing much more specific and efficient interventions.

**Counselling**

The study provides counseling practitioners with a complex view of how childhood trauma and mental health disorders affect academic achievement and school attendance. Counselors might apply this information in developing tailored therapies for individuals with bipolar disorder and the effects of childhood. The recognition of the adverse effects of bipolar disorder on student performance (Pedersen, 2020) demonstrates the need for holistic counseling methods integrating emotional well-being and academic success.

**Ministry and Pastoral Care**

In ministry and pastoral care, the ramifications of the research include conceiving and relating to the entire individual in a community. Realizing the negative influence of bipolar disorder on academic results (Pedersen, 2020) highlights the need for pastoral care that goes beyond the spiritual path. Ministries can integrate emotional and educational support methods to create individual and educational growth environments. Moreover, the study stimulates reflection on the role of faith communities in assisting mental health problems. Pastoral care can make it possible to decrease stigma, offer individuals an area to turn to for assistance, and develop a supportive community that recognizes the difficulties of mental illness.

**Christian Worldview**

Even though the research was not centered on Christian perspectives but on general elements impacting academic performance, the implications enable discussion of how the Christian worldview intersects with the results. From a Christian viewpoint, the call to care for the vulnerable matches the study's focus on understanding and supporting individuals with mental health challenges. Scriptures such as Proverbs 31:8-9 urge believers to "speak up for those who cannot speak for themselves, for the rights of all who are destitute. Speak up and

judge fairly; defend the rights of the poor and needy." Similarly, Matthew 25:40 teaches, "Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me." These verses emphasize the importance of compassion, empathy, and advocacy for those in need, including individuals struggling with mental health disorders. As such, the study's efforts depict the complexities of mental health challenges and advocate for appropriate support align with Christian principles of love, kindness, and justice. Compassion, empathy, and concern for holistic well-being resonate with Christian values, reinforcing the importance of community care that addresses individuals' spiritual and mental aspects (Puchalski, 2001). In Christian worldview considerations, the study can highlight the role of faith communities in providing a supportive network for those dealing with childhood trauma and mental health disorders. Integrating faith-based counseling and pastoral care approaches can offer additional resources and perspectives, acknowledging the spiritual dimension of individuals' struggles (Layson et al., 2023). In conclusion, the implications drawn from this study empower counseling professionals, ministers, and family practitioners to enhance their practices with a comprehensive understanding of the relationship between mental health, academic performance, and community support.

## Limitations

Regardless of the helpful information this study provided, some limitations had to be recognized for contextualizing the analysis of results and implications. First, the study used a sample of 1000 respondents, making it robust and supporting generalizability. However, certain demographic characteristics within the sample may have introduced bias. For instance, factors such as access to healthcare services, educational opportunities, and cultural differences within the sample could have influenced the study's outcomes and conclusions. Therefore, while the findings provided valuable insights, caution should be exercised when generalizing them to

populations with different demographic profiles. Attributes like age range, gender, and education might not correctly reflect the population heterogeneity of larger areas. Future research should aim for more extensive and diverse samples to overcome the drawbacks, ensuring a broader representation of individuals across various sociodemographic factors.

Also, the use of self-report measures for mental health variables and childhood trauma introduces the potential for response bias and social desirability. Participants might underreport or misrepresent their experiences. Combining self-report measures with objective assessments or informant reports could enhance the accuracy of data collection. On external validity, the study focused on a particular educational context, and the findings may not be fully applicable to different educational systems or cultural settings. Thus, replicating the study in diverse educational contexts and cultural settings would provide a more comprehensive understanding of the relationship between childhood trauma, mental health, and academic outcomes.

## Recommendations for Future Research

The limitations identified in this study indicated areas for future research to enhance the field's understanding of childhood trauma, mental health disorders, and their implications for academic outcomes. Firstly, evaluating these relationships between individuals with diverse cultural and socioeconomic backgrounds might offer a much more comprehensive perspective. Longitudinal studies are highly recommended to document individuals over time while supplying causal associations and recording developmental variation. Using objective measures alongside self-report information might boost the validity of results and better reflect participants' experiences.

Future studies might also evaluate the effectiveness of intervention methods in educational and therapeutic contexts to better serve individuals with a background of mental

health and childhood trauma problems. Integrating Christian worldview viewpoints into investigation might offer a new perspective for studying the entire individual effect of faith in educational contexts. Comparative studies in various educational contexts and identifying resilience elements in affected persons are significant areas of inquiry. These recommendations promote expertise, deal with present limitations, and advance a better conceptualization of the interplay of associations between childhood trauma and academic performance and mental health.

## Summary

The correlations of childhood trauma and mental illness with academic performance among 1000 respondents were reviewed in this chapter. Results on bipolar disorder are negatively correlated with GPA, indicating negative effects on academic performance. Surprisingly, childhood trauma, depression, and anxiety did not predict poorer academic performance, challenging prevailing literature. Similarly, while childhood trauma and mental health disorders were associated with lower school attendance rates, they did not emerge as predictors of lower attendance in the sample, contradicting existing assumptions. The findings highlighted the need for tailored interventions addressing bipolar disorder's impact on academic achievement and underscored the complexity of mental health's influence on education. The study's implications extend to counseling, ministry, and family practice, emphasizing the importance of holistic support for individuals with mental health challenges. However, limitations included potential sampling bias and reliance on self-report measures, suggesting avenues for future research to explore these relationships further across diverse populations and contexts.

# REFERENCES

Agid, O., Shapira, B., Zislin, J., Ritsner, M., Hanin, B., Murad, H., Troudart, T., Bloch, M., Heresco-Levy, U., & Lerer, B. (1999). Environment and vulnerability to major psychiatric illness: A case control study of early parental loss in major depression, bipolar disorder, and schizophrenia. *Molecular Psychiatry*, *4*(2), 163–172. https://doi.org/10.1038/sj.mp.4000473

Altintas, M., & Bilici, M. (2018). Evaluation of childhood trauma with respect to criminal behavior, dissociative experiences, adverse family experiences, and psychiatric backgrounds among prison inmates. *Comprehensive Psychiatry*, *82*, 100–107. https://doi.org/10.1016/j.comppsych.2017.12.006

Alvarez, A. (2020). Seeing race in the youth trauma and education research: A critical review. *Review of Educational Research*, *90*(5), 583–626. https://doi.org/10.3102/0034654320938131

Álvarez, M. J., Masramon, H., Peña, C., Pont, M., Gourdier, C., Roura-Poch, P., & Arrufat, F. (2014). Cumulative effects of childhood traumas: Polytraumatization, dissociation, and schizophrenia. *Community Mental Health Journal*, *51*(1), 54–62. https://doi.org/10.1007/s10597-014-9755-2

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental health disorders* (4th ed.). American Psychiatric Association.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association.

American Psychological Association Zero Tolerance Task Force. (2008). Are zero-tolerance policies effective in the schools? An evidentiary review and recommendations. *The American Psychologist*, *63*(9), 852–862. https://doi.org/10.1037/0003-066X.63.9.852

Ashikkali, L., Carroll, W., & Johnson, C. (2020). The indirect impact of COVID-19 on child health. *Paediatrics and Child Health*, *30*(12), 430–437. https://doi.org/10.1016/j.paed.2020.09.004

Atkins, M. S., Hoagwood, K. E., Kutash, K., & Seidman, E. (2010). Toward the integration of education and mental health in schools. *Administration and Policy in Mental Health*, *37*(1–2), 40–47. https://doi.org/10.1007/s10488-010-0299-7

Bahk, Y. C., Jang, S. K., Choi, K. H., & Lee, S. H. (2017). The relationship between childhood trauma and suicidal ideation: Role of maltreatment and potential mediators. *Psychiatry Investigation*, *14*(1), 37–43. https://doi.org/10.4306/pi.2017.14.1.37

Balfanz, R. (2009). Putting middle grades students on the graduation path: A policy brief. https://www.amle.org/wp-content/uploads/2020/04/Policy_Brief_Balfanz.pdf

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Barker, R., Hartwell, G., Egan, M., & Lock, K. (2023). The importance of school culture in supporting student mental health in secondary schools. Insights from a qualitative study. *British Educational Research Journal*, *49*(3), 499–521. https://doi.org/10.1002/berj.3853

Barnett, J. L. (2020). *Teacher beliefs and adverse childhood experiences* (Doctoral dissertation, University of Nebraska at Omaha).

Bartlett, J. D., Barto, B., Griffin, J. L., Fraser, J. G., Hodgdon, H., & Bodian, R. (2016). Trauma-informed care in the Massachusetts child trauma project. *Child Maltreatment*, *21*(2), 101–112. https://doi.org/10.1177/1077559515615700

Bartlett, J. D., & Smith, S. (2019). The role of early care and education in addressing early childhood trauma. *American Journal of Community Psychology*, *64*(3–4), 359–372. https://doi.org/10.1002/ajcp.12380

Bassett, D. S., & Sporns, O. (2017). Network neuroscience. *Nature Neuroscience*, *20*(3), 353–364. https://doi.org/10.1038/nn.4502

Belsky, J., & Pluess, M. (2009). Beyond diathesis stress: Differential susceptibility to environmental influences. *Psychological Bulletin*, *135*(6), 885–908. https://doi.org/10.1037/a0017376

Benight, C. C., Harwell, A., & Shoji, K. (2018). Self-regulation shift theory: A dynamic personal agency approach to recovery capital and methodological suggestions. *Frontiers in Psychology*, *9*, 1–5. https://doi.org/10.3389/fpsyg.2018.01738

Berger, E. (2019). Multi-tiered approaches to trauma-informed care in schools: A systematic review. *School Mental Health*, *11*(4), 650–664. https://doi.org/10.1007/s12310-019-09326-0

Bernaras, E., Jaureguizar, J., & Garaigordobil, M. (2019). Child and adolescent depression: A review of theories, evaluation instruments, prevention programs, and treatments. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.00543

Bilbrey, J. B., Castanon, K. L., Copeland, R. B., Evanshen, P. A., & Trivette, C. M. (2022). Primary early childhood educators' perspectives of trauma-informed knowledge, confidence, and training. *Australian Educational Researcher*. https://doi.org/10.1007/s13384-022-00582-9

Blodgett, C., & Lanigan, J. D. (2018). The association between adverse childhood experience (ACE) and school success in elementary school children. *School Psychology Quarterly*, *33*(1), 1–36. https://psycnet.apa.org/doi/10.1037/spq0000256

Boluda-Verdu, I., Senent-Valero, M., Casas-Escolano, M., Matijasevich, A., & Pastor-Valero, M. (2022). Fear for the future: Eco-anxiety and health implications, a systematic review. *Journal of Environmental Psychology*, *84*, 101904. https://doi.org/10.1016/j.jenvp.2022.101904

Bomyea, J., Johnson, A., & Lang, A. J. (2017). Information processing in PTSD: Evidence for biased attentional, interpretation, and memory processes. *Psychopathology Review*, *4*(3), 218–243. https://doi.org/10.5127/pr.037214

Bomysoad, R. N., & Francis, L. A. (2020). Adverse childhood experiences and mental health conditions among adolescents. *Journal of Adolescent Health*, *67*(6), 868–870. https://doi.org/10.1016/j.jadohealth.2020.04.013

Bressler, S. L., & Menon, V. (2010). Large-scale brain networks in cognition: Emerging methods and principles. *Trends in Cognitive Sciences*, *14*(6), 277–290. https://doi.org/10.1016/j.tics.2010.04.004

Bryant, R. A. (2019). Post-traumatic stress disorder: A state-of-the-art review of evidence and challenges. *World Psychiatry*, *18*(3), 259–269. https://doi.org/10.1002/wps.20656

Campbell, K. A. (2022). The neurobiology of childhood trauma, from early physical pain onwards: As relevant as ever in today's fractured world. *European Journal of Psychotraumatology, 13*(2). https://doi.org/10.1080/20008066.2022.2131969

Cardona, M. A. (2021). *Supporting child and student social, emotional, behavioral, and mental health needs*. U.S. Department of Education. https://www2.ed.gov/documents/students/supporting-child-student-social-emotional-behavioral-mental-health.pdf

Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H., McClay, J., Mill, J., Martin, J., Braithwaite, A., & Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-htt gene. *Science*, *301*(5631), 386–389. https://doi.org/10.1126/science.1083968

Cavanaugh, B. (2016). Trauma-informed classrooms and schools. *Beyond Behavior*, *25*(2), 41–46. https://doi.org/10.1177/107429561602500206

Center for Substance Abuse Treatment (US). (2014). *Trauma-informed care in behavioral health services*. Rockville (MD): Substance Abuse and Mental Health Services Administration (U.S.). https://www.ncbi.nlm.nih.gov/books/NBK207192/

Centers for Disease Control and Prevention. (2022, April 6). *Fast facts: Preventing child abuse & neglect*. https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

Chafouleas, S. M., Koriakin, T. A., Roundfield, K. D., & Overstreet, S. (2019). Addressing childhood trauma in school settings: A framework for evidence-based practice. *School Mental Health*, *11*, 40–53. https://doi.org/10.1007/s12310-018-9256-5

Chesney, E., Goodwin, G. M., & Fazel, S. (2014). Risks of all-cause and suicide mortality in mental disorders: A meta-review. *World Psychiatry*, *13*, 153–160. https://doi.org/10.1002/wps.20128

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S., & Thornicroft, G. (2014). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, *45*(1), 11–27. https://doi.org/10.1017/S0033291714000129

Cohen, J. A., & Mannarino, A. P. (2015). Trauma-focused cognitive behavior therapy for traumatized children and families. *Child and Adolescent Psychiatric Clinics of North America*, *24*(3), 557–570. https://doi.org/10.1016/j.chc.2015.02.005

Cole, S. F., O'Brien, J. G., Gadd, M. G., Ristuccia, J., Wallace, D. L., & Gregory, M. (2005). *Helping traumatized children learn*. Advocates for Children.

Coley, R. L., Lynch, A. D., & Kull, M. (2015). Early exposure to environmental chaos and children's physical and mental health. *Early Childhood Research Quarterly*, *32*, 94–104. https://doi.org/10.1016/j.ecresq.2015.03.001

Colizzi, M., Lasalvia, A., & Ruggeri, M. (2020). Prevention and early intervention in youth mental health: Is it time for a multidisciplinary and trans-diagnostic model for care? *International Journal of Mental Health Systems*, *14*(1), 1–14. https://doi.org/10.1186/s13033-020-00356-9

Colodro-Conde, L., Couvy-Duchesne, B., Zhu, G., Coventry, W. L., Byrne, E. M., Gordon, S., Wright, M. J., Montgomery, G. W., Madden, P. A., Ripke, S., Eaves, L. J., Heath, A. C., Wray, N. R., Medland, S. E., & Martin, N. G. (2017). A direct test of the diathesis–stress model for depression. *Molecular Psychiatry*, *23*(7), 1590–1596. https://doi.org/10.1038/mp.2017.130

Compas, B. E., & Boyer, M. C. (2001). Coping and attention: Implications for child health and pediatric conditions. *Journal of Developmental & Behavioral Pediatrics*, *22*(5), 323–333. https://doi.org/10.1097/00004703-200110000-00007

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, *143*(9), 939–991. https://doi.org/10.1037/bul0000110

Conners Edge, N. A., Holmes, K., Wilburn, E. H., & Sutton, M. (2022). Fostering informed and responsive systems for trauma in early care and education (FIRST: ECE): A preliminary evaluation. *Early Childhood Education Journal*. https://doi.org/10.1007/s10643-022-01390-7

Crosby, S. D., Howell, P., & Thomas, S. (2018). Social justice education through trauma-informed teaching. *Middle School Journal*, *49*(4), 15–23. https://doi.org/10.1080/00940771.2018.1488470

Cruz, D., Lichten, M., Berg, K., & George, P. (2022). Developmental trauma: Conceptual framework, associated risks and comorbidities, and evaluation and treatment. *Frontiers in Psychiatry*, *13*. https://doi.org/10.3389/fpsyt.2022.800687

Cunningham, A. (2017). “When my mom was incarcerated, I missed her.” Trauma’s impact on learning in Pre-K-12 classrooms. *Learning Landscapes*, *10*(2), 131–143. https://doi.org/10.36510/learnland.v10i2.806

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Das, R., Jain, K. K., & Mishra, S. K. (2018). Archival research: A neglected method in organization studies. *Benchmarking: An International Journal*, *25*(1), 138–155. https://doi.org/10.1108/BIJ-08-2016-0123

Di Leo, G., & Sardanelli, F. (2020). Statistical significance: p value, 0.05 threshold, and applications to radiomics—reasons for a conservative approach. *European radiology experimental*, *4*(1), 1–8. https://doi.org/10.1186/s41747-020-0145-y

Dorsey, S., McLaughlin, K. A., Kerns, S. E., Harrison, J. P., Lambert, H. K., Briggs, E. C., Revillion Cox, J., & Amaya-Jackson, L. (2016). Evidence-based update for psychosocial treatments for children and adolescents exposed to traumatic events. *Journal of Clinical Child & Adolescent Psychology*, *46*(3), 303–330. https://doi.org/10.1080/15374416.2016.1220309

Downey, C., & Crummy, A. (2022). The impact of childhood trauma on children’s well-being and adult behavior. *European Journal of Trauma & Dissociation*, *6*(1). https://doi.org/10.1016/j.ejtd.2021.100237

Dugard, P., Todman, J., & Staines, H. (2022). *Approaching multivariate analysis: A practical introduction*. Taylor & Francis.

Duhig, M., Patterson, S., Connell, M., Foley, S., Capra, C., Dark, F., Gordon, A., Singh, S., Hides, L., McGrath, J. J., & Scott, J. (2015). The prevalence and correlates of childhood trauma in patients with early psychosis. *Australian & New Zealand Journal of Psychiatry*, *49*(7), 651–659. https://doi.org/10.1177/0004867415575379

Dye, H. (2018). The impact and long-term effects of childhood trauma. *Journal of Human Behavior in the Social Environment*, *28*(3), 381–392. https://doi.org/10.1080/10911359.2018.1435328

Dziurkowska, E., & Wesolowski, M. (2021). Cortisol as a biomarker of mental disorder severity. *Journal of Clinical Medicine*, *10*(21), 5204. https://doi.org/10.3390/jcm10215204

Eigenhuis, E., Waumans, R. C., Muntingh, A. D., Westerman, M. J., van Meijel, M., Batelaan, N. M., & van Balkom, A. J. (2021). Facilitating factors and barriers in help-seeking behavior in adolescents and young adults with depressive symptoms: A qualitative study. *PLOS ONE*, *16*(3). https://doi.org/10.1371/journal.pone.0247516

Fagan, A. A., Bumbarger, B. K., Barth, R. P., Bradshaw, C. P., Cooper, B. R., Supplee, L. H., & Walker, D. K. (2019). Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities. *Prevention Science*, *20*(8), 1147–1168. https://doi.org/10.1007/s11121-019-01048-8

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine*, *14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Finning, K., Ukoumunne, O. C., Ford, T., Danielsson-Waters, E., Shaw, L., De Jager, I. R., Stentiford, L., & Moore, D. A. (2019). The association between child and adolescent depression and poor attendance at school: A systematic review and meta-analysis. *Journal of Affective Disorders*, *245*, 928–938. https://doi.org/10.1016/j.jad.2018.11.055

Ford, J. D., Grasso, D. J., Elhai, J. D., & Courtois, C. A. (2015). Social, cultural, and other diversity issues in the traumatic stress field. *Post-Traumatic Stress Disorder*, 503–546. https://doi.org/10.1016/B978-0-12-801288-8.00011-X

Fox, M. D., & Raichle, M. E. (2007). Spontaneous fluctuations in brain activity observed with functional magnetic resonance imaging. *Nature Reviews Neuroscience*, *8*(9), 700–711. https://doi.org/10.1038/nrn2201

Frieze, S. (2015). How trauma affects student learning and behavior. *BU Journal of Graduate Studies in Education*, *7*(2), 27–34.

Govindaraju, V. (2021). A review of social cognitive theory from the perspective of interpersonal communication. *Multicultural Education*, *7*(12), 488–492. https://doi.org/10.5281/zenodo.5802235

Green, J. G., McLaughlin, K. A., Berglund, P. A., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2010). Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I: Associations with first onset of DSM-IV disorders. *Archives of General Psychiatry*, *67*(2), 113–123. https://doi.org/10.1001/archgenpsychiatry.2009.186

Greicius, M. D., Flores, B. H., Menon, V., Glover, G. H., Solvason, H. B., Kenna, H., Reiss, A. L., & Schatzberg, A. F. (2007). Resting-state functional connectivity in major depression: Abnormally increased contributions from subgenual cingulate cortex and thalamus. *Biological Psychiatry*, *62*(5), 429–437. https://doi.org/10.1016/j.biopsych.2006.09.020

Gu, W., Zhao, Q., Yuan, C., Yi, Z., Zhao, M., & Wang, Z. (2022). Impact of adverse childhood experiences on the symptom severity of different mental disorders: A cross-diagnostic study. *General Psychiatry*, *35*(2), 1–10. https://doi.org/10.1136/gpsych-2021-100741

Guillen-Burgos, H., Moreno-Lopez, S., Acevedo-Vergara, K., Pérez-Florez, M., Pachón-Garcia, C., & Gálvez-Flórez, J. F. (2023). Risk of childhood trauma exposure and severity of bipolar disorder in Colombia. *International Journal of Bipolar Disorders*, *11*(1), 1–12. https://doi.org/10.1186/s40345-023-00289-5

Gutierres, S. E., & Van Puymbroeck, C. (2006). Childhood and adult violence in the lives of women who misuse substances. *Aggression and Violent Behavior*, *11*(5), 497–513. https://doi.org/10.1016/j.avb.2006.01.010

Hamilton, J. P., Furman, D. J., Chang, C., Thomason, M. E., Dennis, E., & Gotlib, I. H. (2011). Default-mode and task-positive network activity in major depressive disorder: Implications for adaptive and maladaptive rumination. *Biological Psychiatry*, *70*(4), 327–333. https://doi.org/10.1016/j.biopsych.2011.02.003

Hardner, K., Wolf, M. R., & Rinfrette, E. S. (2018). Examining the relationship between higher educational attainment, trauma symptoms, and internalizing behaviors in child sexual abuse survivors. *Child Abuse & Neglect*, *86*, 375–383. https://doi.org/10.1016/j.chiabu.2017.10.007

Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B., & Rowley, S. J. (2007). Perceived racial discrimination and self-esteem in African American youth: Racial socialization as a protective factor. *Journal of Research on Adolescence*, *17*(4), 669–682. https://doi.org/10.1111/j.1532-7795.2007.00540.x

Heim, C., Newport, D. J., Mletzko, T., Miller, A. H., & Nemeroff, C. B. (2008). The link between childhood trauma and depression: Insights from HPA axis studies in humans. *Psychoneuroendocrinology*, *33*(6), 693–710. https://doi.org/10.1016/j.psyneuen.2008.03.008

Heinrich, C. J., Colomer, A., & Hieronimus, M. (2023). Minding the gap: Evidence, implementation and funding gaps in mental health services delivery for school-aged children. *Children and Youth Services Review*, *150*. https://doi.org/10.1016/j.childyouth.2023.107023

Heirdsfield, A., Walker, S., Tambyah, M., & Beutel, D. (2011). Blackboard as an online learning environment: What do teacher education students and staff think? *Australian Journal of Teacher Education (Online)*, *36*(7), 1–16. https://search.informit.org/doi/reader/10.3316/ielapa.327907158617535

Hodgkinson, S., Godoy, L., Beers, L. S., & Lewin, A. (2017). Improving mental health access for low-income children and families in the primary care setting. *Pediatrics*, *139*(1), 1–9. https://doi.org/10.1542/peds.2015-1175

Horesh, N., Apter, A., & Zalsman, G. (2011). Timing, quantity, and quality of stressful life events in childhood and preceding the first episode of bipolar disorder. *Journal of Affective Disorders*, *134*(1–3), 434–437. https://doi.org/10.1016/j.jad.2011.05.034

Hovens, J. G., Giltay, E. J., Spinhoven, P., van Hemert, A. M., & Penninx, B. W. (2015). Impact of childhood life events and childhood trauma on the onset and recurrence of depressive and anxiety disorders. *The Journal of Clinical Psychiatry*, *76*(07), 931–938. https://doi.org/10.4088/JCP.14m09135

Hovens, J. G., Wiersma, J. E., Giltay, E. J., Van Oppen, P., Spinhoven, P., Penninx, B. W., & Zitman, F. G. (2010). Childhood life events and childhood trauma in adult patients with depressive, anxiety and comorbid disorders vs. controls. *Acta Psychiatrica Scandinavica*, *122*(1), 66–74. https://doi.org/10.1111/j.1600-0447.2009.01491.x

Jaycox, L. H., Langley, A. K., Stein, B. D., Wong, M., Sharma, P., Scott, M., & Schpmau, M. (2009). Support for students exposed to trauma: A pilot study. *School Mental Health*, *1*, 49–60. https://doi.org/10.1007/s12310-009-9007-8

John-Henderson, N. A. (2020). Childhood trauma as a predictor of changes in sleep quality in American Indian adults during the COVID-19 pandemic. *Sleep Health*, *6*(6), 718–722. https://doi.org/10.1016/j.sleh.2020.09.001

Johnson, M. E. (2018). The effects of traumatic experiences on academic relationships and expectations in justice-involved children. *Psychology in the Schools*, *55*(3), 240–249.

Johnson, S. L. (2005). Life events in bipolar disorder: Towards more specific models. *Clinical Psychology Review*, *25*(8), 1008–1027. https://doi.org/10.1016/j.cpr.2005.06.004

Keppens, G. (2023). School absenteeism and academic achievement: Does the timing of the absence matter?. *Learning and Instruction*, *86*, 1–10. https://doi.org/10.1016/j.learninstruc.2023.101769

Kessler, R. C., & Bromet, E. J. (2013). The epidemiology of depression across cultures. *Annual Review of Public Health*, *34*, 119–138. https://doi.org/10.1146/annurev-publhealth-031912-114409

Khoury, L., Tang, Y. L., Bradley, B., Cubells, J. F., & Ressler, K. J. (2010). Substance use, childhood traumatic experience, and posttraumatic stress disorder in an urban civilian population. *Depression and Anxiety*, *27*(12), 1077–1086. https://doi.org/10.1002/da.20751

King, S., Chen, K. D., & Chokshi, B. (2019). Becoming trauma-informed: Validating a tool to assess health professional's knowledge, attitude, and practice. *Pediatric Quality & Safety*, *4*(5), e215. https://doi.org/10.1097/pq9.0000000000000215

Kingston, S., & Raghavan, C. (2009). The relationship of sexual abuse, early initiation of substance use, and adolescent trauma to PTSD. *Journal of Traumatic Stress*, *22*(1), 65–68. https://doi.org/10.1002/jts.20381

Koenen, K. C., Roberts, A. L., Stone, D. M., & Dunn, E. C. (2010). The epidemiology of early childhood trauma. In Pain, C., Vermetten, E., Lanius, R. A, (Eds.), *The impact of early life trauma on health and disease: The hidden epidemic* (pp. 13–24). Cambridge University Press.

Kupfer, D. J., Frank, E., & Phillips, M. L. (2012). Major depressive disorder: New clinical, neurobiological, and treatment perspectives. *Lancet*, *379*(9820), 1045–1055. https://doi.org/10.1016/S0140-6736(11)60602-8

Laird, J., Kienzl, G., DeBell, M., & Chapman, C. (2007). *Dropout rates in the United States: 2005 (NCES 2007- 059)*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. http://nces.ed.gov/pubs2007/2007059.pdf

Lanius, R. A., Vermetten, E., & Pain, C. (2010). *The impact of early life trauma on health and disease: The hidden epidemic*. Cambridge University Press.

Larson, S., Chapman, S., Spetz, J., & Brindis, C. D. (2017). Chronic childhood trauma, mental health, academic achievement, and school-based health center mental health services. *Journal of School Health*, *87*(9), 675–686. https://doi.org/10.1111/josh.12541

Layson, M. D., Carey, L. B., & Best, M. C. (2023). The impact of faith-based pastoral care in decreasingly religious contexts: The Australian chaplaincy advantage in critical environments. *Journal of Religion and Health*, *62*(3), 1491–1512. https://doi.org/10.1007/s10943-023-01791-x

Lecy, N., & Osteen, P. (2022). The effects of childhood trauma on college completion. *Research in Higher Education*, *63*(6), 1058–1072. https://doi.org/10.1007/s11162-022-09677-9

Leenarts, L. E., Diehle, J., Doreleijers, T. A., Jansma, E. P., & Lindauer, R. J. (2012). Evidence-based treatments for children with trauma-related psychopathology as a result of childhood maltreatment: A systematic review. *European Child & Adolescent Psychiatry*, *22(5)*, 269–283. https://doi.org/10.1007/s00787-012-0367-5

L'Estrange, L., & Howard, J. (2022). Trauma-informed initial teacher education training: A necessary step in a system-wide response to addressing childhood trauma. *Frontiers in Education*, *7*, 1–10. https://doi.org/10.3389/feduc.2022.929582

Lewey, J. H., Smith, C. L., Burcham, B., Saunders, N. L., Elfallal, D., & O'Toole, S. K. (2018). Comparing the effectiveness of EMDR and TF-CBT for children and adolescents: A meta-analysis. *Journal of Child & Adolescent Trauma*, *11*(4), 457–472. https://doi.org/10.1007/s40653-018-0212-1

Liu, J. (2004). Childhood externalizing behavior: Theory and implications. *Journal of Child and Adolescent Psychiatric Nursing*, *17*(3), 93–103. https://doi.org/10.1111/j.1744-6171.2004.tb00003.x

Lloyd, M. (2018). Domestic violence and education: Examining the impact of domestic violence on young children, children, and young people and the potential role of schools. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.02094

Loewy, R. L., Corey, S., Amirfathi, F., Dabit, S., Fulford, D., Pearson, R., Hua, J. P. Y., Schlosser, D., Stuart, B. K., Mathalon, D. H., & Vinogradov, S. (2019). Childhood trauma and clinical high risk for psychosis. *Schizophrenia Research*, *205*, 10–14. https://doi.org/10.1016/j.schres.2018.05.003

Lui, S., Wu, Q., Qiu, L., Yang, X., Kuang, W., Chan, R. C., Huang, X., Kemp, G. J., Mechelli, A., & Gong, Q. (2011). Resting-state functional connectivity in treatment-resistant depression. *American Journal of Psychiatry*, *168*(6), 642–648. https://doi.org/10.1176/appi.ajp.2010.10101419

Lumen Learning. (n.d.). *Approaches to research*. https://courses.lumenlearning.com/suny-hccc-ss-151-1/chapter/approaches-to-research/

Makwana, N. (2019). Disaster and its impact on mental health: A narrative review. *Journal of Family Medicine and Primary Care*, *8*(10), 3090. https://doi.org/10.4103/jfmpc.jfmpc_893_19

Manian, N. (2021). Becoming trauma-informed: Adverse childhood experiences (ACEs) and trauma—implications for schools. TI Brief# 1. *National Comprehensive Center at Westat*, 1–9.

May-Chahal, C., & Cawson, P. (2005). Measuring child maltreatment in the United Kingdom: A study of the prevalence of child abuse and neglect. *Child Abuse & Neglect*, *29*(9), 969–984. https://doi.org/10.1016/j.chiabu.2004.05.009

McGruder, K. (2019). Children learn what they live: Addressing early childhood trauma resulting in toxic stress in schools. *Mid-Western Educational Researcher*, *31*(1), 117–137. https://scholarworks.bgsu.edu/mwer/vol31/iss1/8

Mennen, O. K., Weybright, W. C., & Aldridge, N. S. (2022). Effects of child abuse on school dropout among students in USA. *Journal of Education*, *5*(2), 1–10. https://doi.org/10.53819/81018102t5065

Menschner, C., & Maul, A. (2016). *Key ingredients for successful trauma-informed care implementation*. Trenton: Center for Health Care Strategies, Incorporated. https://www.samhsa.gov/sites/default/files/programs_campaigns/childrens_mental_health/atc-whitepaper-040616.pdf

Mikolajewicz, N., & Komarova, S. V. (2019). Meta-analytic methodology for basic research: A practical guide. *Frontiers in Physiology*, *10*, 344709. https://doi.org/10.3389/fphys.2019.00203

Mojtabai, R., Stuart, E. A., Hwang, I., Eaton, W. W., Sampson, N., & Kessler, R. C. (2015). Long-term effects of mental disorders on educational attainment in the National Comorbidity Survey ten-year follow-up. *Social Psychiatry and Psychiatric Epidemiology*, *50*(10), 1577–1591. https://doi.org/10.1007/s00127-015-1083-5

Muneer, A. (2016). Staging models in bipolar disorder: A systematic review of the literature. *Clinical Psychopharmacology and Neuroscience: The Official Scientific*

*Journal of the Korean College of Neuropsychopharmacology*, *14*(2), 117–130. https://doi.org/10.9758/cpn.2016.14.2.117

Nabavi, R. T. (2012). Bandura's social learning theory & social cognitive learning theory. *Theory of Developmental Psychology*, *1*(1), 1–24.

Naeem, F., Phiri, P., Rathod, S., & Ayub, M. (2019). Cultural adaptation of cognitive–behavioral therapy. *Bjpsych Advances*, *25*(6), 387–395. https://doi.org/10.1192/bja.2019.15

National Center for Biotechnology Information. (2017). *Communities in action: Pathways to health equity*. National Academies Press.

National Center for Education Statistics. (2022). *Fast facts: Dropout rates*. https://nces.ed.gov/fastfacts/display.asp?id=16

Negele, A., Kaufhold, J., Kallenbach, L., & Leuzinger-Bohleber, M. (2015). Childhood trauma and its relation to chronic depression in adulthood. *Depression Research and Treatment*, *2015*, 1–11. https://doi.org/10.1155/2015/650804

Newcomb, M. D., Abbott, R. D., Catalano, R. F., Hawkins, J. D., Battin-Pearson, S., & Hill, K. (2002). Mediational and deviance theories of late high school failure: Process roles of structural strains, academic competence, and general versus specific problem behavior. *Journal of Counseling Psychology*, *49*(2), 172–186. https://doi.org/10.1037/0022-0167.49.2.172

The New York University Child Study Center. (2006). *Caring for kids after trauma, disaster and death: A guide for parents and professionals* (2nd ed.). NYU Child Study Center.

Olson, S. L., Sameroff, A. J., Lunkenheimer, E. S., & Kerr, D. C. (2009). Self-regulatory processes in the development of disruptive behavior problems: The preschool-to-school transition. In S. Olson & A. Sameroff (Eds.) *Biopsychosocial regulatory processes in developing childhood behavioral problems* (pp. 144–185). Cambridge University Press.

OpenStax. (2023). *Introductory Business Statistics 2e* (2nd ed.). Rice University. https://openstax.org/details/books/introductory-business-statistics-2e

Otte, C., Gold, S. M., Penninx, B. W., Pariante, C. M., Etkin, A., Fava, M., Mohr, D. C., & Schatzberg, A. F. (2016). Major depressive disorder. *Nature Reviews Disease Primers*, *2*(1). https://doi.org/10.1038/nrdp.2016.65

Owen, J., Wettach, J., & Hoffman, K. C. (2015). *Instead of suspension: Alternative strategies for effective school discipline*. Durham, NC: Duke Center for Child and Family Policy and Duke Law School. https://law.duke.edu/childedlaw/instead_of_suspension.pdf

Ozaslan, H., Gun, R. S., & Akduman, G. G. (2022). Examination of the relationship between childhood trauma and psychological resilience in preschool teachers. *Educational Process: International Journal*, *11*(2), 114–129.

Panuccio, A., Biondo, D., Picerni, E., Genovesi, B., & Laricchiuta, D. (2022). Trauma-related internalizing and externalizing behaviors in adolescence: A bridge between psychoanalysis and neuroscience. *Adolescents*, *2*(4), 413–423. https://www.mdpi.com/2673-7051/2/4/32#

Parker, J., Olson, S., & Bunde, J. (2019). The impact of trauma-based training on educators. *Journal of Child & Adolescent Trauma*, *13*(2), 217–227. https://doi.org/10.1007/s40653-019-00261-5

Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *Lancet (London, England)*, *369*(9569), 1302–1313. https://doi.org/10.1016/S0140-6736(07)60368-7

Pedersen, D. E. (2020). Bipolar disorder and the college student: A review and implications for universities. *Journal of American College Health*, *68*(4), 341–346. https://doi.org/10.1080/07448481.2019.1573173

Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2014). College students: Mental health problems and treatment considerations. *Academic Psychiatry*, *39*(5), 503–511. https://doi.org/10.1007/s40596-014-0205-9

Perez, N., & Appalachia, R. (2021, December 8). *Classroom strategies to support students experiencing trauma*. Institute of Education Sciences (IES). https://ies.ed.gov/ncee/edlabs/regions/appalachia/blogs/blog51_strategies-to-support-students-experiencing-trauma.asp

Pihkala, P. (2020). Eco-anxiety and environmental education. *Sustainability*, *12*(23), 10149. https://doi.org/10.3390/su122310149

Porche, M. V., Fortuna, L. R., Lin, J., & Alegria, M. (2011). Childhood trauma and psychiatric disorders as correlates of school dropout in a national sample of young adults. *Child Development*, *82*(3), 982–998. https://doi.org/10.1111/j.1467-8624.2010.01534.x

Puchalski, C. M. (2001). The role of spirituality in health care. *Proceedings (Baylor University. Medical Center)*, *14*(4), 352–357. https://doi.org/10.1080/08998280.2001.11927788

Quidé, Y., Tozzi, L., Corcoran, M., Cannon, D. M., & Dauvermann, M. R. (2020). The impact of childhood trauma on developing bipolar disorder: Current understanding and ensuring continued progress. *Neuropsychiatric Disease and Treatment*, *16*, 3095–3115. https://doi.org/10.2147/NDT.S285540

Raichle, M. E. (2015). The brain's default mode network. *Annual Review of Neuroscience*, *38(1)*, 433–447. https://doi.org/10.1146/annurev-neuro-071013-014030

Resnik, D. B. (2020, December 23). *What is ethics in research & why is it important?* National Institute of Environmental Health Sciences. https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm

Robinson, N., & Bergen, S. E. (2021). Environmental risk factors for schizophrenia and bipolar disorder and their relationship to genetic risk: Current knowledge and future directions. *Frontiers in Genetics*, *12*, 1–18. https://doi.org/10.3389/fgene.2021.686666

Robinson, T. (2020). The impact of trauma and adverse childhood experiences on adolescent academic achievement [Master's thesis, Bethel University]. Spark Repository. https://spark.bethel.edu/etd/543

Rodgers, C. S., Lang, A. J., Laffaye, C., Satz, L. E., Dresselhaus, T. R., & Stein, M. B. (2004). The impact of individual forms of childhood maltreatment on health behavior. *Child Abuse & Neglect*, *28*(5), 575–586. https://doi.org/10.1016/j.chiabu.2004.01.002

Romano, E., Babchishin, L., Marquis, R., & Fréchette, S. (2014). Childhood maltreatment and educational outcomes. *Trauma, Violence, & Abuse*, *16*(4), 418–437. https://doi.org/10.1177/1524838014537908

Schnurr, P. P., Friedman, M. J., & Bernardy, N. C. (2002). Research on post-traumatic stress disorder: Epidemiology, pathophysiology, and assessment. *Journal of Clinical Psychology*, *58*(8), 877–889. https://doi.org/10.1002/jclp.10064

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia*, *126*(5), 1763–1768. https://doi.org/10.1213/ANE.0000000000002864

Schreiner, C., Henriksen, E. K., & Kirkeby Hansen, P. J. (2005). Climate education: Empowering today's youth to meet tomorrow's challenges. *Studies in Science Education*, *41*(1), 3–49. https://doi.org/10.1080/03057260508560213

Schulte-Körne, G., & Allgaier, A. K. (2008). Genetik depressiver Störungen. *Zeitschrift Fur Kinder- Und Jugendpsychiatrie Und Psychotherapie*, *36*(1), 27–43. https://doi.org/10.1024/1422-4917.36.1.27

Shah, K., Bedi, S., Onyeaka, H., Singh, R., & Chaudhari, G. (2020). The role of psychological first aid to support public mental health in the COVID-19 pandemic. *Cureus*, *12*(6), e8821. https://doi.org/10.7759/cureus.8821

Sheline, Y. I., Price, J. L., Yan, Z., & Mintun, M. A. (2010). Resting-state functional MRI in depression unmasks increased connectivity between networks via the Dorsal Nexus. *Proceedings of the National Academy of Sciences*, *107*(24), 11020–11025. https://doi.org/10.1073/pnas.1000446107

Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American Journal of Applied Mathematics and Statistics*, *8*(2), 39–42. https://doi.org/10.12691/ajams-8-2-1

Smith, S. M., Vidaurre, D., Beckmann, C. F., Glasser, M. F., Jenkinson, M., Miller, K. L., Nichols, T. E., Robinson, E. C., Salimi-Khorshidi, G., Woolrich, M. W., Barch, D. M., Uğurbil, K., & Van Essen, D. C. (2013). Functional connectomics from resting-state fMRI. *Trends in Cognitive Sciences*, *17*(12), 666–682. https://doi.org/10.1016/j.tics.2013.09.016

Soleimanpour, S., Geierstanger, S., & Brindis, C. D. (2017). Adverse childhood experiences and resilience: Addressing the unique needs of adolescents. *Academic Pediatrics*, *17*(7), S108–S114. https://doi.org/10.1016/j.acap.2017.01.008

Stanke, C., Kerac, M., Prudhomme, C., Medlock, J., & Murray, V. (2013). Health effects of drought: A systematic review of the evidence. *PLoS Currents*, *5*, 1–5. https://doi.org/10.1371%2Fcurrents.dis.7a2cee9e980f91ad7697b570bcc4b004

Stapley, E., Vainieri, I., Li, E., Merrick, H., Jeffery, M., Foreman, S., Casey, P., Ullman, R., & Cortina, M. (2021). A scoping review of the factors that influence families' ability or capacity to provide young people with emotional support over the transition to adulthood. *Frontiers in Psychology*, *12*, 732899. https://doi.org/10.3389/fpsyg.2021.732899

Stewart-Tufescu, A., Struck, S., Taillieu, T., Salmon, S., Fortier, J., Brownell, M., Chartier, M., Yakubovich, A. R., & Afifi, T. O. (2022). Adverse childhood experiences and education outcomes among adolescents: Linking survey and administrative data. *International Journal of Environmental Research and Public Health*, *19*(18), 11564. https://doi.org/10.3390/ijerph191811564

Stratford, B., Cook, E., Hanneke, R., Katz, E., Seok, D., Steed, H., Fulks, E., Lessans, A., & Temkin, D. (2020). A scoping review of school-based efforts to support students who have experienced trauma. *School Mental Health*, *12*(3), 442–477. https://doi.org/10.1007/s12310-020-09368-9

Substance Abuse and Mental Health Services Administration, Trauma and Justice Strategic Initiative. (2012). *SAMHSA's working definition of trauma and guidance for a trauma-informed approach*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling*, *10*(3), 1–8. https://doi.org/10.1177/2156759X070100031

Teicher, M. H., Anderson, C. M., Ohashi, K., & Polcari, A. (2014). Childhood maltreatment: Altered network centrality of cingulate, precuneus, temporal pole, and Insula. *Biological Psychiatry*, *76*(4), 297–305. https://doi.org/10.1016/j.biopsych.2013.09.016

Temkin, D., Harper, K., Stratford, B., Sacks, V., Rodriguez, Y., & Bartlett, J. D. (2020). Moving policy toward a whole school, whole community, whole child approach to support children who have experienced trauma. *Journal of School Health*, *90*(12), 940–947. https://doi.org/10.1111/josh.12957

Theisen-Womersley, G. (2021). Culturally informed manifestations of trauma. *Trauma and Resilience among Displaced Populations*, 113–146. https://doi.org/10.1007/978-3-030-67712-1_5

Thomas, M. S., Crosby, S., & Vanderhaar, J. (2019). Trauma-informed practices in schools across two decades: An interdisciplinary review of research. *Review of Research in Education*, *43*(1), 422–452. https://doi.org/10.3102/0091732X1882112

Turanovic, J. J., & Siennick, S. E. (2022). The causes and consequences of school violence: A review. *National Institute of Justice*. https://www.ojp.gov/pdffiles1/nij/302346.pdf

Valladares-Garrido, M. J., León-Figueroa, D. A., Dawson, F. M., Burga-Cachay, S. C., Fernandez-Canani, M. A., Failoc-Rojas, V. E., Pereira-Victorio, C. J., Valladares-Garrido, D., & Inga-Berrospi, F. (2023). Association between childhood trauma and Mental Health Disorders in adolescents during the second pandemic wave of COVID-19, Chiclayo-Peru. *Frontiers in Psychiatry*, *14*. https://doi.org/10.3389/fpsyt.2023.1169247

Van der Kolk, B. A. (2000). Posttraumatic stress disorder and the nature of trauma. *Dialogues in Clinical Neuroscience*, *2*(1), 7–22. https://doi.org/10.31887/DCNS.2000.2.1/bvdkolk

Van der Kolk, B. A., & Fisler, R. E. (1994). Childhood abuse and neglect and loss of self-regulation. *Bulletin of the Menninger Clinic*, *58*(2), 145–168. https://www.proquest.com/openview/fca9ba4031c38b02ac55b9643161f1e7/1?pq-origsite=gscholar&cbl=1818298

Varese, F., Smeets, F., Drukker, M., Lieverse, R., Lataster, T., Viechtbauer, W., Read, J., Van Os, J., & Bentall, R. P. (2012). Childhood adversities increase the risk of psychosis: A meta-analysis of patient-control, prospective- and cross-sectional cohort studies. *Schizophrenia Bulletin*, *38*(4), 661–671. https://doi.org/10.1093/schbul/sbs050

Verbitsky, A., Dopfel, D., & Zhang, N. (2020). Rodent models of post-traumatic stress disorder: Behavioral assessment. *Translational Psychiatry*, *10*(1). https://doi.org/10.1038/s41398-020-0806-x

Vestal, A., & Jones, N. A. (2004). Peace building and conflict resolution in preschool children. *Journal of Research in Childhood Education*, *19*(2), 131–142. https://doi.org/10.1080/02568540409595060

Vitriol, V., Cancino, A., Ballesteros, S., Núñez, C., & Navarrete, A. (2017). Depresión y trauma temprano: Hacia una caracterización clínica de perfiles de consulta en un servicio de salud secundario. *Revista Chilena De Neuro-Psiquiatría*, *55*(2), 123–134. https://doi.org/10.4067/S0717-92272017000200007

Vuppaladhadiam, L., Ehsan, C., Akkati, M., & Bhargava, A. (2020). Corticotropin-releasing factor family: A stress hormone-receptor system's emerging role in mediating sex-specific signaling. *Cells*, *9*(4), 839–850. https://doi.org/10.3390/cells9040839

Wang, D., Liu, X., & Deng, H. (2022). The perspectives of social cognitive career theory approach in current times. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1023994

Watson, S., Gallagher, P., Dougall, D., Porter, R., Moncrieff, J., Ferrier, I. N., & Young, A. H. (2014). Childhood trauma in bipolar disorder. *The Australian & New Zealand Journal of Psychiatry*, *48*(6), 564–570. https://doi.org/10.1177/0004867413516681

Watt, T., Ceballos, N., Kim, S., Pan, X., & Sharma, S. (2020). The unique nature of depression and anxiety among college students with adverse childhood experiences. *Journal of Child & Adolescent Trauma*, *13*(2), 163–172. https://doi.org/10.1007/s40653-019-00270-4

Webster, E. M. (2022). The impact of adverse childhood experiences on health and development in young children. *Global Pediatric Health*, *9*. https://doi.org/10.1177/2333794X221078708

Wethington, H. R., Hahn, R. A., Fuqua-Whitley, D. S., Sipe, T. A., Crosby, A. E., Johnson, R. L., Liberman, A. M., Mościcki, E., Price, L. N., Tuma, F. K., Kalra, G., & Chattopadhyay, S. K. (2008). The effectiveness of interventions to reduce psychological harm from traumatic events among children and adolescents. *American Journal of Preventive Medicine*, *35*(3), 287–313. https://doi.org/10.1016/j.amepre.2008.06.024

Wiedermann, C. J., Barbieri, V., Plagg, B., Marino, P., Piccoliori, G., & Engl, A. (2023). Fortifying the foundations: A comprehensive approach to enhancing mental health support in educational policies amidst crises. *Healthcare, 11*(10), 1423. https://doi.org/10.3390/healthcare11101423

Williams, L. M. (2016). Precision psychiatry: A neural circuit taxonomy for depression and anxiety. *The Lancet Psychiatry*, *3*(5), 472–480. https://doi.org/10.1016/S2215-0366(15)00579-9

Wittchen, H. U., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jönsson, B., Olesen, J., Allgulander, C., Alonso, J., Faravelli, C., Fratiglioni, L., Jennum, P., Lieb, R., Maercker, A., van Os, J., Preisig, M., Salvador-Carulla, L., Simon, R., & Steinhausen, H. C. (2011). The size and burden of mental disorders and other disorders of the brain in Europe 2010. *European Neuropsychopharmacology*, *21*(9), 655–679. https://doi.org/10.1016/j.euroneuro.2011.07.018

Wolpow, R., Johnson, M. M., Hertel, R., & Kincaid, S. O. (2009). *The heart of learning and teaching: Compassion, resiliency, and academic success*. Olympia, WA: Washington State Office of Superintendent of Public Instruction (OSPI) Compassionate Schools.

World Health Organization. (2014). *Social determinants of mental health* (NLM classification: WM 101). https://apps.who.int/iris/bitstream/handle/10665/112828/9789241506809_eng.pdf

Wright, A., McGorry, P. D., Harris, M. G., Jorm, A. F., & Pennell, K. (2006). Development and evaluation of a youth mental health community awareness campaign - The compass strategy. *BMC Public Health, 6*(1). https://doi.org/10.1186/1471-2458-6-215

Xia, J., Zhu, L., Huang, H., Fan, P., Zhou, M., Cai, X. L., & He, H. (2023). Relationships between childhood trauma and mental health during the COVID-19 pandemic: A network analysis. *Frontiers in Psychiatry*, *14*, 1251473. https://doi.org/10.3389/fpsyt.2023.1251473

Xie, M., Tang, Y., Zhu, L., Dai, M., Wu, Y., Huang, Y., Liu, Y., Xiao, L., Li, T., & Wang, Q. (2021). Childhood trauma and mental health status in general population: A series mediation examination of psychological distress in covid-19 pandemic and global sleep quality. *Frontiers in Psychiatry, 12*. https://doi.org/10.3389/fpsyt.2021.782913

Yu, M., Linn, K. A., Shinohara, R. T., Oathes, D. J., Cook, P. A., Duprat, R., Moore, T. M., Oquendo, M. A., Phillips, M. L., McInnis, M., Fava, M., Trivedi, M. H., McGrath, P., Parsey, R., Weissman, M. M., & Sheline, Y. I. (2019). Childhood trauma history is linked to abnormal brain connectivity in major depression. *Proceedings of the National Academy of Sciences, 116*(17), 8582–8590. https://doi.org/10.1073/pnas.1900801116

# APPENDIX A: IRB

January 30, 2023

XXX XXX

RE: APPROVAL OF RESEARCH STUDY: “CHILDHOOD TRAUMA AND THE IMPACT ON EDUCATION”

We are pleased to inform you that the Institutional Review Board (IRB) has completed the review of your research study titled "[Your Research Study Title]." After careful consideration of your research proposal and the ethical principles involved, we are granting you permission to proceed with your study

**Approval Details:**

Study Title: CHILDHOOD TRAUMA AND THE IMPACT ON EDUCATION

Principal Investigator: XXX XXX

IRB Approval Number: AB12345

Approval Date: January 2023

**Ethical Considerations:**

Your study has been approved based on its compliance with ethical guidelines, including protecting participants' rights, informed consent procedures, confidentiality, and participant welfare.

**Data Collection and Management:**

Please ensure that data collection and management adhere strictly to the approved protocols outlined in your research proposal. Any modifications to the approved methods or

unforeseen issues during the research process should be promptly reported to the IRB for further review.

**Reporting Requirements:**

You are required to submit regular progress reports to the IRB as outlined in our guidelines. Additionally, any adverse events or deviations from the approved protocol must be reported immediately.

**Conclusion:**

We trust that your research will contribute significantly to the academic community and society at large. Your dedication to ethical research practices is commendable, and we appreciate your efforts to ensure the well-being and rights of your participants.

If you have any questions or concerns during the course of your study, please do not hesitate to contact our office. Once again, congratulations on the approval of your research study. We wish you every success in your research endeavors.

Sincerely,

XXX XXX

IRB Chairman

Liberty University

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

November 22, 2023

Lakisha Davis
Pamela Moore

Re: IRB Application - IRB-FY23-24-848 CHILDHOOD TRAUMA AND THE IMPACT ON EDUCATION

Dear Lakisha Davis and Pamela Moore,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds that your study does not meet the definition of human subjects research. This means you may begin your project with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study/project is not considered human subjects research because

(1) it will not involve the collection of identifiable, private information from or about living individuals (45 CFR 46.102).

Please note that this decision only applies to your current application. Any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

**For a PDF of your IRB letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page.**

Also, although you are welcome to use our recruitment and consent templates, you are not required to do so. **If you choose to use our documents, please replace the word *research* with the word *project* throughout both documents.**

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at irb@liberty.edu.

Sincerely,

**G. Michele Baker, PhD, CIP**
*Administrative Chair*
**Research Ethics Office**